Exploring the Potential for Collaboration between Midwifery and Oral Health Departments at a Tertiary Education Institution to Support Pregnancy-Related Oral Health: A Qualitative Study.

Nimmi Biju Abraham

A thesis submitted to

Auckland University of Technology

in (partial) fulfilment of the requirements for the degree of Master of Public Health

2026

School of Community and Public Health

Abstract

Oral health is essential to overall well-being, and its importance is heightened during pregnancy, when hormonal and physiological variations affect the oral environment and create a valuable opportunity for health promotion. Yet many pregnant women and people in Aotearoa New Zealand, do not receive adequate oral health care, making perinatal oral health a public health and equity concern. Midwives and Oral Health Therapists (OHTs) bring complementary strengths to this area, and interprofessional education of future practitioners in these professions offer a way to prepare them to work together when they enter the workforce. This study explored the potential for collaboration between undergraduate midwifery and oral health therapy programmes at a Tertiary Education Institution in Aotearoa New Zealand regarding teaching and learning about oral health in pregnancy.

A research qualitative design was used, guided by Appreciative Inquiry and its 5D framework (*Define, Discover, Dream, Design,* and *Destiny/Deliver*). Two focus groups were conducted with 11 educators, four from the Oral Health Department and seven from the Midwifery Department.

Participants articulated a shared sense of purpose and recognised the value of integrated curricula. They identified existing strengths within both programmes, including relevant content, pre-existing collaborative initiatives, and community-based learning. Looking forward, they envisioned building on scaffolded curricula that introduce perinatal oral health early and move toward greater complexity, supported by reciprocal teaching, shared student learning, and strong interdepartmental relationships. Interprofessional collaboration was understood as a relational practice, and participants emphasised Cultural Safety grounded in Te Tiriti o Waitangi, alongside accessibility and equity. The *Design* phase generated practical strategies, such as joint teaching and resource development, while the *Destiny/Deliver* phase identified working groups, dedicated time, and sustained commitment as the key conditions required to enable enduring change.

The findings indicate that closer collaboration between midwifery and oral health education is both feasible and valued, building on existing foundations rather than starting anew. Appreciative Inquiry proved a productive approach for interprofessional education research. This study offers directions for education, practice, and public health policy to strengthen oral health promotion in pregnancy and advance equity for pregnant women and people, and their whānau.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

12th June 2026

Signature

Date

Acknowledgements

I would like to express my sincere gratitude to my supervisors, Dr Anna Fielder and Dr Tania Fleming, for their guidance, constructive feedback, and consistent support throughout this research journey. Their regular meetings, thoughtful comments, and commitment to my academic development have been invaluable. This thesis would not have been possible without the remarkable assistance of my supervisors.

I also acknowledge the professional assistance I received from Mrs Sue Knox for thesis formatting support, and Mr Alan for proofreading. Their contributions strengthened the clarity and presentation of this work.

My heartfelt thanks go to the staff from the Midwifery and Oral Health Departments for their willingness to participate in this study. Their insights, generosity and engagement made this research possible.

I am deeply grateful to my mother, Dr Kunjamma Sebastian, for her emotional and financial support, which has sustained me through many challenging moments. I also thank my sister, Dr Lekshmi Minu Abraham, for her constant motivation and encouragement.

Finally, I extend my appreciation to my family: my husband, Dr Vimal Jacob and my three children, Michelle Susan Jacob, Abraham Jacob and Markus Jacob, whose patience, love, and understanding have carried me through this demanding journey. Their support has been my greatest source of strength.

Ethics Approval

Approval to undertake this research was granted by the Auckland University of Technology Ethics Committee on 30th September 2025; AUTEC Reference number: 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study (Appendix A).

Chapter 1: Introduction

1.1 Introduction to the Study

Oral health is an essential aspect of overall well-being, and its importance becomes especially apparent during pregnancy. The oral environment is influenced by the physiological and hormonal variations in gestation, creating a unique opportunity for health promotion and education, as pregnant women and people[1] are often highly engaged with health services and motivated to support their own health and that of their baby (Jahan et al., 2022). In Aotearoa New Zealand, midwives and oral health practitioners[2] such as oral health therapists (OHTs), both play imperative roles in the care of pregnant women and people, and their whānau and are well-positioned to contribute to this work, particularly when their practice is grounded in Cultural Safety, equity, and whānau-centred care.

This study explores how education for midwifery and oral health students can be brought into closer collaboration at the undergraduate level to strengthen oral health promotion in pregnancy. Auckland University of Technology (AUT) is the institutional setting for this study. By drawing on the perspectives of educators from both disciplines at AUT, the research identifies existing strengths, shared aspirations, and opportunities for co-designed curriculum initiatives to enhance the preparation of future practitioners and ultimately improve outcomes for pregnant women and people, and their children.

1.2 Background to the Study

Oral health in pregnancy matters because it is closely connected to maternal and child well-being. It has been reported that there may be associations between periodontal disease during pregnancy and increased risk of babies being born too early, otherwise known as preterm birth (PTB), babies born with low birth weight (LBW), early

[1] The terminology “pregnant women and people” have been used in this thesis, guided by the International Confederation of Midwives and its recommendations on inclusive language (Embo et al., 2025).

[2] In Aotearoa New Zealand, the term oral health practitioner refers to several regulated professions with distinct scope of practices such as “dentists, dental specialists, dental therapists, dental hygienists, OHTs, orthodontic auxiliaries, dental technicians and clinical dental technicians” (Dental Council New Zealand, n.d.).

pregnancy loss or miscarriage, and pre-eclampsia, which also means pregnancy-specific high blood pressure (Xiong et al., 2006; Zhang et al., 2022). Moreover, pregnancy is an important time to support the primary prevention of early childhood caries, as maternal health and behaviours are understood to have a significant influence on children's later oral health outcomes (Iida, 2017). This highlights the importance of bringing oral health into holistic maternity care. It also reinforces the idea that oral health promotion, which can prevent or reduce pregnancy-related oral health concerns, has considerable potential to support positive intergenerational health outcomes. Midwives and OHTs each bring valuable expertise to this area.

Despite this potential, many pregnant women and people in Aotearoa New Zealand do not receive adequate oral health information or timely access to preventive oral health services (Claas et al., 2011). These gaps limit opportunities for early intervention and may contribute to what has been referred to as "oral-health-related fatalism", meaning that people have expectations of ongoing dental problems for themselves and their children, and in some cases, eventual tooth loss (Broughton et al., 2014; Claas et al., 2011). Therefore, this study responds to these gaps by examining how midwifery and oral health teaching staff might collaborate more intentionally to prepare future practitioners for integrated practice.

1.3 Introducing Oral Health in Pregnancy as a Public Health Topic

Oral health in pregnancy is a public health issue because the physiological changes of pregnancy that interact with oral health affect many pregnant women and people, and can impact infants, thereby having population-level relevance (Naseem et al., 2016; Yenen & Atacag, 2019). During pregnancy, the combination of biological susceptibility to oral health concerns and, for many, increased health care engagement through regular antenatal visits creates a powerful opportunity for preventive action that can influence pregnancy outcomes and the health trajectories of future generations (Boggess et al., 2011; Han, 2011).

Equity is also central to the public health significance of oral health in pregnancy. Māori and Pacific women experience higher rates of oral disease and often lower access to preventive care, and these inequities are increasingly recognised as areas where targeted, culturally grounded action can make a meaningful difference (Hanif et

al., 2025; Lawton et al., 2008). Māori women are more likely to experience untreated dental caries, periodontal disease, and tooth loss, and Pacific women face similarly disproportionate unmet needs (Hanif et al., 2025; Lawton et al., 2008). Addressing oral health in pregnancy, therefore, offers an opportunity to contribute to oral health equity and to honour commitments to Te Tiriti o Waitangi and Indigenous rights in health (Broughton, 2010; Lacey et al., 2021).

Public health action can include addressing upstream determinants of health, strengthening community-based services, enhancing health literacy, and supporting culturally grounded care (Coughlin et al., 2020). Health workforce education is a key component of this broader picture (Tao et al., 2018). This thesis examines feasible strategies to enhance collaboration between the Midwifery and Oral Health Departments at AUT, with the aim of strengthening learning experiences for undergraduate midwifery and oral health therapy students, thereby better equipping them to support oral health during pregnancy. By emphasising curriculum and interprofessional collaboration, this study aims to contribute to the development of a workforce capable of implementing public health priorities in everyday practice.

1.4 Professional Roles in Supporting Oral Health during Pregnancy

Midwives and OHTs each bring distinct strengths to supporting oral health in pregnancy. Midwives often provide continuity of care, build trusting relationships, and act as the first point of contact for pregnant women and people. Professional guidance (New Zealand College of Midwives, 2019) supports midwives in providing oral health advice and referrals as part of holistic antenatal care, recognising that they are well placed to identify oral health concerns and encourages timely engagement with dental services.

Oral health practitioners provide specialised expertise in the prevention, diagnosis, and management of oral conditions, including those influenced by pregnancy-related hormonal and immunological changes (Naseem et al., 2016). When midwives and oral health practitioners work in partnership, there is potential to create seamless pathways from health promotion and early identification of oral health concerns to assessment and treatment, enhancing both maternal and infant outcomes (Bossouf et al., 2023; George, Lang, et al., 2016; Mohebbi et al., 2014). It is within the scope of

practice for OHTs in Aotearoa New Zealand to provide preventive care and periodontal management for adults, including pregnant women and people (Dental Council New Zealand, 2021b). Additionally, OHTs provide restorative treatment (that is, treatment that repairs or replaces damaged tooth structure) for people under the age of 18 years (Dental Council New Zealand, 2021b), and those with adult scope training (Fernández et al., 2020) are authorised to carry out restorative treatment for adults.

Although the oral health and midwifery professions may not always work closely together in clinical settings, the literature and policy environment in Aotearoa New Zealand increasingly highlight the value of inter-professional collaboration, particularly for supporting priority groups such as Māori and Pacific pregnant women and people (Ministry of Health, 2024). This study builds on that recognition by exploring how midwifery and oral health educators can collaborate as teachers to prepare the next generation of practitioners for more integrated approaches to care.

1.5 Interprofessional Education and Collaboration in Health Professions

Interprofessional education is widely understood as a vital foundation for preparing health professionals to contribute effectively within collaborative, patient-centred models of care. It brings learners from different disciplines together so they can learn with, from and about one another in ways that strengthen teamwork and ultimately enhance health outcomes (World Health Organization, 2010). A systematic review reveals that interprofessional learning can strengthen communication within teams, deepen understanding of professional roles, and support more collaborative and respectful ways of working, all of which contribute to more coordinated care (Reeves et al., 2016).

In the context of oral health and maternity care, interprofessional collaboration has been associated with improved maternal and child oral health outcomes (Abou El Fadl et al., 2016; Vamos et al., 2023). When midwives receive training in oral health promotion and appropriate referral, and when oral health practitioners gain understanding of pregnancy-related needs, early detection and timely management of oral conditions are strengthened (Haber et al., 2019; Heilbrunn-Lang et al., 2015; Mohebbi et al., 2014). Interprofessional initiatives that incorporate shared learning,

coordinated protocols, and clear referral pathways have been shown to strengthen collaborative practice and enhance care across health settings (Shakhman et al., 2020).

In Aotearoa New Zealand, policy and strategic documents increasingly emphasise collaborative, culturally responsive models of care, and these priorities create opportunities for stronger connections between midwifery and oral health (Ministry of Health, 2024). However, implementation remains variable. *The Strategic Vision for Oral Health* (Ministry of Health, 2006) highlights that non-oral health practitioners, including midwives, are well placed for early identification and referral, and calls for partnerships between primary care, dental services, and community providers. The *Roadmap* launched by the New Zealand Dental Association highlights inter-disciplinary integration as an important strategy for advancing oral health equity, emphasising that stronger collaboration between dental, primary care and community health providers is essential for improving prevention, early intervention and culturally grounded care across the health system (New Zealand Dental Association, 2025). Interprofessional education at the undergraduate level is, therefore, a crucial foundation.

1.6 Auckland University of Technology (AUT)

AUT is one of New Zealand's youngest universities, having gained university status in 2000, and has since developed into a major tertiary institution known for its applied, practice-oriented approach to teaching and learning (Auckland University of Technology, n.d.-d). Each year, AUT enrols more than 27,000 students across its three campuses, representing a diverse domestic and international student population and reflecting the university's assurance to broadening participation and supporting learners from a wide range of circumstances (Auckland University of Technology, n.d.-c). Within the Faculty of Health and Environmental Sciences, AUT offers a range of undergraduate programmes that integrate academic study with extensive clinical and community-based experience. Two of these programmes are the Bachelor of Health Science (Oral Health) and the Bachelor of Health Science (Midwifery), both of which play an important role in preparing graduates for professional practice in Aotearoa New Zealand.

The Oral Health programme is a 3-year, 360-points programme, designed to educate OHTs through a combination of theoretical coursework as well as hands-on training in

the simulation clinic, “AUT’s oral health clinic (Niho Ora ki Manukau)”, followed by supervised clinical placements across diverse settings (Auckland University of Technology, 2025). The Oral Health programme is accredited by the Dental Council New Zealand (Auckland University of Technology, 2025). Students engage with a curriculum that emphasises oral health promotion, disease prevention, and clinical care across the lifespan, in accordance with the oral health therapy scope of practice. The programme is supported by a teaching team that includes academic lecturers, clinical educators, and dental specialists who contribute to both the academic and practical components of the degree (Auckland University of Technology, n.d.-b).

Similarly, the Midwifery programme is a 4-year, 480-points programme that has a strong emphasis on practice-based learning as students walk alongside pregnant women and people, and whānau during pregnancy, birth and 6 weeks into the postnatal period (Auckland University of Technology, 2025). The midwifery programme is accredited by the Midwifery Council of New Zealand. Students complete approximately 2,400 hours of supervised clinical experience in various settings, including primary and secondary hospitals, birthing units, and community midwifery practices, to develop the competencies required for registration as midwives (Auckland University of Technology, n.d.-a). The programme is delivered primarily at AUT’s South Campus and through regional hubs.

Both the midwifery and oral health programmes contribute to AUT’s health sciences portfolio and reflect the university’s broader mission to produce graduates who are prepared for professional practice and responsive to the needs of diverse communities (Auckland University of Technology, 2025). The teaching staff bring a range of clinical, academic, and research expertise to their teaching (Tokolahi et al., 2021).

1.7 Significance of the Study

This study is significant because it focuses on the potential for structured collaboration between the Midwifery and Oral Health Departments at the undergraduate level, with a particular emphasis on Cultural Safety and equity. By drawing on Midwifery and Oral Health educators' perspectives and using Appreciative Inquiry to find strengths and possibilities for collaborative teaching across the two programmes, this research generated evidence-informed insights, to support curriculum development,

interprofessional training, and policy implementation. In doing so, it aims to contribute to efforts to reduce oral health inequities in Aotearoa New Zealand and to enhance the capacity of future practitioners to provide holistic, whānau-centred care.

1.8 Research Question

The central research question guiding this study was: 'What is the potential for collaboration across undergraduate midwifery and oral health therapy programmes in relation to teaching and learning about oral health in pregnancy at AUT?'

The key objective of the research was to analyse, through focus groups with teaching staff from the Midwifery and Oral Health Departments, the potential to develop collaborative, strengths-based content and teaching on oral health in pregnancy across the undergraduate midwifery and oral health programmes.

1.9 Personal Relevance of the Research

As a mother of three and an overseas-trained dentist now practising as an OHT in Aotearoa New Zealand, my personal and professional experiences have deeply shaped my choice of the research topic. During two of my pregnancies, I endured severe toothaches that required root canal treatment, and my third pregnancy resulted in a preterm birth. These experiences heightened my awareness of the complex relationship between oral health and pregnancy outcomes. In my clinical practice, which dates back to my graduation as a dentist overseas in 2008, I have frequently listened to pregnant patients share stories of dental problems that became apparent during pregnancy, reinforcing the need for greater understanding and integration of oral health into maternal care. This dual lens, both as a mother and as a clinician, motivated me to explore oral health in pregnancy not only as a medical issue but also as a lived reality with significant implications for pregnant women and people's wellbeing.

I chose to focus my research on teaching staff in Midwifery and Oral Health Departments because they play a pivotal role in shaping future health care providers and, therefore, impacting health trajectories for extensive population groups. Their perspectives are crucial in understanding how oral health knowledge is taught,

integrated, and prioritised within maternal care education, and the directions that might take in the future.

1.10 Overview of the Thesis

This thesis is structured across seven chapters, each contributing to an exploration of how oral health and midwifery education might be brought into closer collaboration for the benefit of undergraduate students, pregnant women and people, and their whānau. Chapter One introduces the study, outlining the background and public health significance of oral health during pregnancy. Chapter Two reviews the literature relevant to the study, including oral health in pregnancy, midwifery and oral health education, and interprofessional education. Chapter Three describes the methodology, including the use of Appreciative Inquiry and focus group discussions with educators. Chapters Four and Five present the study's findings, highlighting existing strengths, shared aspirations, and opportunities for collaborative curriculum development. Chapter Six discusses these findings in relation to wider literature, interprofessional education, and national priorities for equity and culturally grounded care. It also highlights their significance for public health. Chapter Seven concludes the thesis by offering recommendations and outlining future-focused strategies for strengthening collaboration between midwifery and oral health education, with the aim of supporting more integrated, culturally safe, and equitable oral health care for pregnant women and people, and their whānau.

Chapter 2: Literature Review

This literature review serves as a foundation for the research study, which seeks to explore the perspectives of the midwifery and oral health teaching staff at AUT. The chapter draws upon grey literature and documents integral to the regulation of midwifery and oral health practice and education in Aotearoa New Zealand, as well as relevant research evidence.

2.1 The Importance of Oral Health in Pregnancy

Oral health in pregnancy is increasingly regarded as a critical aspect of overall wellbeing, with implications that extend beyond the individual to influence infant health and long-term developmental outcomes (Vamos et al., 2023). The connection between oral health, especially periodontal disease and adverse outcomes of pregnancy like PTB and LBW of babies has been traced in the scientific literature since the late 1990s (Dasanayake, 1998; Jeffcoat et al., 2001; Lopez et al., 2002; Offenbacher et al., 1996). Offenbacher and colleagues (1996) published a landmark study that sparked broader interest in the theory that oral infections could trigger systemic inflammation affecting pregnancy. Physiological changes associated with pregnancy, such as hormonal changes, can intensify existing gum problems and elevate the risk of conditions including gum inflammation, periodontal disease and tooth decay in pregnant women and people. When these issues are not engaged with at an early stage, they may place additional strain on the pregnancy and have been linked to complications such as PTB and LBW of the babies (Favero et al., 2021; Varsha et al., 2025). Evidence from a systematic review and meta-analysis also indicates that poor maternal oral health, especially periodontal disease, is linked to increased risks of pregnancy complications such as pre-eclampsia and gestational diabetes (Karimi et al., 2023).

Evidence regarding underlying biological pathways for such developments suggest that periodontal bacteria may enter the maternal bloodstream and stimulate an inflammatory response involving the release of inflammatory mediators, which can affect placental function, particularly its ability to transport nutrients and oxygen to the developing baby (Gürsoy & Graziani, 2017). When the placenta becomes less efficient, the baby may be at greater risk of complications such as PTB or LBW. These

processes indicate how maternal periodontal inflammation can interact with pregnancy physiology in ways that shape both maternal and infant health outcomes (Bobetsis et al., 2020; Gürsoy & Graziani, 2017; Tsikouras et al., 2024; Varsha et al., 2025). It has also been reported that elevated levels of hormones such as oestrogen and progesterone in pregnancy, intensify the inflammatory response to dental plaque, while vascular changes in gingival tissues contribute to swelling and bleeding (Soory, 2000; Wu et al., 2016). Additionally, immune modulation during pregnancy may reduce resistance to oral pathogens, and changes in salivary composition may contribute to caries development (Laine, 2002; Silk et al., 2008; Wu et al., 2015). Moreover, several oral health changes are commonly reported during pregnancy, including gum problems, halitosis, erosion of the teeth linked to pregnancy-related vomiting or severe acid reflux, tooth decay associated with reduced saliva flow and potential dietary cravings for carbohydrate-rich foods (Kumar et al., 2022). These patterns further highlight the importance of early intervention and the integration of preventive oral health strategies into prenatal care.

Petersen and Kwan (2011) emphasised oral health as a public health priority. The World Health Organization (2024) similarly frames oral health as a public health concern and explicitly advocates for a "public health approach to oral health" (p. 78). Oral health during pregnancy has likewise been positioned in the broader literature as a public health issue (Lee et al., 2024). Furthermore, support comes from the World Federation of Public Health Associations, whose website features the topic, indicating that maternal oral health is recognised within the public health community as a matter of concern (Lee et al., 2024).

A 2024 systematic review reported that maternal oral health education programmes delivered during pregnancy, can support positive oral health behaviours and contribute to reduced early childhood caries, particularly when programmes are tailored and initiated early in pregnancy (Saxena et al., 2024). Another systematic review found that educational tools used within oral health programmes for pregnant women and people can strengthen their oral hygiene practices and help prevent caries in their babies, supporting family-centred and preventive approaches to care (Von Helde et al., 2024). A Cochrane review update also showed that providing guidance on infant feeding and oral health practices to pregnant women and people, and new

mothers can help prevent the onset of early childhood caries, reinforcing the value of preventive, family-oriented interventions (Gomersall et al., 2024). Thus, these studies reinforce the view that oral health is a vital part of maternal and child health and that strengthening oral health within public health systems can advance equity and long-term wellness.

Currently, research has expanded to also focus on oral health-related quality of life in pregnancy (Fakheran et al., 2020), interprofessional care models such as antenatal-dental shared-care pathways and midwife-led oral health screening and referral models (George et al., 2018), and longitudinal cohort studies like the Lifetime Impact of Oral Health (LIORA) study, which investigates “the mother's oral health during pregnancy” and lifetime impact on maternal and infant outcomes (Zhao et al., 2022). The importance of prenatal oral health counselling, along with the contribution of trained community health workers in supporting effective oral hygiene practices, is emphasised in research where pregnant individuals reported mild to moderate oral health concerns that had a notable impact on their quality of life (Navya et al., 2025). Collectively, such studies underscore the importance of giving sustained and serious attention to oral health during pregnancy.

2.2 Oral Health Care in Pregnancy: Challenges and Interventions

Oral health care services clearly play an important role in supporting the oral health of pregnant women and other people. In one study, pregnant women were found to be far more likely to experience oral health problems than non-pregnant women, with 87.3 per cent presenting with dental caries compared with 12.7 percent in the control group, and 94.1 percent showing signs of gingivitis compared with only 5.6 percent among non-pregnant women (Rahman et al., 2013). These figures reflect the increased oral health needs that can accompany pregnancy and the importance of healthcare services working in this area.

Globally, however, analysis of World Health Survey data showed pronounced socio-economic inequalities in oral health care access, in which higher-income groups were far more likely to receive oral health care than poorer groups, inequalities that were most severe in low-income countries, underscoring the need for targeted strategies to ensure universal oral health care for the poorest populations

(Hosseinpoor et al., 2012). In an Iranian study, pregnant women reported that financial pressures, fears and misunderstandings about the safety of dental treatment during pregnancy, limited awareness of oral health importance, and challenges navigating available services restricted their access to oral health care, ultimately leading to lower utilisation of dental services during pregnancy (Bahramian et al., 2018). In the USA, only 46% of pregnant women are reported to have undergone dental hygiene procedures during pregnancy, and this was even lower for socially disadvantaged populations, underscoring a significant gap in preventive oral health care that the authors argue could be reduced through improved education, better integration of health facilities, expanded insurance cover, an appropriately distributed dental workforce, and strengthened research to guide policy and practice (American Public Health Association, 2020). Moreover, it was reported that many pregnant patients in North Carolina were unaware they were eligible for Medicaid-funded dental care during pregnancy, even though this coverage ends at delivery, and the authors suggested that health care staff could play a key role in encouraging oral health care-seeking behaviours by actively informing women about this temporary benefit (Jackson et al., 2015).

