

Developing Competency-Based Career Training Module for Healthcare Industry

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ABSTRACT

The healthcare sector faces rapid transformation from demographic changes, disease patterns and digital innovations. Traditional training, focused on knowledge acquisition, struggles to prepare professionals for dynamic roles. This study develops and evaluates competency-based training (CBT) modules using paramedics at the Armed Forces Health Training Institute (INSAN) as a case study. A multi-stage design was employed, integrating Training Needs Analysis, competency framework mapping, measurable learning outcomes and standardized assessment tools. Findings reveal that CBT strengthens technical proficiency, decision-making and adaptability, while addressing weaknesses in outdated curricula and unclear evaluation systems. Importantly, linking training content with job descriptions and career progression enhances motivation, accountability and professional sustainability. In conclusion, it was found that competency-based module would offer a replicable model for healthcare training by embedding lifelong learning, reflective practice and continuous improvement. The study contributes to workforce development literature and provides actionable guidance for institutional reforms, ensuring healthcare professionals remain resilient, future-ready and aligned with evolving industry needs.

Keywords: Training; Healthcare; Paramedics; Competency; Job Performance; CBT

INTRODUCTION

The healthcare industry is currently experiencing rapid transformation, shaped by global demographic changes, evolving disease patterns and disruptive technologies. Increasing reliance on artificial intelligence, robotic surgery, telemedicine, simulation systems and digital health platforms is redefining how healthcare services are delivered and how professionals are expected to perform (Mundinger & Mundinger, 2024; Kumar & Ali, 2024). These shifts have heightened expectations for efficiency, precision and adaptability across healthcare professions. At the same time, challenges such as workforce shortages, high turnover and professional burnout are widely reported, especially among frontline providers such as paramedics, nurses and allied health practitioners (World Health Organization [WHO], 2023). To address these pressures, healthcare organizations and training institutions must strengthen workforce capacity through structured, evidence-based training approaches that ensure professionals remain competent and responsive to dynamic industry demands.

Competency-based training (CBT) has become essential in preparing healthcare workers for evolving professional demands. Unlike traditional time-based or knowledge-heavy models, CBT emphasizes measurable outcomes, demonstrated skills and application of knowledge in real-world contexts (Loftus et al., 2021). This ensures technical proficiency alongside adaptability, collaboration and sound judgment in complex situations. In healthcare, where errors may be life-threatening, outcome-focused training is critical. CBT also aligns with lifelong learning, enabling professionals to continuously update competencies in line with emerging medical technologies and practices (Ajemba et al., 2024). The need is urgent for diploma-level paramedics, who require to maintain strong clinical skills, rapid decision-making, and adaptability throughout their career development. Yet, many training systems remain rigid, outdated and poorly aligned with career pathways (Dohan et al., 2017). Without structured CBT modules, paramedics risk stagnation and demotivation, while continuous training enhances resilience, job satisfaction and performance (Wang et al., 2022).

Despite recognition of training and career development, empirical studies on intervention-based competency frameworks in healthcare remain scarce. Much of the literature emphasizes theoretical links between training and job performance, while applied interventions showing measurable improvements are limited (Sendawula et al., 2018; Aung et al., 2023). This creates a gap for organizations lacking validated models to design and evaluate career training modules. The issue is particularly critical in paramedic education, where continuous competency development and structured promotion pathways ensure readiness, motivation and retention. This study addresses the gap by developing and evaluating competency-based career training modules for healthcare, using paramedics as a case example. It integrates competency-based education with career progression, directly linking outcomes to performance and sustainability. The study contributes theoretically to workforce development literature and practically to institutional reforms, offering actionable insights for policymakers, educators and healthcare leaders.

Problem Statement

Armed Forces Health Training Institute (INSAN) is chosen as a case study in this article. As a healthcare training institution, plays a vital role in preparing paramedics to meet industry demands. However, its current training system remains largely traditional, emphasizing knowledge acquisition rather than competency-based outcomes. This approach limits graduates' adaptability to technological advances, evolving clinical practices and career progression requirements. Diploma-level paramedics trained under these modules risk experiencing skill stagnation, reduced motivation and declining performance over time. Therefore, addressing these gaps through competency-based career training modules is critical to ensure paramedics remain competent, motivated and aligned with the healthcare industry's dynamic needs.

