Responding to Māori student nurse attrition rates: A summary of research and recommendations for the Nursing Pre-Registration Pipeline Working Group

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Purpose

1. This paper responds to a request from the Nursing Pre-registration Pipeline Working Group (Working Group) to better understand Māori nursing student attrition.

2. The paper provides a summary of current literature describing the factors that act as barriers for Māori student nurses' entry and participation in undergraduate nursing education, strategies to overcome these barriers, and provides interim recommendations.

3. This summary is one part of the Working Groups Workplan Initiative Two – *Working in partnership with Māori nurse leaders and education providers to identify how, as a sector, we can be more responsive to factors affecting the retention of Māori nursing students*.

4. Further work for Initiative Two (to follow) will provide further information to inform a comprehensive picture of Māori student nurse attrition. This work will include:

    a. Focus groups to elicit Māori nursing students' experiences – currently in progress.

    b. Updated data on the performance of NZ Schools of Nursing and responsiveness to Māori nursing students – currently in progress. Completion rates, calculated for cohorts of nursing students using the Ministry of Education data, will be reported on for transparency and accountability.

    c. Further recommendations to address Māori nurse attrition.

Background

5. The under-representation of Māori in the nursing workforce has been significant and longstanding. For the last four decades, the percentage of Māori in the nursing workforce has remained between 6-7.5%, while the Māori population make up 16.5%[1] of the total NZ population (Longmore, 2020; Nana et al., 2013; Nursing Council of New Zealand, 2019, 2020; Ratima et al., 2007; Wilson, 2018).

6. Ethnicity associated differential health outcomes have been well established, with Māori overall having poorer health outcomes across a range of indicators compared to other ethnicities. Increasing the numbers of Māori in the nursing workforce is a 'critical enabler

[1] **NZ Stats, 2020.**

and a major lever' to reducing inequities, increasing access, and improving health outcomes for Māori (Nuku, 2015; Wilson, 2018). Furthermore, it has been suggested that to seriously reduce Māori health disparity, mortality and morbidity, an over-representation of the Māori nursing workforce is required (Chalmers, 2020; Waitangi Tribunal, 2019; Wilson, 2018). Increasing the Māori nursing workforce is dependent on Māori student enrolment and retention in, and timely completion of an undergraduate nursing program.

7. While approximately 50% of all nursing students enrolling at Year 1 complete their nursing training within 3 years, the data demonstrates a considerable gap in Year 3 completion rates for Māori nursing students. The size of this difference diminishes with further years of enrolment and 75% of Māori students will complete within four years (median 3 years and 4 months) with 5% taking longer than 4.9 years to complete between 2015 and 2019.[2]

Summary of literature on barriers for Māori students entry and participation in the undergraduate nursing programs

8. Literature that examines the reasons for Māori student attrition presents a range of factors that can be grouped into four broad categories identified by Ratima et al. (2007):

   a. structural factors

   b. health and education system factors

   c. organisational factors

   d. individual-level factors

9. These factors have the potential to act as barriers or enablers for the Māori health workforce recruitment and retention and influence the extent to which Māori can access tertiary education programmes, including having the option of entering the health workforce. Access, as it is described in this report, refers to enrolment in the tertiary programme and the successful and timely completion of qualifications.

10. There is a degree of overlap with some factors interacting across all four categories. For example, institutional racism crosses into all four categories – for instance, the relative economic deprivation of Māori is a structural barrier that is linked to the education system barrier of affordability of tertiary education.

11. Overall, these categories provide multiple level intervention points where action can be taken.

[2] **TEC data, 2019.**

Structural factors

12. Structural factors relate to historical, social, economic, political, and cultural factors, and are fundamental drivers of Māori participation in NZ society in general, and therefore, workforce development participation (Curtis et al., 2012a, Ratima et al., 2007). Two key structural factors are the socioeconomic position of Māori and institutional racism, both of these barriers are not just confined to the health and education sector and require consideration of an integrated approach.

13. Financial hardship contributes substantially to Māori attrition rates and impacts both the student and their whānau. The impacts are especially evident for Māori students who have to work to self-fund study-related costs at the same time as studying to sustain themselves and support whānau. (Baker, 2009; Chittick et al., 2019; Foxall 2013; Gray; 2020; Te Rau Matatini, 2009, 2015; Webber et al., 2018; Wilson et al., 2011; Zambas, 2020).

