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Transforming Dental Therapy Education in Zimbabwe: Benchmarking Evidence and Stakeholder Insights

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Abstract

If Zimbabwe introduces its first Bachelor of Science (Honours) Degree in Dental Therapy, it will mark a critical step toward strengthening the national oral-health workforce. This study synthesises evidence from a comprehensive benchmarking review of regional and international programmes, nationwide stakeholder consultations, and engagement with regulatory bodies. Findings reveal strong consensus on the need for degree-level training to address persistent shortages of mid-level oral-health professionals and improve preventive and community-based services. Benchmarking underscored the importance of adapting global best practices to Zimbabwe's regulatory, epidemiological, and service delivery context. The resulting curriculum is competence-based, ethically grounded, and designed to enhance clinical proficiency and professional identity while maintaining established scopes of practice. Overall, the benchmarking process functioned as both a quality-assurance mechanism and a catalyst for redefining the academic and professional trajectory of dental therapy in Zimbabwe.

Keywords: *Dental Therapy; Benchmarking; Curriculum Development; Oral-Health Workforce; Zimbabwe; Education 5.0; Stakeholder Consultation; Professional Training*

Introduction

Background on Oral Health Workforce Challenges in Zimbabwe

Zimbabwe continues to face significant oral-health challenges driven by workforce shortages, uneven practitioner distribution, and limited training capacity. Oral and dental diseases remain among the top ten causes of outpatient and inpatient morbidity (MoHCC, 2016). The National Health Strategy (2016–2020) highlights persistent systemic barriers including shortages of oral health personnel, inadequate dental equipment, weak preventive services, and aging infrastructure (MoHCC, 2016; Chimbari & Dhemba, 2020). These challenges mirror global findings showing that oral diseases disproportionately affect underserved populations and require urgent integration into universal health coverage (Watt et al., 2019; Peres et al., 2020; Benzian et al., 2021). A critical policy gap is the absence of a dedicated National Oral Health Strategy for Zimbabwe. The World Health Organization's 2022 Oral Health Country Profile confirms that Zimbabwe does not have an operational national oral-health policy or strategy (WHO, 2022). Without such a framework, oral-health workforce planning remains fragmented, limiting efforts to expand preventive and community-

oriented care (Fisher et al., 2018; Mashoto et al., 2019). Zimbabwe's dentist-to-population ratio is 0.17 per 10,000, far below the WHO recommendation of 3.7 per 10 000 (WHO, 2021). This severe shortage reflects broader regional disparities and internal migration of skilled oral-health practitioners (Chidzonga & Hove, 2018; Borreani et al., 2020). The dental therapy cadre, historically crucial for primary and preventive care, has weakened due to declining output from the MoHCC diploma programme (Chiri, 2020; Moyana, 2023). The 2020 Auditor-General's report noted that the Harare Government Dental Centre—Zimbabwe's main training site—operated at less than 60% of capacity and produced only a third of its annual potential (Chiri, 2020).

Historical Overview of Dental Therapy Training (1983–2025)

Dental therapy training was introduced in 1983 to address oral-health workforce shortages. For decades, the diploma-level programme produced mid-level practitioners who strengthened preventive, restorative, and school-based oral-health services. However, from the early 2000s onwards, the programme faced major constraints, including outdated equipment, tutor shortages, and declining enrolment *(Madziyire et al., 2021; Chidzonga & Hove, 2018).*

Between 2010 and 2020, training output fell dramatically, largely driven by economic challenges and inadequate institutional investment (Chiri, 2020; Moyo & Bhebhe, 2019). Studies show many African countries—such as South Africa, Rwanda, Tanzania, and Kenya—transitioned to degree-level training for mid-level oral-health personnel (Singh et al., 2018; Midwa et al., 2019; Kutesa et al., 2015). Many countries are modernising oral-health training by strengthening curricula and expanding qualifications (Frenk et al., 2010; WHO, 2021). Examples from South Africa, Kenya, and Tanzania show a shift toward advanced or degree-level preparation (Peer & Cleaton-Jones, 2012). Adopting similar approaches offers Zimbabwe an opportunity to enhance competencies and future workforce capacity (WHO, 2020).Unlike radiography, physiotherapy, occupational therapy, and biomedical sciences—all of which offer degree pathways—dental therapy remained without an academic progression route (Ministry of Higher and Tertiary Education, 2018; Mhlanga, 2020). This stagnation widened the gap between training capacity and evolving health-system needs. To allay concerns about scope encroachment, it is important to emphasise that the introduction of a degree programme in Dental Therapy is not intended to expand the legal scope of practice, disrupt professional balance, or create cross-disciplinary

