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An exploration of student nurses' views of oral health care in the hospitalised child: A qualitative study

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ABSTRACT

Hospitalization impacts negatively on oral health, where underlying medical conditions and interventions such as oxygen therapy and nil-by-mouth status increase susceptibility to complications. However, evidence suggests it is often overlooked, or viewed as low priority by nurses. The rationale for these beliefs is unclear. This study provides an exploration of these beliefs, focusing specifically on their development, as reflected in the experiences of adult and paediatric student nurses. Three focus groups were conducted, and thematic analysis applied. Whilst students theoretically understood the value of oral health care, in hospital it was overlooked, with other 'clinical' aspects of care valued more highly. 'Hierarchy of need' emerged as the over-arching theme. Interrelated sub-themes included: 'practice/theory mismatch,' highlighting lack of education and adequacy of exposure to oral health care encounters; 'resources,' where infrastructure was lacking; and 'disempowerment,' where students felt powerless to act. Exposure to oral health care encounters were less frequent in the paediatric setting, risking disempowerment of parents as well as students. These findings highlight the need to raise the profile of oral health care, both theoretically and practically, engendering a culture that embeds mouth care unobtrusively into day-to-day nursing practice, improving health care outcomes for those in our care.

1. Introduction

Oral health care (OHC) is more than good teeth, it is integral to general health and wellbeing (Manger et al., 2017; Sousa et al., 2014; Spurr et al., 2015; WHO, 2003). It includes absence of pain, discomfort or disease, facilitates the facial expression of emotions, and the ability to speak, smile or chew confidently (Glick et al., 2016; WHO, 2012; World Dental Federation, 2016). Normal OHC routines are disrupted in hospital with hospitalization acknowledged as having a negative impact on oral health (Blevins, 2011; Sousa et al., 2014; Spurr et al., 2015). However, outside high-risk specialties such as cardiology, oncology or critical care, OHC is frequently perceived as low priority; something that is perhaps compounded by the lack of literature available (Haresaku et al., 2018; Ullman et al., 2011). This is particularly evident in relation to the OHC of hospitalised children (Blevins, 2011). Whilst some lessons may be drawn from the adult literature, the transferability of findings to the paediatric cohort is unclear, as it is well recognised that children are not small adults, but have unique needs (Stocks and Lum, 2016).

This study aims to start to address this gap, by providing an insight into student nurses' views of OHC. This will be explored from the perspective of paediatric and adult nursing students in order to account for potential differences in experiences and practices. Student nurses predominately learn nursing skills through hands-on experience and through emulation of observed practices in the clinical setting, alongside a theoretical education (Cowen et al., 2018). This study is therefore uniquely positioned to explore not only the barriers to effective OHC, but also how they develop and perpetuate.

1.1. Background

The first line of defence against oral and respiratory infection is the oral mucosa (Ferozali et al., 2008). Saliva plays a protective role, interacting with micro-organisms, contributing to preserving oral health (Amerongen and Veerman, 2002). Underlying medical conditions, associated clinical interventions such as oxygen therapy, nebulisers, and certain medications, precipitate an altered state within the mouth, increasing susceptibility to developing oral complications such as dry, sore mouth and lips, potentially leading to pain and discomfort (Blevins, 2011; Sargeant and Chamley, 2013). Additionally, pathobiology of oral cavity and lung tissue increases risk of pneumonia with disrupted OHC (Quinn and Baker, 2016).

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Despite its methodological limitations of a small sample size (n = 34), and survey methods, the seminal article written by Adams (1996) is iconic in championing the recognition of OHC in the hospitalised adult patient. In her study Adams (1996) identified that OHC was often neglected. Barriers to implementation included issues such as a poor knowledge base, inability to undertake an oral assessment, and lack of appropriate documentation (Adams, 1996). Despite such recognition, there remains a lack of progress and development within both paediatric and adult nursing (Costello and Coyne, 2008; Blevins, 2011). The limited evidence seeking to address this deficit, perhaps further contributes to its perceived low priority status (Ullman et al., 2011).