14. Health equity is concerned with populations that are marginalised as a consequence of discrimination, structural and systemic oppression. The health equity gaze is firmly focussed on root causes of inequity (Hawkins, 2017), and is deemed unfair, unjust, and avoidable (Whitehead, 1991).

15. Institutional and interpersonal racism are significant challenges that Māori student nurses face daily, during their education and then throughout their nursing careers (Barton, 2018; Barton & Wilson, 2021; Brockie et al., 2021; Chalmers, 2020; Chittick et al., 2019; Gray, 2020; Hunter & Cook, 2020; Huria et al., 2014; Kainamu, 2013; Smith et al., 2021; Wilson, 2018; Wilson et al., 2011). The harms include impacts on their wellbeing, grief, and anger, and has intergenerational impacts manifested as an inherited disadvantage (Smith et al., 2021).

16. Racism for Māori has its roots in the ongoing effects of colonisation and the colonial structures that support ongoing power relationship differentials, entitlement, and varying forms of discrimination (Came, 2012; Hawkins, 2017; Jones, 2000). Over time, institutional racism has been codified into New Zealand institutions through customs, practice, and law. Institutional racism has been normalised and legalised, with no identifiable perpetrator but is evident as inaction in the face of need.

17. Marginalisation in secondary schooling is reflected in the low rates of progression by Māori students into tertiary study. The same issues are apparent in nursing programmes, many of which are monocultural and fail to include Māori beliefs, values, and experiences (Barton & Wilson, 2021; Chittick et al., 2019; Foxall, 2013; Ramsden, 1990; Wilson et al., 2011; Zambas et al., 2020).

Health and education system factors

18. Health and education system factors relate to the system, rather than to the characteristics particular to individual institutions. When combined they have a cumulative effect that makes entering into and completing nursing programmes challenging at best.

19. Health and education system factors reinforce the failures of primary and secondary school education systems to deliver for Māori, which in turn impacts Māori abilities to access tertiary education. These include poor access to quality health career information, lack of Māori-centred health and science career promotion information; inadequate quality and availability of career guidance; poor information regarding course options across a range of professions (Baker, 2009; Cook, 2009; Curtis et al., 2012a; Foxall, 2013; Gray, 2020; Ratima et al., 2007; Webber et al., 2018).

20. According to Baker (2009), the lack of quality career information and educational planning meant students were not given the opportunity to be inspired or even adequately prepared for tertiary study in health. Recruitment and marketing strategies lack targeting rangatahi (young people) and have the propensity to provide stereotypical images of nursing as an ageing non-Māori workforce. Furthermore, Foxall (2013) also suggested the lack of confidence to study at a tertiary level combined with the complexity of the enrolment processes can also influence recruitment.

21. Other difficulties include the high level of entry criteria to tertiary study, high course costs, and low awareness by potential students of funding sources. These issues are further exacerbated by the often-distant location of institutions from rural Māori communities and in recent times, the digital divide (electronic deprivation), inhibiting participation in courses delivered online (Curtis et al., 2012a; Ratima et al., 2007; Webber et al., 2018; Wilson et al., 2011). These issues combine to make nursing or other health programmes unattainable.

22. The length of courses and the perceived study workloads combined with inadequate Māori-relevant support programmes provide further difficulties for Māori (Baker, 2009; Curtis et al., 2012a, 2014; Foxall, 2013; Ratima et al., 2007).

23. Ongoing issues for Māori students include the lack of Māori role models and mentors in the health and education sectors and an absence of formal links between academic departments and Māori communities (Barton & Wilson, 2021; Chittick et al., 2019; Gray, 2020; Patterson et al., 2017; Ratima et al., 2007; Webber et al., 2018; Wilson et al., 2011; Zamba et al., 2020).

24. Pathways from primary and secondary school to tertiary study are important considerations to ensure Māori are prepared and eligible for entry into and through the nursing education and onto vocational (post-graduate) study (Curtis et al., 2012).