In Aotearoa New Zealand, Claas et al. (2011) found that many pregnant women and people in Wellington experienced limited access to oral health care, influenced by dynamics such as cost, uncertainty about eligibility for publicly funded services, and a lack of clear information about where and how to obtain dental care during pregnancy. The study highlighted that the pregnant women and people valued information from trusted health professionals and viewed midwives and other antenatal providers as well positioned to offer supportive, evidence-based oral health advice. Overall, Claas et al. (2011) emphasised that improving access to clear and consistent oral health information could help pregnant women and people feel more confident in seeking timely dental care services. In the context of access to health care services, Māori populations may face additional challenges such as limited access to culturally safe services, and historical mistrust of health care systems due to previous negative experiences and reports on racism in health services (Espiner et al., 2021).

Other commonly reported barriers in oral health care during pregnancy include pregnant women and people, having limited information about the need for dental

care and attending dental appointments while pregnant, holding misunderstandings about the safety of dental treatment during pregnancy, and not viewing the need to cater to oral health care during pregnancy as necessary (George et al., 2012; Kloetzel et al., 2011). Non-urgent dental procedures are often scheduled during the second trimester, due to longstanding concerns about potential teratogenic risks early in pregnancy and reduced maternal comfort later in gestation, which reinforces the need for oral health promotion efforts that strengthen the knowledge of pregnant women and people, and their health care practitioners regarding the importance of oral health (Boggess & Edelstein, 2006). Cost and time may also be factors impacting on access to oral health care during pregnancy (Frey-Furtado et al., 2025). Parents may be unable to visit the dentist if they do not have anyone to care for their child(ren) and young adults stated a busy lifestyle as a primary barrier to seeking oral health care (Laxer et al., 2022; Le et al., 2009).

Studies from different countries have consistently reported that oral health tends to be disregarded or deprioritised during pregnancy, by health care providers as well as pregnant individuals (Al Agili & Khalaf, 2023; Liu et al., 2019). In response to these patterns, Al Agili and Khalaf (2023) described several system-level interventions that can help strengthen collaboration between antenatal and dental services. They suggested that establishing and monitoring key indicators, such as antenatal referral to dental care, the development of an individualised dental care plan, and the provision of preventive services, including dental hygiene treatment, can create clearer and more supportive pathways for pregnant women and people. These coordinated approaches are positioned as opportunities to enhance shared practice, promote positive pregnancy experiences, and promote better oral health for mothers and their children.

According to Naseem et al. (2016), individuals may be less inclined to seek oral health care services because of prior negative dental experiences and perceived stigma. Research has also shown that some women hold long-standing beliefs that oral health challenges, even losing a tooth, are a normal aspect of pregnancy (Keirse & Plutzer, 2009). George et al. (2013) suggested that such beliefs may persist when pregnant women and people have limited access to clear, consistent information about oral health during pregnancy. They also note that maternity and oral health practitioners

work within complex systems in which guidance on perinatal oral health has historically varied, meaning pregnant women and people may receive mixed messages about when and how to seek oral health care. George et al. (2013) highlight that strengthening shared, evidence-based clinical guidance across disciplines would help ensure that pregnant women and people receive consistent, supportive messages that encourage timely engagement with oral health care.

A randomised controlled study applying a systematic model for oral health promotion targeting pregnant women demonstrated that a structured intervention delivered across all three trimesters can meaningfully enhance oral health outcomes (Hu et al., 2022). The model combined tailored oral health education, practical demonstrations of effective hygiene techniques, individual counselling, and follow-up support throughout pregnancy. Women who received the intervention showed an improvement in their oral health knowledge, greater confidence in daily oral hygiene, enhanced engagement with dental care, and measurable improvements in clinical parameters, for instance plaque levels and gingival health. These findings illustrate that a coordinated, trimester-spanning approach can positively impact both oral health behaviours and clinical outcomes during pregnancy (Hu et al., 2022).

International trials, such as the Midwifery Initiated Oral Health-Dental Service (MIOH-DS) protocol in Australia, demonstrated significant improvements in the knowledge related to oral health and service utilisation among pregnant women and people when midwives conducted basic oral screening and referrals (Johnson et al., 2015). The MIOH-DS randomised controlled trial equipped midwives with specific oral health education and assessment competencies. As the first clinical point of contact, midwives promoted oral health, triaged oral health risk, and facilitated access to dental services. Such interventions have been linked to reduced perinatal morbidity and enhanced maternal-infant oral health (Johnson et al., 2015). The program showed gains in knowledge, self-efficacy, and midwives' capacity to refer pregnant women and people with dental problems (George, Lang, et al., 2016).

Evidence from national workforce initiatives and clinical networks also underscores the importance of collaborative models that include OHTs in perinatal care pathways (New Zealand Dental Association, 2025). The Oral Health National Clinical Network, for

example, advocates for equity-driven, interdisciplinary approaches to oral health service delivery including workforce development strategies that foster culturally competent and community-embedded care (Te Whatu Ora, 2025). These initiatives reflect increasing awareness of the need to respond to persistent oral health inequities experienced by Māori, Pasifika, disabled, rural and low-income populations, groups that often face barriers to accessing oral health care services (Te Whatu Ora, 2025). Drawing on oral health education literature, Martin (2022) shows that oral health practitioners contribute to a professional environment characterised by strong collaboration and a clear commitment to public health. This foundation, supported by national legislation and international guidance, positions the oral health workforce well for interdisciplinary learning with other health professions such as midwifery.

From a strength-based perspective, OHTs and midwives bring a proactive, prevention-focused lens to oral health care in the period around pregnancy. The ability of oral and perinatal health care providers in delivering education, performing clinical assessments, and engaging in community outreach, positions them as key contributors to oral health promotion during pregnancy (Al Agili & Khalaf, 2023). However, Laniado et al. (2021) used a web-based survey to identify several prominent barriers to effective interprofessional collaboration, with clear implications for oral health care. The most frequently reported challenge was the absence of a formalised working relationship between medical and oral health practitioners, which limited opportunities to integrate oral health into broader care pathways. Respondents to the survey also indicated that competing clinical and organisational priorities made collaborative practice difficult to sustain, reducing the likelihood that oral health care would be incorporated into routine care. A further barrier was the lack of interoperable electronic health records, which restricted information sharing and continuity of oral health care across disciplines (Laniado et al., 2021).

2.3 The Role of Midwives and OHTs in Supporting Perinatal Oral Health

Given this context, both midwives and oral health practitioners have an important role to play in supporting oral health for people who are pregnant and in the perinatal period (Al Agili & Khalaf, 2023). In Aotearoa New Zealand, regulatory documents state the scope of both Midwives and Oral Health Practitioners, and both professions are

regulated under the Health Practitioners Competence Assurance Act (HPCAA) 2003 (Dental Council New Zealand, 2021b; Midwifery Council New Zealand, 2026).

In Aotearoa New Zealand, the *Midwifery Scope of Practice* (2026) states that midwives are health practitioners who "provide whānau-centred care for wāhine | women and gender diverse people, who are preparing for pregnancy, are pregnant, birthing, and postpartum, and for their pēpi | baby, up to six weeks" (Point 1). They are to provide "care that promotes health and wellbeing" (Point 4), as well as care that "identifies and responds to complications" (Point 6). Their scope of practice also states that "Fundamental to a kahu pōkai | midwife's expertise and knowledge is the understanding, promotion, and facilitation of the physiological processes of pregnancy, birth, and the postpartum period that support health and wellbeing" (Point 9). In this context, much of the role of midwives with regard to oral health involves them advising childbearing people, from pre-pregnancy to six weeks postnatally, on how to support their oral health given such physiological changes, and being alert to potential complications and relevant service provisions.

In the New Zealand College of Midwives (NZCOM) oral health consensus statement guidelines (2019), "women are encouraged" to engage in "self health oral cares prior to and during pregnancy" (p. 1). The ideal time of providing treatment during pregnancy, i.e. between 14-21 weeks, is stated in the guidelines. Also emphasised are dental caries prevention strategies for the infant after birth like "promoting breastfeeding as the sole dental caries preventative way to nurture babies" and "discouraging the use of sugary substances in bottles or sipper cups" (p. 1). Midwives are recommended to "inform women that the bacteria that cause dental decay are transferred to babies by saliva sharing activities like spoon sharing, and pre-masticating foods fed to baby" (p. 1). According to the document, midwives are well positioned to promote oral health as part of holistic perinatal care. The proximity midwives have to pregnant individuals and their whānau enables them to bring oral health promotion into regular antenatal services.

Midwives are also recommended, in the NZCOM oral health consensus statement guidelines (2019), to encourage pregnant women "to have regular dental examinations, and to follow through with the necessary treatments" (p.1). This reflects

the profession's commitment to addressing oral health as an aspect of overall maternal wellbeing and public health. Additionally, the consensus statement dispels common misconceptions about dental care in pregnancy, stating that "pregnancy in itself is not a reason to defer routine dental care" (p.1). This clarification potentially supports midwives to confidently refer pregnant individuals to dental services when needed, countering outdated beliefs that may otherwise delay essential care.

The *Midwifery Scope of Practice* highlights midwives' role in addressing inequities and improving outcomes for all whānau, including through culturally safe and accessible care (Midwifery Council of New Zealand, 2026). This scope aligns with commitments to oral health promotion as part of a broader movement towards equity and culturally responsive maternity care. Further detail is provided to midwives in the *Standards of Competence for Kahu Pōkai|Midwives* (2025). A section describing Te Iho (which indicates, in the Māori language, the umbilical cord), mentions the interprofessional interactive role of midwives. The statement refers to the midwife practicing competently when she "T4: participates as an effective member of the wider professional team and values the importance of relationships with other professionals to advocate for whānau and midwifery practice to enable timely, high-quality care." (Midwifery Council of New Zealand, 2025, p. 9).

The role of OHTs with regard to perinatal oral health is different to that of midwives. According to the document *Oral Health Therapist Competencies* (Dental Council New Zealand, 2021b), the scope of practice includes the following statements:

> Preventive care: 6.17: Promote periodontal health by providing patients with preventive advice (including smoking cessation) and removal of supra-and subgingival hard and soft deposits from natural teeth and implants...6.19: Recommend or supply non-prescription preventive agents...Periodontal management: 6.21: Manage conditions and diseases of the periodontium and perform appropriate periodontal therapy where indicated (Dental Council New Zealand, 2021b, p.15).

These core activities position OHTs to strengthen oral health as an integral part of general wellbeing. Their preventive and therapeutic focus is particularly relevant during pregnancy, a period where hormonal changes and increased susceptibility to

gingivitis, periodontal disease and caries are well documented (New Zealand Dental Association, n.d.).

OHTs are trained to deliver culturally responsive care, and their practice frequently extends into community and whānau centred settings. This orientation enables them to engage effectively with diverse populations, including groups historically underserved by the health system (Dental Council New Zealand 2021b). As stated in the *Oral Health Therapist Competencies* document, OHT's are expected to "Design, implement and evaluate the outcomes of community oral health promotion projects in response to the oral health needs of specific communities, and engage with whānau or family, hapū and iwi" (Dental Council New Zealand, 2021b, p. 19)

The *Oral Health Therapist Competencies* emphasise collaborative and culturally grounded practice. As stated, "2.5: Communicate openly and respectfully with colleagues, other members of the oral health team, other health professionals, other hauora providers and social organisations" (Dental Council New Zealand, 2021b, p.7). The document also highlights the importance of cultural understanding. As stated, OHTs are expected to "3.5: Understand that a patient's cultural beliefs, values and practices influence their perceptions of health, illness and disease; their health care practices; their interactions with health professionals and the health care system; and treatment preferences" (Dental Council New Zealand, 2021b, p.8) and promote "oral health in the whānau or family, hapū, iwi and community." (Dental Council New Zealand, 2021b, p.17).

Clinical judgement and safe practice are further reinforced through the expectation that OHTs recognise the limits of their scope by "6.11: Determining whether they have the knowledge, skills and competence to provide for the patient's complete health needs and wishes and refer appropriately to another oral health or health practitioner when they do not." (Dental Council New Zealand, 2021b, p.14). These competencies align well with interprofessional models of care in pregnancy, where timely referral and shared decision-making support positive outcomes for the pregnant women and people, and infants.

2.4 Pre-Registration Education for Midwives and OHTs: Considering Some Potentials

Despite the potential for midwives to take part in screening and improving maternal oral health during the prenatal period, this capability is not being fully utilised, and health professionals including oral health practitioners, can be hesitant to address oral health concerns in pregnancy (George et al., 2010).

In Aotearoa New Zealand, pre-registration midwifery education programmes are approved by the Te Tatau o te Whare Kahu/Midwifery Council (Midwifery Council New Zealand, 2024a). The Midwifery curricula must demonstrate strong foundations in Cultural Safety, partnership, and clinical sciences (Midwifery Council New Zealand, 2024a), thereby offering a platform for the inclusion of structured oral health content and partnership with oral health therapy lecturers. The *Standards Framework for Oral Health Practitioners* in Aotearoa New Zealand, set by the Dental Council of New Zealand (n.d.) is the regulatory foundation that defines what oral health practitioners, including OHTs must know, do, and demonstrate in order to practise safely and professionally. The oral health therapy programmes, while emphasising prevention of oral health challenges and community engagement, do not always include formal modules addressing the oral health needs of pregnant individuals or collaborative teaching with midwifery educators (Dental Council New Zealand, 2021a). A longstanding separation between disciplines highlights an opportunity for collaborative educational opportunities.

Literature shows that undergraduate education for midwives on perinatal oral health is an area that requires focused attention (Al Agili & Khalaf, 2023). While there is substantial literature advocating for the integration of oral health into midwifery education (George, Dahlen, et al., 2016; George, Johnson, Blinkhorn, Ajwani, Ellis, et al., 2013; George, Lang, et al., 2016), there is a notable gap regarding the reverse which is the contribution of midwives to undergraduate oral health education for dental or oral health students. Although there is growing interest in interprofessional education, there is no published research examining how midwifery expertise might enrich oral health curricula or how oral health educators draw on midwifery knowledge when teaching about pregnancy and maternal oral health. This gap

presents an opportunity for future inquiry into how midwives' knowledge of maternal health, communication, and culturally safe care could inform and strengthen oral health education.

As it has been reported that Māori and Pasifika communities face disproportionately elevated rates of oral disease and encounter structural challenges in accessing dental care during pregnancy (Broughton, 2010), such inequities also inform the need for inclusive curriculum design that reflects the lived realities of diverse populations and prepares graduates to deliver culturally safe care. Evidence indicates that strength-based methodologies such as Appreciative Inquiry, provide a constructive way to identify and build on existing assets within health care organisations, supporting a shift away from problem-focused thinking toward a more supportive, blame-free environment (Trajkovski et al., 2013). When applied to education, such an approach is intended to encourage programmes to recognise and expand the capabilities already present within learners and teaching teams, fostering curricula that emphasise collaboration, reflective practice, and the development of positive professional identities (Sandars & Murdoch-Eaton, 2017).

2.4.1 Pre-Registration Midwifery Education in Aotearoa New Zealand: Regulatory Framework

As noted above, midwifery education in Aotearoa New Zealand is governed by a comprehensive regulatory framework established by the Midwifery Council under the Health Practitioners Competence Assurance Act 2003. The Midwifery Council sets professional and educational standards that ensure graduates are able to deliver "effective and safe midwifery care" (Midwifery Council of New Zealand, 2024a, p. 4). These pre-registration standards are anchored in key documents, including the *Midwifery Scope of Practice* (Midwifery Council New Zealand, 2026), *Standards of Competence for Midwives (Midwifery Council New Zealand, 2024b)*, the *Code of Conduct* (Midwifery Council New Zealand, 2021a), the *Statement on Cultural Competence for Midwives* (Midwifery Council New Zealand, 2021b) and NZCOM's (n.d.) *Midwifery Philosophy and Code of Ethics* (Midwifery Council New Zealand, 2024a, p.13). Collectively, these frameworks reflect the profession's commitment to "promote woman-centred care, holistic and integrated assessment, respectful care, evidence-informed care, professional autonomy, accountability, self-responsibility,

professional collaboration, referral if required, ethical and legal care, contextual understanding, quality care and reflective practice" (Midwifery Council New Zealand, 2024a, p. 20).

Pre-registration programmes must comprise "a minimum of 1920 theory hours" and is designed to foster "self-responsibility, critical inquiry, autonomy, accountability, collaboration, integration, quality care, contextual understanding and life-long learning" (Midwifery Council New Zealand, 2024a, pp. 16-17). They span professional and cultural knowledge, clinical sciences, interpersonal communication, and regulatory accountability, with a strong emphasis on Te Tiriti o Waitangi and Māori health care. Incorporated clinical sciences include anatomy, physiology, pathophysiology, and pharmacology, with emphasis on normal pregnancy, labour, birth, and postnatal processes, as well as maternal emergencies and neonatal care (Midwifery Council New Zealand, 2024a). The *Standards for approval of pre-registration midwifery education programmes and accreditation of tertiary education organisations* (Midwifery Council of New Zealand, 2024a) explicitly state that midwifery students "need direct involvement with women and babies to learn how to plan, provide and assess the need for, and extent of, midwifery care on the basis of their acquired knowledge and skills" (Midwifery Council New Zealand, 2024a, p.20). This mandate aligns directly with the potential to include oral health promotion, as the pregnancy period is considered critical for addressing oral-systemic health risks. It is required that preventive and health-promoting strategies such as pre-conceptual care, nutrition, and infant feeding support are embedded throughout the curriculum (Midwifery Council New Zealand, 2024a). Oral health remains notably absent as a specifically stated and required component, although that does not mean it is excluded from specific undergraduate midwifery curricula.

Interprofessional collaboration is another key expectation. Performance criteria 2.3 in the *Standards for approval of pre-registration midwifery education programmes* (Midwifery Council New Zealand, 2024a) states that the midwife "assesses the health and well-being of the woman/wāhine and her baby/tamaiti throughout pregnancy, recognising any condition which necessitates consultation with, or referral to, another midwife, medical practitioner or other health professional" (Midwifery Council New Zealand, 2024a, p. 5). The document further states that midwifery students are

“expected to be able to identify the need for referral to another health practitioner/service and to initiate the referral process” (Midwifery Council New Zealand, 2024a, p.20). These competencies align with midwives' potential to consider oral health status, recognise periodontal health concerns, and refer pregnant women and people to oral health practitioners as needed. The document also notes that “Educational providers are encouraged to explore opportunities for collaboration and sharing of resources in programme development and delivery in order to ensure consistent standards, improve financial viability of programmes and improve access for potential students” (Midwifery Council New Zealand, 2024a, p.36). Although there is potential on the basis of this for partnerships with oral health practitioners and educators, this is not explicitly stated in the documentation.

2.4.2 Pre-Registration Oral Health Therapy Education in Aotearoa New Zealand: Regulatory Framework

The New Zealand Accreditation Standards for Oral Health Practitioner Programmes, governed by the Dental Council under the Health Practitioners Competence Assurance Act 2003, are integral to ensuring that graduates are competent, safe, and culturally responsive practitioners who meet national registration and practice requirements (Dental Council New Zealand, 2021a). The document outlines how programmes designed to educate students to become OHTs (as well as other Oral Health Practitioners) are to be structured to ensure graduates are competent for practice. At the end of the programme, OHTs are to meet the *Oral Health Therapy Competencies* (Dental Council New Zealand, 2021b). The *Accreditation Standards for Oral Health Practitioner Programmes* document (Dental Council New Zealand, 2021a) requires that students “work with and learn from and about relevant dental and health professions to foster interprofessional collaborative practice” (Dental Council New Zealand, 2021a, p.6). It also requires that “teaching staff are suitably qualified and experienced to deliver their educational responsibilities” (Dental Council New Zealand, 2021a, p.6).

Cultural competence is to be embedded throughout the educational journey. The *Oral Health Therapist Competencies* (Dental Council New Zealand, 2021b), which are to be achieved at the end of the undergraduate educational journey, emphasise that the OHTs are to “6.15: Educate patients across the life course sharing current concepts of hauora Māori, oral health prevention, risk assessment and management of oral

disease." (Dental Council New Zealand, 2021b, p.14). Pregnancy is not explicitly stated it is, however, therefore implied. Furthermore, OHTs are expected to "6.34: Establish, manage, and maintain a safe working environment for patients, staff and colleagues; and to protect the public. This includes a culturally safe workplace, the routine and proper use of infection prevention and control measures and following safe radiation practices" and "6.40: Understand the value of interdisciplinary practice in providing patient-centred care and work collaboratively with oral health and other health practitioners for enhanced patient outcomes" (Dental Council New Zealand, 2021b, p.17). The *Oral Health Therapist Competencies* document also emphasises that OHT's are supposed to "7.10: Work with other health professionals, educational staff, whānau or family, hapū, iwi and health navigators to promote oral health" (Dental Council New Zealand, 2021b, p. 19).

Overall, these standards and competencies formalise distinct differences between the work and educational programmes of midwives and OHTs. However, their shared emphasis on cultural competence, interprofessional learning, and public safety offers a natural platform for integrated teaching on oral health in pregnancy.

2.5 Oral Health and Midwifery Educational Initiatives: Evidence and Best Practice

A study in this regard in France showed that 95% of the midwifery students acknowledged a clear appreciation of the role oral health plays in pregnancy, with most recognising its importance and many already identifying biological pathways that link periodontal disease to adverse outcomes, including bacterial spread and inflammatory responses (Vasileiou et al., 2026). The findings also point to meaningful opportunities to extend this developing knowledge, as the midwifery students reported that teaching on periodontal disease was brief, with a substantial proportion receiving only minimal two-hours of instruction. Even so, the midwifery students demonstrated a strong willingness to grow their capabilities, with most acknowledging the value of dental care during pregnancy, almost all aware that dental consultation is possible, and many expressing interest in further training. The findings of this French study depict a midwifery student cohort with positive attitudes and considerable potential to enhance the integration of oral health within midwifery practice when

supported by enhanced education and richer clinical learning experiences (Vasileiou et al., 2026).

Contrary to the intervention among midwifery students in France, which indicated that a two-hour session is insufficient, a different finding emerged in Iran (Faghihian et al., 2023). The benefit of a single educational session among midwives and antenatal care providers in Iran was proven. The authors said that by implementing a single educational session, carefully assessing and designing the needs, they can demonstrate moderate to substantial gains in the oral health related understanding of midwives and pregnancy care providers (Faghihian et al., 2023). Another survey exploring midwives' knowledge and attitudes toward oral health in France highlighted opportunities to further strengthen their oral health knowledge base, particularly in areas that support confident information-sharing with pregnant women (Bossouf et al., 2023). Midwives identified digital communication as a preferred approach for enhancing learning within their professional community, while valuing in-person engagement for public interventions. They also expressed a strong commitment to supporting expectant mothers at higher risk of oral disease and noted that additional training would further enable them to engage in meaningful oral health conversations during pregnancy (Bossouf et al., 2023).