conflict. Rather, its purpose is to strengthen regulatory compliance, ethical competence, and patient safety. Evidence from global health-workforce research indicates that clearly defined scopes of practice help maintain team harmony, reduce medico-legal risks, and optimise patient outcomes (Frenk et al., 2010; WHO, 2020). Furthermore, a structured degree programme produces dental therapists who are deeply grounded in the *limits* of their scope and fully understand the clinical, ethical, and legal dangers associated with practising beyond authorised competencies (Gallagher & Wilson, 2009; Nash et al., 2012). Strengthened training in biomedical sciences, pathology, and systemic health gives practitioners a sharper appreciation of risk, referral thresholds, and the complexity of clinical decision-making (Waldman et al., 2017; Johnson et al., 2021). Degree-level preparation is therefore associated with *safer—not expanded—practice*, with graduates demonstrating higher adherence to professional boundaries and regulatory expectations (Australian Health Practitioner Regulation Agency, 2018; General Dental Council, 2021). International evidence also confirms that mid-level oral-health providers trained in ethical frameworks and competency-based models show a reduced likelihood of scope drift or unsupervised procedures (Mertz & Glassman, 2011; Kandelman et al., 2020). Accordingly, the new programme seeks to safeguard the profession, the community, and patients by producing graduates who respect role boundaries, understand team-based care, and uphold the ethical obligations of regulated practice (Beauchamp & Childress, 2019).

The Policy Gap and Rationale for Introducing a Degree Level Programme

The introduction of a **Bachelor of Science (Honours) Degree in Dental Therapy** addresses crucial policy and workforce gaps.

1. Human_resource needs highlighted in the National Health Strategy

The NHS (2016–2020) acknowledges severe oral-health workforce shortages and calls for expanded training capacity *(MoHCC, 2016).* A degree-level programme provides a structured mechanism to address these national gaps in preparation of a dedicated oral-health strategy *(WHO, 2022; Benzian et al., 2021).*

2. Alignment with Education 5.0

Previously the higher education thrust was based was based on teaching, research and community service. The thrust on Zimbabwe's higher-education policy reform, known as Education 5.0, is heritage -based and emphasises over and above teaching research, and community service, innovation as well as industrialisation *(MHTE, 2018; Mhlanga, 2020).* Degree-level training strengthens research capacity, enhances problem-solving, and aligns oral-health education with national innovation goals *(Maponga & Chigidi, 2021).*

3. Professional development, competence, and ethical practice

Stakeholder consultations show strong demand for academic progression to improve competence, retention, professional identity, and regulation of practice. Degree-level training strengthens biomedical knowledge, ethical reasoning, and clinical decision-making *(Daniels, 2008; Tangwa, 2019; Wanyonyi & Radford, 2023).*

4. Global transition toward degree-level training

Many countries now train oral-health therapists and dental therapists through degree programmes to improve quality assurance and service impact **(Nash et al., 2012; Singh et al., 2018; Gallagher et al., 2021).** Benchmarking clearly shows that Zimbabwe risks falling behind without adopting similar reforms.

Objectives of the Study

This study documents the benchmarking process undertaken in conceptualising Zimbabwe's first Bachelor of Science (Honours) Degree in Dental Therapy. The objectives are to:

1. Describe the benchmarking methodology, including regional and international curriculum comparisons *(University of Rwanda, 2020; UWC, 2021).*

2. Analyse how benchmarking informed curriculum reform, ensuring alignment with Medical-Dental Regulatory Bodies and ZIMCHE requirements *(ZIMCHE, 2022).*

3. Highlight stakeholder insights, including employers and professionals.

4. Demonstrate how benchmarking shaped a competence-based, context-appropriate curriculum *(Gallagher et al., 2021; Wanyonyi & Radford, 2023).*

5. Discuss broader policy implications for oral-health workforce strengthening within a context preparing for a dedicated national oral-health strategy *(WHO, 2022; Petersen, 2008).*

Overall, benchmarking emerged as both a **quality-assurance mechanism** and a **catalyst for redefining** the academic and professional trajectory of dental therapy in Zimbabwe.

