

Perspectives of Australian nursing educators on the preparation of nursing students for the care of older people's oral health

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ABSTRACT

Objective: To investigate the perspectives of Australian nursing educators on the preparation of Bachelor of Nursing students for the care of older people's oral health.

Background: The Australian population is ageing. Older people with poor oral health are at increased risk of worsening health and chronic disease conditions. Nurses can and need to take a leadership role in improving and maintaining older Australians' oral health in community, hospital, and residential care settings. Thus, it is important to investigate the perspectives of nursing educators on the preparation of nursing students for the care of older people's oral health.

Study design and methods: Semi-structured interviews were conducted with 13 participants, including course coordinators, lecturers, directors, and researchers at 10 universities delivering accredited Bachelor of Nursing programs across seven different states in Australia. Data were analysed thematically.

Results: Four themes were identified in nursing educators' perspectives: (1) the education of nursing students in providing oral healthcare is important, (2) there are notable gaps in nursing students' oral health education, (3) there are both internal and external barriers to strengthening oral health education across nursing programs, and (4) there is a need to develop and promote a shared oral health curriculum that includes interprofessional education and collaborative practice. Inherent in these themes was the need for a clear definition of the role of nurses in oral healthcare.

Discussion and Conclusion: It is recommended that administrators and policymakers develop nursing accreditation standards that specify the role of nurses in oral health education, and the scope of this education including interprofessional and collaborative practice, for the oral healthcare of older people. Infusing such standards in nursing curricula will better educate and prepare nursing students for effective practice and leadership in gerontological care.

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What is already known about the topic?

- Older people frequently have oral diseases that adversely affect chronic health conditions and increase the risk of poorer general health.
- Even though oral healthcare is an essential part of nursing for older people, the provision of such care is implied rather than stated specifically in Australian Nursing and Midwifery Accreditation Council (ANMAC) standards.

What this paper adds:

- The education and preparation of students to provide oral healthcare appears to be expected rather than required in Australian nursing curricula. Based on the perspectives of nursing educators, this paper suggests that many nursing students may not be well prepared to provide evidence-based oral care and lead oral health initiatives. The paper identifies ways these issues can be addressed.

- The paper discusses the importance of developing and promoting a clear oral health curriculum that includes interprofessional collaborative practice to strengthen nursing students' education and prepare them to provide effective oral healthcare for older people.
- The paper outlines a needed definition of the role of nurses in providing oral healthcare.

Keywords: aged care, oral health, nursing, older people, nursing curricula, dental care, interprofessional and collaborative practice

INTRODUCTION

The oral health of many older Australians (65 years and above) remains poor despite an increased understanding of the importance of oral health and its association with general health.^{1,2} Due to blood-borne pathogens from the mouth, oral diseases worsen heart problems, diabetes, and pneumonia, leading to unplanned hospitalisations.^{3,5} Poor oral health also increases the severity of complications arising from viral infections, including COVID-19.^{6,7} Predominant oral health issues for older people include tooth decay, gum diseases, dry mouth, tooth wear, and oral cancer.⁸ Poor oral health leads to oral pain, difficulties in eating, speaking, and swallowing as well as lower self-esteem due to bad breath and poor facial and dental appearance.⁹ Maintaining oral health – a mouth free of pain, discomfort and disease – is key to maintaining the quality of life and general health of older people.¹⁰

In providing oral healthcare, nurses need to understand the factors affecting people's oral health and oral health-related quality of life, ensure daily oral care practice, and be able to complete an oral health screening to identify issues needing timely referral to a dentist, doctor, or allied health specialist.¹¹ Oral healthcare for older people has been promoted by Australian government-funded learning resource packages such as "Better Oral Health in Residential Care" and "Better Oral Health in Home Care".¹² These resources were developed a decade ago to educate and assist nurses, nursing assistants, and allied health professionals to collaborate with dental professionals to ensure effective oral healthcare for the older population.¹² However, the uptake of these learning resource packages appears limited, and the report of the Royal Commission into Aged Care Quality and

Safety highlighted the continuing neglect of older people's oral health, particularly in residential care.¹³ Similar concerns have been raised about the oral healthcare of older people in hospitals in Australia.¹⁴