In Australia, midwifery educational standards have increasingly adopted interprofessional approaches, recognising oral health as a domain of concern and advocating for collaboration between midwives, obstetricians, and oral health practitioners (Heilbrunn-Lang et al., 2015). Although the long-term effectiveness of the MIOH-DS in Australia had no significant impact on maternal knowledge and attitudes, the overall impact showed a protective effect against dental caries for the children (George et al., 2023). This intervention underscored the importance of exploring complementary approaches that can further enhance maternal oral health, particularly for families experiencing social or economic disadvantage. This intervention also suggested the need for codesigning a pregnancy and postnatal oral health initiative and assessing its sustained effects on children's oral health outcomes (George et al., 2023). Recent consensus-building work using a Delphi method has produced a perinatal oral health skills framework, demonstrating agreement among international experts on the importance of prevention-focused care, participation in

coordinated care planning, and supporting pregnant individuals' rights and informed decision-making (Tenenbaum et al., 2024). Similar frameworks are observed in Canada and in Australia, where midwifery programmes are embedding oral health competencies, including oral assessment, counselling, and referral (Canadian Midwifery Regulatory Council, 2020; George et al., 2020).

Various randomized controlled trials and quasi-experimental studies published in the last decade have shown that targeted educational interventions, whether in-person or online, can significantly enhance midwives' understanding and confidence in oral health assessment and counselling (George et al., 2023; Hewitt et al., 2024; Mohebbi et al., 2014; Seyedzadeh Sabounchi et al., 2019). In the study conducted by Seyedzadeh Sabounchi et al. (2019), lecture-based and interactive modules with student midwives produced gains in knowledge and attitudinal shifts that were retained up to several months post-intervention. The COVID-19 pandemic accelerated innovation in health-professional education (Pandey & Pal, 2020), with oral-health programmes rapidly adopting web-based modules and virtual case simulations (Ghai, 2020; Iyer et al., 2020). Midwifery education experienced similar disruption and rapid digital adaptation, with global reports describing shifts to online teaching, remote supervision, and reconfigured clinical learning (Lazenby et al., 2020; Luyben et al., 2020). High enrolment and completion rates demonstrate the potential of digital platforms to bridge geographical and resource gaps, especially in countries like Aotearoa New Zealand (Yashiro et al., 2022). These tools offer scalable, flexible solutions for expanding access to interdisciplinary education and lifelong learning (Thapa, 2024; Wakelin et al., 2025).

The NZCOM (2019) consensus document implies that oral health should be embedded as a core component of midwifery education. It is seen to be essential to equip future practitioners with the knowledge and skills to support perinatal oral health (Wilson et al., 2022). This includes comprehensive coverage of oral anatomy, risk factors, disease prevention, health promotion, and referral protocols (Wilson et al., 2022). Experiential learning and hands-on skill acquisition should be prioritised to build confidence in assessing and discussing oral health in pregnancy. Similarly, there is a strong argument for oral health curricula to incorporate training in order to prepare dental professionals for collaborative roles in maternal health (Wilson et al., 2022). Literature

has highlighted the need for investment in faculty development and interprofessional teaching capacity, paving the way for sustainable curricular reform (Shakhman et al., 2020). Joint educational initiatives such as shared clinical placements, case-based simulations, and interdisciplinary workshops are understood to promote mutual understanding and strengthen integrated care delivery (Haber et al., 2019).

A substantial body of scholarship recognises curriculum design as a key mechanism for honouring the cultural and socioeconomic diversity of learners and the communities they serve. Brottman et al. (2020) highlighted through their scoping review that initiatives aiming to embed this diversity within curricula are most effective when educators are well supported and equipped to teach in culturally responsive ways. This perspective reinforces the value of integrating culturally safe, community-informed approaches that reflect the strengths and priorities of Indigenous, rural, and marginalised populations. Nicholson et al. (2016) further illustrate this direction in their survey of dental institutions in Australia and Aotearoa New Zealand, showing that many programmes are actively embedding cultural competence education and Indigenous health content as part of their broader commitment to preparing graduates for culturally safe practice.

Literature has highlighted the importance of ongoing evaluation in ensuring the effectiveness and relevance of integrated curricula (George et al., 2023; Mays, 2021; Yael Lang et al., 2025). Such mechanisms are understood to allow for responsive adaptation to emerging scientific evidence, evolving health policy priorities, and community needs, ensuring that educational content remains current and impactful (Antonacci et al., 2023; Bestwick et al., 2023). Wilson et al. (2025) explored antenatal providers' experiences with oral health guidelines and had proposed several strategies that may enhance the effectiveness of educational efforts. These include improving the promotion and dissemination of relevant guidelines, expanding opportunities for professional education and training, and developing models of care that position oral health as a shared interprofessional responsibility. Addressing institutional and policy-level barriers such as curriculum crowding, limited faculty expertise, financial constraints and historical schism are also documented as useful for embedding oral health education into other curricula (Hein & Kilsdonk, 2019). There is evidence that facilitators such as leadership support, stakeholder engagement, and resource

allocation may be integral to ensuring long-term success (Heilbrunn-Lang et al., 2015; Mayberry et al., 2020).

2.6 Summary and Gaps in the Literature: Why This Study is Needed?

The integration of oral health into midwifery education is a rapidly evolving area of interest, particularly in high-income countries such as Aotearoa New Zealand, Australia, and the United Kingdom. There are various examples of curriculum innovation and interprofessional collaboration aimed at addressing the oral health needs of pregnant individuals and their families. Initiatives such as Australia's MIOH-DS have demonstrated promising short-term outcomes, including increased midwives' knowledge, confidence, and preventive oral-health behaviours (George, Lang, et al., 2016; Johnson et al., 2015). Broader evidence highlights persistent gaps in maternal oral health literacy (Pasiga et al., 2021) and growing interest in digital platforms for oral health education (Thapa, 2024), underscoring the importance of including oral health content within midwifery education. Despite these advances, the literature reveals gaps in translating educational gains into ongoing clinical practice contexts.

At the same time, evidence from broader oral-health education research demonstrates that well-designed interventions can produce measurable improvements in oral-health outcomes, as shown in a recent school-based randomised controlled trial (Taheri et al., 2025). Much of the existing research focuses on student knowledge and short-term behavioural change, with limited exploration of long-term impact. Furthermore, challenges such as curriculum crowding, lack of dedicated oral health educators, and insufficient collaboration between midwifery and dental departments are apparent (Harnagea et al., 2017; Hein & Kilsdonk, 2019; Liu et al., 2019). This study addresses such gaps by exploring the potential for collaboration in undergraduate teaching and learning between midwifery and oral health programmes, specifically from the perspective of teaching staff at a tertiary educational institution in Aotearoa New Zealand. By capturing the views of educators across the two disciplines, it aims to generate insights that support curriculum development and promote sustainable interprofessional education. This research aims to contribute to a body of evidence that positions teaching staff collaboration as a driver of collaborative, equitable, and patient-centred care in the perinatal period.

Chapter 3: Methodology

3.1 Introduction to the Methodology

This study aimed to explore how collaboration between midwifery and oral health education at AUT can be strengthened to better support the oral health care of pregnant women and people. A qualitative research design was employed, using focus groups, to address the research question: “What is the potential for collaboration across undergraduate midwifery and oral health therapy programmes in relation to teaching and learning about oral health in pregnancy at AUT?” The methodology, Appreciative Inquiry, was specifically chosen as it is a strength-based approach suitable for investigating the potential for, and supporting, change in human systems (Norum, 2008). This chapter gives an overview of the research design.

3.2 Appreciative Inquiry

Appreciative Inquiry focuses on amplifying what is working well within a system rather than identifying problems to be solved. Developed by David Cooperrider and colleagues (1987), and further advanced through the work of Diana Whitney and Jacqueline Stavros (2008), Appreciative Inquiry emphasises collaborative visioning and positive organisational change. Appreciative Inquiry focuses on what is already working in a system and uses those strengths as the basis for collaboratively designing improvements (Cooperrider et al., 2008; Norum, 2008; Whitney & Trosten-Bloom, 2010). Appreciative Inquiry is most effective when there is a desire to create positive change, foster a participatory process, initiate cultural transformation, or develop strategic plans (Brailas, 2025). Grounded in social constructionism, Appreciative Inquiry posits that reality is not static but is created with the help of social interactions and shared meanings. Within this framework, concepts like "right" or "wrong" are not absolute but are shaped by context and perspective (Brailas, 2025).

The widely used 4D model (*Discover, Dream, Design, Destiny*) of Appreciative Inquiry provides a structured framework for identifying strengths and co-creating future possibilities (Cooperrider & Whitney, 2005; Cooperrider, Whitney, & Stavros, 2008). In this study, the Appreciative Inquiry process followed the 5D framework, which includes the additional *Define* phase, and was used to guide data collection. The *Define*

phase emerged through the continued development of Appreciative Inquiry by Cooperrider and team to clarify the affirmative topic of inquiry at the outset of a project, ensuring shared understanding and alignment among stakeholders (Stavros et al., 2015; Whitney & Trosten-Bloom, 2010).

In qualitative research, Appreciative Inquiry is often operationalised through focus groups or interviews (Carter et al., 2007; Trajkovski et al., 2013). Unlike rigidly structured surveys, Appreciative Inquiry-informed questions are flexible prompts, that invite dialogue and allow for emergent themes (Nel & Govender, 2019). Language plays a critical role in shaping meaning; thus, the phrasing used during interviews should aim to build shared positive narratives rather than reinforce problems or deficits (Brailas, 2025). In health care settings, an Appreciative Inquiry approach can help cultivate more seamless knowledge-to-action processes through supporting health care practitioners to collaboratively generate knowledge and refine practice (Hung et al., 2018).

In this study, focus group discussions with educators in the Midwifery and Oral Health Departments at AUT were carried out, using Appreciative Inquiry. The focus group questions were conceptualised and developed by the student researcher, with supervisory support, to ensure alignment with the Appreciative Inquiry 5D framework. The focus group questions were intentionally structured to reflect Appreciative Inquiry's strengths-based and future-focused orientation (Whitney & Trosten-Bloom, 2010) and to address the study's aim of exploring collaborative ways of integrating oral health in pregnancy into undergraduate midwifery and oral health education.

3.2.1 Appreciative Inquiry 5D Framework

The full list of focus group questions, which served as a guide to facilitate the discussion, is provided in Appendix E.

Define phase

The *Define* phase in Appreciative Inquiry usually clarifies the purpose of the inquiry and establishes a shared focus. In this study, this phase began during the early planning of the project when the purpose of the research and focus on integrating oral health and midwifery education were shaped. Such information was included on

the Participant Information Sheet (included as: Appendix D). At the beginning of the focus groups, I also repeated information about the project, provided opportunity for participants to ask questions and shared why the topic was meaningful in their teaching contexts. This helped to further define the parameters of the study within the focus group context. The phase concluded with an overarching question that invited participants to describe what successful integration of oral health and midwifery education looked like to them.

Discover phase

The *Discover* phase of Appreciative Inquiry typically identifies existing strengths to build upon. In this study, participants in the focus group were invited to reflect on strengths within the Bachelor of Midwifery and the Bachelor of Health Science (Oral Health) programmes at AUT. They discussed curriculum content, effective teaching strategies, assessments, interprofessional activities, and positive examples from practice. These reflections highlighted areas of capability already present within each programme.

Dream phase

The *Dream* phase of Appreciative Inquiry encourages participants to imagine an ideal future. In the focus groups, participants were invited to describe what an ideal integrated system of oral health and midwifery education might look like and how students might feel more confident and better equipped in such a system. They also considered inclusive practices that would support Māori, Pacific, and other populations in learning and teaching.

Design phase

The *Design* phase focused on shaping practical ideas for moving toward the envisioned future. Participants discussed teaching methods, tools, and interprofessional opportunities that could support integrated learning. They also identified approaches that would promote Cultural Safety and strengthen collaboration between programmes.

Destiny/Deliver phase

Although Appreciative Inquiry includes a *Destiny/Delivery* phase where change is enacted, this study was not designed to implement changes beyond the focus groups.

The *Destiny/Delivery* phase was therefore explored conceptually, and participants identified actions, resources, partnerships, and conditions that could support future implementation and help maintain momentum. Their insights offered a foundation for potential next steps once the study concluded.

3.3 Study Population and Setting

The study population comprised teaching staff from the Oral Health and Midwifery Departments within AUT's School of Acute and Primary Health. A purposive sampling method was used in this study to recruit teaching staff members of both departments. In purposive sampling, researchers identify participants who can meaningfully contribute to the inquiry because they have key characteristics or experiences relevant to the study (Stratton, 2024). This is the common method of sampling used in the Appreciative Inquiry approach (Sturm et al., 2020). Following the approval of the Heads of Department (included as: Appendix B for the Permission to Access forms and Appendix D for the Information Sheet given to the respective departments), all teaching staff from both departments were invited to participate via a school administrator, who emailed them with details of the study. The Participant Information Sheet (included as: Appendix D) that potential participants were sent, emphasised the voluntary nature of the study and provided details of the student researcher whom they could contact for further information. Access to curriculum information, obtained from the Heads of the Departments, informed the development of the questions in the *Discover* phase of the Appreciative Inquiry process.

3.4 Focus Groups

In this research, data were collected through two focus groups. Focus groups were well suited to this study because they facilitated interactive discussion and collective meaning-making. Akyıldız and Ahmed (2021) described focus groups as a socially oriented environment in which participants communicate and share experiences that deepen understanding. Chand (2025) also noted that focus groups encourage participants to clarify their thinking and respond to others' ideas, which aligns well with the Appreciative Inquiry process. This interactive setting supported participants in drawing on the strengths of their professional backgrounds as they reflected on opportunities for partnership and envisioned ways to enhance teaching and learning

for undergraduate students. Although focus groups offer many strengths, they required careful facilitation to ensure balanced participation. Potential challenges such as dominant voices, group conformity, and social desirability bias are well documented in qualitative research (Hennink, 2013; Wong, 2008). These were managed in the focus groups for this study through setting clear expectations at the beginning for respectful dialogue, active facilitation, and encouragement of contributions from all participants. These strategies were aimed at supporting an environment where diverse viewpoints could be shared confidently and constructively.

3.5 Data Collection Methods

The two focus groups were facilitated by me using discussion prompts and questions (included as: Appendix E). Each lasted approximately 90 minutes and was recorded for transcription and analysis purposes. Across the two sessions, there were 12 attendees in total. This involved 11 unique educators (four Oral Health and seven Midwifery), and one oral health educator attended both focus groups, keen to contribute additional insights. The focus groups were held across two AUT campuses because the Midwifery and Oral Health Departments are located at their respective campuses. A hybrid format was used to maximise participation and enable Midwifery and Oral Health educators from different campuses to attend the same focus group and discuss together.

At the start of each focus groups, attendees were reminded of the research's purpose and background. Participants were invited to ask any questions they had about the study, and it was reiterated that participation was entirely voluntary and that they were welcome to pass on any questions they did not wish to answer. Those who had not already returned the consent form (included as: Appendix C) completed the consent process and confirmed that they had read the Participant Information Sheet. Each focus group was opened with karakia. I introduced myself at the start of the session and invited each participant to offer their own introduction. This approach aimed to set the scene for a culturally safe environment that encouraged respectful conversations, helped participants feel comfortable to share their perspectives openly, and reassured them that there were no right or wrong answers. PowerPoint slides were used as prompts for questions under each of the 5D’s.

The focus group discussions were structured using the Appreciative Inquiry 5D framework, which supported a strengths-based exploration of how oral health and midwifery education intersect during pregnancy. Each phase of the 5Ds included guiding questions designed to elicit participants' experiences, aspirations, and ideas for collaborative curriculum development (included as: Appendix E) for the focus group discussion guide. Towards the end of the focus group discussions, the participants were asked whether they had any final thoughts or reflections and whether they would be interested in attending a session to present the findings. The focus group discussions were ended with a closing karakia. This was followed by refreshments. Both the recordings and transcripts were accessible only to myself, as the primary student researcher, with support from the IT services at AUT, and were securely stored in accordance with AUT policy.

3.5.1 Confidentiality

Confidentiality was maintained in this research in accordance with AUT Ethics Committee guidelines and as included in the Participant Information Sheet (attached as: Appendix D). Although some participants chose to share their ethnicity during the focus groups, this information was omitted from the thesis to protect their identities. Potential confidentiality risks were minimised through reiteration, at the beginning of each focus group, of respect for all participants including the anticipation that participants would not share contributions made in the focus group outside of that context, and through careful handling of all data.

3.5.2 Cultural Considerations

The focus groups included participants from a range of cultural backgrounds, reflecting the diversity of teaching staff and supporting multiple perspectives. The cultural foundations of the study were guided by Te Tiriti o Waitangi and Vision Mātauranga (Archives New Zealand, 2024; Māngai, 2020). Te Tiriti o Waitangi informed the research's ethical, relational, and governance responsibilities, with attention to the intent and obligations expressed in its Articles. Article 1 emphasises the need for "equitable participation" (Came et al., 2021), which guided the study to ensure that Māori and non-Māori voices were welcomed and valued. Article 2 supports the "protection of Māori knowledge, relationships and cultural practices", which informed respectful handling of participant contributions and recognition of the importance of

"key concepts such as manaakitanga (care and hospitality)" and "pono (acting with integrity)" within the focus group context, the importance of such commitments being highlighted by Came et al (2021). Article 3 acknowledges the influence of "historic, cultural and social structures on health" (Came et al., 2021), aligning with the study's intention to strengthen collaboration among teaching staff for the benefit of undergraduate students, pregnant women and people, and their communities. Article 4 affirms the importance of "wairua (spiritual wellbeing) and spiritual practices" (Came et al., 2021), which was upheld through the inclusion of culturally grounded elements such as karakia (prayer) and the acknowledgement of diverse worldviews in the focus groups. Vision Mātauranga further emphasises the significance of Māori knowledge, innovation and wellbeing (Māngai, 2020), encouraging culturally responsive engagement and recognising the potential for interprofessional collaboration to improve outcomes for whānau and communities. Alongside these commitments, I was also mindful of my own positioning, as I discuss below. Participants were provided with a clear explanation of my background and experience at the beginning of the focus groups, supporting transparency and informed and meaningful participation.

3.5.3 Researcher Positioning/Reflexivity

I am an OHT working in a private dental clinic. I regularly engage with people from varied cultural groups and acknowledge the limits of my own cultural knowledge. I also recognise my South Indian Catholic heritage, which emphasises compassion, service to humanity, and honesty, and this shaped my approach to the research with care and humility. I engaged in reflexive practice during data collection and analysis aiming to remain aware of my positionality and how that might influence interpretation of the research findings. For example, my background as an OHT meant I brought a strong grounding in prevention focused practice, so I paid deliberate attention to the ways midwives described their relational, continuity centred approach to maternity care. This encouraged me to listen with curiosity and respect for the distinct expertise they contributed. I took time to reflect on how their emphasis on partnership, whānau wellbeing and holistic assessment expanded my own understanding of perinatal care. This reflexive stance supported a more balanced interpretation of the data and strengthened the integrity of the findings.

3.5.4 Challenges Faced in Data Collection

Tess Tsindos (2023) offers helpful guidance on the practical realities of organising and facilitating focus groups. She explains that while many methodological texts recommend six to ten participants as an ideal group size, this is not always achievable in applied research settings, and she emphasises that attendance often depends on participants' availability and interest in the topic. She highlights that focus groups have "been conducted with as few as two people" (Tsindos, 2023) and describes her own experience of facilitating a group where fewer participants attended than expected. This aligned closely with my experience. The two focus groups I conducted were very different in size.

The first focus group I organised and facilitated involved 10 participants, while the second had two participants. Full attendance at the first focus group suggested strong engagement with the research topic. The second group was smaller than anticipated, as more participants had initially indicated they would attend. The timing of the focus groups may have contributed to this variation. The first was held in mid-December after the end of year marking and grading period, and the second took place at the end of January before the academic year had fully reopened. It is also possible that many staff who were interested in participating chose the earliest available opportunity in December.

Although I initially felt some disappointment that not all expected participants attended the second focus group, the difference in group size did not limit the quality of the discussion. It may even have contributed to the richness of the data. With ten participants, the first focus group reflected what Tsindos (2023) identifies as typical for an ideal group size. The second focus group, with two participants, generated a more intimate and reflective conversation. The participant who attended both groups contributed additional insights in the second discussion, enriching the data set and demonstrating that meaningful, in-depth dialogue can occur across a range of group sizes, consistent with Tsindos' observations.

Indeed, Cortini et al. (2019), explained that focus groups do not require large numbers to be effective and that smaller groups can support deeper engagement. Morgan et al. (2013) also demonstrated that dyadic interviews, involving only two participants, can

produce rich qualitative insights through focused interaction. These points resonate with my own experience in data collection, as valuable discussion and complementary data emerged from both focus groups.

3.6 Data Analysis

Braun and Clarke's (2022) reflexive thematic analysis was used to analyse the focus group transcripts and was informed by the Appreciative Inquiry study design. Their six-phase approach involves "familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report" (Braun & Clarke, 2006), p.87). Because the Appreciative Inquiry design generated data relating to each of the D stages of the approach, namely *Define, Discover, Dream, Design* and *Destiny/Deliver*, I first analysed each D stage of the focus group discussions using reflexive thematic analysis. As focus group discussions are dynamic, participants sometimes contributed insights that aligned with a different D stage than the one being explored at that moment. As the analysis progressed, the transcripts were read and re-read, and excerpts were situated within the D category that best reflected their meaning. This supported clarity in the analytic process and coherence in the write-up while maintaining the integrity of participants' voices. The process was iterative and interpretive. It involved repeated reading of the transcripts, noting patterns of meaning, and developing early clusters of ideas before identifying themes integral to each of the D phrases, many of which were later adapted in accordance with the process. This iterative movement through the data is consistent with both the principles of reflective thematic analysis (Braun & Clarke, 2022) and with Appreciative Inquiry's generative orientation, in which insights may emerge across phases rather than in a linear sequence (Cooperrider & Srivastva, 1987). This reflexive engagement with the data enabled themes and sub-themes to develop in ways that honoured participants' strengths, aspirations, and collaborative intentions.

3.6.1 Ensuring Quality of the Research Findings

Quality matters in qualitative research, but the criteria used to judge it should fit the methodology that produced the findings. The quality of most qualitative work is evaluated through the trustworthiness criteria of "credibility, dependability, confirmability, and transferability" (Lincoln & Guba, 1985; Schwandt et al., 2007).

Credibility is related to the level of confidence that the study's findings represented the truth of what participants shared (Holloway & Galvin, 2023); dependability is related to the consistency of study's findings over a period of time (Bitsch, 2005; Cohen et al., 2012); and confirmability refers to the extent to which the study's findings are clearly drawn from the data and not from the researcher (Tobin & Begley, 2004). These criteria are widely used, but they originate in a tradition that sits uneasily with reflexive thematic analysis. Braun and Clarke (2022) caution against importing such criteria uncritically into reflexive thematic analysis, observing that "researchers always make theoretical assumptions whether we are aware of this or not" (p.157), and that the quality of an analysis is better understood through the researcher's reflexive engagement than through generic benchmarks.