Justification for the Degree Training Programme

Zimbabwe's higher-education and manpower-development policy calls on universities to innovate, generate knowledge, and address national workforce shortages (MHTE, 2018; Mhlanga, 2020). In the health sector—where oral-health personnel remain critically scarce—universities must design programmes that directly meet service-delivery needs and strengthen human-resource capacity (MoHCC, 2016; Chimbari & Dhemba, 2020). This positions universities as central partners in improving community health outcomes through research-led, innovation-driven training (Maponga & Chigidi, 2021). The Education 5.0 framework expands the university mandate to include innovation and industrialisation, emphasising solution-oriented training that contributes to socio-economic development (MHTE, 2018; Bhebhe, 2021). Curricula must therefore align with national health priorities, research capacity, and community-responsive innovation (Watt et al., 2019; Benzian et al., 2021). In Zimbabwe, degree programmes are accredited by the Zimbabwe Council for Higher Education (ZIMCHE) to ensure academic quality and international comparability (ZIMCHE, 2022). Certificates and diplomas from polytechnics and ministries fall under the Higher Examination Council (HEXCO) and, while valuable for technical training, lack the biomedical, ethical, research, and community-health depth expected at degree level. The Ministry of Health and Child Care currently offers a Diploma in Dental Therapy at Parirenyatwa Central Hospital, historically the profession's entry qualification (Chiri, 2020; Moyana, 2023). Because

this diploma already exists, any advanced training should logically progress to degree level within a university rather than duplicate lower-level qualifications. Concerns about dental therapists misrepresenting themselves as dentists often reflect weak professional identity, limited ethical grounding, and the absence of a clear academic pathway. International evidence shows that inadequate professional identity increases role confusion and unethical behaviour among mid-level cadres (Cruess et al., 2019; Holden et al., 2020). In Zimbabwe, the limited academic depth of diploma training may contribute to poor professional pride and susceptibility to misrepresentation (Chidzonga & Hove, 2018; Moyana, 2023). Research consistently demonstrates that graduate-level education improves ethical conduct, strengthens professional confidence, and reduces scope-of-practice breaches (Nash et al., 2012; Singh et al., 2018; Wanyonyi & Radford, 2023). Embedding professionalism, ethics, and regulatory literacy in a university-based programme therefore enhances accountability and reduces such behaviour (Bates et al., 2020; Frenk et al., 2015).A Bachelor of Science (Honours) Degree in Dental Therapy is expected to offer an academically rigorous, ethically grounded, research-oriented pathway aligned with national policy, addressing long-standing professional gaps and supporting Zimbabwe's transformation agenda under Education 5.0.

Conceptual Framework

This study is informed by theoretical perspectives on quality assurance, benchmarking, and curriculum innovation in higher education. Benchmarking is conceptualised as a systematic comparative process used to enhance quality, identify gaps, and stimulate organisational learning (Harvey & Green, 1993; Jackson & Lund, 2000). Harvey and Green's (1993) framework positions quality as transformation and continuous improvement, emphasising that institutions must compare themselves with reputable peers to strengthen relevance and effectiveness. Stensaker (2007) similarly argues that benchmarking supports institutional renewal through reflective practice, evidence-based decision-making, and professionalisation of academic programmes. Dill (2010) and El-Khawas (2014) add that benchmarking is a key quality-assurance tool enabling institutions to monitor performance, evaluate standards, and reinforce accountability. In health-professional education, benchmarking aligns curricula with international standards, emerging competencies, and evolving practice models (Frenk et al., 2010; World Health Organization, 2013). It allows institutions to design programmes that are academically

robust and responsive to societal needs, regulatory expectations, and global trends in mid-level oral-health training (Mertz & Mouradian, 2019; Nash et al., 2012). Benchmarking therefore supports curriculum innovation and strengthens professional identity among dental therapists, reinforcing the relationship between competency-based education and improved population-health outcomes (Cooke et al., 2010). The conceptual framework also aligns with Zimbabwe's Education 5.0 philosophy, which mandates universities to advance teaching, research, community service, innovation, and industrialisation (ZIMCHE, 2018; Ministry of Higher and Tertiary Education, 2020). Benchmarking promotes these pillars by grounding curriculum development in evidence, supporting innovation, and ensuring a transformative, context-appropriate programme (Chikoko & Maphosa, 2021).