Much of the available literature is focused on 'at risk' specialties such as critical care, oncology and cardiology (Düzkaya et al., 2017; Franklin et al., 2000; Handa et al., 2014; Kusahara et al., 2012; Pedreira et al., 2009; Ullman et al., 2011). The nature of these specialties means patients are often medically compromised, with an increased risk of complications secondary to poor OHC, thus necessitating enhanced vigilance and awareness of the oral health status of the patient (Nicopoulos et al., 2007; Tewogbade et al., 2008). As a result, there is perhaps a subtle shift in perception of OHC, from a 'basic care' need to a 'fundamental' clinical requirement within these high risk specialties.

The challenges of OHC in the hospital setting are multifaceted: lack of knowledge; training; time; and lack of standardised oral assessment tools. All of these issues contribute to this often-overlooked aspect of care (Adams, 1996; Blevins, 2011; Preston et al., 2006). While the body of evidence highlighting the relationship between good OHC and systemic health continues to grow, little has changed. Current evidence suggests that neglect of OHC has become embedded within clinical practice, resulting in the normalization of poor OHC (Blevins, 2011; Couch et al., 2013).

2. Main study

2.1. Aim

The aim of this research is to explore student nurses' views of oral health care in the hospitalised adult and child, identifying key areas that influence and impact on this fundamental care need.

2.2. Design

A qualitative approach was used, in order to gather rich data. Three focus groups were conducted, audio recorded and transcribed verbatim. A systematic and iterative approach to analysis based on thematic analysis was applied.

2.3. Data collection

Incorporating the views of both paediatric and adult nursing students provide an insight into differences in OHC practices across the patient's lifespan. Three cohorts of student nurses were invited to participate. Participation was voluntary and written consent formally documented. Three focus groups were held, with a post graduate nursing student acting as facilitator. No staff members were involved in the recruitment or data collection, in an attempt to mitigate potential negative effects of power in the researcher–researched relationship (Berger, 2015). Overall, 27 students were recruited, 10 adult branch students, and 17 paediatric students. All were the end of their second year or in their final year of study. Lectures on basic nursing care, including OHC, had been delivered to all the students in their first year. In addition, all students had been exposure to both paediatric and adult based placements. The heterogeneity of the sample provided the opportunity to explore different perspectives and potential changes in attitudes across both the duration and field of training.

Ethical approval

Ethical approval was granted by the University Research Ethics Committee (UREC). Ethics No: 18/NAH/007. All participants were provided with written information detailing the purpose, procedures, risks and benefits of participating in the focus group.

2.4. Data analysis

Focus groups were transcribed verbatim and analysed using an inductive thematic analysis approach (Corbin and Strauss, 2008). Concepts and themes were identified, with the structured approach enabling theory to develop from raw data (Pope et al., 2000). An adaption of Ziebland & McPherson (2006), 'one sheet of paper' (OSOP) method were employed as a way of managing the data. This involved the use of a single sheet of paper to document and visualize connections between codes and concepts.

2.5. Rigour

A number of measures were applied to strengthen the rigour of this study. Transferability was enhanced through the application of a purposive sampling frame, ensuring recruitment of a heterogeneous sample. (Polit and Hungler, 1999). In addition, three researchers were involved in the verification and cross checking of theme and subthemes, maximizing the accuracy of interpretation (Lincoln and Guba, 1985). Peer review and member checking were applied in order to maximize the credibility of the findings (Creswell and Miller, 2000). This involved provision of participants with a draft of the preliminary analysis. They were then invited to comment on the researchers' interpretation of the data generated.

3. Findings

Discussions within all focus groups reflected the realisation that OHC is often overlooked and apportioned low priority in the context of healthcare. An overarching theme of 'hierarchy of need' subsequently emerged. Under this umbrella, three interdependent subthemes were identified: practice/theory mismatch, resources, and disempowerment. All these aspects contribute to the lack of engagement in OHC practices in the clinical setting.

