

# Linking Nursing Education to Job Outcomes and Career Pathways: Qualitative Insights from A Graduate Tracer Study

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## ABSTRACT

**Background:** Nursing education aims to equip students with essential knowledge and skills. However, concerns persist regarding the readiness of graduates for clinical work. This study explores how a public university in the Maldives supports nursing training in terms of job performance and career growth.

**Methods:** Online Focus Group Discussions (FGDs) were conducted with purposively selected Maldives National University (MNU) nursing graduates, divided into four cohorts: Group 1 (1991-2000), Group 2 (2001-2008), Group 3 (2009-2014), and Group 4 (2015-2019) and by years in practice (0-4, 5-9, 10-14, ≥15). In particular, each FGD consists of eight to ten participants. A semi-structured interview guide was also employed, and discussions continued until thematic saturation was reached. Subsequently, thematic analysis was performed to interpret the data.

**Results:** Across the dataset, five interlocking themes describe how nursing education is translating into workforce capability: 1) balancing theory and practice, 2) smooth transition to practice, 3) professional growth opportunities, 4) benefits of being a nursing graduate, and 5) challenges for local graduates. Findings indicate that nursing education via a contextualized, practice-aligned curriculum supports the transition to practice, although constraints persist in career progression.

**Conclusion:** While being a nursing graduate offers benefits such as job security and personal fulfillment, local graduates encounter challenges such as a lack of recognition and issues related to career mobility. The study highlights the need for continuous revisions of various nursing curricula to ensure that graduates are well-prepared for success in their careers.

**Keywords:** Nursing education; Tracer study; Effectiveness; Career pathways; Job performance

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## INTRODUCTION

University graduate tracer studies are conducted worldwide to identify and track graduates from higher education institutions, aiming to understand how they perceive their experiences during studies and their transition to the workplace. These studies can provide systematic feedback from graduates and serve as an essential source of information on the outcomes of graduates of academic programs to improve future programs (1,2). Notably, the employability of graduates is a key measure of the success of higher educational institutions (3). Additionally, it provides evidence of career progression, corresponding remuneration, and job satisfaction (4,5). Therefore, a tracer study is an essential tool for institutional development, particularly to meet the demands of the job market and employment.

Tracer studies conducted on nursing education help evaluate accountability and demonstrate the impact of nursing educational institutions in a highly competitive job market (6,7). Moreover, this type of study can collect information on graduates' perceptions of their academic programs, facilities, and the influence of the teaching and learning process they experience during their studies (8,9). Building on this, varied teaching and learning methodologies in nursing schools play an essential role in developing the required competencies (10,11).

Graduate tracer studies typically examine the transition of graduates from higher education to the labor market, mapping employment trajectories and the alignment between training and work. This includes the attainment of desired roles, job satisfaction, income, job security, and overall professional success (8,12). They also analyze influences during and after study, such as gender, work motivation, qualifications acquired, organizational structures, cultural awareness, and prevailing labor-market conditions (12,13). Similarly, it identifies the needs for continuing professional education and higher-level courses (extent, cost, location, reasons for participation, and prospects) (14).

The primary purpose of tracer studies is to provide timely evidence on graduate employment, program effectiveness, and educational quality, serving as benchmarks for

improvements in resources, facilities, curriculum, and student services (15-17). Furthermore, tracer studies conducted on nursing programs are excellent sources of evidence-based information for curriculum updates (18). Their findings inform not just higher education institutions. They also benefit policymakers, government agencies, pre-tertiary schools, and skills-training providers (19). International experience echoes this value. Accordingly, tracer studies have informed curriculum updates and employer-aligned competencies in multiple settings, for example, the National Open University of Nigeria's workplace tracking of graduates (20), in Malaysia (8), and Lesaca et al. in Libya (19).

Building on the value of graduate tracer studies for mapping education-to-employment pathways and guiding program improvement, this inquiry is timely for the Maldives. Nursing, established as the country's first health-related higher education in 1973, has expanded from Advanced Certificate in Nursing (ACN) and Diploma in Nursing (DN) to Bachelor of Nursing (BN) and Master of Nursing (MN), and shifted from a training-centre model to university-based provision (21). To serve a dispersed population, programmes operate in Malé plus four regional campuses and one outreach centre. Clinical education spans system tiers, with students rotating through tertiary hospitals, regional and atoll hospitals (which offer more limited services), and after graduation, often taking posts in these settings as well as island health centers that provide primary care (23).