Organisational factors

25. Organisational factors relate to specific health and educational institutions and services that impact Māori entry, retention, and success in nursing programmes.

26. When Māori are successful in entering tertiary level education, they are then met with additional organisational barriers (Ratima et al., 2007). These include reduced or an absent institutional commitment to Māori workforce development, environments that are not considered 'Māori friendly', programmes that are not responsive or relevant to

Māori, a lack of Māori specific study pathways, limited Māori specific course content and a lack of opportunities to work in a Māori way (Barton & Wilson, 2021; Chittick et al., 2019; Curtis et al., 2014; Ramsden, 2002; Walker et al., 2016; Webber et al., 2018; Wilson et al., 2011; Zambas et al., 2020).

27. Organisational barriers are further enhanced through personally mediated racism in education and the low numbers of Māori nurse educators in nursing education (Baker, 2009; Barton & Wilson, 2021; Chittick et al., 2019; Gray, 2020; Ratima et al., 2007; Tupara & Tahere, 2020; Wilson et al., 2011; Zambas et al., 2020, Ramsden, 1990). Furthermore, Wilson et al. (2011) identified a significant correlation between Māori student nurses that had to travel to study with difficulty accessing faculty, unsuitable teaching and learning approaches, unsupportive and culturally unsafe learning environments, and not being able to access Māori role models and mentors.

28. Curtis et al. (2012a) also highlighted that often Māori students must leave their families, communities, and support networks. They then enter a non-Indigenous tertiary environment that is unfriendly and foreign and can lead to their feeling isolated and culturally alienated.

Individual-level factors

29. Individual factors operate at the level of the person.

30. Barriers to success for Māori students include limited exposure to tertiary education and the absence of role models and mentors from within the whanau. For many Māori students they are first in the whanau to undertake tertiary education, often not knowing anyone who has studied or worked in the health sector, leading to additional pressure on the student as whanau may not understand the commitment necessary when undertaking tertiary study (Baker, 2009; Ratima et al., 2007).

31. Personal barriers to retention include whānau commitments and the high expectations of Māori communities (Barton & Wilson, 2021; Gray, 2020; Ratima et al., 2007). Wilson et al. (2011) noted whānau commitments considerably impacted student engagement in their education and retention in nursing programmes, experiencing conflict or tension when forced to prioritise their commitments to whānau over their study in response to the demands of their lecturers and programme.

32. The emergence of the SARS-CoV-2 (Covid-19) pandemic during 2020 has had considerable ramifications on teaching and learning and Māori students' well-being, personally, academically, culturally, and environmentally (Akuhata-Huntington, 2020). Some struggled with a lack of access to reliable Wi-Fi or internet, poor communication about their studies, and feeling undervalued.

Summary of strategies to overcome barriers

33. Schools of nursing must undertake active strategies that support the recruitment and retention of Māori students within the undergraduate nursing education programmes. Such strategies would strengthen the Māori nursing workforce, continue the leadership Māori nurses have taken in sustaining and enhancing developments in Māori health, and contribute to addressing inequities in outcomes experienced by Māori within the health and disability system (Cook, 2009).

34. Adoption of a multi-level approach to address the determinants that influence Māori recruitment and retention into the health workforce. Such an approach includes six overlapping strategies for implementation that focus on Māori nursing workforce development: leadership and collaboration; monitoring and research; policy; funding; technical and recruitment and retention strategies (Ratima et al., 2007).

    a. Leadership and collaboration require consistent inter-sectoral collaboration and coordinated leadership, the establishment of a national Māori health workforce leadership body, along with mechanisms for inter-sectoral and intra-sectoral collaboration (Chalmers, 2020; Cook, 2009; Kainamu, 2013; Ramsden, 1990; Ratima et al., 2007; Wilson, 2018).

    b. Monitoring and Research: Ratima et al. (2007) recommended evidence-informed decision making, with structured research, and the reporting of data. This requires routine monitoring, analysis, and reporting of Māori health workforce participation data, which also includes monitoring Māori secondary school science participation, achievement, and completion (Barton & Wilson, 2021; Chalmers, 2020; Cook, 2009; Ratima et al., 2007; Webber et al., 2018).

