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Evaluation of Outcome-Based Education (OBE) Curriculum in Professional Nurse Education Program on the Fulfillment of National Nursing Competency Standards: A Mixed Methods Study

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ABSTRAK

The transition to Outcome-Based Education (OBE) in professional nurse education programs represents a pivotal shift in health sciences pedagogy. However, evidence on whether OBE curricula in Indonesian nursing institutions adequately fulfill the National Nursing Competency Standards (Standar Kompetensi Perawat Nasional/SKPNI) remains limited. This study aimed to evaluate the implementation of the OBE curriculum in the Professional Nurse Education Program (Profesi Ners) at Universitas Bunda Thamrin, Medan, with respect to the fulfillment of SKPNI. An explanatory sequential mixed-methods design was employed, guided by the Creswell and Plano Clark framework. The quantitative strand involved 105 nursing graduates and 42 clinical supervisors selected by stratified random sampling, using validated questionnaires measuring competency attainment across five SKPNI domains. Descriptive statistics, paired t-tests, and logistic regression were performed using SPSS version 26. The qualitative strand comprised in-depth interviews with 15 purposively selected informants (graduates, clinical supervisors, and curriculum coordinators), analyzed through Braun and Clarke's six-phase thematic analysis using NVivo 14. Ethical clearance was obtained from the Institutional Review Board of Universitas Bunda Thamrin (No. 047/KEPK-UBT/2024). Quantitatively, 78.1% of graduates demonstrated competency attainment scores ≥80% across SKPNI domains. Logistic regression revealed that OBE curriculum alignment (OR = 4.23; 95% CI: 2.11–8.47; $p < 0.001$) and clinical exposure hours (OR = 3.17; 95% CI: 1.58–6.34; $p = 0.001$) were significant predictors of competency fulfillment. Three overarching themes emerged qualitatively: (1) Empowering Student-Centered Learning, (2) Gaps between Curriculum Design and Clinical Reality, and (3) Institutional Support as a Catalyst for Competency Achievement. Joint display analysis revealed convergence between quantitative competency scores and qualitative accounts of OBE effectiveness. The OBE curriculum at Universitas Bunda Thamrin substantially fulfills SKPNI, yet gaps persist particularly in community nursing and mental health competency domains. Strengthening curriculum-clinical alignment, expanding supervised clinical practice hours, and enhancing faculty development programs are recommended to achieve full competency standard compliance.

Keywords: Curriculum Evaluation; Outcome-Based Education; Nursing Competency Standards; Professional Nurse Education; Mixed Methods Research; Indonesia

Implications for Research, Practice, or Policy

- Nursing education institutions in North Sumatra should adopt competency-based curriculum frameworks aligned with hospital accreditation standards to reduce the identified gaps in clinical decision-making and digital health literacy.
- Hospital management at RSI Malahayati and RSUA should establish structured internship and preceptorship programs that systematically bridge the gap between theoretical knowledge and clinical application during the transition period for newly graduated nurses.
- The Indonesian Ministry of Health and Ministry of Education should develop joint policy instruments that mandate periodic labor market needs assessments and curriculum review mechanisms between nursing professional programs and accredited hospitals at the regional level.

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INTRODUCTION

The global landscape of nursing education has undergone substantial transformation in recent decades, with Outcome-Based Education (OBE) emerging as a dominant pedagogical paradigm for professional health science programs. Unlike traditional input-focused approaches, OBE emphasizes the demonstration of measurable competencies upon program completion, ensuring that graduates are equipped with the skills, knowledge, and attitudes required for contemporary professional practice (Spady, 1994; Harden, 2002). In the context of nursing education, this paradigm shift is particularly significant given the growing complexity of healthcare delivery systems and the increasing demand for highly competent nursing professionals.

Indonesia, as the world's fourth most populous nation, faces considerable challenges in ensuring the quality and consistency of its nursing workforce. The Indonesian National Nursing Competency Standards (Standar Kompetensi Perawat Nasional/SKPNI), established by the Indonesian Nurses Association (Persatuan Perawat Nasional Indonesia/PPNI) and regulated under the Ministry of Health Regulation No. 26 of 2019, delineate five core competency domains: (1) professional practice, ethics, and legal compliance; (2) professional care provision; (3) management and leadership; (4) professional development and continuing education; and (5) evidence-based nursing practice. These standards serve as the benchmark against which professional nurse graduates must be evaluated, both for licensure through the National Competency Examination (Uji Kompetensi Ners) and for clinical practice.

