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Undergraduate and Postgraduate Special Needs Dentistry Curricula for Oral Health Therapists: A Delphi Study

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ABSTRACT

Aim: To develop a consensus-based curriculum outline for special needs dentistry (SND) tailored to oral health therapists (OHTs), ensuring relevance and applicability across undergraduate and postgraduate education in Australia.

Methods: A four-round online modified Delphi study was conducted. The first three rounds involved both Australian and international experts, while the final consensus round was limited to Australian experts. Experts were selected using purposive sampling based on their experience in SND education, clinical practice, or curriculum development. Participants completed semi-structured surveys derived from publicly accessible learning outcomes (LOs) in student handbooks of undergraduate oral health programs and postgraduate SND specialist programs. Additional insights were drawn from the International Association for Disability & Oral Health (iADH) and the Australian Dental Council (ADC) competency guidelines. Across the rounds, experts rated the importance of proposed LOs, identified their appropriate educational level (undergraduate/postgraduate), and provided qualitative feedback. Consensus was defined a priori as ≥ 70% agreement. Modifications were made between rounds based on expert feedback.

Results: In Round 1, 24 experts completed, with 66 of 67 LOs reaching consensus. In Round 2, 20 experts assessed 98 LOs (including new and revised items, categorized into undergraduate and postgraduate), with 96 (97.9%) reaching consensus. Round 3 involved 16 experts reviewing unresolved and newly added items; two items did not reach consensus. The final round resulted in consensus on all outstanding LOs and confirmed the overall framework's relevance to the OHT scope and context. Key refinements across rounds included improved clarity in applying Bloom's Taxonomy, clearer undergraduate/postgraduate differentiation, and increased specificity to SND.

The final document, "Undergraduate and Postgraduate Special Needs Dentistry Curricula for Oral Health Therapists" can be downloaded from the Appendices in the Supporting Information.

Conclusion: This Delphi study established expert consensus on a comprehensive set of LOs, along with suggested learning activities and assessment tasks. The proposed curriculum framework supports integration of evidence-informed SND education into OHT programs, which has the potential to enhance workforce preparedness to deliver equitable care to people with disability and additional health care needs.

1 | Introduction

In 2022, approximately 5.5 million Australians, representing 21.4% of the population, were living with a disability, marking a significant increase from 17.7% in 2018 [1]. Despite this growing demographic, people with disability continue to face persistent challenges in accessing appropriate oral health care. According to the *Oral Health and Dental Care in Australia* report (2023), 12.5% of Australians under the age of 65 with a disability who required dental care were placed on public waiting lists. This figure increases to 19.5% for those with severe or profound disabilities [2]. Although special needs dentistry (SND) has gained recognition as a specialty in recent years, access to dental practitioners adequately trained in this field remains limited [3]. Consequently, people with disability experience significant inequities in accessing appropriate dental care, contributing to poor oral health outcomes [4]. There are currently only 29 registered specialists in SND in Australia, up from just 15 in 2013 [5]. Given the slow increase in specialist numbers, the need to address service gaps for this priority population has become increasingly urgent. Importantly, not all individuals with disability require specialist treatment; many can be treated within general dental care setting, provided that dental practitioners receive adequate education and training in SND [6].

Reluctance among dental practitioners to treat patients with disability is often attributed to insufficient undergraduate education and limited clinical experience in this area [7–9]. Nevertheless, many practitioners express a strong interest in further postgraduate training to upskill their ability and confidence in managing patients with additional healthcare needs [10, 11]. Increased knowledge and experience in SND are associated with greater confidence and willingness to provide care for people with disability [12, 13]. Expanding dental education focused on SND is vital, not only for dentists but also for the other dental counterparts, particularly oral health therapists (OHTs). OHTs are registered dental practitioners whose scope of practice includes risk assessment, preventive interventions, oral hygiene education for patients and caregivers, and the provision of non-complex restorative care. Their practice primarily focuses on children and adolescents, with scope potentially extending to adults depending on their training and local regulations [14]. Within SND, OHTs are well-positioned to support preventive care and oral health promotion. They also play an important role in ensuring continuity of care through collaboration with carers, support workers, and the broader dental and healthcare team [14]. These contributions can reduce the need for complex treatment in the long term and support better overall health outcomes for people with disability. Equipping OHTs with appropriate knowledge and clinical exposure may help to enhance an inclusive model of care and alleviate the reliance on the limited number of specialists, thereby improving access to care for this priority population [15].