    c. Policy: There is a need to develop a comprehensive policy to be applied across Māori health workforce development pathways. This approach must be fully informed by consistent and quality input from Māori about their perspectives and aspirations about workforce development, strategic planning, and policy aimed at achieving equity in outcomes for Māori (Baker, 2009; Chalmers, 2020; Foxall, 2013; Ratima et al., 2007; Waitangi Tribunal, 2019; Zambas et al., 2020).

    d. Funding: The availability of dedicated, secure, and adequate funding for effective and efficient Māori health workforce recruitment and retention. (Baker, 2009; Chalmers, 2020; Cook, 2009; Ratima et al., 2007).

    e. Technical and cultural competence: The need to recognise dual clinical and cultural competence, which is endorsed through remuneration and opportunities for progression (Barton & Wilson, 2008; Baker, 2009; Hunter, 2019; Hunter & Cook, 2020; Ratima et al., 2007; Wilson & Baker 2012).

    f. Recruitment and retention interventions that utilise successful examples to engage and Māori and strengthen their participation in the workforce. Key stakeholders develop comprehensive plans, and implement them to improve Māori outcomes,

and include engagement and access to accurate quality health career advice (Baker; 2009; Chalmers, 2020; Ratima et al, 2007, 2007a). Progress should be transparent, and monitoring of plans should regularly report recruitment, retention, and success.

35. Strategies that directly relate to the Māori nursing workforce were identified through the Te Rau Matatini (2009) report, *Ngā Wawata o Ngā Naahi Māori: Responses from Māori Nurses and Midwives nationally*. This report sought solutions to address Māori recruitment and retention issues in the nursing and midwifery workforce. These solutions include:

a. Enhancement of factors that inspire and attract Māori into nursing include a desire to improve Māori health outcomes and to become role models.

b. The need to provide support to Māori at all levels of nursing education, from pre-entry through to post-tertiary education, including financial support.

c. Support from Māori educators and tutors with academic, clinical, and cultural expertise and support from peers and mentors.

d. More flexible learning options that incorporate Māori pedagogies and content in nursing programmes.

e. In the area of recruitment, a more coordinated marketing approach is needed, targeted to particularly engage rangatahi (young people) but also aligned with Māori ways of knowing and considerate of and responsive to local contexts.

f. For registered nurses, greater organisational support for professional development, and a need for more flexible work hours enable the opportunity to engage in further study. Issues regarding access to and affordability of professional development for rurally based nurses were identified with the provision of locally accessible education to minimise the cost of travel and accommodation. Essential is for managers in mainstream organisations to better understand the significance of cultural professional development (such as Te Reo and Tikanga development opportunities). Māori nurses need to have culturally based development that is validated as legitimate, for it to be available to nurses.

36. In the study *"Privileging Mātauranga Māori in Nursing Education: Experiences of Māori student nurses learning within an indigenous university",* Gray (2020) aimed to explore how privileging mātauranga Māori (Māori ways of knowing) and strengthening cultural identity in a wānanga undergraduate nursing programme contributes to the educational outcomes of Māori students. Identifying five themes that influenced Maori student engagement, these included: succeeding for whānau, privileging mātauranga Māori in the learning space, dual competence supporting ethnic concordance, whanaungatanga, and threats to success. Factors that students reported as positively enhancing their educational experiences include a culturally responsive environment that affirms cultural identity, the advantages of the geographical location, the provision of high-quality academic and pastoral support, and the adaptive teaching and learning approaches that enhanced learner success. This study highlights that BN Māori programmes at Te Whare

Wānanga o Awanuiārangi, Whitireia and Manukau Institute of Technology are fundamental enablers for providing Māori student nurses with environments that are 'Māori friendly' and supportive.

37. Walker et al. (2016) explored the experiences of Māori nurses who combine culturally specific customary obligations in all areas of whānau, hapū, and iwi life with working as nurses and students. The four key challenges identified by participants were whānau, cultural responsibilities, struggle, and organisational issues. Strategies that would address these issues were identified, such as increasing the cultural awareness of colleagues, implementing more flexible workplace policies to enable cultural obligations to be met, and building an ethos of collegial and managerial support for Māori nurses.