As people age, many become frail and require assistance with oral care. With nurses' important role in community, hospital, and rehabilitation and residential care settings, they are in an ideal position to ensure older people receive effective assistance to maintain their oral health.¹⁵ Nurses can promote evidence-based oral healthcare for oral disease prevention, early intervention, and referrals to oral health professionals. The importance of nurses in providing oral healthcare has been acknowledged in international reports and studies.¹⁵⁻¹⁸ Restrictions to dental services during the COVID-19 pandemic have highlighted the need for the leadership of nurses in oral healthcare, working closely with dentists, doctors, and allied health professionals to maintain older adults' oral and general health.¹⁹ Nursing curricula need to specify the knowledge and clinical competence requirements for the effective provision of oral healthcare to ensure that all graduating students are well-prepared to provide such care.¹¹

Despite the acknowledged association between poor oral health and general health,^{13,20-22} there is little known about the extent of the preparation of nursing students in Australia to provide oral healthcare for older people.¹¹ A review of the curricula of Australian Bachelor of Nursing programs, as presented on university websites, by the first author (VB) showed no information regarding the inclusion of units and clinical practice addressing the care of older people's oral health. Competence in oral healthcare may be implied

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in current Australian Nursing and Midwifery Accreditation Council (ANMAC) Standards (Standard 3.6 does require nursing programs to integrate principles of interprofessional learning and practice in content and learning outcomes) but there is no particular focus on oral healthcare learning objectives.²³ To address this apparent lack of focus on oral healthcare, this study aimed to assess the perceptions of nursing educators regarding the preparation of nursing students to understand and provide effective oral healthcare, particularly for older people.

METHODS

A qualitative approach using semi-structured one-to-one interviews was employed to answer the following research question:

What do Australian nursing educators think about the education of nursing students in providing oral healthcare to older people?

A semi-structured interview guide with open-ended questions was chosen to enable participants to freely express their diverse views.²⁴ Semi-structured interviews are the most widely used for qualitative research.²⁵

DEVELOPMENT OF THE INTERVIEW GUIDE

The interview guide (see supplementary file 1) was developed based on the literature on nurses' role and clinical preparation in providing oral healthcare to older people. The interview guide was drafted by the first author (VB), then revised by consensus with the other authors (HH, LC, LG), all experienced researchers in oral healthcare provided to older people. Four experts, three teaching staff in nursing and one field researcher with experience in older people's oral health, reviewed the preliminary interview guide to ensure that the semi-structured questions were without bias or ambiguity. The experts suggested changes in wording which were then incorporated into the interview guide. The final interview guide was pilot tested with two nurses who had graduated recently with a Bachelor of Nursing degree to ensure the interview questions were easy to understand.

RECRUITMENT OF PARTICIPANTS

Participants were recruited purposively from 36 Australian universities with accredited Bachelor of Nursing programs. The research invitation was sent to the heads of these 36 programs. Targeted participants included program directors, researchers, course coordinators, and lecturers in nursing units involving the care of older people or oral care. Sixteen universities granted permission to recruit participants. Staff at these 16 universities then advertised the study to potential participants by a bulk email or newsletter. Those interested in the study were invited to contact the first author via phone or email. A reminder email was sent to staff at participating

universities by the first author four weeks later. The emails emphasised that participation in the study was voluntary, and the data provided would be anonymous.

DATA COLLECTION

The first author (VB) collected the interview data from February to April 2021. An information sheet, interview guide, and consent form were emailed to participants before the interviews. Written consent was obtained from all participants. Interviews began with stating the purpose of the study and were recorded with permission. Interviews took place over the online zoom platform (n=12) or by phone (n=1). The interview time ranged between 25-45 minutes. Data collection continued until data saturation was attained, which means, further interviews could not provide new information about the target concept.^{26,27}

DATA ANALYSIS

The recorded interviews were transcribed using Otter.ai (Otter.ai) and subsequent accuracy was ensured by member checking procedure. NVivo 12 (QSR International Pty Ltd) was used to store and organise the data. Interviews were analysed thematically according to Braun and Clarke's guidelines.²⁸ The thematic analysis method was chosen for its flexibility, as it is not tied to a particular theoretical perspective.²⁸ It also provided the opportunity to find new themes by looking for patterns in the data and connecting them into meaningful groups that capture the topic.

The first phase of analysis involved reading the transcripts and forming initial codes. This was followed by the organisation of codes into sub-categories and categories, resulting in the identification of key themes (supplementary file 2). Patterns in coding and emergent themes were finalised by consensus of the research team (VB, HH, LC, LG). Finally, themes were defined, and relevant data were reported. Consolidated criteria for reporting qualitative research were used to ensure quality.²⁹

ETHICAL CONSIDERATIONS

Ethics approval for this study was received from the University of Tasmania Social Sciences Human Research Ethics Committee (ref no. H0020263).