Curriculum outlines for undergraduate and postgraduate dental students were published by the International Association for Disability and Oral Health (iADH) in October 2012 and November 2014, respectively [16, 17]. These frameworks, however, were designed primarily for dental students and do not adequately account for the roles and scope of practice of OHTs. OHTs provide preventive, restorative, and therapeutic care across diverse community and primary care settings, often serving as the first point of contact for patients with disability. Despite their critical role, no tailored curriculum framework currently exists to guide OHT training in SND. Establishing well-defined learning outcomes (LOs) for OHTs is therefore needed to ensure they are equipped with the competencies required to address the complex needs of this population and to foster a consistent, team-based approach to care.

Although current oral health programs include some SND components, this is often limited to a basic overview due to the constraints of an already crowded curriculum [18]. Consequently, OHTs may graduate with varying levels of exposure and preparedness, leaving a critical gap in their ability to provide safe, effective, and inclusive care. Addressing this educational gap requires a structured approach to achieve agreement on curriculum priorities in an area where there is currently no standardized framework and limited empirical guidance. In such settings, where multiple disciplines, professional roles, and educational contexts are central to curriculum development, the Delphi technique is particularly well-suited. This method enables the systematic synthesis of expert opinion, supports iterative refinement of complex educational concepts, and facilitates consensus among geographically dispersed participants. Accordingly, this study aims to explore and define the key educational components necessary for integrating SND training into both undergraduate and postgraduate curricula of Australian oral health programs. By drawing on the collective expertise of professionals in the field, we seek to establish a robust and standardized curriculum framework that ensures the oral health therapy workforce in Australia is adequately prepared to address the dental needs of people with disability.

2 | Materials and Methods

Ethical approval was granted by the Human Research Ethics Committee at The University of Sydney (HREC Approval No.: 2024/HE001481).

We conducted a modified Delphi study to achieve consensus among a diverse panel of experts while addressing the

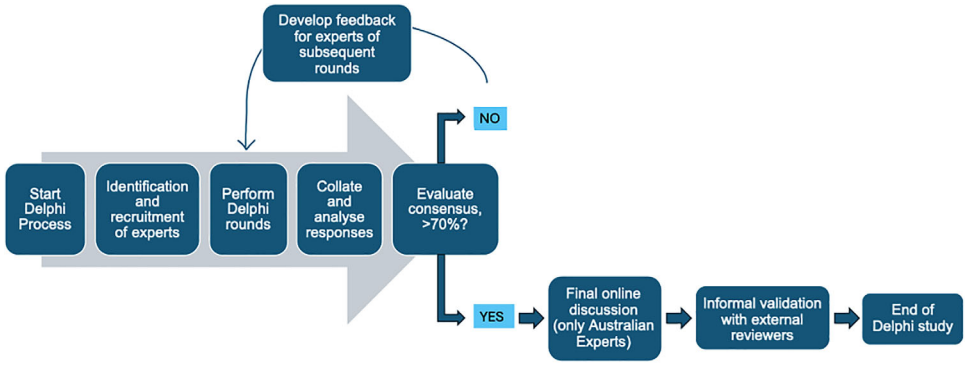

FIGURE 1 | Summary of Delphi process.

TABLE 1 | Learning domains.

Domain	Title
1	The Scope of Special Needs Dentistry
2	Access and Barriers to Oral Health for People with Disability and Other Underserved Populations
3	Professional, Legal and Ethical Context of Special Needs Dentistry (including consent matters)
4	Cultural Awareness and Sensitivities of Special Needs Dentistry Including Aboriginal and Torres Strait Islander Cultural Competency
5	Communication Skills in Special Needs Dentistry
6	Impact of Impairments, Disabilities and Systemic Conditions on Oral Health and Oral Function
7	Clinical Management of Patients Requiring Special Needs Dentistry
8	Clinical Pathways and Team Approach to Care
9	Dental Public Health and Oral Health Promotion
10	Clinical Research and Governance

complexities of curriculum development in SND education, answering our research question: *What are the essential components that should be included in undergraduate and postgraduate SND curricula for OHTs?* This study was guided by the methodological principles outlined by Nasa et al. in their stepwise quality assessment of Delphi studies [19]. A summary of the Delphi process is presented in Figure 1.