38. A literature review by Curtis et al. (2021a) related to the recruitment of indigenous students into tertiary health programmes was unable to identify "best practice" concerning Indigenous recruitment. Instead, they developed six broad principles from the literature to inform recruitment programmes for indigenous health workforce development. These principles included:

    a. Engage indigenous rights, realities, and practices to inform recruitment initiatives.

    b. Institutions demonstrate through policy and mission statements, equity, and their commitment to achieving indigenous workforce outcomes.

    c. Recruitment initiatives are grounded in understanding the barriers to indigenous workforce development within the local context.

    d. The development and implementation of a comprehensive and integrated 'pipeline' model that operates across secondary and tertiary education sectors.

    e. Recruitment activities must engage whānau and indigenous communities

    f. Recruitment programmes involve the collection, analysis, evaluation, and publication of data.

Recommendations

The following recommendations are made for consideration, approval, and implementation by the Nursing Pre-Registration Pipeline Working Group:

Structural factors

i. Inter-sectoral collaboration

To urgently address the under-representation of Māori in the nursing workforce, inter and intra sectoral collaboration must occur across all sectors involved in the education and employment of nurses. The Pre-Registration Pipeline Working Group have confirmed the urgent and pressing need to increase the Māori nursing workforce.

ii. Financial hardship

Make recommendations to the Ministries of Health, Education and Social Development for inter-sectoral collaboration to urgently address Māori nursing workforce disparity by addressing financial hardship. This can be achieved by supporting targeted funding initiatives to attract and retain Māori in nursing programmes to ensure equity of education outcomes.

iii. Institutional racism and marginalisation

Schools of nursing adopt and implement the following:

- the Ministry of Health's Te Tiriti o Waitangi framework, and
- a zero-tolerance policy for racism and any other form of discrimination within nursing education and nursing practice environments. This should include monitoring and proactively responding to racism and discrimination; inclusion of implicit bias training for preceptors, educators, and clinical supervisors; and support for students exposed to racism and discrimination.

iv. Equity of Outcomes

Nursing Council develops and adopts a position statement that explicitly refers to health equity and equity of outcomes.

The Nursing Council also include Māori nurses in the review of nursing policy, competencies, and standards.

Health and education system factors

v. Appropriate Marketing to Māori

Make recommendations to the Ministry of Health and Education to support the development of culturally relevant and engaging marketing strategies developed by Māori that specifically target Māori.

vi. Student Recruitment

Make recommendations to the Ministry of Health and Education to establish and fund a transition pipeline from high schools into the undergraduate nursing programmes. This should include quality health career advice; authentic whānau engagement, and support for transition from secondary school to tertiary education. The transition pipeline should include funded transition programmes for people applying for tertiary education as second-chance learners.

vii. Māori nursing mentors and educators

Recommend to the Ministry of Education the establishment and resourcing of a national career pathway programme for nurses entering nursing education that prioritises growing the Māori nurse educator workforce.

Organisational factors

viii. Responsiveness of Tertiary Education Providers

That the Pre-Registration Pipeline Working Group promote Bachelor of Nursing curriculum changes that require the practical application of Te Tiriti principles and cultural responsiveness to Māori. This should include adopting Kawa Whakaruruhau (Ramsden, 1990) as the underpinning document for cultural safety for Māori.

ix. Bachelor of Nursing Māori programs

Advise Te Pūkenga of the urgent need to deliver more BN Māori programmes locally across the NZ to increase Māori student recruitment and retention.

x. Data collection

Require all schools of nursing to collect, analyse, evaluate, and report data related to the recruitment, retention, and successful completion of courses and programmes for all Māori students entering and enrolled in nursing programmes. This should include data from transition pipelines from high schools, and transition courses.

Require all schools of nursing to adopt a national set of indicators that measure and report meeting their Te Tiriti o Waitangi obligations. This should include outcome measures that highlight improvements undertaken to improve the quality of the learning environment and experience for Māori.

Individual-level factors

xi. Financial hardship

Recommend to the Ministries of Health, Education and Social Development for inter-sectoral collaboration to introduce targeted funding initiatives to attract and retain Māori in nursing programmes and include additional provisions for Māori students to access hardship funds to cover transport costs, uniforms, textbooks, computers, and childcare support.

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