For Braun and Clarke (2022), quality in reflexive thematic analysis rests on two related commitments. The first is conceptual and procedural coherence, that is, the "research design and analytic procedures being conceptually aligned" (p.267) with the theoretical framework of the study. The second is reflexivity, with researchers striving "to understand and own their perspectives" (p.9) rather than claiming a neutral standpoint. This study pursued quality on these terms. The reflexive thematic analysis was conceptually aligned with the Appreciative Inquiry design that shaped the focus group discussions (see section 3.6), and the six-phase process was applied systematically and iteratively, with transcripts read and reread so that the development of themes could be traced transparently. As described in section 3.5.3, I engaged in sustained reflexive practice, remaining attentive to how my position as both an oral health practitioner and a researcher shaped my interpretation of the data.

Several of these practices also resonate with the conventional trustworthiness criteria, although they were not treated as fixed benchmarks. Sustained reflexive engagement with the data (Anney, 2014) and culturally safe facilitation of the focus groups (Fleming et al., 2020) supported the credibility of the interpretations. The pre-planned focus group guide and the systematic application of reflexive thematic analysis created a transparent analytic trail, supporting dependability and confirmability by keeping interpretations anchored in what participants shared rather than in researcher assumptions (Lincoln & Guba, 1985; Schwandt et al., 2007). A clear description of the

study context, together with purposive participant selection, supports readers to consider how the findings might be transferred to other collaborative health professions settings. Consistent with the generative orientation of Appreciative Inquiry, quality here rests not on a claim to objective truth but on transparent, reflexive, and culturally grounded practice that points toward actionable possibilities (Cooperrider & Whitney, 2005).

3.7 Chapter Summary

This chapter outlined the methodology underpinning the study. An overarching Appreciative Inquiry approach was used, with focus group discussions involving midwifery and oral health educators at AUT. A pre-planned focus group discussion guide was used and structured around the five phases of Appreciative Inquiry: *Define, Discover, Dream, Design,* and *Destiny/Deliver*. A total of 11 participants took part across two focus group discussions (seven Midwifery and four Oral Health teaching staff), each lasting approximately 90 minutes and designed to support open, collaborative dialogue among participants. The next chapter presents the findings.

Chapter 4: Research Findings: Define and Discover

This chapter presents findings from two focus groups that brought together Midwifery and Oral Health educators to explore the potential for collaboration in undergraduate teaching. It begins with an overview of the participants, who are referred to throughout the thesis as Midwife 1 to 7 and OHP 1 to 4, and highlights their diverse professional experiences in the inquiry. The chapter then presents the findings from the first two stages of the Appreciative Inquiry process: the *Define* and *Discover* phases. These early phases of the focus group discussions provided a strengths-based foundation to inform the later collaborative visioning and future-focused co-design stages of the inquiry.

4.1 Participants Overview

As discussed in the previous chapter, a total of eleven educators participated in this study across the two focus groups. In total, there were four Oral Health educators and seven Midwifery educators. They identified with a range of ethnicities and cultures. As explained in Chapter 3, in order to protect participant confidentiality, full demographic details are not provided in this thesis.

The Midwifery educators represented a wide range of professional experiences, spanning community-based continuity-of-care practice, hospital settings, specialist midwifery roles, and tertiary teaching across different levels. Their backgrounds included both Aotearoa New Zealand and international practice. The Oral Health educators brought experience from clinical practice, community-based service delivery, and tertiary teaching. Their professional backgrounds and experience included international and Aotearoa New Zealand training, general and specialist practice, and clinical education roles. Collectively, they had a strong grounding in preventive oral health, patient management, and the realities of preparing undergraduate students to work with diverse populations, including pregnant women and people.

4.2 DEFINE: Establishing a Shared Purpose and Context

The *Define* phase of the focus groups involved participants exploring together the study's shared purpose and clarifying what is meant by integration between oral health and midwifery education. In this phase, educators explained why a focused discussion on this topic was needed and articulated the importance of strengthening collaboration between the two programmes to benefit undergraduate students learning, with some early insights into what that might mean to them. Their early reflections helped establish a collective understanding of the importance of working together and set the foundation for the subsequent stages of the inquiry. Three overarching themes were identified in this phase: 'Valuing and Maximising Educational Collaboration', 'Building Confidence', and 'Recognising Health System-Level and Policy Influences'.

Theme 1: Valuing and Maximising Educational Collaboration

Participants spoke with clarity about the importance of bringing oral health and midwifery education together in ways that feel natural, meaningful, and grounded in practice. They described integration not as an exercise in adding more content, but as a process of thoughtfully weaving perinatal oral health knowledge into existing learning, strengthening students' understanding of pregnancy, physiology, and infant well-being in that context. Two subthemes emerged within the theme 'Valuing and Maximising Educational Collaboration'. These were 'The importance of integrated curricula' and 'Expanding teaching and learning opportunities'.

Subtheme 1.1: The importance of integrated curricula

Participants emphasised 'The importance of integrated curricula' in various ways. One simply stated that shared learning and teaching opportunities would be 'good':

> *A lot of the time, the midwifery curriculum does not address oral health, but where it does, it would be good to incorporate it and deliver it jointly by oral health and midwifery experts as a joint lecture, with course resources shared between departments.* (Midwife 2)

The participant from the Midwifery Department also highlighted why they felt it was important:

> *Well, we do a little bit of interprofessional collaboration with paramedicine. But yes, we could be doing that with physios; we could be doing it with oral health. … So, I think interprofessional collaboration across the whole of clinical sciences would be a very good thing.* (Midwife 2)

The participant also noted that direct-entry midwifery students may have limited exposure to other health professions and shared that interprofessional learning could help them understand the roles and expertise of other practitioners. This was especially relevant in Aotearoa New Zealand, where most midwives are not nurses. Her contribution highlighted how integrated curricula can strengthen students' understanding of health and broaden their awareness of the wider clinical sciences. An oral health educator also emphasised the clinical relevance of integration by noting the relationship between oral health and pregnancy outcomes.

> *My perspective in this focus group is that periodontitis has bidirectional links with pregnancy outcomes. So that's my interest in being in this focus group.* (OHP 2)

These contributions show that participants viewed integrated curricula as a way to strengthen students' understanding of health, enhance interprofessional awareness, and ensure that oral health is recognised as relevant to pregnancy and infant wellbeing.

Subtheme 1.2: Expanding teaching and learning opportunities

This subtheme is about ‘Expanding teaching and learning opportunities’, which participants discussed in relation to the importance and relevance of collaborative teaching. They described the current moment as a timely opportunity to strengthen collaboration. One midwife illustrated this by describing everyday clinical scenarios that highlight the need for shared teaching.

> *I think this is very timely to coordinate with oral health and midwifery because it can be even things like when you see a parent… a pacifier drops on the floor and then the parent picks it up, puts it in their mouth to clean it, and then puts it in the baby's mouth. This is just a transfer of bacteria from the mother's mouth into the baby's mouth. We see that happen a lot. I always thought that there are lots of teaching opportunities for some practical learning for undergraduate students.* (Midwife 2)

The emphasis on this being a very timely moment signalled a sense that both programmes are well positioned to collaborate. It also suggested that integration offers a constructive opportunity to strengthen students' understanding of oral health in pregnancy. Another contribution focused on understanding what oral health educators would find most valuable for midwifery staff to teach, noting that pregnancy is a broad and complex area and that its oral health effects extend well beyond the antenatal period. The midwifery educator highlights the long-lasting influence of progesterone on gum health and suggests that teaching should consider both pregnancy and breastfeeding.

> *I would be interested to know what exactly you would want us to come to speak into oral health about specifically with pregnancy, because obviously that's just a huge, broad topic in itself and also, as we know, a lot of the effects are long-lasting beyond pregnancy and breastfeeding because the progesterone affects your gum health for years to come. So probably also thinking about what that might look like, not just in terms of pregnancy but also breastfeeding.* (Midwife 5)

An oral health educator's response acknowledges this expertise and positions the midwife as the appropriate person to guide oral health students in areas where midwifery knowledge is stronger.

> *When we are talking about pregnant people and the different treatment considerations involved, your expertise is invaluable… midwives have far greater knowledge of pregnancy physiology, communication with pregnant women and whānau, and maybe understanding your scope of practice.* (OHP 3)

A further contribution described how a visit to the oral health clinic created new awareness of what collaboration could offer. The participant explained that seeing the facilities first hand strengthened the sense that orientation activities and shared learning spaces could be highly beneficial for midwifery students.

> *It's great that we are having this discussion, because last week, during the simulation community of practice work we were doing, we went around South campus and had a look at all the different simulation spaces. And of course, we got to have a look at your set up here on South campus, the oral health clinic, which is amazing and I think even as a part of what we we're thinking about collaboration, I think it would be really helpful for the midwifery students to see what exists here because I was so impressed and I just think and it wouldn't take a lot of time necessarily, but it's that we could look at. It's just an orientation to what's available here and what it looks like.* (Midwife 7)

Oral health educators also contributed to this discussion. One described how the oral health clinic already provides dental hygiene care and may soon expand to include restorative care for pregnant women and people. This development was seen as creating further opportunities for interprofessional learning and shared clinical experiences.

> *At the moment, the oral health students can provide hygiene treatment for patients, but in the future, they may also provide restorative care in addition to hygiene care for pregnant women. So that's why I think there is huge potential to develop an interdisciplinary approach between the two departments.* (OHP 1)

Another oral health educator emphasised the value of existing clinical encounters. The participant explained that students often experience meaningful moments of insight when treating pregnant women and people, which strengthens their understanding of the connections between oral health, pregnancy, and infant wellbeing.

> *I think there are plenty of moments in our student clinic when we treat pregnant people, and the students have that sort of Ah ha moment. They get that sense of success from thinking about what is happening not only for the mum or the person being seen, but also for the baby, what is happening in the womb, and everything else. From that perspective, I can think of a lot of positive things that come out of it.* (OHP 3)

These insights show that participants recognised a wide range of strengths and opportunities for shared teaching, clinic visits, and reciprocal learning. The examples illustrate how integrated teaching can deepen understanding and support the development of strong interprofessional relationships.

Theme 2: Building Confidence

Participants also indicated that part of collaborative education is about building confidence in future practitioners. In this context, the sub-themes 'Working with student anxiety' and 'Compulsory educational components' emerged.

Subtheme 2.1 Working with student anxiety

Participants discussed the emotional and practical challenges that some oral health students face when caring for pregnant women and people, and how integrated teaching might help reduce uncertainty and build confidence. Educators noted that this anxiety can be eased through clearer knowledge, shared teaching approaches, and stronger interprofessional communication. One oral health educator noted that oral health students often feel unsure because they are not always confident about the physiological changes of pregnancy or when referral is needed.

> *For us, as oral health professionals, knowing when to refer back to midwives is important. When we see something in the mouth that does not make sense, we need to know the points at which referral is needed. It would be helpful for our students to understand what they are seeing in the mouth and when to refer it back to a midwife. It is often quite a terrifying experience for the oral health students treating someone who is pregnant, because they know there are many changes happening in the body and for the baby, so we need to think about how we incorporate that into teaching.* (OHP 3)

Her contribution suggested that integrated teaching could help students understand what they are seeing and when to refer someone back to their midwife. Another oral health educator emphasised the need to collaborate between the two departments.

> *We just need to collaborate with the two departments to design courses that allow us to teach together.* (OHP 1)

Participants agreed that when students understand both the physiological changes of pregnancy and the implications for their oral health, they are better prepared to make informed decisions in their clinical practice.

Subtheme 2.2 Compulsory educational components

Another subtheme that emerged was "Compulsory educational components". Participants described the importance of structured and compulsory learning as part of integrated education. One participant from the Midwifery Department emphasised

that planning the curriculum requires a clear, organised approach to ensure that oral health content, is positioned meaningfully within midwifery learning.

> *In terms of planning the actual curriculum, it obviously needs to be structured.* (Midwife 2)

This emphasis on structure aligned with a detailed contribution from an oral health educator, who described what successful integration could look like for undergraduate students. The participant explained that a structured and compulsory approach would ensure that essential oral health content is not overlooked, particularly because midwifery programmes must cover a wide range of topics and cannot dedicate extensive time to oral health. A compulsory component was described as a way to ensure that all students engage with the material and retain key concepts.

> *What I would want to see is probably a very structured, compulsory approach… so that students can't skip it. I would still want students to be assessed on that so that it stays in their head.* (OHP 2)

The participant also highlighted the importance of making this learning interesting and enjoyable so that students participate fully and remain engaged. These insights highlighted the importance of structured, consistent, and compulsory learning opportunities that keep oral health present across both programmes.

Theme 3: Recognising Health System-Level and Policy Influences

Participants also brought forward insights about the broader systems that shape what is possible for oral health and midwifery integration. Their contributions revealed a deep awareness that educational change does not happen in isolation but is influenced by policy settings, funding structures, professional standards, and the wider health system. This theme “Recognising Health System-Level and Policy Influences” centred on international comparisons, which helped participants articulate and define the relevance of integrated teaching. The sub-themes were ‘The cost of dental care’ and ‘Professional guidance and integrated services’.

Subtheme 3.1 The Cost of dental care

Regarding the “Cost of dental care,” one participant described her experience with the maternity care system in her country of origin, where oral health is embedded as a

routine part of antenatal care. An oral health educator's account also highlighted how system design can normalise oral health as an essential aspect of pregnancy care:

> *In New Zealand, there is no compulsory thing for pregnant people to go see a dentist or oral health therapist before they deliver a baby…In [Country], the moment a person gets pregnant, they go to all the doctors; they get, like, full checkups. Everything is covered by the government; any treatment, dental treatment that's needed will be done, and then they're like cleared and free to go to a hospital to deliver a baby.* (OHP 2)

This contribution illustrated what becomes possible when oral health is structurally recognised as part of maternal wellbeing. It offered a strengths-based prompt to consider how integrated care might be supported if policy and funding mechanisms aligned with this vision. Other participants described how cost shapes the realities faced by pregnant women and people, and their whānau in Aotearoa New Zealand. One contribution highlighted that the ability to seek timely dental care is a significant privilege, while many families cannot afford restorative treatment. Emergency extraction was described as a more affordable option, even when it results in tooth loss.

> *A lot of people would forgo treatment because of the cost… you can have the tooth removed for a much lower cost than a restoration… the reality is that a lot of people just cannot afford it.* (Midwife 5)

Another participant reinforced that cost is a barrier for many pregnant women and people, and their whānau. The participant suggested that collaborative learning between oral health and midwifery students could help both groups better understand these systemic constraints and respond in ways that support equitable care.

> *The cost is a barrier for women we are interacting with and providing care to, women and whānau. I think that interaction needs to be looked at a bit more, and when you mentioned how we might do this, whether by bringing oral health students to share their experiences and midwives doing the same in return, that is a good idea.* (Midwife 1)

In other words, this participant saw reciprocal exchanges, in which oral health and midwifery students share their experiences with one another, as a constructive response to the cost barriers that families face. These insights underscored the

importance of collaborative education for oral health and midwifery students in the current context of Aotearoa New Zealand. Participants recognised that integrated learning could strengthen perinatal oral health knowledge even when the wider health system does not yet fully support accessible dental care. This perspective highlighted the importance of considering equity and public health issues within conversations about educational integration and recognised that curriculum development sits alongside wider system settings that also influence oral health outcomes.

Subtheme 3.2 Professional guidance and integrated services

There was also acknowledgement that integrated learning could be supported by professional guidance and innovative models in clinical practice. One participant explained that the current NZCOM consensus statement on oral health would benefit from being updated, noting that contemporary guidance could strengthen both education and practice.

> *the consensus statement… is actually quite old now… it does need updating… reviewed by the professional body.* (Midwife 1)

This insight highlighted the importance of professional guidance aligned with current evidence and responsive to the contemporary needs of pregnant women and people. Participants suggested that updated documents would support educators, students, and clinicians by signalling that oral health in pregnancy, is a valued component of midwifery and oral health education. Participants also pointed to promising models already operating within Aotearoa New Zealand. One participant described an integrated approach in a remote region where midwives and community oral health providers work in close partnership. The model involved midwives identifying oral health needs during routine antenatal care and referring pregnant women and people directly to local oral health services, with providers communicating regularly about care plans. This approach was described as responsive to community needs and supported by strong relationships between practitioners:

> *It is an integrated model with Lead Maternity Care (LMC) midwives and the community and that is one model we have that we could look into and how that care is provided to women and whānau in that situation.* (Midwife 1)

Another participant noted that similar initiatives are emerging elsewhere in Aotearoa New Zealand:

> *In [region in New Zealand] there are some good integrated programmes happening... So, that's another way we can collaborate by actually finding those initiatives for patients as well as students or yourselves or just helping people in the community identify the need of such services, how we can help navigate that to people who know that is the best.* (OHP 3)

Furthermore, one oral health educator shared about a community-driven initiative, supported by the Clare Foundation[3] that enables pregnant women and people to access comprehensive treatment without the usual limitations related to funding categories or service boundaries. The educator valued this example because it demonstrated how flexible, equity-focused integrated services can remove barriers, encourage engagement, and have a meaningful impact on community wellbeing.

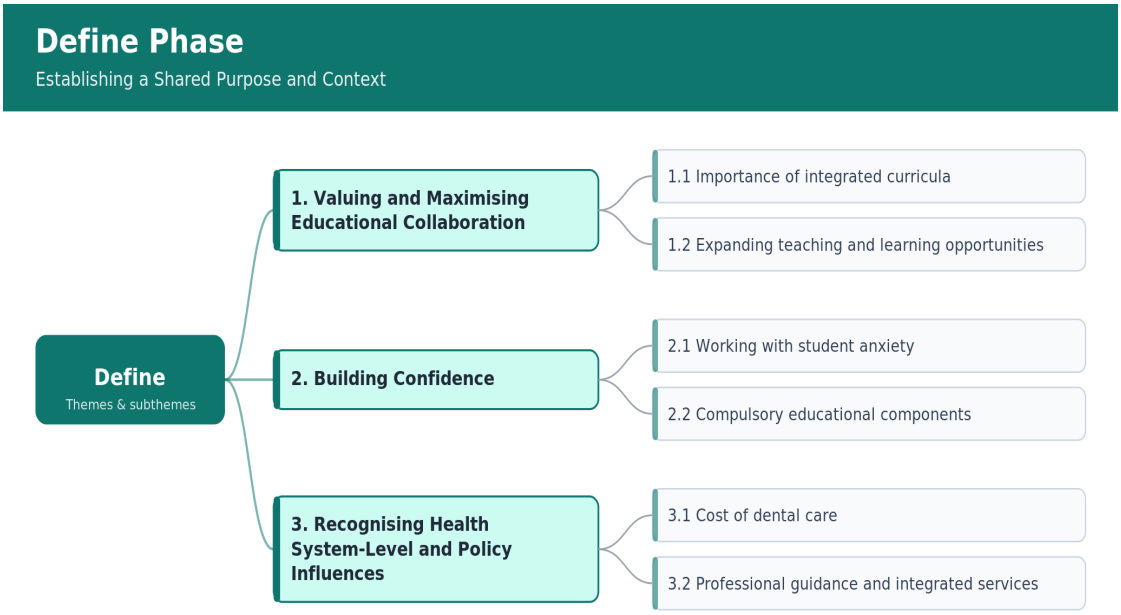
[3] The Clare Foundation was founded in 2020 by Anna Margaret Clare Stuck and operates as a "progressive philanthropic" organisation committed to improving outcomes for people and the environment. It takes a "proactive approach" to investing in initiatives that advance "environmental wellbeing, oral health, youth wellbeing and the wellbeing of women", with the intention of supporting meaningful and positive change (Clare Foundation, 2020).

> *I might just quickly mention an example from Te Ao Mārama, the Māori Dental Association. Last year, a member of their leadership team, who works as an oral health therapist in [region in New Zealand], described how they organised free treatment for pregnant people, funded by the Clare Foundation. It was a real success story. They created a space where pregnant people could come in and receive all the care they needed without restrictions, fully covered by the Foundation. According to the person who shared the story, it had a significant impact on the community, as people felt able to access treatment freely. They explained that in many dental clinics, care can feel limited because some treatments are covered while others are not, or particular specialists may not be available, which can be discouraging for patients. The Clare Foundation model removed those barriers and allowed unrestricted treatment, encouraging more people to look after their oral health. It is the kind of setting where students could potentially do placements.* (OHP 2)

These examples illustrated how local structures, shared priorities, and collaborative relationships can create conditions where integrated care becomes part of everyday practice. Participants viewed such models as evidence that system-level innovation is possible and that integrated oral health and midwifery care can emerge when professional guidance, community needs, and services align.

Figure 1

Define Phase: Themes and Subthemes



Note. This figure summarises the three main themes and their subthemes generated during the *Define* phase of the Appreciative Inquiry focus groups, in which educators established a shared purpose and provided early insights into what integration between oral health and midwifery education means to them. Each theme is shown at the centre with its associated subthemes to the right.

4.3 DISCOVER: Illuminating Existing Strengths, Practices, and Opportunities for Integration

The *Discover* phase focused on surfacing the strengths, experiences, and valued practices that currently shape how oral health in pregnancy is understood, taught, and enacted within both the midwifery and the oral health programmes. This phase sought to identify what is already working well, what educators value in their current teaching approaches, and where meaningful opportunities for interprofessional collaboration already exist. The themes that emerged from the *Discover* phase of the study were ‘Perinatal Oral Health Content Across Both Curricula’, ‘Interprofessional Collaboration Between Departments’, ‘Practical, Experiential, and Community-Based Learning’, and ‘Cultural Safety’. These themes clarify the strengths already present in current teaching and practice, offering a foundation for deeper integration in subsequent phases of the inquiry.

Theme 1: Perinatal Oral Health Content Across Both Curricula

Participants described how perinatal oral health currently appears within both the Oral Health and Midwifery curricula, and their insights highlighted the importance of understanding where this content sits, how it is taught, and how students engage with it. This theme, 'Perinatal Oral Health Content Across Both Curricula', centred on identifying where oral health knowledge is already located and how students encounter it during their education. The subthemes were 'Locating the course content in both programmes' and 'Student assessments'.

Subtheme 1.1 Locating the perinatal oral health content in both programmes

Regarding oral health curriculum content relevant to pregnancy, participants in the Oral Health Department described a range of existing content that prepares oral health students to care for pregnant women and people, including foundational sciences, pathology, and clinical assessment. One participant shared:

> *I think that in terms of what is currently taught, we cover the basic human anatomy papers, similar to what your (midwifery) students would do. So, they get an overview of how people become pregnant and what happens during that process. Beyond that, through our oral biology and pathology paper, they learn more about the different diseases that occur in the mouth and the factors that influence them. This includes understanding that pregnancy, with its increased hormone levels, can change oral conditions.* (OHP 3)

Participants from the Oral Health Department also highlighted that oral health assessment teaching has included content specific to pregnant women and people. An oral health educator described oral health promotion initiatives previously delivered beyond the classroom, including community-based education projects led by oral health students. These initiatives involved providing oral health education to pregnant adolescents in school settings. For example:

> *Oral health promotion has previously been delivered to different community groups, including schools that support adolescents who are pregnant. A group of oral health students would go into those settings and teach them about the importance of maintaining good oral health and what they need to be doing now, and also once the baby is born, including what to anticipate in the coming years.* (OHP 3)

Furthermore, oral health educators noted that while oral health concepts relevant to pregnancy are included across the oral health therapy programme, the students may sometimes encounter it mainly in the early years of their education.