Components Of Competency-Based Training (Cbt) Module

Training Need Analysis

Training Needs Analysis (TNA) is a critical first step in the development of CBT modules, as it provides a systematic approach to identifying performance gaps, aligning training with workforce demands and ensuring relevance to industry expectations. At INSAN, the importance of TNA is particularly significant, given the institution's role in preparing diploma-level paramedics who serve as the frontline workforce in the military healthcare system. Traditional training models at INSAN have largely emphasized knowledge acquisition rather than competency demonstration, which has limited the adaptability and career progression of graduates. A structured TNA therefore becomes essential to realign training content with the realities of modern healthcare practice (Ajemba et al., 2024; Wang et al., 2022).

Conducting a TNA at INSAN requires a multi-level assessment. First, it involves examining the weaknesses of existing modules, such as outdated clinical content, limited integration of digital health tools and insufficient emphasis on soft skills such as adaptability, problem-solving and teamwork. These gaps cannot be fully captured through quantitative assessments alone. Hence, the incorporation of qualitative interviews with stakeholders, including trainers, trainees, healthcare administrators, clinicians and medical logisticians, is crucial. A qualitative approach in Training Needs Analysis (TNA) offers deep insight into practice gaps and contextual challenges, especially when used with stakeholder interviews and thematic analysis frameworks (Marquez et al., 2025). Such interviews provide in-depth insights into the practical shortcomings of the current modules and highlight the evolving expectations of the healthcare workforce.

Table 1 Thematic analysis of the weakness in current training modules.

	Theme	Subtheme
1.	Competency	Lack of ICT Knowledge
		Lack of Military Medicine Skills
		Lack of Soft Skills
		Not Catering Towards the Specific Needs of Services

		Lack of a Standard Reference of the Subject's thought
		Knowledge Not Equal to Seniority Role
2.	Curricula	Outdated Lessons
		Overlapped Lessons
3.	Training System	No Continuity in between the Career Modules
		Evaluation System Not Clear
		Training Objectives Not Clear
4.	Human Resource Practice	Poor Rank Promotion
		Poor Salary Promotion

Table 1 highlights the findings that while clinical knowledge is emphasized, there is insufficient integration of digital literacy, soft skills and structured career development. These weaknesses demonstrate the urgent need for a CBT approach that aligns learning outcomes with workforce demands.

Moreover, this stakeholder-driven TNA will ensure that the training modules are not designed in isolation but are grounded in the actual requirements of both the workforce and the industry. By systematically gathering perspectives from multiple levels, INSAN can bridge the mismatch between training delivery and job performance expectations. This process also strengthens the institution's accountability to stakeholders, ensuring that the redesigned CBT modules address both clinical excellence and long-term career development (Loftus et al., 2021; Aung et al., 2023; Ajemba et al., 2024). In doing so, INSAN can position itself as a leading provider of training that not only equips paramedics with technical expertise but also prepares them for sustainable and progressive careers in the healthcare industry.

Competency Framework Design

The development of CBT modules at INSAN requires a structured competency framework reflecting the Core Areas of Study (CAOS) essential for the healthcare workforce (paramedic). Such frameworks are recognized as critical for guiding professionals to acquire, demonstrate and sustain competencies aligned with evolving clinical and administrative demands. Studies show that competency frameworks systematically link learning outcomes with workforce expectations, supporting both immediate performance and long-term growth (Mitchell et al., 2025). Similarly, learner-centered and competency-based clinical frameworks strengthen capability by embedding adaptability, decision-making and reflective practice in training design (Henry et al., 2025). Collectively, these findings highlight that well-structured frameworks are foundational for developing healthcare modules that ensure sustainable and progressive career development.

Drawing from the thematic analysis of weaknesses in existing training modules, the Clinical Core Area of Study (CAOS) can be organized into three competency domains: knowledge, skills and abilities. In terms of knowledge, clinical competencies emphasize evidence-based understanding of patient care protocols, emergency medicine guidelines and routine healthcare practices. For skills, the focus lies on technical proficiency in patient assessment, safe application of medical procedures and effective use of simulation tools and emerging technologies. Finally, the ability domain relates to adaptability in high-pressure environments, empathy in patient interactions and resilience in responding to unpredictable scenarios. Collectively, these domains ensure that clinical competencies address not only the technical aspects of care but also the professional judgment and responsiveness necessary for excellence in healthcare delivery.