RESULTS

Thirteen participants were recruited from 10 accredited nursing schools: nursing course coordinators (n=5), lecturers (n=5), directors involved in teaching or developing nursing units (n=2) and one researcher involved in incorporating oral health education in nursing curricula. Most participants had been in their current positions for more than five years.

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The following themes were identified from participants' semi-structured interviews: (1) the education of nursing students in providing oral healthcare is important, (2) there are notable gaps in nursing students' education in oral health, (3) there are both internal and external barriers to strengthening oral health education across nursing programs, and (4) there is a need to develop and promote a shared oral health curriculum that includes interprofessional education and collaborative practice. These themes are detailed below:

1. THE EDUCATION OF NURSING STUDENTS IN PROVIDING ORAL HEALTHCARE IS IMPORTANT

All participants recognised oral healthcare as an essential part of holistic nursing to maintain a person's overall health. They saw the nurses' role in oral healthcare as not limited to assisting in oral hygiene. They advocated nurses should have the ability to perform oral health assessments, provide oral health education, monitor fluid and diet intake, evaluate the impact of medications on oral health, and make appropriate referrals.

"I think it's essential. It's part of holistic care. It's part of the whole patient care we deliver." Participant 3

TABLE 1: THEMES IDENTIFIED FROM THE INTERVIEWS OF AUSTRALIAN NURSING EDUCATORS ON THE PREPARATION OF NURSING STUDENTS FOR THE CARE OF OLDER PEOPLE'S ORAL HEALTH

Themes	Definition	Categories and Subcategories	Codes
The education of nursing students in providing oral healthcare is important	This theme defines the role nurses have in the oral healthcare of older people, and the need of their education in such care.	Nurses play an important role in the oral health care of older people Essential to educate and upskill nursing students in the oral health care of older people component	Part of holistic care, Perform oral health assessments, Provide oral health education, Monitor fluid and diet intake, Evaluate the impact of medications on oral health, Make appropriate referrals. Growing older population, Accessibility to dental services is an ongoing problem for older people, Ease early identification of oral diseases
There are notable gaps in nursing students' education in oral health	This theme identified the gaps in the nursing curriculum to educate students about oral healthcare	Mixed views of nursing educators regarding efficacy of oral health component in nursing curriculum Lack of evidence-based oral health education in the nursing curriculum	Oral health component was elective, No lab training about oral health care at university, Not all placements focus on oral care, No formal assessment on oral health component Association of oral and general health is not clearly taught, Limited focus on oral healthcare needs for older people with dementia and indigenous older adults
There are both internal and external barriers to strengthening oral health education across nursing programs	This theme describes the internal barriers existing within the university, and external barriers that compounded internal issues to incorporate oral healthcare component in nursing curricula	Internal barriers: 1.A curriculum already at capacity without oral health and time constraints on staff 2.Knowledge of nursing educators 3. Difficulty in advocating for change and a lack of focus on older people External barriers: 1.Insufficient attention to support collaborative education and practice 2.Limited attention to nurses' role in oral healthcare at facilities providing care to older people, reflecting the low priority given to oral health	Many competing topics, Less time, Lack of in-depth knowledge of oral healthcare for older persons among educators, Not valuing oral healthcare component in nursing, Ageism, Resistance to change, Segregated oral health education and service provision No collaboration between dental and nursing professionals, Limited funding for dental experts in geriatric care, Dental care not included in Medicare, Lack of effective communication, Role of nurses in oral healthcare is not described.

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TABLE 1: THEMES IDENTIFIED FROM THE INTERVIEWS OF AUSTRALIAN NURSING EDUCATORS ON THE PREPARATION OF NURSING STUDENTS FOR THE CARE OF OLDER PEOPLE'S ORAL HEALTH (CONTINUED)

Themes	Definition	Categories and Subcategories	Codes
The need to develop and promote a clear oral health curriculum that includes interprofessional collaborative practice	This theme identified multi-level strategies to incorporate oral healthcare of older people component in nursing curricula	1. Prioritise oral health of older people at national level 2. Including oral health education and clinical training in nursing accreditation standards 3. Involving nursing students in the development and implementation of oral health curriculum 4. Clearly defining nurses' role in oral health care 5. Interdisciplinary collaboration 6. Recognising and training oral health champions at nursing schools	System-level Prioritising older people' oral-systemic health care at the national level Institutional level Creating opportunities for interdisciplinary communication, Advocating strong oral health care policies at healthcare institutions, Identification of current learning objectives where oral-systemic health component aligns well, Ongoing development and assessment of curriculum. Individual level Clearly defining nurse's role in oral health care, Dental professionals supporting oral health champions at nursing schools, Identifying opportunities for nursing students to understand oral health needs of older people, Organising oral health care of older people CPD programs for nursing professionals, Formal assessment of nursing graduates' competencies in the oral healthcare of older people