2.1 | Development of Baseline Information

The foundation for the Delphi study's baseline information was established through an examination of publicly accessible student handbooks from both undergraduate oral health programs (e.g., Bachelor of Oral Health/Therapy) and postgraduate SND specialist programs (e.g., Doctor of Clinical Dentistry) [20]. Additional insights were drawn from undergraduate and postgraduate guidelines for SND provided by the iADH [16, 17] and Australian Dental Council (ADC) competency guidelines [21]. These sources were not intended to represent an exhaustive review of global SND curricula, but rather to serve as a structured starting point to support refinement and consensus development. The materials were collated into an initial list of potential LOs with 10 main domains (Table 1). The research team then conducted a thematic analysis to group similar items, eliminate redundancies, and ensure alignment with the scope of practice of OHTs. Content validity of the Round 1 survey was established through review by the research team and informal pre-testing with educators experienced in oral health education before being presented to the Delphi panel. Experts were invited to critically review, refine, and build upon this baseline information with their feedback and suggestions.

2.2 | Selection of the Delphi Panel

Following ethical approval, potential experts were identified and contacted through professional networks such as LinkedIn and institutions' email contacts. Prospective panel members expressed their interest via a dedicated link, and the research team evaluated each applicant based on predetermined selection criteria. To be considered for the panel, experts were required to meet at least one of the following criteria:

- Experience teaching SND at an undergraduate level in an academic environment.
- Experience delivering SND training programs within community or hospital settings.
- Experience developing and delivering educational programs or curricula within academic settings.

- Specialization in SND
- A role as an oral health therapy educator in SND.
- A consumer representative from organizations such as the Australian Society of Special Care in Dentistry (ASSCID).

To ensure the validity of the results and capture comprehensive experts' perspectives, we achieved our initial aim of establishing an expert panel of 29 members, providing rigorous and diverse representation across different professional roles and geographical locations.

2.3 | Design of Survey Instrument

We utilized a university-licensed online survey platform (REDCap) for the first three rounds of the Delphi study. Two reminders were sent out after the initial email. The final round was conducted via Zoom online meeting to facilitate real-time discussion.

2.4 | Round 1

Round 1 was tasked to be completed in 50 min. Experts were asked to provide demographic data, including their name, email address, and country of origin. Experts were also given the baseline information, containing 67 LOs. They were required to rate the importance of each LO on a 5-point Likert scale (1 = *Not at all important* to 5 = *Extremely important*), based on its relevance to the OHT context. They were then asked to classify each outcome as appropriate for either the undergraduate or postgraduate level, or to be excluded completely. Experts were given the option to suggest additional LOs they felt should be included in the curriculum. In the last part, they were encouraged to share any learning activities and assessment tasks for each domain. Responses to expert comments were consolidated and addressed in a summary document at the end of this round.

2.5 | Round 2

Following Round 1, the total number of LOs presented increased from 67 to 98. This expansion occurred from newly added LOs in Round 1, and consistent expert feedback indicated that many LOs were applicable to both undergraduate and postgraduate education but required differentiation in depth and complexity. In response, multiple LOs were segmented into distinct levels, allowing participants to indicate the most appropriate level for each LO, recommend exclusion where appropriate, and provide qualitative justification for their selections. No LOs from Round 1 were removed prior to Round 2; instead, items were reworded, expanded, or duplicates were merged to improve pedagogical clarity and alignment with Bloom's Taxonomy and educational level expectations, identified through expert feedback. Bloom's Taxonomy is a widely recognized hierarchical framework used to classify and structure learning objectives according to their complexity, guiding the use of action verbs that reflect the intended outcomes, such as remembering, understanding, applying, or evaluating. The Round 2 survey instrument reflected a more precise evaluation of the expected cognitive level of each outcome. The survey was distributed to the same expert panel that participated in Round 1. Responses to expert comments were consolidated and addressed in a summary document at the end of this round.

2.6 | Round 3

The same processes were carried out for Round 3. LOs that had reached consensus were banked and excluded. One LO that did not reach the predefined consensus threshold in Round 2, along with two newly added items, were carried forward to this round for further evaluation. LOs that were modified based on expert recommendations were presented for review, though they did not require consensus, as this had been previously achieved. These revisions were limited to non-substantive changes, such as editorial rather than conceptual, without altering the core intent, scope, or educational level of the LOs. The survey was distributed to the same expert panel that participated in Round 2.