Methodology

Study Design

This study adopted a **qualitative descriptive design** to document, analyse, and synthesise the benchmarking process underpinning the development of the Bachelor of Science (Honours) Degree in Dental Therapy. This design was selected because it provides a pragmatic framework for describing processes, institutional practices, regulatory expectations, and contextual adaptations without imposing theoretical abstraction. The goal of this study was to capture how benchmarking was conducted, how evidence was integrated, and how this informed curriculum development aligned with national policies and regulatory standards.

Data Sources

Four categories of documentary, institutional and stakeholder-derived data informed this study:

i) ***National and institutional policy documents*** – including the National Health Strategy (2016–2020), Education 5.0 Framework, ZIMCHE programme accreditation standards, and HEXCO qualification structures.

ii) ***Benchmarking reports*** –evaluating regional and international oral-health therapy, dental therapy and oral hygiene programmes across Africa, Europe, North America, the Caribbean, and Australasia.

iii) ***Stakeholder consultation records*** – including meeting minutes, written submissions, employer surveys, and responses to a structured five-item questionnaire administered to key regulatory, professional, academic and service-delivery actors.

iv) ***Professional, academic, and field-based practitioner consultations*** – comprising professional associations, teaching departments, practising dental therapists, trainee dental therapists, trainee dental surgery assistants, and potential employers.

v) ***Professional associations consulted*** included the **Zimbabwe Dental Therapists Association (ZIDERTHA), Zimbabwe Dental Association (ZIDA), Zimbabwe Dental Surgery Assistant Association (ZIDESAA)** and the **Zimbabwe Dental Students Association (ZIDSA).**

vi) ***Teaching and training departments consulted*** included the **University of Zimbabwe Department of Oral Health,** the **School of Dental Therapy and Technology (Parirenyatwa),** the **Zimbabwe Academy of Dental Nursing (ZADENU),** the **Harare Institute of Technology (HIT) School of Allied Health Sciences,** and the **Higher Examination Council of Zimbabwe (HEXCO).**

vii) ***Potential employers and service providers consulted*** included national **Medical Aid Societies, Local Authority dental departments, Defence Forces oral-health units,** and **Premier Service Medical Investments (PSMI),** where practising dental therapists and dental surgery assistants contributed insights on workforce expectations and service-delivery gaps.

Participants

Participants in the benchmarking and curriculum development process were drawn from three primary groups:

i) The **Education and Liaison Committee (ELC)** of a Medical and Dental Regulatory Body of Zimbabwe, which provided

guidance on compliance, scope-of-practice, ethical expectations, and approval standards.

ii) The **Academic Regulations brain storming team of a university in Harare, Zimbabwe**, made up of academic staff, oral-health specialists, and curriculum designers responsible for synthesising benchmarking insights and adapting them to Zimbabwe's context.

iii) **Regional and international institutions,** indirectly engaged through curriculum documents, academic prospectuses, competency frameworks, and training guidelines.

Stakeholder Consultation Process

To ensure the curriculum aligned with national expectations and workforce needs, a structured stakeholder consultation was conducted. A five-item questionnaire was distributed to regulatory bodies, employers, professional associations, and training institutions. Respondents were asked the following questions:

i) Do you support the establishment of additional training for dental therapists in the country to augment Government efforts?
ii) Do you support a new undergraduate training programme for dental therapists with the same scope but enhanced focus on community and preventive dentistry?
iii) Would you like the programme to provide an academic upward channel for graduates of the Ministry of Health Diploma in Dental Therapy and Dental Surgery Assisting programmes?
iv) Will the programme create a pool of middle-level graduate oral-health professionals who can progress into research scientists, public-health practitioners, administrators, or investigators?
v) Is the programme likely to produce an appropriately trained para-oral-health practitioner capable of strengthening school and community oral-health preventive services to reduce the national burden of oral diseases?

Benchmarking and Comparative Analysis Process

A global benchmarking exercise reviewed mid-level oral-health training programmes across Africa, Australia, the United Kingdom (UK), Canada, New Zealand, the Caribbean, and the United States of America (USA). Tables 1 and 2 show programmes selected for their similarity to Zimbabwe's oral-health needs, scope-of-practice expectations, and alignment with the higher-education transformation philosophy of Education 5.0.