Given this growth, a tracer study of School of Nursing (SN) graduates is essential to capture alumni perceptions of teaching and training quality, identify areas for enhancement, and benchmark service outcomes. It will also document graduates' employment profiles and registration status, and investigate reasons for any mismatch between the number of graduates produced and the number of nurses working in the health sector. Concurrently, this will provide evidence required to strengthen curricula, resources, and workforce planning.

Therefore, to improve the services and quality of education at SN, a separate faculty of the Maldives National University (MNU) (24), it is

vital to gather feedback from graduates and identify areas for improvement in teaching and training. A tracer study would also enable the identification of the employment profile and registration status of nursing graduates, as well as the reasons for the mismatch between the number of graduates and the number of nurses working in the health sector.

This tracer study evaluates how effectively MNU's SN prepares graduates for employment and career advancement in the Maldivian health system. This can be achieved by assessing the alignment between training and workplace requirements, specifically the application of knowledge, skills, and competencies in practice, alongside employment/registration outcomes and factors that enable or hinder progression. The study demonstrates how educational preparation supports role fulfilment, adaptation to challenges, and advancement. It also aims to determine how well the program facilitates transition to employment, job performance, and long-term career development.

## METHODS

A phenomenological design was used to explore how graduates make meaning of their training and early practice, consistent with approaches that seek to understand the meanings people assign to events and interactions (25,26). The study assumes that pre-service nursing education influences job performance and early role readiness. Graduates' self-reported experiences are reasonable indicators of program effectiveness. Moreover, tracer studies provide actionable evidence for curriculum improvement and workforce planning.

### Setting and Sample

A purposive sample was selected to form focus groups of eight to ten participants across all geographical locations in the Maldives. Participants in the Focus Group Discussions (FGDs) were selected purposively from MNU nursing graduates, divided into four cohorts: Group 1 (1991-2000), Group 2 (2001-2008), Group 3 (2009-2014), and Group 4 (2015-2019 and by years in practice (0-4, 5-9, 10-14,  $\geq 15$ ). This ensures a comparable balance of cohort and experience across FGDs.

Additionally, the study assumes that participants could recall key training and early-career experiences despite the elapsed time, supported by memorable milestones and guided prompts.

To purposively select participants, nurses were invited via email and through direct contact. Those who agreed read and signed informed consent forms and were assured of anonymity. The inclusion criteria were registered nurses with a diploma or higher, since the launch of the DN program in 1991, who had at least one year of clinical experience. Meanwhile, exclusion criteria included enrolled nurses and nurses trained in institutions other than MNU, or in foreign nursing training colleges or universities.

### Data Collection

Data were gathered through FGDs using an in-depth interview guide developed for this study (Table 1). Informed consent was received before participation, and confidentiality was maintained. Participants were encouraged to speak freely and share their experiences in their own words. The data collection was carried out between November 2020 and February 2021. Due to COVID-19 lockdown restrictions, all FGDs were conducted via Google Meet (60 to 90 minutes). The study assumed that online FGDs could yield data comparable to in-person sessions. In addition, it implemented measures to enhance the richness of small groups, such as using cameras, structured turn-taking, and follow-up clarification. At the end of each session, interviewers noted any need for follow-up calls to clarify or verify interpretations (member checking). At the same time, FGDs were conducted in English, allowing participants to respond in either English or Dhivehi, and data collection continued until data saturation was achieved. Note that all sessions were audio-recorded with a device dedicated to data collection. All interviews were audio-recorded, transcribed verbatim, and, where applicable, translated from Dhivehi into English for analysis. Audio files and transcripts were stored in a password-protected repository accessible only to the research team.

**Table 1:** In-depth Interview Guide Questions

No	Question
1.	How effective is that nursing training at MNU in meeting the job requirements of a newly graduated nurse and later as an experienced nurse?
2.	What do you think are the personal factors affecting the employment status of nursing graduates?
3.	What do you think are the professional factors affecting the employment status of nursing graduates?
4.	What are the opportunities and challenges to be employed as a nurse?
5.	What are the opportunities and challenges for professional growth and development for nurses?