2.7 | External Review

Following completion of Round 3, the consolidated list of LOs was shared with experienced clinicians who have extensive experience and active involvement in SND at present, for informal validation. This step served as a practical check to ensure the proposed curriculum resonated with those delivering care directly to people with disability.

2.8 | Final Round

The final round was conducted via an online Zoom session and involved only Australian experts who had completed Round 3. This round focused on resolving two LOs that had not reached consensus in earlier rounds. These remaining LOs were discussed in detail, clarified, and revised until full agreement was achieved. International participants were not included in this round to ensure that the final curriculum was aligned with the Australian context for its relevance and adaptability, including accreditation requirements and the scope of practice for OHTs. Expert availability was collected via a short survey, and the session was scheduled based on the date and time that accommodated the most participants. Participants were provided with the meeting agenda and relevant materials one week in advance to allow for thorough review and preparation. The session was facilitated by the research team and lasted approximately 50 min. Consensus was achieved through structured discussion and verbal agreement among participants. A LO was considered to have achieved consensus if all participating experts agreed on its inclusion and assigned educational level following discussion.

2.9 | Survey Analysis

All quantitative analyses were performed using IBM SPSS Statistics. Descriptive statistics were used to summarize expert panel characteristics, response rates across rounds, and item-level ratings. A predetermined threshold of $\geq$ 70% agreement was established for each reporting item to indicate consensus among

the expert panel, consistent with commonly accepted criteria in Delphi studies [22]. This means that at least 70% agreed on values of 4 or 5 on the Likert scale (4 = *Very important*, 5 = *Extremely important*), with the inclusion of the items in the curriculum list. If the agreement was less than 70%, items were considered to be discrepant. They were either revised, merged, or excluded based on expert feedback.

Qualitative data from each round, including suggested LOs, learning activities, assessment tasks, and open text comments, were compiled and analyzed using an inductive thematic approach by three members of the research team. The data was refined and duplicate entries were merged, rephrasing items with similar meanings, and consolidating less frequent or smaller responses into broader categories. Some items were reworded to improve clarity, inclusivity, or alignment with Bloom's Taxonomy. Items that were indicated as conceptual misalignment with the scope of practice were removed. Decisions to modify, retain, or exclude items were based on the frequency, consistency, and rationale of expert comments rather than single opinions. Revised LOs were then re-presented in subsequent rounds for further evaluation. A response rate of 70% between rounds was deemed appropriate.

Suggested learning activities and assessment strategies were reviewed for relevance, feasibility, and alignment with the intended LOs. Discrepancies or uncertainties were resolved through discussion among the research team. These components did not require further rounds for consensus, as they were intended as supplementary guidance rather than core LOs.

3 | Results

A summary and flow of the overall Delphi results is presented in Figure 2.

3.1 | Panel Demographics

A total of 24 experts completed the first round, representing a diverse range of geographic locations and professional backgrounds. Among all participants, the largest proportion was based in Australia (33.3%). Most participants held multiple roles within SND, with 79.2% having experience in developing and delivering educational programs or curricula within academic environments, and 75.0% with experience in teaching SND in academic settings. Nearly half of the participants (45.8%) were specialists in SND, and 33.3% were oral health therapy educators in SND. The majority (62.5%) had more than 10 years of experience (Table 2).

TABLE 2 | Panel demographic characteristics.

	Count ($n = 24$)	%
Country		
Australia	8	33.3
Aotearoa (New Zealand)	3	12.5
United States	3	12.5
United Kingdom	1	4.2
Republic of Ireland	3	12.5
France	1	4.2
Canada	1	4.2
Singapore	1	4.2
Indonesia	1	4.2
Malaysia	2	8.2
Roles (participants can select more than one role)		
Have experience in teaching SND in an academic environment	18	75.0
Have experience delivering SND training programs within community/hospital settings	15	62.5
Have experience developing and delivering educational programs/curricula within academic environments	19	79.2
SND specialist	11	45.8
Oral health therapy educator in SND	8	33.3
A consumer representative	1	4.2
Years of experiences in SND		
Less than 5	5	20.8
6–10	4	16.7
More than 10	15	62.5

Abbreviation: SND, special needs dentistry.