Similarly, the Administrative Core Area of Study (CAOS) also reflects the tri-domain framework of knowledge, skills and abilities. Knowledge competencies include understanding healthcare policies, institutional procedures and digital record-keeping standards essential for effective administration. The skills domain emphasizes practical capacities such as accurate documentation, proficiency in digital health platforms, scheduling and resource management to support organizational efficiency. In terms of ability, administrative competencies

highlight accountability, leadership potential and effective communication across departments. Embedding these domains within administrative training ensures that healthcare professionals are not only operationally efficient but also capable of contributing to institutional resilience and strategic development. By combining clinical and administrative competencies across knowledge, skills and ability, the framework supports holistic professional development and sustainable workforce readiness.

The next step is the mapping of competencies to career progression pathways. Competencies should not only define entry-level expectations but also outline progressive mastery aligned with promotions, specialization and leadership roles. For example, clinical competencies may begin with basic emergency response at the diploma level and advance to supervisory or instructional expertise with experience and additional training. Similarly, digital literacy may progress from basic electronic documentation to advanced data analytics for healthcare decision-making. By explicitly linking competencies with career pathways, INSAN’s framework ensures that training modules contribute not only to immediate job performance but also to sustainable career growth, motivation and workforce retention. This competency framework aligns with the WHO Global Learning Strategy on Health, emphasizing measurable progression from foundational to advanced competencies (Gamhewage et al., 2022). It also mirrors Miller’s Pyramid of Clinical Competence in which moving from “knows” to “does”, ensuring that paramedics not only understand clinical concepts but can perform their duties effectively in real-world contexts.

Table 2 Competency Mapping Framework

CAOS	Domain	Entry Level (Diploma/ Class 1 Paramedic)	Intermediate Level (Junior/ Senior Supervisor)	Advanced Level (Junior/ Senior Manager)
Clinical	Knowledge	Understands basic sciences and emergency/disaster protocols.	Applies advance clinical guidelines and specialized knowledge in emergency care.	Integrates evidence-based practice and contributes to clinical policy development.
	Skills	Performs basic patient assessment, first aid, and routine procedures.	Demonstrates proficiency in complex interventions, diagnostic tools, and simulation-based training.	Supervises clinical practice, trains others and innovates new clinical procedures.
	Ability	Follows protocols under supervision; demonstrates empathy and patient care.	Independently manages critical cases; adapts to unpredictable scenarios.	Leads multidisciplinary teams; ensures resilience and high-level decision-making.
Administrative	Knowledge	Understands institutional rules, basic documentation and reporting systems.	Applies knowledge of healthcare regulations, administrative workflows and digital record systems.	Designs policies, manages compliance and contributes to organizational strategy.
	Skills	Completes documentation accurately; uses basic digital tools.	Manages scheduling, reporting and efficient use of resources; proficient	Leads administrative teams, optimizes processes and implements digital

			in health IT systems.	innovations.
	Ability	Demonstrates reliability in routine tasks; communicates effectively with staff.	Coordinates with departments; solves operational issues; ensures accountability.	Provides strategic leadership; mentors junior staff; fosters organizational culture.

The framework in Table 2 highlights the clear progression from technical competence to strategic leadership across career levels, revealing a critical link between structured training and long-term retention.

Learning Outcomes Specification

The specification of learning outcomes is essential in developing CBT modules, as it ensures training is structured around measurable and observable standards of performance (Gomes et al., 2025). Based on the Competency Mapping Framework for Healthcare Career Training Modules, outcomes must be defined for knowledge, skills and abilities across clinical and administrative domains. Clinical outcomes may include demonstrating understanding of emergency protocols through written tests or performing accurate patient assessments within a set timeframe. Administrative outcomes involve completing digital documentation with zero errors or applying healthcare regulations in simulated cases. These outcomes are observable, quantifiable and directly aligned with institutional competency standards, ensuring training effectiveness and workforce readiness.

Aligning learning outcomes with job performance indicators is essential (Mani, 2025; Schumacher et al., 2024). Three dimensions are emphasized: task performance, contextual performance and counterproductive work behavior (Koopmans, 2015). Task performance reflects accurate execution of clinical and administrative duties, such as interventions or managing digital health records. Contextual performance highlights teamwork, communication and ethical conduct, demonstrated through collaboration and resilience in high-pressure environments. Counterproductive Work Behavior (CWB) refers to actions that hinder adaptation, such as resistance to digital literacy or ineffective problem-solving in emergencies. By systematically addressing these dimensions, INSAN ensures modules extend beyond knowledge acquisition, producing graduates who perform effectively, demonstrate professional behaviors, and adapt to evolving healthcare challenges, positioning them as future-ready leaders (Naamati-Schneider & Alt, 2024).