3.1. Hierarchy of need

The participating students were invited to talk about their experiences and thoughts of OHC. Reflecting on placements in both the adult and paediatric settings, the students highlighted the perceived low priority status attached to OHC, which was subsequently reinforced through practice observed on the wards:

> 'It was like mouth care was really the last thing that anyone thought of.' (FG 1)

> 'I think the nurses, and students as well, prioritise what they think's best …, so for … the children to get their medication that they need on time, that comes above brushing their teeth. It's just not something we think about.' (FG2)

OHC in 'high risk' specialties such as critical care and oncology was perceived to be higher in the 'hierarchy of need'. This was reflected in the practice within those specialties. In the paediatric settings, OHC was seen as part of the parental role and not a nursing responsibility:

> 'There are two departments I've been on where they've been really good; critical care and oncology. (On) more general wards, unless the parents are on top of it, I've never really seen any OHC.' (FG3)

Reinforcing this low priority was the lack of consequences

associated with failure to deliver this aspect of care. The students reflected that outcome measures and key drivers existed for areas such as tissue viability and sepsis, ensuring compliance with care domains. Comparatively, the lack of outcome measures for OHC reinforced its lack of significance:

‘ …. sepsis, it's everywhere isn't it? Cause its sexy sepsis, everyone wants to talk about it, you know, oral mouth care is kinda like the pauper.’ (FG1)

‘there's no consequence if the child hasn't had their teeth brushed or anything, so it's not an importance …..’ (FG2)

Despite recognition of the health and comfort benefits for the patient, consensus across the groups was summed up in the following:

‘it's not high priority, that's what the conclusion is, it's just not high priority’. (FG1)

3.2. Practice/theory mismatch

Under the umbrella of the over-riding theme of ‘hierarchy of need’ three subthemes were identified. These themes represent three interdependent aspects of the students' experiences of OHC. The first of the three subthemes is ‘Practice/Theory Mismatch’. Whilst the student nurses agreed that the theoretical aspects of OHC were covered in university, they reported an assumption that students already knew how to provide OHC, and therefore the time spent on this topic was minimal, and the content restricted. To the students, this reinforced the low priority status attributed to OHC:

‘I feel it's briefly covered in the introduction period with personal hygiene, but it's not a big topic as such … ’(FG2)

‘There's no clear outline … they might just say that you give oral hygiene, but how do you give oral hygiene?’ (FG1)

Limited theoretical insight and lack of integration in clinical practice created inability to navigate this aspect of care:

‘The issue is that we're learning from them in practice and if they're not doing it, we're not going to learn anything are we?’ (FG1)

‘As a student you rely on your mentors to a certain extent to show you what does and doesn't need to be done, you pick things up from them …. if you are not shown ….., you don't carry it out.’ (FG2)

This resulted in a tangible confusion and anxiety around this aspect of care, leaving the students feeling ill-prepared and hesitant to approach this care need:

‘We don't have the knowledge, so were not confident. We just won't go near in case it would do more harm than good.’ (FG3)

There was a striking difference in exposure between the adult and paediatric student nurses, with the adult student nurses having significantly more OHC exposure and encounters than their paediatric counterparts. This is perhaps suggestive of the assumption that the role of OHC lies with the parent rather than nurse within the general paediatric setting:

‘I've seen it on adult placements, but not paediatric.‘(FG2)

3.3. Resources

The second subtheme was ‘Resources’, where the students described access to resources as a particular challenge to effective OHC. Resources encompassed aspects such as time, staffing, equipment, education/training, documentation and lack of visible prompts, such as those used in handwashing and sepsis. The principal resource factor appeared to be time. OHC was viewed as a labour-intensive intervention, especially when equipment had to be sourced from other areas, creating a perceived misbalance between time, work load and clinical need:

‘Its very time consuming, so people won't do It because, well you wash someone dead quick, but like it's a busy ward sometimes, so you don't have the time to spend like 5 minutes, or whatever helping them to brush their teeth.’ (FG1)

‘having things up on the ward would help. The fact that you're having to go PICU [Paediatric Intensive Care] to get things …. if you don't have that stuff on the ward (it takes time) ….’ (FG3)

When asked about oral health assessment tools, none of the students were able to identify available tools. This suggests that they had not encountered them in either the clinical or the educational setting. Unlike other reinforcement strategies, such as the sepsis campaign, OHC has little corporate recognition or consequence. As a result, investment in OHC is likely to be restricted, further reinforcing perceptions of a low priority activity.