### Rigor and Trustworthiness

Consistent with qualitative methodology, the research team served as the primary instrument of inquiry (25). Accordingly, researchers were directly engaged in generating data through moderating the online FGDs and, adopting a holistic stance, sought to understand participants' accounts in context. Rigor and trustworthiness were maintained in the methodological accuracy and soundness as recommended by Lincoln and Guba (27). To enhance credibility and limit undue researcher influence, the team practiced reflexivity throughout, maintaining analytic memos, debriefing sessions, and considering how positionality might shape questioning and interpretation. Rapport and trust were fostered by clear explanation of the study purpose, repeated assurances of confidentiality, and a respectful, non-judgmental interview climate. Where needed, brief follow-up calls supported clarification and member checking. Additionally, peer debriefing was conducted to assess the qualitative data and establish the credibility of the findings.

### Qualitative Analysis

The following steps represent Colaizzi's process for phenomenological data analysis (28).

1. Each transcript should be read and re-read until a general sense of the whole content is obtained.
2. Significant statements and phrases of participants will be extracted from each transcript. These statements will then be recorded under separate codes. As this work will be divided among the researchers, all researchers involved in

this part of the analysis will compare their work and reach a consensus.

3. Meanings of the significant statements will be formulated using critical thinking skills. Each underlying meaning will be coded and categorized, and researchers will arrive at a consensus.
4. The formulated meanings will be sorted into categories, clusters of themes, and themes. This will be compared among the researchers to reach a common understanding.
5. These clusters and themes will then be integrated into an exhaustive description of the factors that contribute to the employment profile of the graduates and factors that affect their learning during nursing training.
6. The fundamental structure of the employment profile will be described by removing the redundant themes and clusters.
7. Finally, validation of the findings will be sought from the research participants to compare the researcher's descriptive results with their experiences.

### Ethical Dimensions

The study was registered at the Research Centre, MNU, and ethical approval was obtained from the Research Ethics Committee, Faculty of Nursing, Maldives National University (Approval no: RE/2019/B-01). Participation was strictly voluntary, as they retained the right to withdraw at any time during data collection and were informed that they could decline to answer any question that made them uncomfortable. The objectives and significance of the study were explained, and informed consent was obtained before data collection. Participants were allowed to ask questions at any time during data collection. Anonymity and confidentiality were

maintained throughout: access to the database was restricted to the research team, individual responses were not disclosed, and unique codes were used on data-collection forms with no link to personal identifiers. All data are stored securely under password protection for five years and were subsequently destroyed.

**FINDINGS**

This tracer study reports the qualitative findings to answer the question, “How effectively does MNU’s nursing education prepare graduates to meet workplace requirements, facilitating transition to employment, day-to-day job performance, and

long-term career growth within the Maldivian health system?” The results are based on online FGDs with MNU nursing graduates from four cohorts (1991-2000, 2001-2008, 2009-2014, 2015-2019) and across various career stages.

Analysis of the qualitative data revealed five key themes that emerged: 1) balancing theory and practice, 2) smooth transition to practice, 3) professional growth opportunities, 4) benefits of being a nursing graduate, and 5) challenges for local graduates. **Table 2** presents the codes, sub-themes, and main themes that emerged from the analysis.

**Table 2:** The Codes, Sub-Themes and Main Themes That Emerged from the Analysis

Themes	Categories	Codes
1) Balancing theory and practice	Effective curriculum	Comprehensive Well-rounded learning Good foundation
	Application of knowledge to practice	Hands-on practice Learnt by caring
	Clinical-based training	Posting in many departments Experience patient care
2) Smooth transition to practice	Gradual learning in a clinical setting	Initial practice in the lab Built confidence over time
	Adjustment as a new graduate	Locally trained Motivated to work
	Ability to face challenges	Disciplined Oversee complex situations
	Confident to practice	Positive comment Ability to work in different settings
3) Professional growth opportunities for local graduates	Professional development chances	Further education Postgraduate studies A lot of workshops
	International exposure	Attending international institutions Got chances in overseas hospitals New cases Met nurses from other countries
	Advance career pathways	Advance profession Upgrade qualifications experience Specialized training
4) Benefits of being a nursing graduate	Experience in the local context	Apply what they learnt Ability to work as a new graduate
	Prepared for practice	Ability to face challenges Being competent
	Experience in various departments	Different role models Learnt holistic care
5) Challenges for local graduates	Lack of preceptorship	No mentors or preceptors No one to guide Had to work alone
	Lack of confidence	Negative comments Being labelled Lack of experience

	Limited exposure in some areas
Low nursing representation	Cannot make decisions Lack of authority Lack of nurses at the policy level No voice at the management level
Limited access to advanced career	Lack of opportunities Cannot go for higher studies No priority for development