"I think education, simple screening [of oral health], and providing referrals are key roles for nurses." Participant 9

"The important components are being able to assess, being able to perform an interview around those assessments ..., and looking at the whole person, I suppose, not just the mouth. So, starting to think about positioning, and diet and fluids planning, and products that assist with saliva for instance or dry tongue and about medications that might impact their oral health... It's not just cleaning someone's teeth and assisting them to clean teeth." Participant 7

Participants perceived accessibility to dental services as an ongoing problem. They believed that nurses could play a leading role in preventive dentistry by promoting oral health in the community and facilitating early identification of oral diseases.

"We know that accessing dental services is always going to be an issue, not just in Australia but anywhere in the world. So, it's about nurses really doing that [oral health] screening, very early on, to identify when problems may not be that big ... rather than waiting for the infection to spread and potentially the treatment is more expensive and more extensive."

Participant 9

Participants stated that it is essential to educate and upskill nursing students as future leaders to manage oral and general healthcare for the growing older population.

"I think it should be made mandatory in the undergrad, because if you look at the Bachelor of Nursing Science degree, once they have that degree, they become registered nurses who are like, they operate in a leadership capacity once they graduate, so if they are working in residential aged care facilities, they are the team leader, they will be leading a group of enrolled nurses, and a lot of carers provide that care." Participant 2

"[The] older population is growing, and the economic strain will increase and saying that if we have qualified people [nurses] in their care, maybe you know, care won't cost as much." Participant 5

2. THERE ARE NOTABLE GAPS IN NURSING STUDENTS' EDUCATION IN ORAL HEALTH

Most nursing educators mentioned that oral healthcare is included in nursing education; however, there were mixed views regarding the adequacy of the current content and the amount of time spent on oral healthcare education and clinical preparation in nursing programs. Many participants believed it did not receive as much attention as needed.

"I think it's [oral healthcare preparation] probably something that has not been done well for a long time, that hasn't had a lot of attention to it, and also for [nursing] education."

Participant 11

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"It has never been an important part of nursing, it's always been ohh you clean someone's teeth when you are placing dentures, it's kind of like a night-time routine. It used to be taught alongside shaving, you know, wash your patients..."

Participant 7

Many educators could not recall learning about oral healthcare during their Bachelor of Nursing studies, and some believed that the situation had not changed.

"Less, I would say, and non-existent. I would say, because I don't recall anything with teeth, and that is quite unfortunate... and I can safely say that nothing has changed over the years."

Participant 2

One of the most common issues in the preparation of nursing students to provide effective oral healthcare was that learning about oral health was an elective; not all placements included a focus on oral care, and there was often no formal assessment of students' knowledge and clinical skills in the provision of oral care.

"It's an expectation that they [students] read around topics [oral health]. But whether they do or not, it's a challenge."

Participant 3

"We actually do have students who go to an oral health facility on placement, so they would have a lot, but other students would not necessarily have that ... so from a placement point of view, very varied."

Participant 1

"We don't specifically assess oral health as a formal assessment."

Participant 13

Another gap identified by participants centred on the limited association of oral and general health problems, and their effective management.

"I also think that there has not always been a good link between how oral health impacts more general wellbeing... I think what we have not gotten that we probably need to revisit is the management of oral health."

Participant 11

Participants commented on the limited focus on oral care for older people with dementia and on the particular needs of Indigenous older adults in nursing curricula.

"There is kind of a lot of gaps currently in the curriculum that we can attend to. But you know the ageing population, they are our biggest, the biggest group of patients, they are in the biggest group of vulnerable populations. So, we have to start upskilling more nursing students to care for and to manage older persons, because we will have a deficit in our nursing workforce very very soon that will be so large that we won't be able to keep up."

Participant 13

"I don't think we attend to things around dementia as much as it should, and that is a really big area of course where oral health is critical."