In relation to the midwifery programme, there was recognition of a specific learning package focused on oral health in pregnancy that had been developed. There was also reference to oral health content being shifted across year levels as adaptations were made to the curriculum:

> *I recall that the oral health package sat in the Women's health paper…initially a part of third year and later moved to the second year.* (Midwife 7)

Another midwifery participant described how oral health may surface briefly within broader clinical topics, such as sepsis:

> *I think it's briefly touched on in sepsis… when you're talking about looking at the signs of generalised sepsis, you would be considering the patient's oral health as well.* (Midwife 5)

One midwifery educator explained that oral health also tends to surface informally within teaching rather than always as a planned component of the curriculum. This educator described drawing on her own personal work experiences to introduce oral health concepts when discussing pregnancy and postnatal care:

> *I mean, in my own personal lectures, I talk about it and I talk about pregnancy care and postnatal care, because I like to share experiences I have had… So often I will talk about stories then… And it's more just that it might appear in some PowerPoints that are discussing pregnancy care generally.* (Midwife 2)

This contribution highlights how oral health content is currently shaped by the expertise and teaching approaches of individual educators, offering opportunities to

build on these strengths as the curriculum moves toward more formalised and integrated learning outcomes.

Subtheme 1.2 Student assessments

Participants also referred to assessment structures. Some of the participants described how oral health in pregnancy currently appears within assessment structures across both programmes. Their contributions highlighted that perinatal oral health content is present in aspects of existing assessments, such as multiple-choice questions, short-written components and/or exams. Participants viewed this approach as appropriate, given the wide range of conditions and clinical considerations that students must learn about during pregnancy. One participant reflected on the challenge of creating a standalone assessment focused solely on oral health for student midwives:

> *Probably not even appropriate to have an entire summative assessment… so many medical conditions affect pregnancy.* (Midwife 5)

Some participants emphasised the value of oral health being integrated within certain assessments:

> *It could definitely be part of multiple-choice questions (MCQs).* (OHP 3)

> *When I was running it in Year 3, we were also preparing midwifery students for the national exam, which is all MCQs, so it was included in the MCQs as well.* (Midwife 1)

These contributions show that oral health content is already embedded within assessment practices. MCQs were viewed as a practical way to reinforce key concepts and align oral health learning with existing assessment structures.

Theme 2: Interprofessional Collaboration Between Departments

Participants spoke enthusiastically about the interprofessional initiatives that already exist between the Midwifery and Oral Health programmes. Their reflections highlighted a history of collaboration, shared teaching, and cross-disciplinary engagement that has enriched student learning. The sub-themes that emerged were ‘Building on pre-existing initiatives’ and ‘Shared teaching and cross-departmental engagement’.

Subtheme 2.1 Building on pre-existing initiatives

Midwifery participants recalled previous collaborative teaching that had been well received:

> *I think it would just look good if we had someone to come in and speak to the questions as we did before. I think that could work really well.* (Midwife 5)

A pre-existing self-directed learning package on perinatal oral health used in the midwifery curriculum was also highlighted:

> *I do think that the oral health package that was developed was a really good one, because it focused on early pregnancy. We see a lot of nausea, vomiting, and hyperemesis, and it covered how to protect teeth and gums during that stage. It also explained how to neutralise the mouth and discussed medications that can affect it or cause dryness. All of that information was really, really helpful.* (Midwife 5)

Another participant elaborated on how the oral health learning package was used in class alongside input from an oral health expert.

> *The package that was developed… included information on physiological changes and how they may affect oral health…We covered content throughout pregnancy and the postpartum period, including early infant topics such as breastfeeding, the use of dummies, and other aids. It was essentially about supporting the baby as they grow. In class, the students would work through the package with an oral health expert. The expert would come in, go through the questions I had set, and respond to the students' queries as they completed the package. Some students, as has been mentioned, engaged really well with it.* (Midwife 1)

The importance of ensuring the package continues to be used, developed and updated was highlighted, as was the relevance of an oral health lecturer speaking to the student midwives on the topic.

Subtheme 2.2 Shared teaching and cross-departmental engagement

Oral health educators spoke about welcoming midwifery staff into their teaching spaces and how oral health students might contribute to midwifery learning. One participant noted:

> *We have plenty of opportunities for the Midwifery Department to come and speak with our students about topics related to their discipline. If someone from midwifery would like to talk to the oral health students, you are very welcome to do so. I have several sessions available for your team to come in and engage with the students.* (OHP 1)

Another oral health educator spoke about their experience of doing lectures for the Plunket nurse students:

> *Once a year before the Plunket nurses graduate, I go in, I talk about why teeth is important for them at that stage, how do we take care of that? What is the physiological stuff that's going on, what that could mean in the long term? What are the products that can be used, when is a good time to refer to us? What are the signs and symptoms of when something is about to get bad? And kind of like very first aid, almost preventative talks.* (OHP 4)

The example of oral health educators contributing to nurses' training illustrates how oral health expertise is already being shared across professional boundaries, demonstrating a clear pathway for similar collaboration with midwifery education. These existing practices show that cross-departmental engagement is both feasible and valued, providing a strong foundation for developing shared teaching approaches that support integrated midwifery and oral health learning.

Theme 3: Practical, Experiential, and Community-Based Learning

Participants spoke about the role of experiential learning in helping students develop confidence, capability, and a deeper understanding of oral health in the context of pregnancy. They highlighted that hands-on exposure is not simply an adjunct to theoretical learning, but a central mechanism through which students internalise knowledge, make sense of clinical realities, and build readiness for practice. This theme highlights the strong experiential foundations already present within both programmes, and the ways these could be leveraged to support future interprofessional learning. A key insight within this theme was the recognition that students often need repeated, real-world exposure before knowledge becomes embedded. The subthemes were 'AUT Oral Health clinic', 'Community projects, antenatal clinics and student placements'

Subtheme 3.1 AUT Oral Health clinic

The AUT Oral Health clinic was highlighted in this context. One participant described how oral health students may learn content in earlier years, but it only becomes meaningful when they encounter it in practice, for instance in the AUT Oral Health clinic:

> *In my experience, when students come to the clinic, nothing sticks in their heads until they have practical exposure; they need to see one-to-one, then they know how to do it.* (OHP 2)

The participant reinforced this idea, noting that even when students have been taught relevant content, the clinical environment can feel unfamiliar without opportunities to revisit and apply their learning:

> *Students often forget much of what they learned in their first and second years, and when they come into the clinic it can feel completely new to them, as if they have never encountered it before. In my view, our teaching strategies need to include practical components to help reinforce and retain that learning.* (OHP 2)

Participants from the Oral Health Department also highlighted the availability of free oral health care for pregnant women and people, and postpartum clients within the Oral Health clinic, which not only supports community wellbeing but also provides rich learning opportunities for students:

> *Our clinic offers free treatment for pregnant people… and for up to nine months post-pregnancy.* (OHP 2 and OHP 3)

Furthermore, participants also emphasised the value of midwifery students physically entering the oral health environment. Seeing the AUT oral health clinic, the equipment, and the workflow was described as a powerful way to demystify oral health practice and strengthen interprofessional understanding:

> *The oral health clinic is impressive. I think it would be really helpful for the midwifery students to see what exists here… even a brief orientation to what is available and what the clinic looks like would be worthwhile.* (Midwife 7)

This contribution highlights the Oral Health clinic as a valuable learning environment, suggesting that even a short orientation visit could strengthen midwifery students'

understanding of available services and deepen interprofessional awareness. The comment reinforces the Oral Health clinic's potential as a shared teaching space that supports collaboration between midwifery and oral health.

Subtheme 3.2 Community projects, antenatal clinics and student placements

Participants described a range of learning opportunities that extend beyond the classroom, showing how community projects, engagement with antenatal clinics, and clinical placements create meaningful real-world contexts for students to deepen their understanding of oral health in pregnancy and strengthen interprofessional learning between midwifery and oral health. One of the participants described how oral health students engage with diverse communities, tailoring oral health promotion to specific populations, including adolescents who are pregnant:

> *In the first year, our oral health students go to communities and deliver oral health promotion projects. They are like preparing the whole project for the semester in small groups, and then, at the end of the semester, over the summer break, they deliver it to different communities. They tailor it to the specific population.* (OHP 2)

One midwifery participant similarly described how their students engage with community settings such as antenatal classes, which offer authentic opportunities to observe, listen, and learn:

> *With our first-year students, that sort of module is normally where they follow through with a particular person. But sometimes …they attend a community event like antenatal classes.* (Midwife 2)

Another oral health educator emphasised the way in which students share their lived experiences from placements, particularly when they have encountered pregnant women and people or observed oral health needs in community settings:

> *I feel like some of those shared lived experiences really help. So even like our students, when they come back from placements and talk to students who haven't been on placement yet, they're like sharing the experience of what they have seen once they have been out in the community, really helps… just being able to share those lived experiences. What they saw with different oral health things could help to just build that knowledge without it being so formal and so on.* (OHP 3)

These insights reveal an experiential, community-based foundation already present in both programmes. Participants viewed these opportunities as powerful assets that can be built upon to support future interprofessional learning, deepen students' understanding, and strengthen oral health care for pregnant women and people.

Theme 4: Cultural Safety

Throughout the *Discover* phase, participants described Cultural Safety as a deeply embedded part of their teaching, their relationships with students, and their engagement with Māori, Pacific, and other diverse communities. Rather than treating Cultural Safety as a single topic or a standalone module, participants spoke about it as something woven throughout their programmes. The sub-themes integral to the overarching theme of 'Cultural Safety' are 'Cultural Safety embedded in education' and 'Embracing different worldviews'.

Subtheme 4.1 Cultural Safety embedded in education

Participants described how Cultural Safety is actively embedded in teaching and programme structures, shaping everyday interactions and learning environments across both disciplines. An oral health educator emphasised:

> *Every step and every paper, Cultural Safety is important; however, it might present itself, whether in a clinical space or on an exam paper.* (OHP 3)

One midwifery educator highlighted the existing structures that support Māori and Pacific students, emphasising the importance of culturally grounded spaces and relationships:

> *Just like all our lecturers, we try to be culturally safe, culturally safe for a minimum, and then we have, where possible, representatives of Māori and Pacific lecturers. And every week, we have support groups for Māori and Pacific students to attend, like Te Ara ō Hine (for Māori) and Tapu Ora (for Pasifika)[4], that encourage and support them in their learning.* (Midwife 2)

This contribution illustrates how Cultural Safety is enacted through both structural supports and everyday teaching practices. The emphasis on encouragement, belonging, and relational support reflects a strengths-based approach that honours students' identities and acknowledges the cultural knowledge they bring to their learning. Another participant from the Midwifery Department described Cultural Safety as an ongoing, evolving process:

> *It is the responsibility of every single individual member to continue on that journey towards not achieving Cultural Safety because that's not a definition that's reached, right. It's a continually evolving journey because we feel like another layer and realise, oh, I didn't realise that was a preconception or that whatever it is about anyone who's other to me. So, I suppose that's about constantly revisiting those concepts, both as teams and individuals.* (Midwife 6)

This perspective described Cultural Safety not as a destination but as a practice that requires ongoing attention and relational engagement.

Subtheme 4.2 Embracing different world views

Participants also spoke about the importance of embracing multiple worldviews in health education. They noted that health care is often taught through a Western lens that may not reflect the beliefs or experiences of many students and communities. One educator explained:

> *Health care in general is taught in a different worldview compared to what most people believe in or grew up with. And I think the whole worldview shifts if we start teaching or accepting a different worldview and being vulnerable enough to have that type of conversation, rather than saying that all Western medicine is correct and that this is the only way to have good oral health. When we do that, we create safer spaces for our students, build stronger connections, and better equip them for working in the community. It becomes safer for people to seek*

[4] A Health New Zealand Te Whatu Ora funded programme and initiative to support more Māori and Pacific ākonga, in the recruitment and retention within the midwifery degree programmes of Aotearoa New Zealand (Health New Zealand Te Whatu Ora, 2026).

> *care and for those offering support to respond to people in need.* (OHP 4)

This contribution highlights how Cultural Safety is strengthened when educators create space for Indigenous and culturally diverse perspectives. Participants envisioned learning environments where students feel safe expressing their worldviews, asking questions, and engaging in conversations that honour their cultural identities. Another oral health educator emphasised the importance of relational communication, noting that culturally safe practice often begins with simply asking students what they need:

> *In practice, what I see with Māori and Pacific students is that you simply need to ask what support they need, or what you might need to do differently. Even in one-to-one teaching, you can just ask, "How can I help you learn?" If they trust you, they will usually tell you.* (OHP 2)

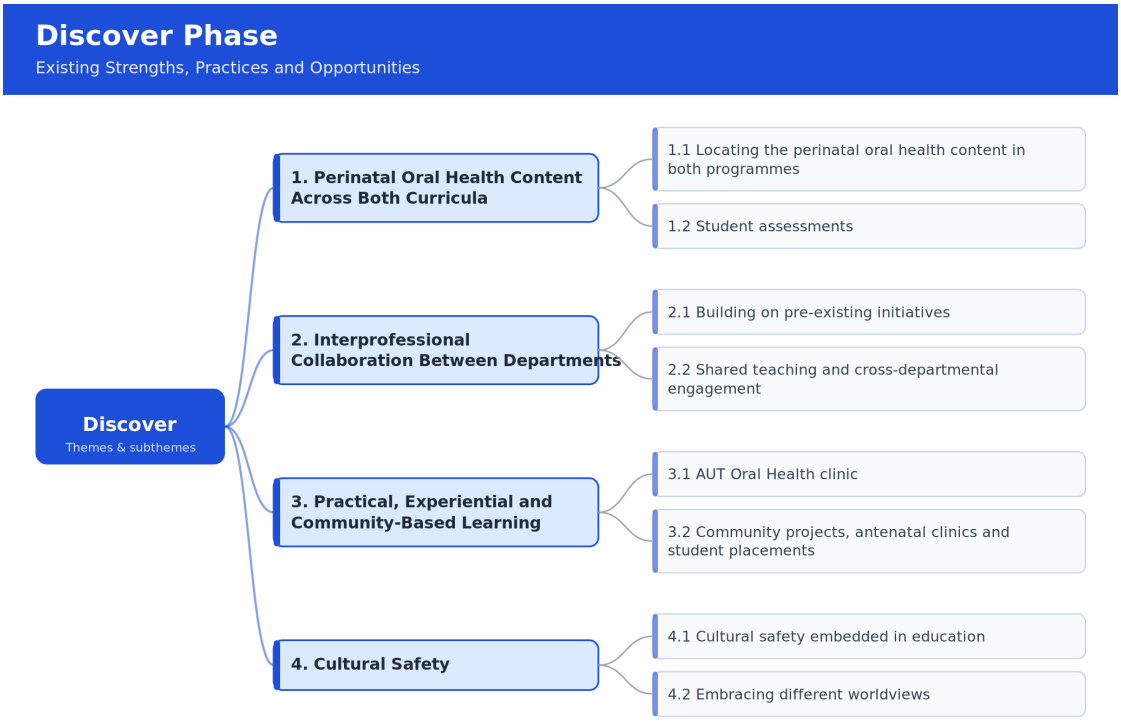
This approach reinforces the idea that Cultural Safety is enacted through everyday interactions through listening, responsiveness, and care. Participants also highlighted the importance of avoiding deficit-based narratives when teaching about Māori, Pacific, and other communities. One midwifery educator explained:

> *In terms of what would probably make it inclusive, if we're talking about populations at risk of specific outcomes, it should be done in a strengths-based way rather than focusing on all the deficits.* (Midwife 5)

This aligns closely with the Appreciative Inquiry approach underpinning the study. These contributions portray Cultural Safety as a relational, evolving practice, one that grows through connection, humility, and a commitment to honouring the strengths and worldviews of Māori, Pacific, and other communities.

Figure 2

Discover Phase: Themes and Subthemes



Note. This figure presents the four themes and associated subthemes from the *Discover* phase

4.4 Chapter Summary

The *Define* phase established the focus and shared purpose of this inquiry: to explore how oral health and midwifery education can collaborate more meaningfully to support undergraduate students and improve care for pregnant women and people, and whānau. Additionally, this chapter presented the findings of the *Discover* phase by highlighting existing strengths, including a well-developed oral health package for midwifery students, community outreach initiatives, culturally grounded education, and student assessments that meaningfully incorporate oral health. Their insights showed a shared commitment to student learning, Cultural Safety, and collaborative practice, demonstrating that both disciplines hold substantial assets to build on as the Appreciative Inquiry process moves toward envisioning and designing future possibilities.

CHAPTER 5: Research Findings: Collaborative Visions, Co-designs and Future Directions

This chapter presents the findings from the future-focused stages of this Appreciative Inquiry, in which participants moved from identifying existing strengths in their current teaching and collaborative practices, to imagining and shaping what strengthened collaboration between oral health and midwifery might look like. In this chapter, the findings from the *Dream, Design*, and *Destiny/Deliver* phases are presented. The *Dream* phase encouraged participants to imagine an ideal system where perinatal oral health is meaningfully woven across both programmes and to reflect on how students might feel more equipped in such a learning environment. The *Design* phase guided participants to develop practical ideas for achieving this vision. The *Destiny/Deliver* phase then focused on the actions participants felt could be taken, the supports needed, and the potential barriers that may arise, recognising that this research did not fully enact the *Destiny/Deliver* phase but instead generated insights into future possibilities for collaborative development.

5.1 DREAM: Envisioning an Ideal Integration of Oral Health and Midwifery Education

The *Dream* phase represents the third stage of the Appreciative Inquiry process and builds on the strengths identified in the *Discover* phase. In the *Dream* phase, participants were invited to imagine an ideal future in which oral health in pregnancy is meaningfully and confidently integrated across both oral health and midwifery programmes. This section focuses on how participants' envisioning of strengthened collaboration revealed a collective aspiration for education that is integrated, relationship-rich, equitable, and grounded in the realities of the communities they serve. Three major themes emerged: 'Curriculum Features', 'Strong Interdepartmental Relationships', and 'Accessible and Equitable Oral Health Care', each representing a different dimension of the collaborative educational environment, that participants hoped to create through interprofessional partnership.

Theme 1: Curriculum Features

The first theme to emerge from the *Dream* phase of the discussion was 'Curriculum Features'. Participants envisioned a curriculum in which oral health is not an isolated topic, but a thread woven throughout the programme. Two subthemes that emerged were 'Scaffolded learning', and 'Content including lifespan and intergenerational aspects of oral health'.

Subtheme 1.1 Scaffolded learning

Participants described a learning journey that is layered, interprofessional, and grounded in a lifespan approach to oral health. One participant articulated a clear vision for structured integration, emphasising that oral health should appear at multiple points across the programme to reflect the complexity of midwifery practice:

> *I think it needs to be there at more than one point: you've got your physiology, you've got your preventive measures, but you've also got your complexities for us. So, at three different points it could be integrated somewhere there.* (Midwife 3)

The participant recognised that oral health intersects with multiple dimensions of midwifery practice from foundational physiology to preventative care and complex clinical scenarios. The emphasis on "three different points" reflects a desire for a curriculum that builds depth and confidence over time. The participant also highlighted the relevance of layering content to support students to remember what they have learned:

> *And it's also that we're positioning to have students retain their information.* (Midwife 3)

A second midwifery educator extended this vision by describing how early introduction of oral health could support more complex, socially grounded learning in later years. This contribution emphasised a learning pathway that prepares students to understand oral health as part of broader pregnancy care:

> *And if we do that really well potentially in 1st year, then when we move into the subsequent years, we start to look at complexities, social complexities, but also complications and health outcomes.* (Midwife 7)

This forward-looking aspiration reinforces the idea of a 'spiral integrated' curriculum that grows with students, enabling deeper, more connected, increasing complexity learning over time.

Subtheme 1.2 Content including lifespan and intergenerational aspects of oral health

Educators also imagined a future where oral health is taught across the lifespan, not only during pregnancy. They envisioned students learning about oral health as a lifelong continuum, with pregnancy as one pivotal moment within a broader journey:

> *As we're talking very much about pregnancy and oral health, but actually it is teeth and what's happening in our mouth is a lifelong thing. And here there are these pivotal moments that happen around pregnancy, which is high risk, and it changes, but these things have an impact on what's going to happen for that person's well-being for many, many years to come, and just getting some context around that rather than solely focusing just on pregnancy.* (Midwife 7)

This contribution reflects a holistic understanding of oral health as a continuum. The participant recognised that pregnancy is a pivotal moment, but not the only moment, where oral health matters, and envisioned teaching that reflects this continuum. The participant also imagined co-designed resources for families and Well Child providers that explain oral health before, during, and after pregnancy. This lifespan approach positions oral health as a continuum of care rather than a single moment of intervention:

> *And the second thing that's come into my mind. It's just about, in terms of collaboration, what sort of resources exist or could be developed, like actual resources that could be shared with family, but also with Plunket… And I'm sure there's probably stuff out there, but there's the stuff that is specifically related to that, the impacts of pregnancy and that longer journey through life. We often talk about the well-being of pregnant people and the uterus and the pelvic floors, their age and the impact of medicines and stuff like that. Where does that fit when we*

> *are talking about the impacts of pregnancy in the well-being of the mouth going forward. Yeah, this is just to dream.* (Midwife 7)

An oral health educator added to the conversation about oral health across the lifespan, by reinforcing the importance of postnatal oral health and the oral health practitioner's role in supporting parents to care for their children's teeth:

> *Let's not forget the focus of this topic is about pregnant women in terms of oral health, but also what happens after the baby is born. For example, some of the treatment might need to be carried out after the baby is born to provide care to the mother, but also our duty as oral health professionals is to inform the mothers about how to look after the babies or their children's teeth.* (OHP 1)

This participant also highlighted gaps in public awareness:

> *Some first-time mothers don't know much about it. What sort of free dental care they can get for their children. So, I think the concept of dental nursing has disappeared. So, to some extent, the new generation don't know that dental care in New Zealand for children is free. And I think that's something we need to reinforce in these conversations or in the teaching we do with the Midwifery Department*. (OHP 1)

These contributions reflect a shared belief that oral health education must extend beyond pregnancy to support lifelong wellbeing.

Theme 2: Strong Interdepartmental Relationships

The theme 'Strong Interdepartmental Relationships' highlights their belief that meaningful collaboration depends not only on shared content but on the quality of the relationships between those who teach and those who learn. Participants described a future in which oral health and midwifery educators and students interact more regularly, build familiarity, and develop trust, creating the relational foundations required for sustained collaboration. Two subthemes that illustrate this vision are 'Staff interactions' and 'Shared learning between Midwifery and Oral Health students', each highlighting different ways participants hoped to strengthen everyday interprofessional connection and collaborative learning.

Subtheme 2.1 Staff interactions

Participants saw meaningful integration as something that grows from trust, familiarity, and shared purpose among educators. Some of the participants expressed their imagination of a future where midwifery and oral health educators connect regularly, share stories, and build a sense of community. Such informal and relational activities were regarded as essential to fostering collaboration. One midwife spoke about:

> *every couple of months… a shared lunch… to build relationships and share stories and share learning.* (Midwife 2)

Such interactions were seen as catalysts for deeper professional connection and shared teaching opportunities. They also envisioned a future where expertise flows freely between departments. Oral health educators imagined contributing their specialised knowledge of oral conditions, while midwifery educators would share their expertise in pregnancy-related physiology and care to the undergraduate students:

> *I think we could set up programmes where oral health educators visit the midwifery department to talk about pregnancy-related oral health changes, such as what happens physiologically in late pregnancy, how we diagnose conditions, and what treatment and prognosis might look like. And in the same way, midwifery educators could come and talk to oral health students about pregnancy. It would give both groups more chances to interact, share knowledge, and build stronger interdisciplinary learning between the two departments.* (OHP 1)

Another oral health educator expanded on this idea of shared expertise, imagining a future where both professions contribute to a shared module:

> *In an ideal world, we would imagine a shared module in which both professions contribute their expertise. Oral health educators could support teaching on pregnant people and treatment considerations, and midwifery educators could guide us in areas where they have deeper expertise. Being able to draw on each other like that would mean students can ask any of us questions, and it would create the kind of genuine interprofessional collaboration we hope to build.* (OHP 3)

This contribution highlights the complementary strengths of each profession. Reciprocal exchange of strengths was seen as a way to enrich teaching, support student learning, and prepare students for collaborative practice.