**Theme 1: Balancing Theory and Practice**

The theme refers to a practice-ready, contextualized curriculum where classroom learning is directly translated into bedside work and meets entry-level competence. The findings also identified contextual breadth and independence. The participants believed that there was good theory-practice alignment:

*“Theory sessions were very useful to begin the nursing career. We were taught principles and theory of various nursing procedures, disease conditions, and how to take care of patients in the classroom setting at first.”*  
(Diploma in Nursing graduate)

Participants experienced a clear connection between theory and practice (class, demonstration, nursing art lab, and then the ward). The content was tailored to local realities and deemed sufficient for entry-level roles, enabling independent functioning across sites.

*“We had foundational theory classes followed by demonstrations of nursing procedures and supervised practice in the Nursing Arts Lab before clinical postings.”*  
(Bachelor of Nursing graduate)

Additionally, the participants believed the curriculum emphasized applied knowledge and local relevance, strengthening early professional identity and self-efficacy.

*“Modules that were taught prepared us to work independently... anywhere in the country, including managing varied cases and leadership tasks. The leadership subject we studied and the management posting we did in our final year gave us a lot of confidence to work in the clinical area when we graduated.”*  
(Diploma in Nursing graduate)

Participants expressed overall satisfaction with the training and appreciated the clear

learning sequence. This progression helped them enter the clinical setting already familiar with essential procedures and more confident in applying skills during real patient care.

*“We are very satisfied with the training we received, I mean the knowledge and skills we gained from our theory classes, practical sessions, and clinical postings in the Diploma in Nursing program. At first, we learnt all the procedures in the nursing art lab and practices, before we were posted in the hospital to practice those procedures. Also, the guidance and support that was given during our study period.”*  
(Diploma in Nursing graduate)

Additionally, the participants believed that their lecturers were helpful in their learning. The clinical tutors guided us. They described how the training enabled them to learn about various diseases, including their treatment and nursing care.

*“I would say that our lecturers and tutors were very knowledgeable...They taught well in the classroom setting. They guided us and disciplined us to become the nurses who are today.”*  
(Bachelor of Nursing graduate)

*“When we were introduced to our clinical tutors and later to the mentors, we were able to observe them while they were practicing the nursing care...later they gave us the chance to do a nursing procedure in the ward under their guidance.”*  
(Bachelor of Nursing graduate)

**Theme 2: Smooth Transition to Practice**

The theme refers to a smooth transition to practice, driven by a curriculum that deliberately sequences theory, simulation, and authentic responsibility, enabling day one readiness to transition from student to graduate nurse. This progression consolidated their capacity for managing patient care while prioritizing, performing procedures safely, delegating, and escalating appropriately,

thereby closing the theory-practice gap and fostering early leadership.

*"Soon after we graduated, we had to start working as registered nurses. I believe we are able to adjust to the work environment since we gained clinical experience during our studies."*

*(Diploma in Nursing graduate)*

Participants believed they were prepared for their practice as they started their initial practice. The following statements highlight that the graduates were sufficiently prepared for their role as beginning-level practitioners.

*Preparation was sufficient...to work...as a Staff Nurse. We believe we were prepared to start to work as entry-level nurses in the hospitals...we were prepared well by our lecturers, they guided us well."*

*(Diploma in Nursing graduate)*

Participants stated that clinical postings strengthened their decision-making and team coordination skills. Senior students were occasionally given the chance to take several patients on a shift, which they believed provided hands-on learning opportunities.

*"We looked after the whole ward, 32 beds... taking part in duty over sessions and sometimes us as senior students taking over the patient from nurses, managing duties,... it was a very good experience."*

*(Diploma in Nursing graduate)*

Nurses who completed a Master's degree in nursing found the transition to a managerial post in nursing easy since they believed they were adequately prepared to handle complex situations.

*"After completing my Master's degree, I believe it significantly improved my work skills. ... our curriculum was focused on issues we face in difficult practical situations."*

*(Master of Nursing graduate)*

Participants indicated that the nursing management subject, which included one month of management clinical posting, helped them take on management-related tasks very early in their careers.