Participant 6

"I would love consideration for Indigenous cultures and Indigenous communities around oral care, and how living remote and very remote impacts oral health. We don't have dentists in the remote...and [so would be good to know] what we can do as nurses in those situations."

Participant 4

Participants expressed concern about the lack of evidence-based clinical education pathways in nursing programs to strengthen students' competence in oral healthcare practice.

"And, you know, the thing is while we have got that Better Oral Health package that was developed over a decade ago, there has not seemed to be anything more that's developed to actually make things more concrete, more like a clinical pathway... And so it's very difficult then to design something that has not been tested and evaluated. So, there's definitely a gap."

Participant 5

Participants felt that often what students learned about oral healthcare in their nursing program was not reinforced when students were on placements. Hence, students were missing out on building their oral healthcare skills during their clinical trainings.

"No one's thinking that that's an important part and I heard anecdotal stories of patients being discharged after eight days without having their teeth cleaned at all, so it's just never been really promoted as an essential part of our daily nursing care. No nurse unit manager would ever check on nurses and say have they provided oral healthcare to their patients in a day."

Participant 7

3. THERE ARE BOTH INTERNAL AND EXTERNAL BARRIERS TO STRENGTHENING ORAL HEALTH EDUCATION ACROSS NURSING PROGRAMS

Participants identified several **internal barriers** which prevented nursing educators from effectively educating nursing students about the oral healthcare of older people.

3.1 A curriculum already at capacity without oral health and time constraints on staff

A frequently expressed concern of nursing educators was that many competing topics needed to be covered in the limited time of a three-year Bachelor of Nursing degree.

"Issue of the curriculum actually being very crowded becomes a real problem and I think curriculum wise, we probably should be going for a four-year degree."

Participant 6

"We have got a certain amount of content that we can fit in three years, so to improve, I mean I guess we can always improve but to include specific oral health for older people we have to drop something else, and that becomes problematic"

Participant 1

"A full curriculum, lack of time by educators to develop specific material."

Participant 10

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3.2 Knowledge of nursing educators

Some participants felt they were not sufficiently prepared to educate students about older people's oral healthcare. Participants believed that if they did not have in-depth knowledge of oral healthcare for older persons, such healthcare would be less likely to be effectively incorporated into nursing courses.

"It would be the lack of awareness that needs to be considered because if academics never thought about oral health in-depth, they would never be upgrading nursing curricula regarding that ... We can always include this component, it's not that hard, to be honest, it is about awareness at the end of the day." Participant 2

"I think, first of all, we [nursing educators] need to have a better understanding of the importance of mouth care and oral care in general health and wellbeing. If we have a better understanding of it, then we are more likely to communicate that to our students and focus on it in their curriculum." Participant 8

3.3 Difficulty in advocating for change and a lack of focus on older people

Nursing educators found it difficult to advocate for the inclusion of additional essential topics in the nursing curriculum, such as the oral healthcare of older people. They felt that the omission of oral healthcare may reflect ageism, not valuing older people and their healthcare needs, or a general resistance to change.

"Barriers are people's attitude; they have already made a judgement about the value of older people and where that sits. And say, I get dismissed quite quickly. ... If other people have different knowledge sets or different value sets about what's more important, then they are going to push their agenda ... The higher up the chain, associate professors and professors so they have power you know, it's difficult. Yeah, it's not easy to advocate." Participant 5

"There are people who like change so they could be very excited like people like me. And then there are people who don't like change. So, they would be quite resistive." Participant 2

Participants identified several **external barriers** that compounded internal issues affecting the inclusion of oral healthcare in the nursing curriculum and suggested strategies for consideration.

3.4 Insufficient attention to support collaborative education and practice

Participants felt that there seemed to be little or no collaboration between nursing and dental professionals to facilitate collaborative education and practice for the effective management of oral health issues for older people.

"It appears to be that there's no opportunity for nurses to interact with a dentist, or an oral health professional on a medical ward or surgical ward or anywhere like that in other areas of rehabilitation, aged care." Participant 6

"We have talked a lot about neglecting oral health especially in older people and investments in aged care residents, but there seems to be very less or no collaboration between nursing and dental school regarding how we can improve this." Participant 2

"I think there really could be a lot more collaboration. I don't know that any of that is happening." Participant 8

"I have always been surprised at this, why dentists and oral hygienists are not advocating and doing something for older people, because they have the specialist knowledge." Participant 5

Participants expressed concern that the lack of collaboration could be linked to limited funding for dental experts in geriatric care and non-inclusion of dental services in Medicare.