Table 3 Learning outcomes and job performance indicators

CAOS	Learning Outcome	Job Performance Indicator
Clinical	Accurately perform patient assessment and basic life support within 5 minutes in simulation.	Task Performance
	Exhibit empathy and effective communication with simulated patients, as measured by feedback scores.	Contextual Performance
Administrative	Complete digital documentation and patient record entry with zero errors in three practice sessions.	Task Performance
	Display accountability and reliability by achieving supervisor ratings of $\geq 4/5$ in administrative simulations.	Contextual Performance

Table 3 demonstrates that by linking clinical and administrative competencies to task and contextual performance, it will reinforce the reliability of the CBT module in producing workforce-ready paramedics who can perform effectively in real healthcare settings.

Content Development

Developing module's content is vital for translating measurable learning outcomes into structured learning experiences that enhance workforce competencies. Content must be carefully designed to align outcomes with appropriate teaching methods. Clinical performance, such as patient assessments or equipment use, is best supported by simulation-based training, which replicates high-pressure environments, refines technical skills, provides feedback and builds confidence without compromising safety (Ferreira et al., 2025). Case studies foster cognitive and problem-solving skills by requiring evidence-based decisions in real-world contexts. Practice-based tasks, such as documentation drills or administrative role-play, reinforce routine competencies and organizational standards. To reflect the digital healthcare landscape, modules must also integrate electronic health record (EHR) platforms, telehealth, and decision-support systems, ensuring learners develop essential digital literacy and remain adaptable to continuous technological advancements (Othman et al., 2025).

Building on the competency mapping established in Section 3.2, the following module design applies the defined KSAs through structured, simulation-based and reflective learning activities. It is evidenced that competencies progress from basic clinical and administrative tasks at the junior supervisory to senior managerial level. Therefore, a step-by-step cascade teaching plan is designed to scaffold training content across four modules to aligned with the career stage. This progressive teaching model supports role-specific development, prepares trainees for leadership, and aligns training with structured career development pathways and institutional expectations (Devi et al., 2025)

In addition, module content must embed lifelong learning and reflective practice as integral elements. Lifelong learning encourages professionals to view competency as a continuous process, promoting engagement with new knowledge, skills and emerging technologies beyond initial training (Björk et al., 2025). Reflective practice, facilitated through learning journals, feedback discussions, or peer evaluations, enables learners to critically analyze their performance, recognize strengths and weaknesses and develop strategies for ongoing improvement (Aldossary et al., 2025). By combining structured activities with digital integration and reflective elements, module content development ensures that training outcomes are not only achieved but also internalized, supporting both immediate job performance and long-term career sustainability.

Assessment and Evaluation

Assessment and evaluation are essential in ensuring that CBT modules achieve their intended outcomes. In the healthcare industry, where precision and performance directly affect patient safety, assessment must be comprehensive, combining both formative and summative approaches. Reflective elements are incorporated and later assessed through formative assessment. Summative assessments, on the other hand, serve as benchmarks for competence at the end of training. Together, both methods create a balanced system that supports learning and accountability (Dube et al., 2025).

To ensure reliability and objectivity, the use of standardized instruments is critical. Tools such as the Individual Work Performance Questionnaire (IWPQ) by Koopmans, (2015) allow for systematic measurement of task performance, contextual performance and counterproductive behaviors, providing a validated framework for evaluating workplace effectiveness. Similarly, CBT tests assess technical proficiency, problem-solving ability and digital literacy in measurable ways. By embedding such instruments, evaluations move beyond subjective impressions to evidence-based judgments of performance. A questionnaire was also developed from the content of the training's modules and job description of paramedics at various levels of supervisory or managerial, aimed to measure their competency before and after the training.

Finally, assessment must be viewed as part of a continuous improvement cycle. Feedback from both formative and summative evaluations should be systematically analyzed and used to refine training content, instructional strategies, and assessment tools. This feedback loop not only strengthens individual performance but also enhances the overall quality and relevance of training modules, ensuring they remain aligned with workforce demands and evolving healthcare practices.