*"I was posted in a small atoll hospital as soon as I graduated. Within two months of joining, I was given temporary in-charge nurse responsibility, and the management posting for one month during*

*our nursing program was handy for me to handle management-related tasks."*

*(Diploma in Nursing graduate)*

### **Theme 3: Professional Growth Opportunities**

The theme refers to the career advancement opportunities available to nurses. Nurses who have completed a DN noted that although they initially did not have a chance for further studies, the introduction of BN and MN programs at MNU and other private colleges has opened pathways for career growth. Many nurses are now able to pursue both undergraduate and postgraduate nursing programs.

*"We got the opportunity to improve our qualifications and study up to a Bachelor's degree. Later, we got the opportunity to study up to a Master's degree...while we stayed in our country. We now have the opportunity to advance our profession."*

*(Master of Nursing graduate)*

Participants expressed that they may have to wait a few years to pursue further studies, as many nurses were applying for higher education. However, they still got an opportunity after waiting a few years for their turn.

*"I felt it was challenging at first as I had to wait for a few more years to get my turn to apply and study for a Bachelor's degree...I finally got and completed my higher studies."*

*(Bachelor of Nursing graduate)*

Nurses highlighted that they have opportunities for professional development. Some of them shared that they have had the opportunity to do some training abroad.

*"We got the opportunity to go abroad to do short-term training. For example, I was part of a training in Bangko to learn about HIV transmission."*

*(Diploma in Nursing graduate)*

*"I had the opportunity to go to Thailand for around two months of training. That was an international training experience, which was really fulfilling for me because I met nurses from other countries around the world."*

*(Diploma in Nursing graduate)*

The participants felt that the further training opportunities provided them with a chance to

apply what they learnt from abroad to the local setting.

*I also got the chance to go to Japan for training. It was very useful to see how nursing care and such programs are conducted in other countries. We were able to see how that can be applied to our setting."*

*(Bachelor of Nursing graduate)*

Nurses who participated in this study highlighted that they studied and upgraded their qualifications to advance in their careers and as a means of self-development, aiming to become more professional nurses. The nursing job policy on the career ladder and pay structure implemented allowed them to advance their careers and pay. There was a promotional pathway for those who advanced their educational qualification.

*"With the new policy, we can now go up the career ladder with a Bachelor's degree, a Master's degree, or even a PhD. We have a way for professional promotion in our career as well as self-development."*

*(Master of Nursing graduate)*

#### **Theme 4: Benefits of Being a Nursing Graduate**

Newly qualified nurses reported that the knowledge and skills gained during training were readily transferable to practice, leaving them well prepared to enter the clinical setting as new graduates.

*"We were able to apply what we learned...we learned to take care of patients with different medical conditions. We applied the nursing care we learned."*

*(Bachelor of Nursing graduate)*

Another benefit of being a graduate, especially from MNU, is that being locally trained provides the advantage of familiarity with local contexts throughout their training. They become acquainted with clinical situations, the types of patients that come to hospitals, and the various treatments provided in these hospitals. One of the graduates expressed:

*"We studied in the Maldives, so it was easy for us to apply our knowledge to the local context since we were studying there. Additionally, our practical training was conducted at IGMH, which made it*

*easier for us to continue working there afterward, especially as diploma in nursing graduates."*

*(Diploma in Nursing graduate)*

Nurses who graduated locally believed that they got opportunities to work in different areas. They were able to experience various clinical departments and regions, reflecting on which areas they may be best suited for. One nurse explained she was interested in working in the Operating Theater (OT).

*"However, during my clinical rotations as a student, I experienced many different departments, which helped me identify the area I am most interested in.... I became most passionate about OT. When I graduated, I was initially assigned to the Emergency Department, which was a very hectic clinical area. Later, I had the opportunity to work in OT."*

*(Diploma in Nursing graduate)*

Newly graduated nurses' initial posting to a small outer-island hospital acted as a catalyst for rapid professional growth. The participant experienced early professional growth, which strengthened their confidence and professional identity.

*"When I first graduated from a Diploma in Nursing, I was posted to work in a smaller hospital on another island...I got a chance to practice nursing and become more professionally competent...it was a professional advancement for me."*

*(Diploma in Nursing graduate)*

#### **Theme 5: Challenges For Local Graduates**

This theme examines the obstacles faced by nurses educated in Maldivian institutions throughout their career pathways, particularly in clinical settings, while acknowledging the benefits of local training, such as context-specific preparation and employability. A recurring challenge during the initial transition to practice was the absence of a dedicated preceptor or mentor to provide structured guidance.