"I think it [lack of advocacy by dental professionals] comes down to old fashioned money. So I think government needs to fund it, they need to fund the experts." Participant 5

"I think that's one of the challenges we have in Australia is that because dental services, on the whole, are not Medicare provided" Participant 1

Participants also felt that the lack of an effective means of communication between dental and nursing professionals created a barrier to collaborative oral healthcare for older people.

"We don't do true collaboration well, and it starts with having a conversation." Participant 13

"In fact, the dentists here have stopped going to nursing homes ... because they found that they would implement all these initiatives to improve the oral health of patients in nursing homes, but the nurses were not doing it, and it was not being supported by leadership, nurse unit managers, so the residents were in terrible states." Participant 7

3.5 Limited attention to nurses' role in oral healthcare at facilities providing care to older people, reflecting the low priority given to oral health

Educators commented that nursing students felt that oral healthcare had a low priority at their work placements and that frequently students were guided by Nursing Assistants, rather than Registered Nurses, and the guidance was not always clear or evidence-based.

"They lack skill sets and how to respond to behaviours, especially like clients with dementia, or difficult patients say, so the Assistants in Nursing would choose the easiest road, which would be not to go there and clean their teeth because it's too

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difficult. And so then, unfortunately, the student nurses get to see this behaviour where everyone avoids the oral hygiene because that's the easiest road to take because everyone is pressured for time, which is not a good role modelling going on." Participant 5

"The staff [assistant nurses] were not actually doing; they were ticking the care plan to say that they have done oral hygiene. But when the students actually went to find, like a toothbrush or toothpaste and other things, the actual residents did not have any of that at the time. But the staff was still ticking them off that they were doing that.so that was a challenge." Participant 3

4. THE NEED TO DEVELOP AND PROMOTE A CLEAR ORAL HEALTH CURRICULUM THAT INCLUDES INTERPROFESSIONAL COLLABORATIVE PRACTICE

Participants identified valuable multi-level strategies to address this need. They suggested that if the government would **prioritise oral health at the national level**, this priority would then transfer into nursing schools' curricula.

"I think what we need to happen is the systems that support the curriculum, so we say, in nursing, we are part of a broader system, the health system. ...Once it hits the national priority, it gets everyone's attention. ...I certainly feel that you know, if we had a more cohesive response that comes from the governance level, from the government or national priorities, then that feeds down, and then it goes into the care of older people out in the community hospitals and residential setting, then feeds into the curriculum, then back up again, is that reciprocal relationship that needs to happen for it to be done" Participant 5

This national priority would, in turn, facilitate **the inclusion of specific learning objectives regarding oral health education and clinical preparation in nursing education accreditation standards**

"If you have a look at the Australian Nursing Midwifery Accreditation Council (ANMAC), they are who accredit every nursing program in Australia. And when you look at the current standards, there are five standards that they were accredited against, and there's not one mention of oral health, specifically, when you look at it's implied, because one of our guiding principles should be safety to the public. I mean that underneath that, there's a lot of opportunities to actually, you know, highlight that it is to make sure to maintain someone is safely coming in and out of healthcare." Participant 13

"Actually, have that as a requirement at the Australian Health Practitioner Regulation Agency level and Australian Nursing and Midwifery Accreditation Council so that it has to be a stronger focus and you know people are not going to just do things until it is enforced." Participant 6

"It comes back to your ANMAC accreditation. And perhaps it needs to be more explicitly stationed." Participant 10

Participants recognised the importance of **involving nursing students in the development of ways to measure knowledge and competence in oral healthcare as the curriculum is implemented.**

"I think it needs to be an ongoing process; you start small... see what they [students] felt was interesting, then you could always expand a bit... I do not think you could go in with the whole thing because you will probably fail." Participant 9

Participants felt that more explicit language would **clearly define the nurse's role in oral healthcare and facilitate needed interprofessional education and collaborative practice.**

"You want to ensure that there is a clear line between what the nurse's role is and what the dentist's role is." Participant 9

"I think the strategy would be initiate conversation, because we are very disjointed." Participant 2

"I would love to see that more and get more genuine effort and engagement from the dental service or collaborations in the future." Participant 4

One university used an **interdisciplinary approach** to teach nursing students, where nursing students learnt oral healthcare components from final year dental students. Dental students helped to highlight the importance of oral healthcare for older people. This approach was found to be effective by the facilitator.