3.2 | Round 1

In the first round of the Delphi study, 24 experts evaluated a total of 67 LOs items across the proposed curriculum domains. Of these, 66 LOs (98.5%) met the predefined consensus threshold (Table 3). A large proportion of LOs achieved very high levels of agreement among the expert panel. Many items received greater than 90% agreement, particularly those relating to preventive care, communication with patients and caregivers, and recognition of oral health risks in people with disability. Qualitative feedback highlighted several recurring themes, including the need for clearer alignment with Bloom's Taxonomy, improved differentiation between undergraduate and postgraduate expectations, and refinement of LOs wording to better reflect the level of complexity. Experts also suggested additional LOs ($n = 17$), which informed subsequent revisions and the development of Round 2 materials.

Experts proposed a wide range of learning activities and assessment tasks to support the implementation of the LOs. Commonly suggested learning activities included case-based discussions, simulated patient scenarios, clinical placements in aged care or disability settings, interprofessional workshops, and engagement with people with lived experience of disability. Assessment approaches frequently included reflective journals, case presentations, objective structured clinical examinations (OSCEs),

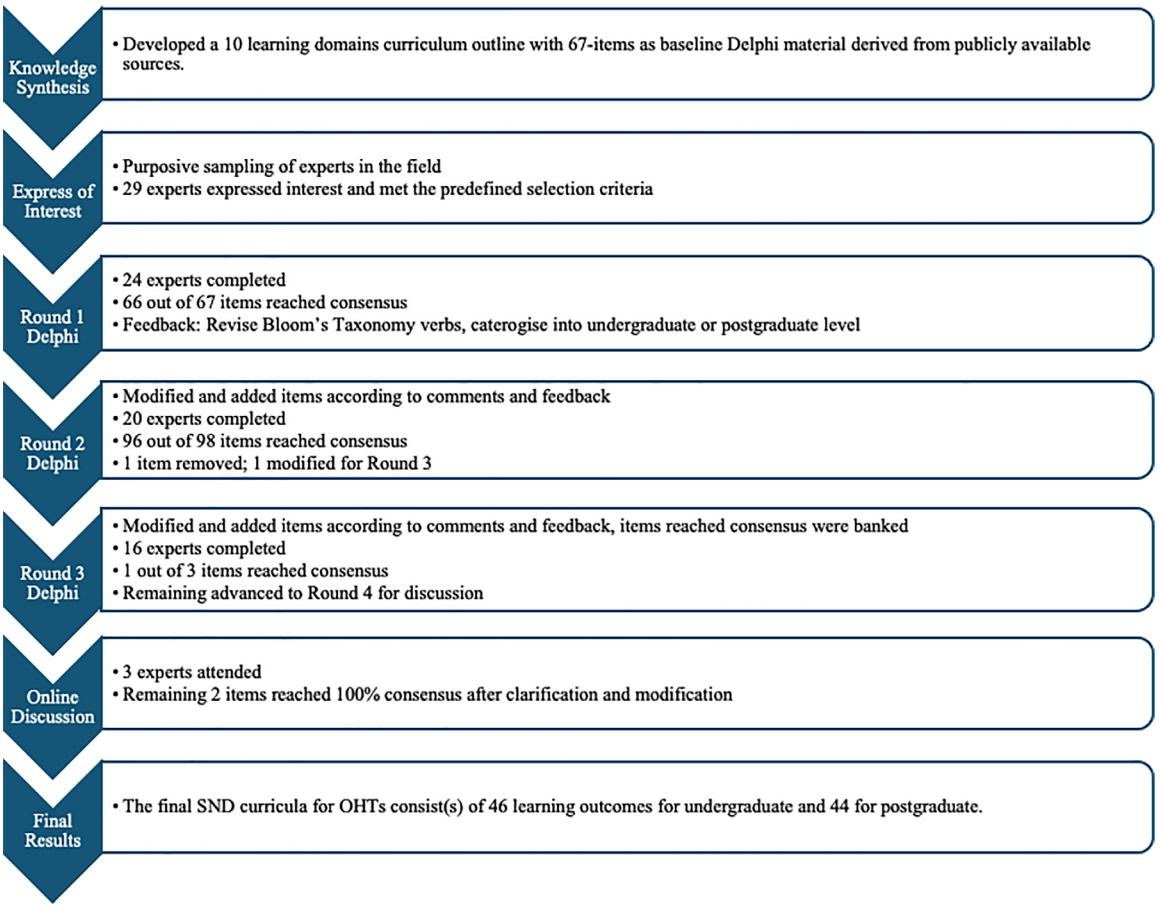

FIGURE 2 | Summary and flow of Delphi results.