Table 4 Assessment framework

Assessment Type	Method	Tool/Instrument	Purpose
Formative	Simulation-based practice and debriefing	Skills checklist; facilitator feedback	Identify strengths and weaknesses during learning
	Reflective journals and peer discussion	Learning journal; peer evaluation rubric	Encourage reflective practice and self-improvement
Summative	Structured skills tests and OSCE	Competency-based practical exams	Measure clinical and technical proficiency at the exit point
	Performance evaluations linked to promotion	Supervisor ratings: Promotion Board Assessment	Benchmark readiness for career progression
Standardized	Work performance survey	Individual Work Performance Questionnaire (IWPQ)	Evaluate task, contextual and adaptive performance
	Competency-based testing	Paramedic Competency Test (PCT)	Assess knowledge, skills and abilities objectively

Table 4 shows that a balanced assessment framework is needed to ensure comprehensive measurement of trainee competency. The combination of qualitative and quantitative tools strengthens the credibility and accountability of the CBT system.

Implementation Strategy

A well-structured implementation strategy is essential to ensure that CBT modules move beyond theoretical design to practical application. The first critical step in implementation is piloting the modules with paramedic trainees. Piloting allows training designers to evaluate the feasibility, relevance and effectiveness of the module content under real learning conditions (Biddle Jr et al., 2021). Through this process, facilitators can observe how trainees interact with learning activities such as simulations, case studies and digital tools, while identifying challenges that may hinder the achievement of intended outcomes.

Early piloting also provides an opportunity to test the alignment of training content with measurable learning outcomes and job performance indicators. A pilot validation involving 90 paramedic trainees was conducted to evaluate the feasibility and impact of the module. Using a pre- and post Paramedic Competency Test Self-Assessment Tool and the Individual Work Performance Questionnaire (Koopmans, 2015), initial results indicated an increase in paramedic's competency and job performance post trainings.

The final stage involves embedding the modules into the institutional curricula. For INSAN, integrating CBT modules into its formal training structure to ensure its consistency, standardization and sustainability. Embedding the modules aligns them with institutional goals, accreditation standards and career progression pathways. More importantly, it ensures that all paramedic trainees, present and future, benefit from structured, competency-driven education. By systematically piloting, refining and embedding the modules, INSAN can create a transformative shift in its training system, ensuring that paramedics are better prepared for the evolving demands of the healthcare industry.

Monitoring and Continuous Improvement

Monitoring and continuous improvement are essential to ensure that CBT modules remain effective, relevant, and sustainable in the long term. The primary objective of monitoring is to evaluate effectiveness through

performance outcomes and learner feedback. Performance data such as assessment results, workplace evaluations, and promotion success rates will provide quantitative evidence of whether trainees are meeting competency standards. Simultaneously, learner feedback offers qualitative insights into the clarity, applicability and impact of the training experience, highlighting areas that may require further refinement.

Beyond immediate outcomes, it is equally important to review the alignment of modules with evolving healthcare needs. The healthcare industry is dynamic, shaped by new technologies, regulatory changes, and shifting patient demographics. Training modules must therefore be periodically reviewed to ensure that competencies in areas such as digital literacy, simulation-based practice and evidence-based decision-making remain relevant.

Finally, continuous improvement requires updating modules for sustainability and scalability. This involves incorporating innovations, addressing identified gaps and ensuring that training resources can be scaled across different cohorts or institutions (Dunne et al., 2022; Hao et al., 2021). A structured monitoring and review cycle ensures that modules do not become outdated but instead evolve with the industry. This approach guarantees that paramedic trainees remain competent, adaptable and prepared for future challenges in healthcare

DISCUSSION

Bridging the gap between traditional and CBT in healthcare module development is crucial for producing adaptable and future-ready professionals. Traditional systems, focused heavily on knowledge acquisition, often fail to address performance-based outcomes and evolving clinical demands. In contrast, CBT emphasizes measurable skills, decision-making and adaptability, ensuring alignment with patient safety and organizational needs (Loftus et al., 2021; Schumacher et al., 2024). The strength of this transition lies in linking training directly with career progression, fostering both professional growth and retention. However, resource intensity of redesigning curricula, assessing competencies reliably and ensuring stakeholder buy-in will become weakness factors.