Table 1: Benchmarking of Mid-Level Oral-Health Training Programmes, Africa Region

Country	**Institutions / Programmes Reviewed**
South Africa	Wits – BOH Sciences; UWC – Oral Health; SMU – Bachelor of Dental Therapy; UP – BOH; National Oral Hygiene Schools
Rwanda	University of Rwanda – Bachelor of Dental Therapy
Kenya	KMTC – Diploma in Community Oral Health; Moi University – Mid-level Pathways; University of Nairobi – Auxiliary Curricula
Uganda	Makerere University – Allied Dental Training; Allied Health Training Schools – Diploma in Oral Health
Tanzania	Kilimanjaro Christian Medical University College – Diploma in Dental Therapy; MUHAS – Oral Health Auxiliaries; St John's University – Dental Therapy
Botswana	IHS Gaborone – Diploma in Dental Therapy; Botswana University of Health Sciences – Auxiliary Programmes
Nigeria	Federal College of Dental Technology & Therapy – HND/BSc Transition; NBTE Competency Frameworks
Ethiopia	Addis Ababa University – Dental Health Officer; Hawassa University – Oral Health Officer

Table 2: Benchmarking of Mid-Level Oral-Health Training Programmes, Outside Africa Region

Region / Country	Institutions / Programmes Reviewed
Australia	University of Adelaide – BOH; Central Queensland University – BOH; La Trobe – BOH Science; Charles Sturt – BOH; Melbourne – BOH / Grad Cert Dental Therapy; Sydney – BOH; Newcastle – BOH Therapy; Griffith – BDH Science
United Kingdom	University of Birmingham – BSc Dental Hygiene & Therapy; Leeds – BSc Dental Hygiene & Therapy; Plymouth – BSc Dental Therapy & Hygiene; Liverpool – BSc Dental Therapy; Portsmouth – BSc Dental Hygiene & Therapy; King's College London – BSc Dental Therapy & Hygiene
USA	University of Minnesota – BS Dental Hygiene / Master of Dental Therapy; Community Catalyst – Competency Benchmarks
Canada	University of Saskatchewan – BSc Dental Therapy; Saskatchewan Polytechnic – Supporting Curriculum
New Zealand	University of Otago – BOH; AUT – BHSc Oral Health; NZ OHPB – OHT Scope Standards
Caribbean	UWI – BSc Dental Hygiene; UTech Jamaica – BSc Dental Hygiene; Northern Caribbean University – Dental Hygiene; Regional Auxiliary Models

Results

The stakeholder-consultation *emailed questionnaire* produced strong and consistent support for establishing a Bachelor of Science (Honours) Degree in Dental Therapy in Zimbabwe. A total of 35 questionnaires were distributed and 23 were returned, yielding a **66% response rate**, which is considered satisfactory for emailed surveys among professional stakeholders. Emailed questionnaires are widely recognised as an efficient and cost-effective means of collecting data from geographically dispersed experts in higher education and health-professional training, offering rapid delivery, lower administrative costs, and flexible response windows (Dillman et al., 2014; Bryman, 2016; Creswell & Creswell, 2018). In curriculum-development and programme-planning research, electronic

surveys are frequently used to capture the perspectives of academics, regulators, practitioners, and employers because they standardise questions, reduce interviewer bias, and permit respondents to reflect before answering (Cohen et al., 2018; Fowler, 2014). Studies in health-professional education similarly report that email- and web-based questionnaires are appropriate for obtaining informed judgements from busy clinicians and decision-makers, especially when anonymity is maintained to minimise social-desirability bias (Cook et al., 2000; Nulty, 2008).

The *66% response rate* compares favourably with international expectations for email and online surveys targeting professional groups. Survey-methodology literature suggests that response rates for emailed or web-based questionnaires commonly range between 30% and 60% in academic and health settings (Cook et al., 2000; Sheehan, 2001), and that rates above 60% can be regarded as *good to very good* in terms of reducing non-response bias and enhancing the credibility of findings (Fincham, 2008; Baruch & Holtom, 2008). Empirical reviews of email surveys among healthcare professionals frequently report lower average rates, underscoring that a 66% return in this study represents a comparatively strong level of engagement (Asch et al., 1997; VanGeest et al., 2007). Taken together, the use of an emailed questionnaire and the achieved response rate provide a methodologically defensible basis for interpreting stakeholder support for the proposed degree programmeAcross all five core questions asked in the survey, an *overwhelming majority* of respondents supported:

i) the establishment of additional training for dental therapists in Zimbabwe;
ii) a new undergraduate programme emphasising community and preventive dentistry;
iii) the creation of an academic upward channel for diploma graduates;
iv) the production of graduate-level oral health practitioners capable of evolving into researchers, administrators, and public-health professionals;
v) strengthening school and community oral-health prevention programmes.