TABLE 3 | Round 1 summary—discrepant item(s) and examples of qualitative comments.

Learning outcome	Round 1 consensus (%)	Examples of qualitative comments	Modifications made
Domain 1 UG LO: Gain an advanced understanding of the international context and sensitivities of SND.	54.1	UG and PG LO should be separated.	Revised: Domain 1 UG LO: Demonstrate an understanding of life course approach to oral health and disability. Domain 1 PG LO: Demonstrate an advanced understanding of the international context and sensitivities of SND.

Abbreviations: LO, learning outcome; PG, postgraduate; SND, special needs dentistry; UG, undergraduate.

portfolio-based assessments, and critical appraisal of evidence related to SND. These examples were thematically synthesised and incorporated into the final curriculum guide as optional, suggestive strategies to support curriculum implementation.

3.3 | Round 2

In Round 2, 20 experts from the initial panel participated (83.3% retention rate). A total of 98 LOs were evaluated, with 96 (97.9%) reaching consensus. Specifically, two new LOs were added, three were removed, and seven were merged due to conceptual overlapping (Table 4). Undergraduate LO: *Describe the International Classification of Functioning, Disability and Health (ICF) framework and its application, which* reached 65% consensus. Following expert feedback, it was excluded from the undergraduate curriculum as participants agreed that this content would be more suitably addressed at the postgraduate level. LOs that focused on the *understanding and application of the BDA Case Mix Tool* were removed entirely as experts expressed concerns that these tools might become outdated and that specifying particular tools was unnecessary. As a result, the finalized curriculum framework at the end of Round 2 comprised 90 LOs, including 46 undergraduate and 44 postgraduate LOs.

TABLE 4 | Round 2 summary—discrepant item(s) and examples of qualitative comments.

Learning outcome	Round 2 consensus (%)	Examples of qualitative comments	Modifications/decisions made
Domain 1 UG LO: Describe the International Classification of Functioning, Disability and Health (ICF) framework and its application.	65	Not required at the UG level.	Retained PG version; UG LO removed.
Domain 2 UG LO: Explain approaches to government funding and advocacy efforts.	55	Unsure about the intention. Including one on the PG level is reasonable. Revised Bloom's Taxonomy action verbs for clarity.	Revised: Domain 2 UG LO3: Understand approaches to government funding and advocacy efforts. Domain 2 PG LO3: Explore opportunities and apply for government funding.
Domain 8 UG LO: Demonstrate an understanding of the BDA Case Mix Tool and its application in assessing patient complexity and determine the need for specialist referral.	80	Unnecessary to use a specific tool, as it may become outdated in the future. Unfamiliarity with using this specific tool.	Removed both UG and PG LOs. Core intent is addressed through other LOs in the same domain.
Domain 8 PG LO: Utilize the British Dental Association (BDA) Case Mix Tool to assess patient complexity and facilitate interdisciplinary referrals for optimal patient outcomes.	80		
Domain 10 PG LO: Understand the importance of continuing professional development, lifelong learning, self-appraisal, peer review, and competency.	95	Should be included in both UG and PG levels.	Revised: Domain 10 UG LO: Understand the importance of continuing professional development, lifelong learning, self-appraisal, peer review, and competency in special needs dentistry. Domain 10 PG LO: Plan and evaluate one's own continuing professional development, lifelong learning, self-appraisal, peer review, and competency.

Abbreviations: LO, learning outcome; PG, postgraduate; SND, special needs dentistry; UG, undergraduate.

3.4 | Round 3

Sixteen experts completed the third round, maintaining a response rate of 80% from Round 2 (67% retention from Round 1). Of the three LOs presented for re-evaluation, one achieved the consensus threshold, with the majority agreeing that they should remain at their allocated educational level. The remaining two LOs, both from Domain Two undergraduate and postgraduate, which focused on government funding and advocacy, did not reach consensus (Table 5). Experts noted that the intended learning objectives lacked clarity and appeared unachievable at either level. Several comments indicated a misunderstanding of the LOs as being related to the application process for government grants.