3.4. Disempowerment

The third subtheme related to disempowerment. Whilst this theme generally reflected the impact on the students themselves, in the paediatric setting, this broadened to encompass a perception of disempowerment of parents as well. The students referred to their limited level of knowledge: lack of awareness of available products; limited confidence to perform OHC; and difficulties raising OHC with staff, patients or parents:

‘ … we don't have the knowledge, so we're not confident. We just won't go near in case it would do more harm than good.’ (FG2)

When discussing OHC in the paediatric setting, the students highlighted the role of parents in supporting this aspect of care. A family centered, partnership approach, is widely advocated as good practice (Arabiat et al., 2018). However, the parents were often perceived to ‘hand over’ their child's care when hospitalised. This resulted in aspects of care deemed to be ‘low priority’, such as OHC, being overlooked, with both parent and nurse assuming that the responsibility for undertaking the care lay elsewhere:

‘I think a lot of parents, when their kid goes into hospital, …. just hand over the entirety of the child's care to the nursing staff, and that's not a nurse's role necessary.’ (FG3)

Along with other ‘basic care’ activities, OHC provides an ideal opportunity to empower parents, and involve them in the care of their child (Broom et al., 2017). However, examples of parents being encouraged to be involved in OHC were limited to ‘high risk’ specialties such as critical care. Whilst engaging and empowering parents in undertaking OHC was viewed as vital, the students suggested that this was something that they rarely observed:

‘In the intensive areas I think that they are better at doing that, encouraging parents to do [OHC]. They were so much better than they are on general wards.’ (FG3)

4. Discussion

The findings of this study highlight the nebulous and multifaceted nature of OHC in the hospital setting. Findings suggest that student nurses receive inadequate exposure, encounters and education about OHC. The students participating in this study reported that whilst theoretical aspects of OHC were covered in their training, disparities between theory, and practice requirements were evident. Similarly, within the literature, deficiencies in undergraduate students' oral health curricula have been highlighted worldwide, suggesting that this is a widespread issue (Hein et al., 2011; Huisman-de Waal, Feo et al., 2018).

This is further reinforced by perceptions that fundamental care is 'common sense', thereby undermining the complexity of providing such care (Feo et al., 2019).

In this study, lack of theory was compounded by a lack of observed OHC encounters within the clinical setting; an essential requirement for the effective development of students. 'Professional socialisation' of students, whereby they acquire behaviours and practices that meet the cultural norms of professional nursing, is an essential part of their practical programme of study (Thomas et al., 2015). Whilst previous research has suggested that students are pragmatic in their appreciation that 'missed care' is an inevitability of time and staffing constraints (Gibbon and Crane, 2018), these findings suggest that the students felt disempowered by their lack of knowledge and experience. This will impact on their 'professional socialisation' and subsequent practice, and highlights an urgent need for intervention to break the 'vicious cycle'. The challenge may be big, requiring a cultural shift, nevertheless solutions are not complicated (Benjamin, 2018). Recent literature has highlighted the use of simulation training as a mechanism for integrating fundamental nursing care into nurse education (Voldbjerg et al., 2018). Further evidence is required to explore the potential role of simulation in breaking this cycle, and as a mechanism to embed OHC in clinical practice.