Subtheme 2.2 Shared learning between Midwifery and Oral Health students'

Interprofessional learning, where midwifery and oral health students learn alongside one another, was envisioned as a core feature of an ideal curriculum that strengthens collaborative practice through shared learning. One midwife elaborated on the different approaches of integration and explained clearly the value of midwifery and oral health students learning together in shared spaces, where they could explore each other's roles, ask questions, and develop mutual understanding:

> *It depends on what you mean by integrated education? Are you going for… the students coming to learn about that together, whether that's oral health and midwifery together, or whether that is in a way that they learn from a presenter, from midwifery for oral health and an oral health presenter for midwifery. Because there will be differences depending on the approach taken. Ideally, that model of them being together within those sessions is sometimes quite relevant, not all, but some of that, because they can really interact and learn from each other about what the challenges are in each of those professional groups. And how, possibly moving forward, there need to be strategies that can actually try and minimise the impacts.* (Midwife 1)

The participant recognised that shared learning environments allow students to understand each other's roles, responsibilities, and constraints, insights that might not be gained through discipline-specific teaching alone. This vision reflects a belief that interprofessional learning strengthens students' understanding of roles, reduces misconceptions, and builds mutual respect. Participants also imagined simple, relationship-centred ways to strengthen collaboration through direct student interaction across departments. As one oral health educator described:

> *You can do that by having your students come and talk with our students… We could do the same for Midwifery by organising Oral Health students to come and talk with the Midwifery students.* (OHP 1)

This vision reflects a desire for accessible opportunities for students to learn from one another, building familiarity, confidence, and shared understanding across the two programmes. A participant from the Midwifery Department supported this vision regarding interprofessional collaboration:

> *Bringing students from oral health to come and share their experiences and midwives to do vice versa is a good one. It's something to consider, I think, because that sort of opens up the dialogue between two professional groups.* (Midwife 1)

These contributions highlight a shared aspiration for reciprocal, relational collaboration, one where educators move fluidly between departments, students learn with and from each other, and interprofessional dialogue becomes a normal part of the learning environment. Furthermore, participants emphasised that learning does not occur solely through structured lectures or assessments. Instead, students deepen their understanding through exposure to real-world scenarios and through conversations with peers who have encountered diverse clinical situations. One participant noted that shared experiences between students from both disciplines can spark new ideas:

> *They might even come up with different ideas… to help with serving pregnant people with oral health needs.* (OHP 3)

This highlights the generative potential of peer learning, where students not only absorb information but also contribute to collective problem-solving and innovation. Another participant reinforced the importance of shared learning:

> *Students learn so much from hearing what others have seen in practice.* (Midwife 7)

These contributions reveal a shared vision for an educational system that values peer-to-peer learning and teaching, collaboration and reflective practice as essential components of preparing graduates for real-world care.

Theme 3: Accessible and Equitable Oral Health Care

The theme ‘Accessible and Equitable Oral Health Care’ highlights the vision articulated by participants for care that is affordable, responsive, and grounded in the diverse realities of the communities they work with. Participants emphasised that meaningful collaboration between oral health and midwifery would only be effective if the wider system also supported equitable access to oral health services. Two subthemes illustrate this vision, namely ‘Affordable dental care’ and ‘Awareness of community needs’.

Subtheme 3.1 Affordable dental care

Two midwifery educators spoke powerfully about the affordability of dental care. They imagined an ideal health care system in which oral health care is accessible, affordable, and embedded within holistic maternity care. The participant also articulated a clear vision for an ideal system:

> *My dream would be affordable dental care...Yes, I have had clients who have had teeth removed for that reason!* (Midwife 4)

The participant's use of the word "dream" reinforces the aspirational nature of this conversation, while the reference to clients losing teeth due to cost, highlights the urgency of addressing inequities. Another participant reinforced this reality by describing the privilege associated with accessing dental care:

> *Being able to see somebody when you've got a problem when it arrives is such a huge privilege, massive privilege; the cost of it is extraordinary for a lot of families that we work with.* (Midwife 5)

This participant's emphasis on privilege highlights the unequal distribution of oral health resources. Oral health educators echoed this sentiment, describing free dental care at the AUT Oral Health clinics as *"the absolute privilege"* (OHP 4). Furthermore, the oral health educators emphasised the value of the AUT Oral Health clinics in providing free oral health care to pregnant women and people, and for up to 9 months post-pregnancy.

Subtheme 3.2 Awareness of community needs

They also imagined students who are empowered not only to give realistic, context-appropriate advice to people with oral health needs, but also to understand the diversity of oral health resources across communities and to offer guidance grounded in the lived realities of the families they serve. One of the participants explained:

> *To be able to give realistic advice about preventative care or where to find that information better and to have spaces where they can refer people to that are actually affordable or that are accessible from other different communities, not just your mainstream private dental practises.* (Midwife 5)

The participant's emphasis on "realistic advice" reflects a commitment to ensuring that students' recommendations are based on the lived experiences of pregnant

women and people, rather than idealised or inaccessible options. Another participant envisioned students who understand the unique needs of different communities such as pregnant teens, rural families, and those facing socioeconomic barriers:

> *I'm thinking about our students having a really clear appreciation of different communities that are affected as we talked about working with pregnant teens that are affected with regards to oral health… And then there are people who can't access oral health care because of socioeconomic reasons, geography, or both.* (Midwife 7)

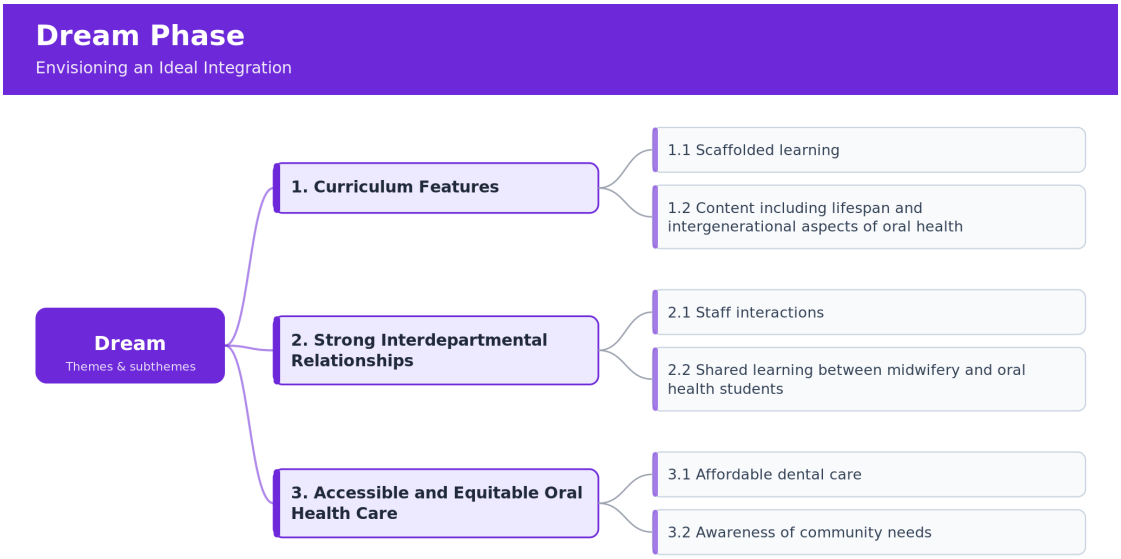
This idea was then extended further by the same midwife, imagining what this understanding might look like in an ideal educational system, where students develop a deeper and more robust awareness of the varied experiences within pregnancy and oral health:

> *An ideal system is our students having a really robust awareness of these different communities of pregnancy and oral health, rather than that's a pregnant person having a mouth.* (Midwife 7)

The participant's contribution emphasises the importance of recognising the diverse experiences and circumstances that shape pregnancy and oral health, rather than reducing care to a narrow focus on the mouth.

Figure 3

Dream Phase: Themes and Subthemes



Note. This figure displays the themes and subthemes from the *Dream* phase, in which educators envisioned an ideal integration of oral health and midwifery education, encompassing 'Curriculum Features', 'Strong Interdepartmental Relationships', and 'Accessible and Equitable Oral Health Care'.

5.2 DESIGN: Strategies for an Integrated Oral Health and Midwifery Education System

The *Design* phase represents the fourth stage of the Appreciative Inquiry process and builds directly on the aspirations articulated in the *Dream* phase. While the *Dream* phase focused on imagining an ideal future, the *Design* phase involved participants talking together to develop practical strategies that could bring that vision to life. In this stage, participants worked collaboratively to identify practical strategies, clarify processes, and outline the organisational arrangements needed to support a more integrated oral health and midwifery education system. The themes that emerged indicate participants' attention to the operational aspects of collaboration. These were 'Staff Collaboration: Strategies and Planning', and 'Student Collaboration and Learning: Strategies and Planning', each outlining specific, workable approaches that participants believed could realistically strengthen interprofessional education and collaboration.

Theme 1: Staff Collaboration: Strategies and Planning

The theme 'Staff Collaboration: Strategies and Planning' focuses on the practical steps participants identified to strengthen collaboration between oral health and midwifery educators. The emphasis was on planning, communication, and the creation of workable structures to support more integrated teaching. The subthemes that emerged were 'Familiarisation', 'Lecturing across programmes and teaching together' and 'Checking teaching content with colleagues'.

Subtheme 1.1 Familiarisation

This subtheme captures strategies that would help staff become more familiar with one another, with each other's teaching environments, and with course content that could be expanded, developed, or co-taught. The first strategy was simply increasing communication. As one midwife stated:

> *First step - talk more!* (Midwife 4)

Another midwife reinforced this by noting:

> *I think this is the way to go: to have those discussions and see how that progresses as we move forward.* (Midwife 1)

The next suggested strategy is for staff to visit each other's teaching spaces to build an understanding of how each programme works in practice. One oral health educator explained:

> *I think it might be a good idea that before all the students all get together, can all the staff get together first?... so that maybe you guys can experience what it's like to be in our clinic and what it's like if we were pregnant to be in one of your clinics and so that we are more kind of collaborated before we pass this on to the students.* (OHP 4)

Another strategy involved reviewing and clarifying what content each programme already teaches and identifying where oral health or pregnancy-related material could be strengthened. As one participant noted:

> *Work out how much of it, or how much stuff do we have for our pregnant people, or what? What is important to keep? And I guess you guys as well, what is there about oral health and is that something that you need to really emphasise to your undergrad students.* (OHP 3)

Overall, these strategies show participants' commitment to building stronger professional relationships and shared understanding as a foundation for more coordinated and integrated teaching.

Subtheme 1.2 Lecturing across programmes and teaching together

Participants proposed practical strategies for shared teaching, including lecturers actively inviting guest lecturers from the other department into their courses and lecturers organising sessions in which educators from both departments teach together. One oral health educator described the value of this approach:

> *Having a guest lecturer come in and be available for questions.* (OHP 3)

A midwife expanded on this strategy, suggesting that educators could be present alongside for selected sessions.

> *One midwifery lecturer or oral health lecturer or educator being present side by side… and it might only be one lecture and that one course one time for the whole semester or could be something that's scaffolded across years or whatever…Could we be in our spaces together because it would give more of a host perspective.* (Midwife 7)

The same midwife described how this could work in practice:

> *So, for example with Paramedicine, they would say, look, we've got a session on obstetric emergencies, and we would like someone to come and facilitate a session with our lectures on XY and Z. So, then we put something together and be in the space doing the lecture together.* (Midwife 7)

Another midwife highlighted the benefit of having both professions present, noting that it allowed students to understand the practical realities of each role.

> *Yeah, the benefit of that was they would be able to say, oh, we don't carry that medication on us or no, we can't do that when they're on route or whatever it is. So that was the benefit of having both of us. There were the practicalities of each other's jobs, about whether that can actually be achieved in that space.* (Midwife 5)

These suggestions demonstrate participants' belief that shared teaching is a practical and achievable way to strengthen interprofessional learning and ensure students benefit from the combined expertise of both disciplines.

Subtheme 1.3: Checking teaching content with colleagues

This subtheme 'Checking teaching content with colleagues' focuses on the strategy of verifying teaching content with colleagues, to ensure accuracy and consistency across programmes. One oral health educator described the value of being able to check information informally:

> *Being able to reach out and be like, hey, I was going to say this, is this correct? Also, being able to flick an e-mail off to one of you guys and verify this question you guys know better than me.* (OHP 3)

A midwifery educator noted that similar processes had been used successfully with another department:

> *Like I mentioned earlier, we did the same thing with Paramedicine. And so, they would send us the content they were going to deliver so we could have a look at it before they delivered it to their students, which was quite helpful.* (Midwife 5)

These approaches highlight the value participants placed on accuracy, consistency, and mutual support, reinforcing the importance of collaborative quality assurance across programmes.

Theme 2. Student Collaboration and Learning: Strategies and Planning

Strategies to support student collaboration and learning, follow naturally from the staff-focused strategies described earlier, yet participants also emphasised that these approaches require deliberate planning. The focus in this theme is on creating structured opportunities for the undergraduate students to engage in learning alongside one another. The subthemes that emerged were 'Shared learning spaces', 'Collaborative projects for students' and 'Student-centred approaches'.

Subtheme 2.1 Shared learning spaces

Explaining the rationale for shared learning spaces to students was identified as the first strategy. One midwifery educator noted:

> *Maybe you need to explain the rationale for having them together initially. You need to understand right from the start what impact oral health has on pregnancy outcomes, and once you establish that, make that very well understood, then there's likely to be quite a readiness, I think, to learn off each other.* (Midwife 2)

The next strategy involved bringing students together in person for learning activities. As one oral health educator explained,

> *… having midwifery and our oral health students in the same room, whether it's for a lecture or whether it's for more of a collaboration.* (OHP 3)

It was also suggested that students visit each other's learning environments to deepen understanding of each programme's practice context. One oral health educator described this as

> *Maybe the midwifery students should come to the simulation lab or oral health clinics here to see how oral health students learn in terms of providing dental care to any patient, not just pregnant patients, but to any patient… would be a good learning experience for both oral health students hosting midwifery students… but also would be a good idea that oral health students go to the midwifery simulation lab to learn about what the midwifery students learn in terms of pregnancy.* (OHP 1)

Subtheme 2.2 Collaborative projects for students

Participants proposed structured activities that would enable students to work together on shared learning tasks. One participant from the Midwifery Department described a scaffolded approach:

> *A foundational introductory session where the oral health educator and the midwife lecturer are present together… and then the next part of the scaffolding is to get the students into tutorials together with a combination of midwifery and oral health students looking at a case study.* (Midwife 7)

Another participant emphasised the value of practical, applied projects for student learning:

> *Anything practical, any case studies, any collaborative projects, any interprofessional projects where students work together would support that.* (OHP 2)

Another oral health participant proposed involving students in resource development as a way to reduce workload while enhancing learning:

> *I love getting the students to generate resources…I think that takes a lot of pressure off of us.* (OHP 4)

The oral health educator was describing a teaching approach used in the first year of the oral health therapy programme, in which students work in pairs or small groups to create short learning resources, usually a PowerPoint presentation of up to 10 slides, on a topic of their choice. These resources, once reviewed by staff, are then shared on a common platform so the whole cohort can learn from them. The educator regards this approach as valuable because it encourages active learning, supports student ownership of knowledge, and reduces pressure on teaching staff to produce all learning materials themselves. The oral health educators see this as a practical and engaging strategy that could be more widely encouraged, particularly when integrating oral health content relevant to pregnancy. Overall, these strategies highlight that joint activities can strengthen students' understanding of each other's roles and support more integrated learning.

Subtheme 2.3 Student-centred approaches

A further focus in this subtheme was on ensuring that learning remained centred on students' needs and preferences.

> *It could be different delivery formats, depending on what students prefer to learn. It could be practical workshops, a lecture format, or a recorded lecture that someone can just listen to from home, so there are different modalities to engage. I think that might be quite good.* (OHP 4)

Another participant highlighted the value of engaging, real-world material.

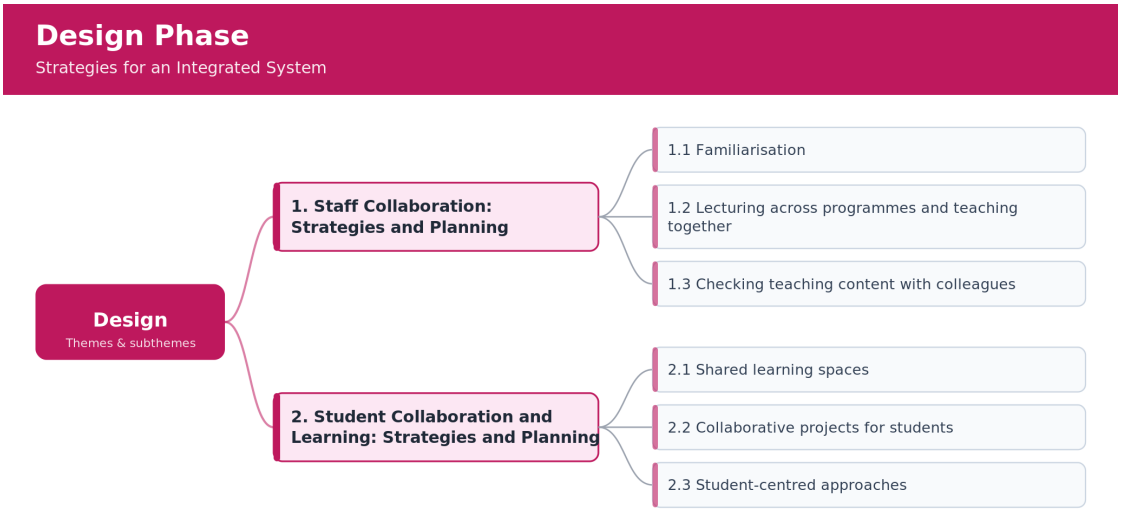
> *Videos of people sharing their experiences, including pregnant women and oral health practitioners, are powerful. Actual stories and*

> *narratives are engaging. When it is a video, there are sight, sound, and real stories, which often have more impact than lectures.* (Midwife 2)

Taken as a whole, these strategies indicate a clear focus on designing interprofessional learning that remains attentive to students' needs and how they prefer to engage.

Figure 4

Design Phase: Themes and Subthemes



Note. This figure outlines the themes and subthemes from the *Design* phase, in which educators proposed practical strategies for an integrated system, focusing on 'Staff Collaboration (Strategies and Planning)' and 'Student Collaboration and Learning (Strategies and Planning)'.

5.3 DESTINY/DELIVER Phase: Moving Forward

This research was not designed to include an implementation stage and therefore did not seek to determine the detailed processes required for implementation. However, participants did reflect in the focus groups on some of the realities that might arise if they attempted to implement their design strategies. In that context, two themes emerged in the *Destiny/Deliver* phase, which were 'Starting to Deliver' and 'Maintaining Momentum'. These themes capture early considerations about how implementation could begin and what might be needed to sustain progress.

Theme 1: Starting to Deliver

In this theme 'Starting to Deliver', participants considered what the earliest steps toward implementation might involve. It centred on two practical areas of action. The first was the importance of sharing the research findings with those who contributed to the study and with wider professional communities. The second was the value of

establishing a working group to guide the initial stages of progress. These ideas show how those involved were already beginning to envision the first steps toward moving the *Design* phase strategies into real-world application. The subthemes that emerged were 'Feedback on research findings' and 'A working group'.

Subtheme 1.1 Feedback on research findings

One midwifery educator emphasised that receiving the study findings would be a necessary starting point for any future action. The idea was that once the analysis was shared, staff could come together, consider the implications and begin shaping the next steps.

> *I think when you analyse your data from these focus groups, write it up, and present it at a forum where there's both advice, we can then think about next steps.* (Midwife 2)

An oral health educator extended this idea by suggesting that professional associations could offer valuable spaces for sharing the findings and generating further ideas. These associations were seen as places where interest, expertise and collective thinking could support early implementation conversations.

> *I was thinking about the Māori Dental Association and the Pasifika Dental Association, especially if either group is interested. They would be a good place to discuss your research findings, probably starting with the executive teams. They also hold a hui once a year and attending that would allow you to talk with people directly. You would gather plenty of ideas there, and all that knowledge really needs to be shared.* (OHP 2)

These contributions highlight the belief that transparent communication and shared understanding would help create the conditions for early movement toward implementation.

Subtheme 1.2 A working group

A participant from the Midwifery Department emphasised the need for a dedicated group to carry the work forward. The concern was that without a structured group, the ideas generated through the research could lose momentum once the study ended. A working group was seen as a way to preserve the value of the discussions and ensure that the collaborative intent was not lost.

> *We need a working group… who are actually going to follow this up and make it happen… otherwise it could be lost. The richness of what we are talking about today could be lost.* (Midwife 7)

Another midwife highlighted the importance of clarity and shared purpose within such a group. A clear agenda was viewed as essential for guiding early decisions and ensuring that everyone involved understood the direction of the work.

> *Having a clear agenda, being very clear about what you're trying to achieve, and keeping everyone on the same page.* (Midwife 1)

Theme 2: Maintaining Momentum

Various conditions were discussed as likely to sustain momentum, particularly those that would enable the collaborative work to continue in a realistic and sustainable way. As the conversation unfolded, two areas of focus became clear. One centred on the practical need to make time for planning, coordination and shared development. The other centred on the importance of long-term commitment, partnership and a willingness to stay engaged as the work evolves. These insights show an awareness that sustaining progress requires both structural support and a shared sense of responsibility. The subthemes that emerged were 'Making time' and 'Ongoing commitment'.