Unlike conventional training models used in many national healthcare institutions, which rely on fixed curricula and time-based progression, the INSAN CBT model integrates career-linked competency mapping. Comparable to frameworks used by the UK National Health Service (NHS) and Singapore's Workforce Skills Qualifications (WSQ), this model emphasizes progressive mastery, adaptability, and reflective learning, offering a scalable and locally contextualized alternative. For future improvement, it is suggested that institutions adopt hybrid approaches, integrating digital tools, simulations, and continuous feedback loops to enhance the scalability and sustainability of the training modules. This integration ensures healthcare professionals are not only clinically proficient but also resilient, reflective, and equipped for long-term workforce challenges.

The use of qualitative interviews and thematic analysis in the Training Needs Analysis (TNA) stage provides rich, contextual insights into training gaps that are often overlooked by quantitative methods. Semi-structured interviews allow stakeholders to articulate tacit knowledge and workplace challenges, while thematic analysis enables systematic coding and identification of recurring patterns that inform CBT design (Marquez et al., 2025). A key strength lies in capturing nuanced perspectives that enhance the relevance and validity of training modules. However, limitations include researcher bias, subjectivity in coding and the resource-intensive nature of data collection and analysis (Nowell et al., 2017). To improve, future TNAs should integrate mixed-method approaches, employ qualitative software for consistency and strengthen trustworthiness through peer debriefing and member checking. Such practices ensure that qualitative insights remain credible, scalable and impactful in shaping healthcare workforce training.

The content of training modules was used alongside paramedic's job descriptions in designing competency assessment methods. Job description will define the skills, knowledge and abilities required for successful job performance, ensuring that the competencies gained will align with job expectations (Skorobogatova, 2023). The strength of this approach lies in its relevance and practicality, as assessments reflect actual job performance indicators such as patient assessment, documentation accuracy and adaptability. However, over-reliance on existing job descriptions may risk embedding outdated practices or overlooking emerging competencies like new digital health literacy. Therefore, it is suggested that healthcare institutions adopt a dynamic framework

that continuously updates job descriptions and module content based on evolving technologies, regulatory standards and stakeholder feedback, ensuring long-term validity and workforce readiness.

The integration of digital simulation, micro-credentialing, and reflective learning represents a transformative shift in healthcare CBT. Digital simulation enables experiential, risk-free practice that strengthens decision-making and clinical precision, while micro-credentialing offers modular recognition of specific skills, fostering lifelong and flexible learning pathways. Reflective learning, through journals and feedback sessions, cultivates self-awareness and continuous improvement among trainees. Collectively, these innovations enhance scalability, personalization and sustainability within the INSAN's CBT module, ensuring that paramedics remain adaptable to future healthcare advancements.

A key limitation of this research is its reliance on a single case study context (INSAN), which restricts the generalizability of findings across diverse healthcare systems. While the CBT modules were systematically developed and evaluated, the absence of multi-institutional or cross-national comparisons limits broader applicability. Furthermore, most insights were derived from thematic analysis and stakeholder input, which may introduce subjectivity and bias despite efforts to ensure rigor. Future studies should incorporate larger samples, quantitative validation, and longitudinal tracking to strengthen external validity and capture long-term workforce outcomes.

Future research should examine the long-term impact of CBT on workforce performance, career sustainability and adaptability to emerging technologies such as AI and telehealth. Longitudinal and comparative studies across institutions can reveal best practices and scalability, while mixed-method approaches enrich both quantitative outcomes and experiential insights. Cross-national analyses are also essential to capture cultural and systemic variations. These directions will provide stronger evidence for reforms, ensuring training modules remain relevant, dynamic and aligned with global healthcare demands.

CONCLUSION

Beyond its institutional relevance, this study introduces an innovative, digitally integrated and career-linked CBT model adaptable across healthcare contexts. Its structured mapping and validated outcomes provide a replicable foundation for future global training reform. By integrating Training Needs Analysis, structured competency frameworks, measurable learning outcomes and robust assessment methods, the study demonstrates how CBT modules enhance job performance, motivation, and long-term career sustainability. The case study at INSAN illustrates the value of aligning training content with workforce realities and career progression pathways, ensuring both relevance and institutional accountability. While resource intensity and limited generalizability remain challenges, the findings provide practical guidance for healthcare institutions seeking to reform training systems. Ultimately, embedding lifelong learning, reflective practice and continuous monitoring ensure the scalability and adaptability of these modules, equipping healthcare workers with the resilience and competencies necessary to thrive in a rapidly transforming global healthcare landscape.

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