*"We had to survive; that's how the work started, so we had to handle all the responsibilities and be capable of managing those tasks. That was expected from us. There was no preceptor or mentor to help me, so I relied on senior nurses for guidance and assistance."*

*(Diploma in Nursing graduate)*

The participants initially expressed a lack of confidence in their skills when they first became registered nurses.

*"We did not have the confidence at first, we started to work as a registered nurse... we have to work to build that confidence."*

*(Bachelor of Nursing graduate)*

Participants noted that not all hospitals, especially the small atoll-level hospitals or island-level centres, had a separate nursing department. Nurses usually will have to report to non-medical managers or public health managers. They feel that they lack the authority to make independent decisions, and there is no decision-level authority that they have learned in their training:

*"When there is no nursing department in the hospitals where we are posted, the head of the institution will be the public health manager, who will make decisions related to nursing or nursing-related matters. Sometimes, we know when decisions are made that involve us and when they inform us."*

*(Master of Nursing graduate)*

Participants reported an absence of nurses at the Ministry of Health and other decision-making forums. As a result, decisions about nursing roles, career pathways, and remuneration are made by non-nurses. They also described having minimal representation and voice in these policy processes, particularly for the nursing profession.

*"There is no chief nursing officer in the Maldives...No nurse at the Ministry of Health to take part in policy-level decisions. There are nurses who have Master's degree and many years of experience, but still we are not involved in higher-level management relating to our profession and professional development."*

*(Master of Nursing graduate)*

Participants perceived limited access to professional development opportunities. Although many were highly motivated to upgrade their qualifications, the practical demands of full-time employment, especially shift work, made sustained study challenging.

*"Most nurses with a diploma-level qualification upgrade to a Bachelor's degree or even pursue their Master's programs while still working. Balancing*

*both work and study is very stressful."*

*(Bachelor of Nursing graduate)*

Despite the growth of additional studies in BN/MN options, access remained restricted due to vacancy pressures and limited study leave. In facilities experiencing severe shortages, managers were unable to release staff for further study, leading to delays and hindering promotion opportunities.

*"For example, out of 70 staff, 25 positions are unfilled; nearly one third. With such shortages, it isn't possible to grant study opportunities to everyone, preventing many from pursuing further education."*

*(Master of Nursing graduate)*

## DISCUSSION

This study indicates that a deliberately sequenced, contextualised curriculum, which includes theory taught in the classroom, skills demonstration in the Nursing Arts Lab practice, and progressive exposure to clinical settings, supported readiness and transition to employment. Participants consistently described theory sessions as directly usable at the bedside, indicating strong constructive alignment between intended learning outcomes, teaching activities, and assessment in clinical settings. In the current study, participants were satisfied with their learning experience. These findings are consistent with a tracer study conducted in Ghana. The graduates perceived the quality of their program to be good, with 90% of respondents rating the program, the quality of instructions, and the teaching and learning environment (6).

Supervision and role-modelling by lecturers, clinical tutors, and mentors were central to their readiness to become graduate nurses. Observing competent practice and performing procedures under guidance and graduated autonomy enhances critical thinking and clinical reasoning. The competencies that graduates find helpful in their first job include communication, critical thinking, and human relations skills (29). Notably, management/leadership content and the final-year management posting directly translated into early integration of theoretical knowledge with clinical skills. Similarly, a study conducted in the Philippines reported that nursing programs prepared graduates to

perform as entry-level nurses with highly developed interpersonal relationship skills. Still, they lacked the ability to make the right decision, lacked creativity, and had critical thinking abilities (30).

Findings also reveal a smooth transition from student to graduate nurse. Graduates reported feeling ready for entry-level roles from day one, attributing their adjustment to significant clinical exposure. Responsibilities such as managing multiple patients, participating in handovers, and overseeing a high volume of patients simultaneously strengthened their decision-making and team coordination. Moreover, evidence suggests that policies focusing on improving satisfaction with the work environment are more effective at retaining nurses early in their careers than improvements to conditions such as work hours, wages, support, and guidance (31,32). Despite satisfaction and readiness for practice, the current study highlighted an initial lack of confidence as a graduate nurse, which is consistent with similar findings in the literature (33,34).

Participants described expanding pathways for advancement, noting that the introduction of BN and MN programs at MNU and private colleges has transformed a previously limited landscape into one with clear academic routes from diploma to postgraduate levels. This is consistent with another study done in the Maldivian context (35). However, demand sometimes led to waiting several years for a study slot, but most eventually accessed further education. Short-term overseas training provided transferable practical insights relevant to the Maldivian context.