3.5 | External Review

The consolidated list of LOs was shared with four experienced clinicians (3 OHTs and 1 dentist). Overall, the feedback was positive, with reviewers describing the curriculum as "appropriate and comprehensive," and noting that such content was "missing in both my undergraduate and postgraduate studies." However, one reviewer raised a practical concern regarding the potential difficulty in securing special care placements within Oral Health Therapy programs.

3.6 | Final Round

Of the four Australian experts, three attended the online videoconferencing. Following clarification of intent and group discussion, the experts acknowledged the importance of these LOs and contributed to refining their wording. As a result, both the undergraduate and postgraduate versions of the funding and advocacy LOs achieved 100% consensus among those in attendance. Domain 2 UG LO5: *Identify different types and sources of disability support funding and advocacy*; PG LO5: *Explore opportunities and application processes for funding aimed at supporting people with disability*.

TABLE 5 | Round 3 summary—discrepant item(s) and examples of qualitative comments.

Learning outcome	Round 2 consensus (%)	Examples of qualitative comments	Modifications/ decisions made
Domain 2 UG LO: Understand approaches to government funding and advocacy efforts.	68.8	Unsure if this is implying if students will be applying for funding. Seems not possible to achieve on both levels. Unsure the intention is to obtain funding for research programs.	Discussion and clarification in Round 4.
Domain 2 PG LO: Explore opportunities and apply for government funding.	62.5		

Abbreviations: LO, learning outcome; PG, postgraduate; SND, special Needs Dentistry; UG, undergraduate.

4 | Discussion

A major focus of Australia's National Roadmap for improving the health of people with disability is the integration of disability health capability frameworks into undergraduate education. It advocates for the inclusion of disability-related training across all stages of health practitioner education, including entry-level programs, postgraduate training, in-service education, and continuing professional development (CPD) [23]. In alignment with this national priority, the ADC highlights the importance of ensuring that graduates demonstrate professional competencies in caring for priority populations at greater risk of poor oral health—particularly those who experience significant barriers to accessing care, such as people with disability [24]. More recently, the Intellectual Disability Health Capability Framework (2024) addressed persistent gaps in equipping future health professionals with the core capabilities required to deliver safe, equitable, and quality health care to people with intellectual disability. The framework provides tailored guidance for accreditation authorities and self-regulating professions, supporting integration into accreditation standards. It also outlines associated LOs, suggested methods of assessment, and practical resources to aid implementation [25].

Our study complements these national directions. The final consensus-based curriculum framework developed through this study is designed to guide the integration of SND learning within Oral Health Therapy education (Refer to Supporting Information for the full curriculum framework). We propose that, in order to remove barriers to oral health care, OHTs must first graduate with the knowledge, clinical experience, and sufficient confidence to provide mainstream oral healthcare to people with disability [8]. This Delphi study sought to explore exactly that, to address a significant gap in our current oral health education in Australia. Over three iterative survey rounds and a final panel discussion, strong agreement was reached on the majority of proposed LOs across both undergraduate and postgraduate levels. The expert panel agreed on the value of introducing foundational knowledge on disability care at the undergraduate level, while more advanced competencies, such as care coordination and policy-related applications, were considered more appropriate for postgraduate training. Introducing these competencies during undergraduate training may offer the greatest long-term impact by ensuring all graduates are adequately prepared, not just those who pursue further study. This aligns with the principle that access to equitable care should not depend on the availability of a limited number of specialists or postgraduate-trained clinicians.

A notable observation in the first Delphi round was the repeated expert comments indicating that many LOs could be applicable to both undergraduate and postgraduate levels. However, the survey design required participants to choose one level, which may have constrained their ability to fully express the flexibility of certain competencies. This limitation was acknowledged and addressed in subsequent rounds by introducing separate categorization options. Another illustrative example of this complexity was seen in the fluctuating responses to LOs related to funding and advocacy. Although these items initially received moderate consensus, expert feedback revealed differing interpretations of the intent and potential misinterpretation of the LOs, which were later clarified during the final discussion. After revisions, these outcomes reached full consensus, emphasizing the importance of clear wording and shared understanding in curriculum design. Experts also expressed interest in adopting the final curriculum, with a Dental Hygiene educator noting its adaptability to their scope of practice, suggesting potential broader applicability.