"...fifth-year dental students, so almost finished, they all come down and teach our students how to provide oral health assessment and oral care cleaning, cleaning of dentures, care of dentures, how to clean someone's teeth using a wide range of products, and how to do a thorough oral health assessment on their patients, and they are very good." Participant 7

"I think dental students give it [oral health education] an element to our speciality. So, ... they are totally committed like it's an obsession with them, looking after teeth and looking after oral mucosa and all the other diseases that are happening now and the comorbidities [that] can result are really high on their agenda so our students recognise that this is really important." Participant 7

Within collaborative education and practice, **opportunities could be created for students to interact with older community members**, so nursing and other students can better understand the oral healthcare needs of older people.

"I think maybe sending or bringing some older members of our community into our skill sites. Yeah, having the older people talk about them [oral health issues]." Participant 10

"I think what's really effective is finding out the experience from consumers. So those who are actually receiving healthcare, they are able to tell you their experience and the effects impacted on them by not having proper oral care. I think nurses are quiet, you know we're naturally empathetic, we respond to

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people's stories, and we always want to help. So, if we know the importance of it, and to hear stories from patients that have been in our healthcare facility that this is the consequence. I think that is motivation." Participant 8

Participants believed that students in regional or remote areas learned more about the importance of oral healthcare of older people at the workplace than those in metropolitan areas due to the rural sense of community.

"I work with a very innovative group of nurses...We have all worked in this region [regional and rural area] where you kind of have to be multifaceted you have to think outside the box, you have to provide care with what you have got." Participant 4

"There seems to be more of a sense of community; there seems to be more engagement with families than what there might be in a metropolitan setting. I don't know whether that level of familiarity makes people more aware of some of those issues around oral health." Participant 11

To develop the standardised oral health content and integrate into accreditation standards and nursing programs, participants **recognised the valuable role of oral health champions at nursing schools, placements, and for continuing education workshops for staff.**

"I think that getting that champion in the nursing school, to lead is crucial, in terms of when I think it depends on each university because each university, the way they teach nursing varies" Participant 9

"I would like to see better support for nurse educators in the hospital environment and healthcare environment around oral health." Participant 6

"I think some other workshops or online learning would be beneficial." Participant 12

DISCUSSION

The need for and importance of oral healthcare in nursing is recognised in the literature.^{2,9,15,16,30} The perspectives of nurse educators in this study focused on the importance of education about oral health, recognition of the notable gaps that currently exist in nursing students' preparation for providing oral healthcare, awareness of the internal and external barriers that affect such education and clinical preparation, and the need to develop and promote a clear and standardised oral health curriculum. The perspectives of lecturers, researchers, and course coordinators in this study were consistent with those in a 2020 study evaluating the experience of heads of nursing schools regarding the inclusion of oral health in Malaysian and Australian nursing programs.³¹ In addition, several other studies in OECD countries reflected that the clinical experiences and assessment of oral health for nursing students lacked consistency across programs.³²⁻³⁴

A key factor that underlies these perspectives is the need to define the role of nurses in providing and maintaining the oral health of older adults. Nurses occupy a key position in understanding a person's general health and how this can be maintained or adversely affected by oral health. Key components in ensuring oral health include nurses' ability to (i) accurately and regularly screen to detect signs and symptoms of oral diseases, (ii) evaluate the impact of prescribed medications, (iii) monitor fluid and nutrition intake, (iv) recognise the need for timely referral to a dentist, doctor, or allied health specialist, (v) educate and counsel older people and their caregivers about the importance of maintaining oral health, (vi) ensure daily evidence-based oral care when needed, and (vii) take a leading role in ongoing interprofessional education about effective oral care for older people.

Agreement on the key components of the role of nurses in providing oral care and maintaining the oral health of older people will guide the development of standardised curriculum content to strengthen nursing students' competency and confidence in providing oral healthcare. Such a curriculum will address the notable gaps that currently exist in undergraduate nursing programs, such as knowledge of oral anatomy and physiology and strengthen the clinical skills of graduate nurses in providing oral healthcare to older people. Recently, extending the current three-year accredited nursing program to four years has been put forward to better prepare nurses, but the need for involving oral healthcare components was still not raised.³⁵

The perspectives of nurse educators in the current study suggest that it would be valuable for administrators and policymakers who determine nursing accreditation standards to develop standards that specify oral health education, including interprofessional and collaborative practice, for the oral healthcare of older people.³⁶ These standards would also help to overcome the current siloed approach to oral and general health at a national level. Such standards would be a positive influence in integrating oral and general health through collaborative work with the Australian Nursing and Midwifery Federation, the Royal Australian College of General Practitioners, and the Australian Dental Association (ADA) at national, policy levels. This would facilitate interprofessional collaboration with dentists, medical, and other allied health professionals and optimise care for older people.^{37, 38}