Subtheme 2.1 Making time

Time was consistently identified as a central factor in sustaining momentum. One oral health educator expressed this simply and clearly:

> *Time. Yeah, people just need time.* (OHP 2)

Another oral health educator noted that the focus group conversation itself had revealed new possibilities, and that time would be needed to develop these further:

> *I learned lots from this conversation, and I feel that there is a lot of things that we can do if we organise ourselves and we dedicate the time to develop this further…so we need to work on time.* (OHP 1)

A midwife emphasised the importance of beginning with manageable steps and keeping expectations realistic:

> *And time of course. And I think keeping it feasible by, maybe what portions of time this could happen, but to try and incorporate it very broadly…So, you just got to start small and build up depending on how well we find that works, I think.* (Midwife 2)

There was also recognition that collaboration across departments would initially require more time, not less, due to the need for planning, scheduling and coordination:

> *I suspect that the collaboration between two departments won't be timesaving at first, because it requires a lot of planning and organising of different schedules and timetables, and it always takes time.* (Midwife 1 and Midwife 2)

<u>Subtheme 2.2 Ongoing commitment</u>

Long-term commitment was seen as essential for sustaining interprofessional work. An oral health educator described collaboration as a continuous process that should remain active over time:

> *I think my opinion will be that we are collaborating and participating in engaging in teaching and learning. So, it's a continuous process. That should never stop in my opinion.* (OHP 1)

A midwife emphasised the importance of partnership and sustainability, noting that committed staff would be needed to take responsibility for moving the work forward:

> *I think the discussion today was about a whole draft of things, but the words partnership and sustainability stand out to me and it's actually about creating… So, for me, a partnership means having committed and interested staff who say, we are going to create this space and give ourselves some terms of reference and a timeline and actually make this happen.* (Midwife 7)

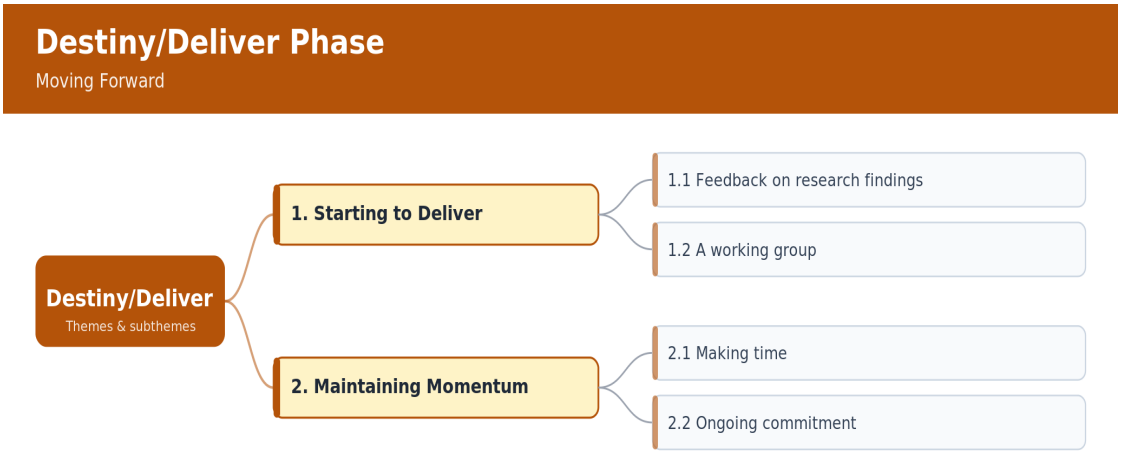
Another midwife noted that while change can be challenging, evidence and continued learning can strengthen commitment.

> *It's typical for sometimes people to be resistant to change, but I think, when people see the evidence, they are likely to be more committed, the best way to make an impact to resulting change is through continuing learning.* (Midwife 2)

These contributions highlight the importance of sustained engagement, shared purpose and ongoing learning in maintaining momentum.

Figure 5

Destiny/Deliver Phase: Themes and Subthemes



Note. This figure shows the themes and subthemes from the *Destiny/Deliver* phase, in which educators considered how to move forward, including 'Starting to Deliver' (feedback on findings and a working group) and 'Maintaining Momentum' (making time and ongoing commitment).

5.4 Chapter Summary

Across the *Dream, Design,* and *Destiny phases,* the study captured a progression from imagining an integrated approach to oral health and midwifery education, to identifying practical strategies to support collaboration, and finally to considering the early conditions that might enable and sustain implementation. The *Dream* phase revealed a shared aspiration for more connected and responsive education. The *Design* phase translated those aspirations into practical strategies that focused on communication, shared teaching and student-centred learning. The *Destiny/Deliver* phase then offered early insights into what would support the move from planning to action, including the value of sharing findings, forming a working group, making time for collaboration, and sustaining long-term commitment. Collectively, these phases provide a coherent foundation for understanding how interprofessional education and collaboration between oral health and midwifery could be strengthened and what may be required to support its future development.

Chapter 6 Discussion

6.1 Introduction

This chapter brings together the findings generated across the five phases of Appreciative Inquiry, *Define, Discover, Dream,* and *Design*, together with reflections from the *Destiny/Deliver* phase, and considers them in light of the wider literature on interprofessional health education, oral health in pregnancy, and culturally safe teaching in Aotearoa New Zealand. Consistent with the study's strength-based orientation, this discussion centres on what is already working well, what participants envisioned as possible, and the constructive pathways that emerged from their collective wisdom. The chapter situates the educators' voices within established conversations on interprofessional collaboration, Cultural Safety, and Appreciative Inquiry as a generative methodology, and reflects on how their insights can inform an integrated approach to undergraduate teaching in oral health and midwifery. Here, generative methodology refers to Appreciative Inquiry's capacity to produce new ideas, possibilities, and shared understandings through dialogue, rather than simply describing existing conditions.

6.2 Overview of Key Findings

The eleven educators who participated in this study contributed rich, layered, and complementary perspectives on how oral health and midwifery education can be brought together in ways that are meaningful, sustainable, and culturally grounded. Across the *Define* and *Discover* phases (presented in Chapter 4), participants articulated a shared sense of purpose, recognised the value of integrated curricula, and surfaced the many strengths that already shape teaching and clinical learning in both programmes. They emphasised the importance of building students' confidence through structured learning, acknowledged the influence of wider health system structures and policy environments, and described Cultural Safety as a relational, evolving practice that already informs their teaching.

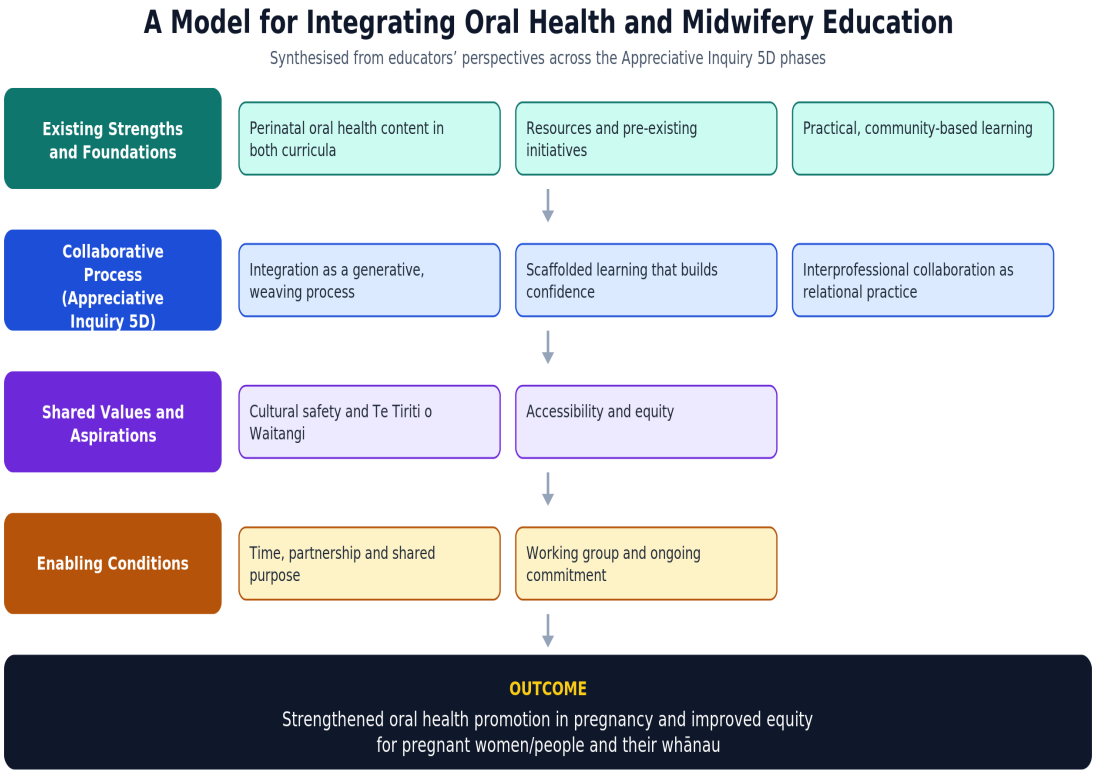
In the *Dream, Design,* and *Destiny/Deliver* phases (as presented in Chapter 5), participants generated a forward-looking vision for integrated education. They imagined a scaffolded spiral curriculum that introduces oral health early and builds

toward complexity in later years; they described strong interdepartmental relationships, reciprocal teaching, and shared learning between students; they articulated an aspirational commitment to accessible and equitable oral health care that responds to the realities of the families they work with. They proposed practical strategies for staff collaboration, joint teaching, and student-centred learning; and they identified time, ongoing commitment, and a dedicated working group as conditions for sustaining momentum.

Overall, these findings reveal a community of educators who are already engaged in valuable practice, who hold a clear vision of what an integrated curriculum could look like, and who have begun to articulate the practical steps that could carry this vision forward.

Figure 6

A Model for Integrating Oral Health and Midwifery Education



Note. This figure synthesises the study's findings into a single model. Existing strengths and foundations feed into a collaborative process guided by the Appreciative Inquiry 5D approach, which is shaped by shared values and aspirations and sustained by enabling conditions, working toward strengthened oral health promotion in pregnancy and improved equity for pregnant women and people, and their whānau. The model is interpretive and was developed by the student researcher from the focus group themes.

6.3 Discussion of Findings

6.3.1 Integration as a Generative, Weaving Process

A central insight from the *Define* phase was that educators framed integration not as adding more content, but as a thoughtful process of weaving oral health into perinatal education and weaving perinatal awareness into oral health teaching. This framing resonates strongly with the generative orientation of Appreciative Inquiry, which positions change as built upon existing strengths rather than imposed upon perceived gaps (Cooperrider & Whitney, 2005). When participants described integration as good, timely, and natural, they signalled that the work ahead is about extending and strengthening what is already present rather than constructing something new from the ground up.

The weaving metaphor also aligns with broader international literature on curriculum integration (Pountney & McPhail, 2017), which positions oral health as an important part of holistic perinatal care rather than a separate or specialised topic (World Health Organization, 2022). The participants' framing affirms a longstanding aspiration in health professions education: that learning is more meaningful, and graduates are more capable, when content is contextualised across the life course rather than compartmentalised within disciplinary silos (Laniado et al., 2021). Participants' references to bidirectional links between periodontal health and pregnancy outcomes, early infant feeding and oral health, and the everyday transfer of bacteria within whānau illustrate how integration becomes natural when oral health is positioned as part of perinatal wellbeing rather than a standalone clinical concern.

6.3.2 Building Confidence through Scaffolded, Structured Learning

A second important insight was the emphasis participants placed on building confidence in future practitioners. Educators spoke of structured and compulsory learning components, scaffolded progression across year levels, and assessments that reinforce learning over time. Their vision aligns with established frameworks for interprofessional education, which highlight the value of intentional curriculum design, repeated exposure, and progressive complexity in supporting students' development of collaborative competence (Barr et al., 2005; World Health Organization, 2010).

Participants' descriptions of scaffolded learning, beginning with physiology in the first year and progressing to complexity, social context, and clinical decision-making in later years, illustrate how oral health and midwifery education can be co-constructed throughout the undergraduate journey. Importantly, several educators emphasised that learning should remain engaging and enjoyable so that students participate fully. This sentiment echoes contemporary educational thinking that views motivation, relevance, and student engagement as central to retention and transfer of learning (Alhadabi & Karpinski, 2019; Moussa et al., 2024). Building confidence in the participants' framing is, therefore, both a structural matter, embedded in the curriculum's design, and a relational matter, attended to in the delivery of content and in how students are invited into learning (Kahu & Nelson, 2017).

Participants' emphasis on assessments as a means of reinforcing learning is also noteworthy. The suggestion that perinatal oral health content could be embedded within multiple-choice questions, case studies, and other existing assessment forms reflects an understanding that learning is consolidated when it is woven into the structures students already engage with (Kajan et al., 2025). This approach honours the existing assessment ecology while strengthening the visibility of oral health content within it.

6.3.3 Strengths within Existing Teaching, Resources, and Pre-existing Initiatives

The *Discover* phase highlighted the considerable foundation already in place in both programmes. Participants identified oral health content within anatomy, oral biology and pathology, and oral health assessment papers in the oral health curriculum, and within women's health and sepsis-related content in the midwifery curriculum. They also spoke of a self-directed learning package on perinatal oral health that had been developed, as well as community-based initiatives such as oral health promotion projects with pregnant adolescents in school settings.

These findings reinforce a core tenet of Appreciative Inquiry: that meaningful change begins with discovering what is already working (Cooperrider et al., 2008). The educators' recollections of previous collaborative teaching, including guest lectures from oral health colleagues into midwifery classes, illustrate that interprofessional teaching is an established practice that can be revitalized and extended (Thurber &

Bossen, 2025). The strength of these existing initiatives also points to the value of institutional memory that educators carry rich knowledge about what has been tried, what has worked, and what could be built upon as integration is strengthened in future curriculum reviews.

Participants also highlighted experiential learning environments, particularly the AUT Oral Health clinic, as powerful settings in which classroom learning is consolidated through clinical encounter. Oral health educators described the moments of insight students experience when treating pregnant women and people in the clinic, and midwifery educators reflected on how firsthand observation of the clinic strengthens interprofessional understanding. These insights are consistent with contemporary scholarship on experiential and situated learning in health professional education, which underscores the value of authentic clinical contexts for integrating knowledge and skills (Hill, 2017; Mohebbi et al., 2014; Nagel et al., 2024).

6.3.4 Interprofessional Collaboration as a Relational Practice

Participants' visions in the *Dream* phase emphasised that meaningful integration depends on the quality of relationships between those who teach and those who learn. Educators described shared lunches, regular conversations between staff, and visits to each other's teaching spaces as foundational to deeper collaboration. They imagined a future where expertise flows freely between departments, where guest lecturing is reciprocal, and where staff feel confident to check teaching content with one another.

This relational understanding of interprofessional collaboration is well supported in the wider literature. The World Health Organization's Framework for Action on Interprofessional Education and Collaborative Practice (2010) emphasises that effective collaboration requires not only structural enablers, such as joint teaching, shared resources, and aligned learning outcomes, but also relational conditions, including trust, shared values, and routine opportunities for connection. Effective interprofessional education has long been characterised as learning with, from, and about one another (Barr et al., 2005; Centre for the Advancement of Interprofessional Education, 2002). Participants' descriptions of side-by-side teaching, case-based

tutorials with mixed student groups, and shared learning environments speak directly to this principle.

The educators' vision also reflects a generative understanding of what students themselves contribute when they learn together. Participants noted that students often share lived experiences from their clinical placements, generate new ideas to address community needs, and learn powerfully from peers. This view, positions students not as passive recipients of integrated teaching, but as active contributors to interprofessional knowledge (For example: flipped-blended learning) (Ang et al., 2021). The proposal to involve students in resource development is particularly illustrative: when students co-create learning resources for one another, both their content knowledge and their collaborative capability are deepened.

6.3.5 Cultural Safety, Te Tiriti o Waitangi, and Embracing Different Worldviews

One of the most distinctive contributions of this study is the way educators articulated Cultural Safety as a relational, evolving practice already embedded in their teaching. Their descriptions of Cultural Safety, as something attended to in every paper, supported through dedicated student spaces such as Te Ara O Hine and Tapu Ora, and continually renewed through reflection, resonate strongly with the foundational work of Irihapeti Ramsden (Ellison-Loschmann, 2003; Koptie, 2020; Ramsden, 1990) and the ongoing application of Cultural Safety in education in Aotearoa New Zealand (Fleming et al., 2019; Lokugamage et al., 2023).

Participants also spoke about the importance of embracing multiple worldviews, recognising that health care is often taught through a Western lens that may not reflect the experiences of all students and communities. Their commitment to creating space for Indigenous and culturally diverse perspectives reflects the broader call to honour Te Tiriti o Waitangi as a foundation for health professional education and aligns with scholarship that positions decolonising methodologies and Māori worldviews as central to ethical practice (Durie, 1998; Smith, 1999). Moreover, their commitment aligns with AUT's institutional strategies, "Te Kete - AUT's strategy to 2030" and "Te Aronui (the University's inaugural Tiriti Responsiveness

Framework)"(p.5), which position equity and the success of "priority learner groups"[5] as shared goals (Auckland University of Technology, 2024).

Importantly, one participant explicitly highlighted the value of strength-based approaches when discussing populations often framed as disadvantaged. This contribution maps directly onto the Appreciative Inquiry orientation of the study and illustrates that the educators' values and the research's methodological commitments are closely aligned (Cooperrider et al., 2008). Their voices invite all who teach in this space to honour the cultural knowledge that students and communities already carry, and to design learning environments that grow that knowledge rather than diminish it. Cultural Safety, in the educators' framing, is not a destination to be reached but a continually unfolding practice grounded in listening, openness, and relational care (Curtis et al., 2019).

6.3.6 Accessibility and Equity as Shared Aspirations

The *Dream* phase brought forward an aspirational commitment to oral health care that is accessible, affordable, and responsive to the diverse communities' educators serve. Participants spoke of a future where pregnant women and people can access oral health care without cost being a determining factor, where students are equipped to offer realistic, context-appropriate advice, and where graduates carry a robust awareness of the diverse experiences that shape pregnancy and oral health. These aspirations align closely with the AUT graduate attributes, which emphasise culturally responsive, ethically grounded, and collaborative practice (Auckland University of Technology, 2025).

This vision is consistent with global priorities articulated by the World Health Organization, which positions universal access to oral health services as a foundational element of health for all (World Health Organization, 2022). It also reflects the Aotearoa New Zealand context, where oral health remains an area in which collaborative, system-level innovation continues to develop. Participants pointed to encouraging examples, including the AUT Oral Health clinic's free care for pregnant women and people during pregnancy and the postpartum period, integrated Lead

[5] "AUT has identified its priority learner groups as Māori students, Pacific students, students who are Deaf or disabled, and those from traditionally underserved backgrounds, particularly economically and educationally disadvantaged groups" (Auckland University of Technology, 2024, p.6).

Maternity Care (LMC) models, and community-supported initiatives such as the Clare Foundation-funded work they described, as evidence that more accessible care is achievable when shared priorities and collaborative relationships align. In Aotearoa New Zealand, the LMC model gives each woman or person a single continuity-of-care provider, most often a midwife, who coordinates their care across pregnancy, birth, and the postnatal period (Gilkison et al., 2015).

Educators' commitment to preparing students who understand community context and who can offer guidance grounded in the lived realities of the families they serve, aligns with contemporary models of culturally safe and equity-oriented health professional education (Curtis et al., 2019; Curtis et al., 2025). The vision articulated by one midwifery educator of students who recognise that pregnant women and people exist within rich, diverse communities rather than being reduced to a clinical presentation captures the holistic orientation that participants hope to nurture (Weiler & Caton, 2021). Equity, in this framing, is woven throughout the curriculum rather than positioned as a separate topic.

6.3.7 Sustaining Momentum: Time, Partnership, and Shared Purpose

The *Destiny/Deliver* reflections highlighted that sustainable integration depends on conditions that allow collaborative work to continue. Participants identified time, ongoing commitment, and a dedicated working group as central to maintaining momentum after the focus groups concluded. They acknowledged that collaboration may initially require more time, not less, due to the planning, scheduling, and coordination involved, yet they also recognised that starting small and building gradually is a realistic and sustainable path forward.

These insights are well supported in the change management and curriculum development literature, which consistently identifies dedicated time, leadership support, and ongoing engagement as enablers of educational innovation (Nicolaou et al., 2024; Quinonez et al., 2023). The participants' framing of sustainability as a partnership rather than a one-off project echoes the relational orientation of Appreciative Inquiry that change is sustained through shared purpose, ongoing dialogue, and continued investment in the relationships that hold the work together (Cooperrider & Whitney, 2005). Their emphasis on continuing learning to support

change and on evidence to strengthen commitment reflects a mature understanding of how educators come to value and engage with new ways of working.

Participants' recommendations for sharing findings with professional associations, including the Māori Dental Association (Te Ao Mārama) and the Pasifika Dental Association, also point to the importance of culturally grounded networks in sustaining momentum. These networks offer not only forums for dissemination but also relational spaces where collective thinking can deepen, and where the next steps for implementation can be shaped in partnership with communities of practice.

6.4 Reflections on Appreciative Inquiry as the Methodological Anchor

Appreciative Inquiry provided a generative framework that allowed participants to engage with the topic of integration through the lens of possibility, strength, and shared aspiration. The 5D cycle moved the conversation from defining a shared purpose through discovering existing strengths to imagining an ideal future, designing practical strategies, and reflecting on the conditions for delivery (Luhalima et al., 2020). The findings of this study suggest that this approach was well-suited to a topic in which collaboration, relationships, and curriculum design are central.

A notable feature of the focus group discussions was the way Appreciative Inquiry created space for educators from different disciplines to listen, learn, and build on one another's ideas. Cooperrider and Srivastva's (1987) original framing of Appreciative Inquiry emphasised the generative potential of asking questions pertaining to creativity that already exists within a system. The conversations in this study illustrated this clearly: educators discovered shared values they had not previously articulated together, recognised existing initiatives that could be revitalised, and co-created visions for the future that neither group might have imagined in isolation.

The strength-based orientation of Appreciative Inquiry was also consonant with the cultural commitments expressed by participants, particularly the importance of avoiding deficit narratives when teaching about Māori, Pacific, and other communities. As one participant explicitly noted, strength-based teaching is more inclusive and more accurate because it acknowledges the knowledge, resilience, and capabilities that communities already hold. The methodological orientation of the research and the

cultural values of the participants reinforced one another throughout, contributing to a research process that felt coherent, respectful, and generative (Hibbert et al., 2014; Levitt et al., 2021).

Appreciative Inquiry also made a distinctive contribution to how this research engaged with curriculum design. Where traditional needs-analysis approaches often begin by identifying what is missing, Appreciative Inquiry begins by asking what is already alive and valued (Cooperrider & Whitney, 2005). This shift in starting point shaped the entire inquiry, producing findings that emphasise existing assets, relational strengths, and forward-looking possibilities, and creating a foundation upon which future curriculum work can confidently build.

6.5 Strengths and Considerations of the Study

Several strengths of this study can be identified. The use of Appreciative Inquiry provided a coherent and ethically aligned approach to engaging educators in a topic where collaboration and relationships are central. The participation of eleven educators across two disciplines generated rich, multi-perspective insights. The focus group format allowed participants to build on one another's contributions, generating ideas that were collectively shaped rather than individually held. The study's strength-based framing honoured the wisdom, expertise, and aspirations of the participants and facilitated the emergence of constructive, forward-looking findings. The cultural grounding of the research, including attention to Te Tiriti o Waitangi, recognition of Māori and Pacific worldviews, and consistent use of inclusive language, further strengthened the ethical and contextual integrity of the inquiry.

Some considerations may also be noted to inform future research. The study took place within a single tertiary institution in Aotearoa New Zealand, and the findings reflect the rich experiences of educators in that specific context. Future inquiries could extend this work by including students, community partners, professional bodies, and pregnant women and people themselves, whose voices would deepen understanding of integrated oral health and midwifery education. Studies in other tertiary settings, both within Aotearoa New Zealand and internationally, would also offer valuable points of comparison and shared learning. The *Destiny/Deliver* phase of this research was reflective rather than implementation-focused, and future studies could build on

this foundation by accompanying the implementation of integrated curriculum changes and evaluating their experiences and outcomes over time.

6.6 Limitations of the Study

While Appreciative Inquiry offered a valuable strengths-based lens, its affirmative orientation can itself be a limitation. Because the 5D process deliberately concentrates on what is working well and on aspirations for the future, it may draw attention away from the problems, tensions, and constraints that participants also hold, and can elicit a more optimistic account than a problem-focused method would (Trajkovski et al., 2013). In this study, that emphasis on possibility may mean that barriers to integrating oral health and midwifery education, such as workload, resourcing pressures, and differing disciplinary priorities, were explored less fully than the enablers.