Local contextualization improved transfer by aligning nursing curriculum content and cases with Maldivian health needs across the health system, preparing graduates to operate independently even in resource-limited settings. The nursing curriculum ensures graduates are situated in a healthcare setting within a positive working environment, which can develop novices into experts in nursing (36). Participants' reports of being able to work "anywhere in the country" suggest that the curriculum's focus on common conditions, primary care tasks, and escalation pathways was well-suited to actual service needs. This includes smaller facilities where new graduates may take on broader

responsibilities. However, new nurses can experience increasing patient acuity and chaotic practice environments as negative experiences (37).

Despite the significant benefits of local training, participants highlighted structural barriers that hinder practice and career progression. A recurring issue in the current study was the lack of preceptorship or formal mentoring in initial positions, which forced new graduates to assume full responsibility before their confidence was fully developed. The level and nature of support available to new graduates, along with their tendency to learn and adapt to workplace cultures, within a healthy work environment for wellbeing and successful transition (38).

Organizational arrangements also limited the professional voice. In smaller atoll hospitals and island health centers, nurses often reported to non-nursing managers since there was no dedicated nursing department. This limited their decision-making authority and clinical governance. Gaps in representation also extended to the national level, where participants perceived limited nursing presence in policy forums. Professional development was highly valued yet challenging to access, and nurses also faced significant challenges while working and studying. This was consistent with another study conducted in the Maldives, which identified constraints in professional development despite nurses being motivated to study (39).

Finally, some patterns may reflect cohort effects related to curricular revisions, and perspectives might be influenced by retention bias among those who stayed in nursing. Additionally, broader systemic factors such as health system reforms, staffing and deployment policies, and changes in remuneration or career ladders may have shaped graduates' pathways independently of pre-service training. Furthermore, interpreting the themes within these stated assumptions, the alignment may likely reflect both the program's effects and cohort or system influences. This acknowledges that self-reported trajectories may overrepresent engaged graduates who stayed in nursing.

## CONCLUSION

MNU's nursing program effectively supports the transition to practice and early operational leadership through a contextualized, scaffolded curriculum. Reaching the full potential of career growth requires system-level investment, protected study time, targeted professional development programs, and formal nurse leadership in policy. These elements ensure that educational gains result in continuous professional development and a strong national nursing workforce.

## Implications for Nursing Education and Research

MNU should retain the explicit class, demonstrations in the nursing art lab, and clinical experience. It should incorporate leadership and management with graded autonomy, enhance aligned placements, and utilize tracer feedback through flexible, modular pathways suited for shift work. In practice, preceptorship for initial posts ensures a smooth transition for graduate entry to practice. Building on this, research needs to be conducted as a longitudinal tracer registry to evaluate preceptorship, including its impact, while monitoring leadership growth and retention. Collectively, these combined efforts translate educational achievements into continuous professional development and a resilient national nursing workforce.

## LIMITATIONS

This study relied on retrospective accounts from graduates, which may introduce recall bias, as participants might have had difficulty accurately remembering details from their early training and transition experiences. Cohort effects, retention bias, and system reforms may influence interpretations. Additionally, all FGDs were conducted via Google Meet due to COVID-19 restrictions, which likely constrained rapport, limited observation of non-verbal cues, and complicated turn-taking. Intermittent connectivity and audio issues may have curtailed the depth and spontaneity of the discussion. Although moderators used prompts and brief follow-ups to clarify points, the online format may have yielded less rich interaction than in-person groups. The sample comprised volunteer participants and, although purposively stratified by cohort and

years in practice, may overrepresent more engaged graduates. Moreover, the study focused on a single university within the Maldivian higher education context. As a result, its transferability to other institutions or countries with different curricula, clinical placements, and workforce structures is limited. Therefore, findings should be interpreted in light of these assumptions: reliance on retrospective self-reports from volunteers at a single university and online FGDs may introduce recall/selection effects and limit transferability beyond the Maldivian context.

## CONFLICT OF INTEREST

The authors have no conflict of interest in this study.

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## AUTHOR CONTRIBUTIONS

**AI:** Concept design and study design, data collection, data analysis, manuscript writing.

**AS:** Concept design and study design, data analysis, manuscript writing.

**ZAQ:** Concept design and study design, data analysis, manuscript writing.

**SBML:** Manuscript writing, critical revisions for intellectual content.

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