The qualitative comments reinforced these conclusions. Stakeholders noted that the degree would *reduce shortages of oral-health personnel* and produce *rounded professionals* capable of serving at primary-care and district

levels. Others emphasised that diploma holders had long awaited an upgrade pathway and queried possible exemptions for them.
Potential employers including medical aide societies, municipalities, and statutory bodies—also participated and overwhelmingly supported the programme. Benchmarking results were submitted to the regulatory Education and Liaison Committee of a Medical-Dental Regulatory body as part of the evidence base.

Discussion

The findings from the stakeholder survey, policy analysis, and benchmarking documents present a strong case for introducing a Bachelor of Science (Honours) Degree in Dental Therapy in Zimbabwe. Stakeholders expressed clear consensus that the oral-health system faces persistent challenges requiring modernised, academically strengthened training pathways. Survey responses consistently supported three priorities: expanding training to complement government efforts, introducing an undergraduate programme with a stronger preventive and community focus, and establishing an academic progression route for diploma-trained practitioners. These perspectives reflect national recognition that Zimbabwe must increase training output and reinforce the oral-health workforce pipeline.A major theme concerns the burden of oral diseases and weaknesses in current response mechanisms. The National Health Strategy lists dental diseases among the leading causes of morbidity, with oral and digestive disorders accounting for 2.8% of hospital admissions in 2014. This burden is compounded by inadequate district-level equipment, limited radiographic capacity, weak outreach, access to health and ageing infrastructure. Such constraints, repeatedly noted by the Ministry of Health and Child Care (MoHCC) since 1980, confirm the need for a more adaptable oral-health workforce.

Stakeholders viewed the proposed degree as a transformation in professional preparation rather than a simple academic upgrade. Comments indicated that the programme would produce better equipped practitioners, strengthen primary care, and reduce shortages. The study affirmed that the degree would generate well-rounded professionals for both public and private sectors. This aligns with the prevailing consensus, which emphasised that the programme enhances the ethical and clinical competence of dental therapists rather than creating a new cadre. Professional identity and regulation also emerged as important issues. Scope breaches were attributed to gaps in ethical grounding and

biomedical sciences in diploma-level training. Stakeholders therefore supported the programme's emphasis on ethics, clinical reasoning, and regulatory literacy, noting longstanding calls from diploma holders for upgrading. Strengthening professional identity is both an educational and regulatory priority training-capacity limitations further justify the programme. The Auditor-General's 2020 report showed the Harare Government Dental Centre operating below capacity due to equipment shortages and declining staffing levels, which fell from 63% in 2019 to 53% in 2020. Training output for dental therapists also dropped despite capacity for 30 students annually. These findings indicate that the MoHCC diploma at Parirenyatwa alone cannot meet national need. Benchmarking strengthened this position by demonstrating clear patterns across comparable programmes (Frenk et al., 2010; WHO, 2021). Models from Rwanda, South Africa, Kenya, Tanzania, and international institutions in the United Kingdom (UK), United States of America (USA), Canada, and Australia show that degree-level preparation is now the global standard (Peer & Cleaton-Jones, 2012; Masumo et al., 2020). Programmes such as those at King's College London, which integrate biomedical sciences, simulation training, and professional-development modules, closely mirror the proposed curriculum, confirming both its relevance and competitiveness (Johnson, 2018; WHO, 2020). Stakeholders also stressed the need to revitalise school and community oral-health programmes. The preventive orientation of the proposed degree supports the National Health Strategy's emphasis on early intervention and improved population oral health.The programme aligns with national higher-education policy. Under Education 5.0, where universities are mandated to address manpower gaps through degree-level training, research, community service, innovation, and industrialisation. While polytechnics and ministries offer certificates and diplomas under the Higher Examination Council of Zimbabwe (HEXCO), universities deliver degrees accredited by the Zimbabwe Council for Higher Education (ZIMCHE). Locating dental-therapy training within a university is therefore consistent with policy direction. Consultation reached the Zimbabwe Dental Association (ZIDA), University of Zimbabwe (UZ), Zimbabwe Dental Therapists Association (ZIDERTHA), Zimbabwe Dental Surgery Assistant Association (ZIDESAA), defence forces, municipalities, and medical aid societies. Strong stakeholder support also reflects confidence in institutional readiness. The implementing institution already trains pharmacists, radiographers, and sonographers and seeks to expand its contribution to national health goals and Vision 2030. Progression through Faculty and School Board structures further confirms adherence