Several further limitations should be acknowledged. The study was conducted at a single tertiary institution with a small purposive sample of eleven educators, so the findings reflect that particular context and are not intended to be generalised. Only teaching staff took part; the perspectives of students, pregnant women and people, and their whānau, community partners, and professional bodies were not captured, although these voices are central to the topic. The study was also shaped by the researcher's position as an oral health practitioner who facilitated the focus groups. Consistent with the qualitative, reflexive design of this inquiry, this positioning is understood not as a threat to objectivity but as part of the meaning-making process: the researcher's familiarity with the field helped to build rapport and trust and to encourage open discussion, while also calling for ongoing reflexivity so that this perspective did not unduly shape the facilitation or interpretation of the data. These limitations are characteristic of qualitative, context-specific research (Tosto, 2024) and are best understood within that design.

6.7 Significance to Public Health

Evaluated against the core concerns of Public Health as a discipline, this research speaks directly to prevention, equity, and workforce capability. Oral health in pregnancy is a population-level issue with intergenerational consequences, and the inequities experienced by Māori and Pacific women and people mean that strengthening preventive care is also a matter of health equity. The contribution of this

study to Public Health lies less in describing the problem than in identifying a feasible upstream lever that focuses on shaping the future workforce. By showing that midwifery and oral health educators already hold the strengths, relationships, and vision needed for integrated teaching, the findings suggest that interprofessional curriculum development is a realistic and relatively low-cost strategy for embedding oral health promotion into routine maternity care. This matters for Public Health because durable, population-wide improvement is more often achieved by building change into systems and professional education than by relying on individual behaviour change alone.

6.8 Chapter Summary

This chapter has discussed the study's findings in light of the established literature on Appreciative Inquiry, interprofessional education, Cultural Safety, and oral health in pregnancy. The discussion has highlighted that participants articulated integration as a generative weaving process, identified strengths in existing teaching and pre-existing initiatives, envisioned scaffolded curriculum design, valued relational interprofessional collaboration, embedded Cultural Safety as a relational practice, and called for accessible and equitable care for pregnant women and people, and their whānau. The chapter has also reflected on Appreciative Inquiry as a methodological anchor that supported strength-based engagement throughout the inquiry. The next chapter draws these threads together and offers conclusions and recommendations.

Chapter 7 Conclusion

7.1 Introduction

This chapter concludes the thesis by revisiting the research aim, summarising the study's contributions, offering recommendations for education, practice, policy, and future research, and closing with a reflective statement on what this Appreciative Inquiry has illuminated about the future of integrated oral health and midwifery education in Aotearoa New Zealand.

7.2 Revisiting the Research Aim

The aim of this research was to explore, through an Appreciative Inquiry approach, the potential for oral health and midwifery education to be brought together more meaningfully, both to support undergraduate students and to strengthen the care provided to pregnant women and people, and their whānau. Working through the 5D cycle, eleven educators articulated a shared purpose, identified existing strengths, imagined an integrated future, and designed practical strategies for closer collaboration. While the final *Destiny/Deliver* phase was not implemented in its fullest sense, participants nonetheless reflected on the conditions that would support such delivery. Taken together, the findings suggest that the research aim was largely realised, with meaningful insights emerging at each phase of the inquiry. Participants offered a strengths-based account of what they already value in their teaching, what becomes possible when oral health and midwifery education are brought into closer dialogue, and the conditions needed to sustain this collaboration over time.

7.3 Summary of Key Contributions

This study contributes to scholarship and practice in several ways.

First, it offers a strength-based account of how educators in two distinct, yet complementary disciplines articulate the value of integrated teaching, the importance of building students' confidence through scaffolded integrated learning, and the relational foundations of meaningful interprofessional collaboration. The voices of midwifery and oral health educators, gathered through Appreciative Inquiry, reveal a

shared aspiration to weave oral health into perinatal education and vice versa in ways that are culturally safe, feel natural, and are evidence informed.

Second, the study highlights the substantial foundation already in place in both programmes. Educators identified valuable content within their existing curricula, recalled successful collaborative initiatives, and described community-based projects that contribute to authentic learning. These insights affirm that integration is not a matter of starting from nothing but of nurturing and extending practices already in place.

Third, the study contributes a vision for an integrated future. Participants imagined scaffolded curricula, reciprocal teaching, shared student learning experiences, accessible and equitable care, and culturally safe practice grounded in Te Tiriti o Waitangi. Their vision provides a rich, generative starting point for those who will carry the work forward.

Fourth, the study contributes practical strategies for moving from aspiration to action. The *Design* phase generated concrete ideas for staff collaboration, joint teaching, student-centred learning, and resource development, while the *Destiny/Deliver* reflections identified working groups, dedicated time, and ongoing commitment as conditions that will support sustainable change.

Fifth, the study offers a methodological contribution by demonstrating the value of Appreciative Inquiry in interprofessional education research. The strength-based, generative orientation of Appreciative Inquiry created conditions for educators to engage thoughtfully and collaboratively across disciplinary boundaries, and to co-create knowledge that honours their expertise and their aspirations. This approach also resonated with participants' cultural commitments to strength-based engagement with Māori, Pacific, and other diverse communities, illustrating how methodology and values can reinforce one another within a single inquiry.

7.4 Recommendations

The following recommendations are offered as constructive starting points to build on this work. They are drawn directly from participants’ voices and presented in a strengths-based spirit consistent with the study's methodology.

7.4.1 Recommendations for Education

Educators in undergraduate oral health and midwifery programmes are encouraged to continue strengthening the integration of oral health within perinatal care education, drawing on the existing content, resources, and initiatives identified by participants. An integrated scaffolded approach, in which oral health appears at multiple points across the program, is recommended to support depth, retention, and progressive complexity. Joint teaching sessions, guest lectures across departments, and shared learning environments in which students from both programmes learn together would honour the educators' vision for interprofessional collaboration. The continued use and updating of a perinatal oral health learning package, with input from an oral health educator, provides a practical pathway for embedding this content in the midwifery curriculum. Student-centred approaches that include practical workshops, recorded lectures, videos of lived experience, and case studies would further enrich engagement and learning.

7.4.2 Recommendations for Practice

Strengthening relationships between oral health and midwifery practitioners in clinical settings would extend the benefits of integrated education into everyday care. Continued development of integrated models, such as LMC collaborations, community-supported initiatives that increase access to oral health care for pregnant women and people, and shared referral pathways between midwives and oral health practitioners, would enrich the wider system in which graduates will work. Practitioners are encouraged to share their experiences and insights with student learners, reinforcing the value of community-based and experiential learning. Continued collaboration with Kaupapa Māori, Pacific, and other community-led health initiatives would deepen the relevance and responsiveness of integrated care.

7.4.3 Recommendations for Policy

Updated professional guidance on oral health in pregnancy, aligned with current evidence and developed in partnership with relevant regulatory and professional bodies, would support educators, students, and clinicians. Continued attention to public health policy mechanisms that support equitable access to oral health care for pregnant women and people, and their whānau would honour the aspirations

educators articulated in the *Dream* phase. Such mechanisms could include funding pathways, integrated service models, and partnerships that bring oral health into routine perinatal care. Policy support for interprofessional education at the tertiary level, including time, resourcing, and recognition for collaborative teaching, would further enable the work envisioned by participants.

7.4.4 Recommendations for Future Research

Future research could extend this Appreciative Inquiry by engaging students, pregnant women and people, and whānau, community partners, and professional bodies whose voices would enrich understanding of integrated oral health and midwifery education. Co-design studies with Māori and Pacific communities would deepen the cultural grounding of integration efforts. Longitudinal evaluations of integrated curricula and interprofessional learning experiences would generate further evidence to support sustainable change. Studies in other tertiary contexts, both within Aotearoa New Zealand and internationally, would offer valuable points of comparison and shared learning. Future research could also accompany the implementation of integrated curriculum changes, building on this study's foundation to evaluate educators' and students' experiences and outcomes as integration unfolds in practice.

7.5 Closing Reflections

This Appreciative Inquiry has described a community of educators who care for their students, respect the families those students will serve, and share a clear aspiration for what integrated oral health and midwifery education could become. Their accounts suggest that the foundations for meaningful integration are already in place: in the content of existing curricula, in the relationships between educators, in the cultural commitments that shape teaching, and in their willingness to design something stronger together.

The strength-based orientation of Appreciative Inquiry supported this study by focusing on what is already working, building on what educators already value, and identifying constructive possibilities for integration. Continued progress toward integrated, scaffolded oral health and midwifery education in Aotearoa New Zealand will depend on the educators, students, practitioners, communities, pregnant women and people, whānau, and policy partners who take this work forward. This study

contributes the participants' early, context-specific insights as a starting point for that work, and as an invitation to keep developing oral health and midwifery education together in ways that support students, whānau, and the pregnant women and people in their care.

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Appendices

Appendix A Ethics Approval

Auckland University of Technology Ethics Committee (AUTEC)

30 September 2025

Tania Fleming
Faculty of Health and Environmental Sciences

Dear Tania

Re Ethics Application: **25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.**

Thank you for your responses to AUTEC's conditions.

Your ethics application has been approved for three years until 30 September 2028.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online http://www.aut.ac.nz/research/researchethics

For any enquiries, please contact the Secretariat at ethics@aut.ac.nz
(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: tjh8833@autuni.ac.nz; anna.fielder@aut.ac.nz

Appendix B Permission Forms (Midwifery and Oral Health)

Permission for researchers to access organisation school staff (Midwifery department at Auckland University of Technology)

Project title: ***Exploring the potential for collaboration between the midwifery and oral health departments at AUT to support oral health care of pregnant people: A qualitative study.***

Project Supervisors: ***Dr Anna Fielder and Dr Tania Flemming***

Researcher: ***Nimmi Biju Abraham***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 17 September 2025.
- ○ I give permission for the researcher to undertake research within _____
- ○ I give permission for the researcher to access the teaching staff of_____
- ○ I give permission for the researcher to access the Midwifery curriculum and course content documents (please tick one): Yes○ No○

Head of Department signature: .....

Head of Department name: .....

Head of Department Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 30th September 2025; AUTEC Reference number: 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.

Note: The head of the organisation should retain a copy of this form.

Permission for researchers to access organisation school staff (Oral Health department at Auckland University of Technology)

Project title: ***Exploring the potential for collaboration between the midwifery and oral health departments at AUT to support oral health care of pregnant people: A qualitative study.***

Project Supervisors: ***Dr Anna Fielder and Dr Tania Flemming***

Researcher: ***Nimmi Biju Abraham***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 17 September 2025.
- ○ I give permission for the researcher to undertake research within _____
- ○ I give permission for the researcher to access the teaching staff of_____
- ○ I give permission for the researcher to access the Oral Health curriculum and course content documents (please tick one): Yes○ No○

Head of Department signature:

.....

Head of Department name:

.....

Head of Department Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 30th September 2025; AUTEC Reference number: 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.

Note: The head of the organisation should retain a copy of this form.

Appendix C Consent Form

Consent Form

Project title: *Exploring the potential for collaboration between the midwifery and oral health departments at AUT to support oral health care of pregnant people: A qualitative study.*

Project Supervisors: ***Dr Anna Fielder and Dr Tania Flemming***

Researcher: ***Nimmi Biju Abraham***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated on 15-09-25.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that while efforts will be made to maintain confidentiality within the focus group, limited confidentiality can only be offered due to the small and familiar nature of the participant group. However, I agree to respect the privacy of my fellow participants and to keep any shared discussions within the group confidential.
- ○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 30th September 2025; ***AUTEC Reference number:*** 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.

Note: The Participant should retain a copy of this form.

Appendix D Information Sheets (Participant and HOD)

Participant Information Sheet

Date Information Sheet Produced: 15-09-2025

Project Title

Exploring the potential for collaboration between the midwifery and oral health departments at AUT to support oral health care of pregnant people: A qualitative study.

Invitation

Thank you for your interest in this research project. The study is being conducted by Nimmi Biju Abraham as part of the Master of Public Health degree at Auckland University of Technology, under the supervision of Dr Anna Fielder and Dr Tania Fleming. This research explores opportunities for collaboration between midwifery and oral health education, with the aim of enhancing teaching and learning around oral health in pregnancy. Before deciding whether to take part, please read this information sheet carefully. Participation is entirely voluntary, and all expressions of interest are appreciated.

What is the purpose of this research?

This research explores how midwifery and oral health education in Aotearoa New Zealand may be improved through collaboration between the two disciplines. Strengthening oral health knowledge among midwives and other health professionals has been shown to support better outcomes for pregnant people and childbearing whānau. Oral health providers also play an important role in education and referral during pregnancy. The project builds on the strengths of current undergraduate programmes in both Midwifery and Oral Health at AUT, to identify opportunities for enhancing teaching around pregnancy-related oral health. It will consider how midwifery and oral health educators may work together to develop tailored content and improve learning experiences for students. To gather insights, a hybrid focus group discussion will be held with teaching staff from both disciplines. The findings will inform potential strategies for curriculum development that support the wellbeing of childbearing whānau.

How was I identified and why am I being invited to participate in this research?

You are invited to take part in this research because you are a member of the teaching staff in either the Midwifery or Oral Health Department at AUT.

How do I agree to participate in this research?

Please read this Participant Information Sheet and if you have any questions and/or concerns you are encouraged to contact Dr Tania Fleming or Dr Anna Fielder, the supervisors of this research, using the contact details offered below. If you agree to take part in the study, please do so through completing and signing the Consent Form. You can either sign and return it as an email reply to the invitation or sign a paper copy on the day before the focus group discussion begins. Your participation in this research is entirely voluntary (it is your choice). You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

Should you agree to take part in this project, you will be invited to a hybrid focus group discussion facilitated by the student researcher using an appreciative inquiry approach utilizing a predetermined set of questions. You will have choice to attend a hybrid focus group discussion either online or in person at AUT North or at South Campus. The discussions will explore the potential for collaboration between the midwifery and oral health departments to drive meaningful curriculum change. To maintain transparency and accuracy, the summary of themes identified will be shared with the participants in order to acknowledge their contribution and a confirmation of their valuable participation. The research supervisors will only see deidentified transcripts to protect participant privacy.

Focus group: The aim of the focus group is to draw on the perspectives of oral health and midwifery teaching staff to develop a deeper understanding of the potential for collaboration through strengths-based curriculum content using an appreciative inquiry approach.

Will the results of the study be published?

The results of this research will be presented in a master's thesis. This thesis will be available to the public through the AUT library. Results may also be published in a peer-reviewed, academic journal, conferences or

seminars to wider professional and academic communities. Individual research participants will not be identifiable in any publication.

What are the discomforts and risks?
As this research is coming from a strengths-based approach the aim is that no participant will experience any discomfort.

What are the benefits?
This research seeks to foster meaningful collaboration between the Midwifery and Oral Health departments. Over time, it is hoped that this work will strengthen both programmes in their shared role of enhancing student learning around oral health in pregnancy, ultimately contributing to improved outcomes for childbearing whānau. Participants' insights will play a valuable role in shaping future curriculum development and interdisciplinary teaching approaches. Light refreshments will be offered at both venues as a gesture of appreciation for your time and contribution.

How will my privacy be protected?

Only pseudonyms will be used in notes and in the write-up of the research. Data and personal references will be de-identified. Data will be stored on AUT's secure R Drive and will be accessible only to the primary researcher.

What are the costs of participating in this research?
There is no financial cost to participating in this research. It is anticipated that participation will take a maximum of 1.5 hours of your time.

What opportunity do I have to consider this invitation?
Potential study participants will be given 1-2 weeks to consider the invitation. If there is no response from you within this time of the initial email invitation, no more than one follow-up invitation will be sent.

Will I receive feedback on the results of this research?
If you request to be informed of the study findings (by ticking a circle on the Consent Form), I will send you a one or two- page report of the summary of themes attained from the analysis of the results of this research to your email.

What do I do if I have concerns about this research?
Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz* , (+649) 921 9999 ext 6038 or the supervisors - Dr Anna Fielder or Dr Tania Fleming as given below.

Whom do I contact for further information about this research?
Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the primary researcher or supervisors as follows:
Primary researcher Contact Details: Nimmi Biju Abraham *tjh8833@autuni.ac.nz*
Supervisors Contact Details:
Dr. Tania Fleming tania.fleming@aut.ac.nz

Dr. Anna Fielder anna.fielder@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on on 30th September 2025; ***AUTEC Reference number:*** 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.

Information Sheet – Heads of Department

Date Information Sheet Produced: 17-09-2025

Project Title
Exploring the potential for collaboration between the midwifery and oral health departments at AUT to support oral health care of pregnant people: A qualitative study.

Invitation
The study is being conducted by Nimmi Biju Abraham as part of the Master of Public Health degree at Auckland University of Technology, under the supervision of Dr Anna Fielder and Dr Tania Fleming. This research explores opportunities for collaboration between midwifery and oral health education, with the aim of enhancing teaching and learning around oral health in pregnancy. As part of this project, we are requesting access to curriculum and course content that is related to oral health across the perinatal period from both departments. If these materials are not publicly available, formal permission is required from the Heads of Department to access the modules related to perinatal oral health. A **Permission to Access Form** is included for your attention, which contains a specific **Yes/No question** regarding access to departmental curriculum and course content documents. This form is designed to ensure transparency and ethical compliance.

What is the purpose of this research?
This research explores how midwifery and oral health education in Aotearoa New Zealand might be improved through collaboration between the two disciplines. Strengthening oral health knowledge among midwives and other health professionals has been shown to support better outcomes for pregnant people and childbearing whānau. Oral health providers also play an important role in education and referral during pregnancy. The project builds on the strengths of current undergraduate programmes in both Midwifery and Oral Health at AUT, to identify opportunities for enhancing teaching around pregnancy-related oral health. It will consider how midwifery and oral health educators might work together to develop tailored content and improve learning experiences for students. In order to contextualize the focus group discussions and support curriculum analysis, access to relevant course outlines, learning outcomes, and teaching materials is requested. These documents will be reviewed solely for the purpose of identifying existing content related to oral health in pregnancy and potential areas for interdisciplinary enhancement.
You are being contacted in your capacity as Head of Department for either the Midwifery or Oral Health programme at AUT. Your permission is sought to access curriculum and course content that is not publicly available, in support of the research aims outlined above.

What will happen in this research?
Should permission be granted, the student researcher will review selected curriculum documents and course materials relevant to oral health and pregnancy. This review will be used to inform the design of focus group questions and to contextualize the findings. These materials will be used solely for the purpose of facilitating discussion and will not be shared beyond the student researcher and the academic supervisors. No identifiable staff or student data will be accessed, and all materials will be treated confidentially. The research will also include a hybrid focus group discussion with teaching staff from both departments, facilitated using an appreciative inquiry approach. The findings will inform potential strategies for curriculum development that support the wellbeing of childbearing whānau. The research supervisors will only see deidentified transcripts to protect participant privacy.

Will the results of the study be published?
The results of this research will be presented in a master's thesis. This thesis will be available to the public through the AUT library. Results may also be published in a peer-reviewed academic journal, conferences, or seminars to wider professional and academic communities.

What are the discomforts and risks?
There are no anticipated risks associated with granting access to perinatal oral health related content within curriculum materials. All data will be handled respectfully and securely, and findings will be presented in a way that reflects the strengths of both programmes.

What are the benefits?
This research seeks to foster meaningful collaboration between the Midwifery and Oral Health departments. Over time, it is hoped that this work will strengthen both programmes in their shared role of enhancing student learning around oral health in pregnancy, ultimately contributing to improved outcomes for childbearing whānau.

How will privacy be protected?
All perinatal oral health content accessed from curriculum documents will be treated as confidential and stored securely on AUT's R Drive. No identifiable information about staff or students will be collected, recorded, or reported at any stage of the research. References to course content in the final thesis will be generalised and fully de-identified to ensure privacy. Additionally, at the request of the Head of Department, any references to the two departments will not include the name Auckland University of Technology.

What opportunity do I have to consider this request?
You will be given two weeks to consider this request. If there is no response within that time, a single follow-up email will be sent.

What do I do if I have concerns about this research?
Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz* , (+649) 921 9999 ext 6038 or the research supervisors - Dr Anna Fielder or Dr Tania Fleming as given below:

Whom do I contact for further information?
Please keep this Information Sheet and a copy of the Permission to Access Form for your future reference. You are welcome to contact the primary researcher or supervisors as follows:

Primary Researcher Contact Details: Nimmi Biju Abraham *tjh8833@autuni.ac.nz*

Supervisors Contact Details:
Dr. Tania Fleming tania.fleming@aut.ac.nz
Dr. Anna Fielder anna.fielder@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 30th September 2025; AUTEC Reference number: 25/213 Exploring the potential for collaboration between midwifery and oral health departments to support oral health care of pregnant people: A qualitative study.

Appendix E Focus Group Discussion Guide

***Title**: Exploring the potential for collaboration between midwifery and oral health departments at AUT to support oral health care of pregnant women and people: A qualitative study.* ***Participants**: Midwifery and Oral Health Educators/Teaching Staff.*

***Data collection tool:** Semi-Structured Focus Group Guide*
***Methodology:** This guide applies the Appreciative Inquiry 5D model to explore current practices and generate collaborative pathways for integrated oral health education in pregnancy. The guide reflects Kaupapa Māori principles of whanaungatanga and collective capacity building.*

***Please note:** Participants will be invited to reflect on their personal, professional, and cultural experiences to ensure mana-enhancing, inclusive discussion. Responses will be anonymised, and participation will be voluntary and confidential.*

- ✓ **DEFINE:** Clarifying the Purpose

Q1. We are here to explore how oral health and midwifery education intersect during pregnancy. What does successful integration of these two areas look like to you?

- ✓ **DISCOVER:** Identifying Strengths

Midwifery Staff

Q2. Can you describe how the current midwifery curriculum supports oral health in pregnancy?

Oral Health Staff

Q3. What elements of your curriculum in the oral health support students to care for pregnant women and people's oral health?

Both groups:

Q4. What teaching strategies or collaborations have worked well in your experience?

Q5. Are you aware that whether students have any assignments or assessments on the topic, oral health in pregnancy?

Q6. Are there any interprofessional efforts already in place that you value and would like to highlight?

Q7. Can you share any success stories from students or clinical practise that demonstrate how oral education has supported pregnant women and people?

- ✓ **DREAM:** Envisioning the Ideal

Both Groups

Q8. Imagine an ideal system where oral health is integrated exceptionally. well in midwifery and oral health education. So, what do you think that would look like?

Q9. How do you think students might feel differently equipped in this ideal system?

Q10. What inclusive practises would support Māori, Pacific and other populations? To support in learning and teaching.

- ✓ **DESIGN:** Co-creating Solutions or Ideas

Both Groups

Q11. What kinds of teaching methods, tools, or interprofessional opportunities would support this vision?

Q12. How can we promote mutual learning between oral health and midwifery students?

Q13. What strategies would ensure Cultural Safety in teaching?

- ✓ **DELIVER/DESTINY:** Next steps

Both Groups

Q14. What actions or first steps could you or your institution take now?

Q15. What resources or partnerships would help ensure sustainability?

Q16. What content or topic need to be covered at this stage?

Q17. Do you think these actions could potentially be time saving and can you please explain why you think so like having this collaboration with both the departments is going to be time saving?

Q18. What barriers might arise and how could we overcome them together?

Q19. I would like to invite any final reflections or thoughts you may wish to share?