Although the curriculum framework includes a substantial number of LOs, it is not intended that all outcomes be delivered as additional teaching units above the already loaded curriculum. Rather, the framework is designed to support curriculum mapping, integration, and prioritization within existing oral health therapy programs. Many LOs align with content already taught across clinical, public health, ethics, communication, and preventive dentistry subjects, and can be embedded longitudinally rather than added as standalone components. Across the domains, the curriculum emphasizes key areas such as patient-centered communication, preventive care, and interdisciplinary collaboration. In undergraduate programs, the LOs focus primarily on preparedness for entry-level practice, which can be incorporated into existing subjects. More advanced or complex competencies are intentionally positioned at the postgraduate level, allowing depth of learning without extending undergraduate program length. This framework provides flexibility by allowing institutions to select, adapt, and phase LOs according to local capacity, availability of clinical placements, and workforce needs. Importantly, the framework serves as a guide rather than a prescriptive checklist, supporting educators in identifying essential competencies while balancing feasibility and accreditation requirements. This highlights a practical next step for

implementation, which includes curriculum mapping against existing subjects and identifying priority LOs for early integration. Another important consideration in curriculum development is how LOs translate into assessable competencies. While this study did not aim to prescribe a single assessment model, expert panel members were asked in the first Delphi round to propose learning activities and assessment tasks aligned with each domain. These suggestions were incorporated into the final curriculum framework as illustrative examples. By aligning LOs with suggested assessment strategies, the framework supports constructive alignment between intended outcomes, learning activities, and assessment.

This study has several strengths. First, the modified Delphi method enabled systematic collection of expert opinions across multiple rounds, encouraging thoughtful reflection and iterative refinement of LOs. The inclusion of experts from diverse international backgrounds in the early rounds enriched the breadth of perspectives, and high retention rates across rounds further enhanced the credibility and consistency of the findings. The study also adhered to a priori consensus thresholds and incorporated feedback using a summary-and-response approach, which helped maintain participant engagement and trust in the process.

However, some limitations should be acknowledged. Despite international representation in the early rounds, the final round included only Australian experts, which may limit the broader global applicability of the final curriculum framework. Nonetheless, the inclusion of Australian experts in the final round was essential to ensure that the framework was contextually relevant and applicable to the Australian oral health programs, aligning with local workforce needs and scope of practice. While efforts were made to recruit experts with diverse expertise, participation was still limited by the availability and self-selection of individuals, which may introduce bias. In addition, the modified Delphi process, although rigorous, is inherently dependent on subjective expert judgment and may not fully capture the views of all relevant stakeholders, such as students or patients with disability. Participant fatigue was also evident, particularly during the first round of the Delphi study. The large number of LOs spread across multiple domains, along with the repetitive nature of some items, may have contributed to cognitive fatigue or disengagement.

This consensus-based curriculum framework was designed for OHTs in the Australian context. The dual scope of practice in hygiene and therapy within OHT training informed the inclusion of both preventive and restorative care competencies, as well as their broader role in oral health promotion and community-based care. While this framework may also be applicable to standalone dental hygiene or dental therapy programs, adaptations would be necessary to ensure alignment with the distinct scopes of practice in those disciplines, particularly in international contexts where scopes of practice may differ. Importantly, the framework provides a structured starting point for integrating disability-inclusive oral health competencies into oral health curricula while allowing flexibility for adaptation across different educational settings. To further validate the proposed curriculum framework, future research could involve pilot testing the LOs in selected oral health programs. This would allow for practical evaluation of how well the framework guides teaching and learning, and whether the proposed undergraduate and postgraduate delineations align with student capabilities and institutional needs. An additional direction is to also examine self-perceived limitations among practicing OHTs in managing patients with disability. Such implementation studies can provide valuable feedback on the usability and impact of the present consensus-based curriculum framework in educational settings [18].

5 | Conclusion

By strengthening educational frameworks in SND, future OHTs may be better prepared to meet the complex oral health needs of people with disability. This consensus-based curriculum outline could enhance the confidence, knowledge, and clinical capabilities of OHTs, equipping them to deliver inclusive, person-centered care.

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Conflicts of Interest

The authors declare no conflicts of interest.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting File 1: jdd70248-sup-0001-Curriculum-framework.pdf.