The importance of interprofessional education and collaborative practice is evident in Standard 3.6 of the ANMAC standards. This standard will assist in curricular re-design and address the difficulty of scheduling students and staff from different programs so they can work and learn together. Strengthening this standard with examples of effective collaborations of primary healthcare providers with dental professionals in both urban and rural areas will facilitate partnerships for teaching and clinical practice.³⁹⁻⁴¹

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Examples can include telehealth and online learning, which are particularly valuable to connect nursing, dental, and allied health students, and professionals in rural areas.⁴²⁻⁴⁴

One effective strategy for interprofessional learning about oral health is to ensure nursing students are familiar with the Head, Eyes, Ears, Nose, Oral cavity, and Throat (HEENOT) approach for assessing, diagnosing, and treating issues that can adversely affect general health.⁴⁵ The HEENOT approach ensures that one does “NOT” leave out oral healthcare at any time when delivering person-centred care.⁴⁵ Aligned with the HEENOT approach, nursing students and their interprofessional colleagues can advocate for the inclusion of a person’s dental records with their e-health records to emphasise the association of oral health with general health and promote the importance of holistic, person-centred care for primary health providers and other allied health professionals.

The Royal Commission identified the need for older people, especially those in residential aged care, to receive effective oral healthcare.¹³ Dental professionals can be strong advocates for the role of nurses in providing such care and for appropriate funding for clinical service delivery and professional development programs. Despite the recommendations of the Royal Commission, and the specification of continuing professional development for staff in the new aged care standards, specific funding details were missing in the FY21-22 budget delivered by the Australian government.⁴⁶

The mixed views of nursing educators in this study suggested that some universities in Australia are doing better than others in terms of including oral healthcare in the nursing curriculum. In addition, it appeared only a few academics were aware of published oral health resources, available online, such as “Better Oral Health in Residential Aged Care”,¹² “Building Better Oral Health Communities”,¹² and “Smile for Life-National Oral Health Curriculum,”⁴⁷ which promote an interprofessional approach in the education of nursing students. A standardised curriculum with a clear definition of the role of nurses in providing oral healthcare to older people would address these inconsistencies. In the meantime, effective communication, and collaboration between nurse educators at local, state and national meetings will help them learn from each other’s experiences, facilitate the integration of oral health components into nursing programs, and promote higher standards of oral care to improve the oral health and quality of life of older Australians.

LIMITATIONS

There may be an element of bias in the study. Participants may have had a different level of interest in educating students about the oral healthcare of older people compared to nursing educators from other universities who chose not to participate.

FUTURE RESEARCH

It would be valuable for future research to explore nursing students’ perspectives on their education and clinical preparation to provide oral healthcare to older people. Nursing students’ perspectives would complete the picture and facilitate further investigation of ways in which effective oral healthcare for older people can be incorporated into nursing education and clinical practice.

CONCLUSION

As Australia strives to improve the oral health of older people, enhancing oral healthcare delivery through skilled and determined health professionals is essential. Nursing educators recognise the need for the education and clinical preparation of nursing students to promote older people’s oral health, especially when older people are dependent on others for their oral care. Policymakers should focus on developing and ensuring the implementation of oral healthcare standards in the healthcare and aged care settings. Recognition of importance of oral healthcare of older people at national level will promote the incorporation of this component in the nursing curricula. Nursing educators then highlighted there is a need to define the role of nurses in oral healthcare to address the structural and systemic issues existing at the policy and practice level reflected in the siloed delivery approach to oral healthcare to older people. This study suggests that key components for nurses to effectively provide oral healthcare to older people include the ability to (i) accurately and regularly screen to detect signs and symptoms of oral diseases, (ii) evaluate the impact of prescribed medications, (iii) monitor fluid and nutrition intake, (iv) recognise the need for timely referral to a dentist, doctor, or allied health specialist, (v) educate and counsel older people and their caregivers about the importance of maintaining oral health, (vi) ensure daily evidence-based oral care when care is needed, and (vii) take a leading role in ongoing interprofessional education about effective oral care for older people. This definition will guide the development of a standardised oral health curriculum in nursing accreditation standards, including interprofessional education and collaborative practice.

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