Differences in OHC encounters between the adult and paediatric settings were also evident. Although suboptimal and infrequent, student nurses were able to provide examples of OHC encounters within the adult setting, unlike the paediatric setting. This suggests that OHC is more indoctrinated into adult nursing practice than paediatrics. Within both settings, exposure to OHC encounters was more common in students who had undertaken clinical placements in 'high risk' specialties, such as cardiology, critical care and oncology. This reflects the OHC literature base, with the limited evidence focusing on these 'high risk' specialties, whilst OHC practices in the ward-based setting remains overlooked (Blevins, 2011; Dickinson et al., 2009). Nursing is a practice orientated discipline, where practical skills, underpinned by relevant theory are central to the profession (Ewertsson et al., 2017). Fundamental to student nurses' clinical placement is effective mentorship (Killam and Heerschap, 2013), providing a vehicle to facilitate entry into nursing with appropriate attitudes, skills and confidence to practice effectively (Hein et al., 2011). The failure to address OHC practices has resulted in the normalization of OHC omission within the hospital setting (Gibbon and Crane, 2018). Furthermore, it can be argued that the impact of these omissions within the paediatric setting seep into the foundations of the nurse-parent relationship, where the premise of a partnership approach risks being eroded. Lack of knowledge and skills of OHC results not only in the disempowerment of the students, but also of the parents. Both the lack of knowledge and skills required to support parents in the provision of OHC, and the low priority afforded to OHC result in a lost opportunity for enabling parents and creating a sense of partnership (Arabiat et al., 2018).

Historically adult nursing monopolises research in the area of OHC (Düzkaya et al., 2017; Sousa et al., 2014). The adult sector is beginning to acknowledge and respond to the need to raise awareness of OHC provision amongst staff and patients. This is reflected in the evidence-based guide 'Mouth Care Matters' (2016), which is a hospital-based training initiative endorsed by Health Education England (2016). It aims to address knowledge, skills, and support deficits, educating the workforce, and ultimately improving OHC in hospitalised patients. Whilst this initiative is currently adult-focused, there are plans to expand into the paediatric setting in the future. The evidence arising from this study, suggests that whilst there was more visibility of OHC in adult areas, compared to paediatrics the impact of this policy initiative remains restricted. The perceived 'hierarchy of need' continues to relegate OHC to an area of low importance, neglected or fragmented, with nurses prioritising other clinical aspects of care (Spurr et al., 2015; Tewogbade et al., 2008). Evaluation of the impact of the initiative will be required over time, with this study providing an insight into the 'baseline' from which change can be explored. Despite this new initiative, resource allocation remains a problem. OHC continues to be perceived as a time-consuming intervention, inadequately resourced, and co-existing with an overriding lack of knowledge (Dickinson et al., 2009), and influenced by negative attitudes and beliefs (Tewogbade et al., 2008).

4.1. Limitations

The main limitation of this article lies in the sample population, where students were recruited from a single university. All students would therefore be required to complete the same skills training. Nonetheless, practice placements are spread across a wide geographical area, encompassing a number of hospital trusts. It is therefore likely that the experience of the students on placement is more broadly representative of the UK.

4.2. Implications for research

Whilst this study provides insight from the student perspective, further research is required to explore this issue from the perspective of the clinical practitioner. In addition, further study is required to examine the application of simulation training in raising proficiency and engagement with aspects of fundamental nursing care such as OHC.

5. Conclusion

There is a paucity of research related to OHC, with absence of literature particularly marked in the paediatric setting. Both adult and paediatric research focuses heavily on 'at risk' specialties such as oncology, cardiology and critical care. Despite documented benefits of OHC, very little has changed over the decades, with a stagnancy in progress and development. There is a need to raise the profile of OHC, making OHC a priority in nurse education and all clinical areas. This is particularly relevant within the paediatric setting. OHC needs to be embedded into nurse education and clinical placement, so that it fits unobtrusively into day to day nursing practice. There is a need to engender a culture that sees the return of fundamental basics, aligning the mouth with the body, where OHC is afforded equal priority to other health care needs. In part, this can be achieved by providing student nurses with adequate exposure and education. Further research is required to inform policy and procedures, raising the profile of OHC within the hospital setting and educational environments; ultimately improving health outcomes for those in our care.

Author contributions

RRL, HPM; Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; Involved in drafting the manuscript or revising it critically for important intellectual content; Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content; Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Conflicts of interest

No conflict of interest has been declared by the authors.

Ethical approval

Ethical approval was sought through Liverpool John Moores University ethics committee.

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