to quality-assurance processes. Overall, the discussion shows convergence across epidemiological, educational, professional, and policy considerations. Stakeholder reports, benchmarking findings, and clarification correspondence demonstrate national need, strong multisectoral endorsement, policy alignment, and international validation. The degree is therefore a strategically important development for Zimbabwe's oral-health system.

Conclusion and Recommendations

The evidence from benchmarking, stakeholder consultations, and policy analysis confirms that establishing Zimbabwe's first Bachelor of Science (Honours) Degree in Dental Therapy is both necessary and timely. The upgraded programme will modernise mid-level oral-health training, strengthen preventive and primary-care services, and align Zimbabwe with regional and global standards. The degree represents a transformative public-health investment—addressing structural workforce gaps, improving professional identity, embedding ethics and biomedical sciences, and equipping graduates for community-responsive practice. However, successful implementation requires strong monitoring, collaborative curriculum review cycles, investment in capacity building, and ongoing research on graduate and patient outcomes. These recommendations ensure that the programme remains effective, current, and aligned with national health priorities and Education 5.0.

Summary of Key Recommendations

1. *Establish the BSc (Hons) Dental Therapy Programme*

   Introduce Zimbabwe's first degree-level dental-therapy programme to modernise mid-level training, address workforce shortages, and align with regional and global benchmarks.

2. *Adopt a Competency-Based, Community-Centred Curriculum*

   Integrate biomedical sciences, ethics, jurisprudence, communication, preventive dentistry, restorative care, and public-health competencies to strengthen professional identity and reduce scope-of-practice violations.

3. *Strengthen Public Health and Primary Care Integration*

   Equip graduates to support school-based programmes, manage common oral conditions in primary care, contribute to surveillance, and participate in oral-health research.

4. *Implement a Structured Monitoring and Evaluation (M&E) Framework*

   Track student performance, graduate deployment, employer satisfaction, community outreach outcomes, and research productivity to ensure continuous quality improvement under Education 5.0 and ZIMCHE standards.

5. *Introduce Collaborative Curriculum Review Cycles*

   Engage regulatory bodies, universities, employers, ZIDERTHA, ZIDA, and other stakeholders in regular reviews to maintain currency and respond to emerging global competencies.

6. *Invest in Capacity Building for Programme Delivery*

   Strengthen academic staff skills, expand simulation-laboratory resources, and develop community-based training partnerships and interprofessional education initiatives.

7. *Align Graduate Deployment with National Workforce Planning*

   Ensure graduates are strategically deployed to district and primary-care facilities to close service gaps and improve oral-health access.

8. *Ensure Policy and Regulatory Coherence*

   Integrate programme implementation with national health reforms, Education 5.0, WHO oral-health strategies, and regulatory expectations.

9. *Promote Research and Innovation*

Embed research training and innovation pathways to support evidence-based practice, community needs assessment, and local oral-health data generation.

10. *Prioritise Future Research on Programme Outcomes*

    Conduct longitudinal studies on graduate competence, ethical behaviour, employment pathways, community impact, and patient outcomes to demonstrate public-health value.
11. *Develop Long-Term Academic and Professional Pathways*

    Explore advanced practice, leadership training, and postgraduate opportunities to further strengthen the dental-therapy profession.

Limitations and Future Research

This study has several limitations. First, although the stakeholder survey achieved a satisfactory 66% response rate, it relied on mailed questionnaires, which may have excluded stakeholders without consistent access to postal services or those who were unavailable during the survey period. As noted in the manuscript, the sample comprised 23 returned questionnaires out of 35 distributed, which may not fully capture the perspectives of all practising dental therapists, employers, trainers, and regulatory actors in Zimbabwe

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