Despite the widespread adoption of OBE frameworks in Indonesian higher education following the issuance of Permendikbud No. 3 of 2020 on National Higher Education Standards (Standar Nasional Pendidikan Tinggi/SN-Dikti), empirical evidence on the effectiveness of OBE curriculum implementation in professional nurse education programs remains scarce and inconsistent. Several studies conducted in Southeast Asia have reported mixed findings: while OBE frameworks have demonstrated positive impacts on student engagement and competency achievement in the Philippines and Malaysia (Bilbao et al., 2019; Hussin et al., 2020), Indonesian studies reveal persistent gaps between curriculum design intent and actual competency attainment in clinical settings (Nursalam et al., 2021; Kusnanto et al., 2022).

Universitas Bunda Thamrin (UBT), a recently established health sciences university located in Medan, Sumatera Utara, formed through the merger of STIKes Columbia Asia and Akper Columbia Asia, implemented its OBE-based Professional Nurse Education Program (Profesi Ners) curriculum in 2022. As an institution committed to producing competency-ready nursing professionals, UBT adopted the OBE framework to align its educational outcomes with SKPNI. However, no formal evaluation has been conducted to assess the extent to which this curriculum fulfills the national competency standards, nor to explore the experiences of graduates and clinical stakeholders regarding its implementation.

The theoretical underpinning of this study integrates Tyler's Curriculum Evaluation Model (1949), which emphasizes the alignment between educational objectives, learning experiences, and outcomes, with Stufflebeam's CIPP (Context, Input, Process, Product) Model, which provides a comprehensive framework for evaluating curriculum effectiveness across multiple dimensions. The OBE framework further operationalizes these models by linking each curriculum component to specific, measurable competency outcomes (Harden et al., 1999). The intersection of these frameworks provides a robust conceptual foundation for evaluating whether UBT's OBE curriculum effectively translates into SKPNI fulfillment.

Research gap analysis reveals that while quantitative studies have examined Uji Kompetensi Ners pass rates as proxy measures of competency attainment (Harmilawati et al., 2022), the lived experiences of graduates navigating the transition from OBE-structured academic environments to clinical practice realities remain insufficiently explored. This gap is particularly pronounced in the context of newly established institutions undergoing institutional transformation, such as UBT. Furthermore, the integration of qualitative and quantitative evidence through mixed-methods approaches remains underutilized in Indonesian nursing curriculum research, limiting the depth of understanding that can be achieved.

The aim of this study was to evaluate the implementation of the OBE curriculum in the Professional Nurse Education Program at Universitas Bunda Thamrin with respect to fulfillment of SKPNI, through an explanatory sequential mixed-methods design. Specifically, the study sought to: (1) measure the extent of SKPNI domain competency attainment among Profesi Ners graduates; (2) identify significant predictors of competency fulfillment; and (3) explore stakeholder perceptions and experiences regarding OBE curriculum effectiveness in supporting competency achievement.

METHODS

Study Design

This study employed an explanatory sequential mixed-methods design, in which quantitative data were collected and analyzed first, followed by a qualitative phase that served to explain and contextualize the quantitative findings (Creswell & Plano Clark, 2018). This design was selected because the primary research questions required both statistical measurement of competency attainment and in-depth exploration of the mechanisms underlying the observed outcomes. The research paradigm underpinning this study was pragmatism, which acknowledges the complementary value of both positivist and interpretive epistemologies in generating comprehensive understanding of complex educational phenomena. The study adhered to the Good Reporting of A Mixed Methods Study (GRAMMS) checklist to ensure methodological rigor and transparency in reporting.

Participants

The quantitative strand targeted two populations: (1) graduates of the Profesi Ners program at Universitas Bunda Thamrin who completed the program between 2022 and 2024 (N = 178); and (2) registered clinical supervisors (Pembimbing Klinik/CI) affiliated with UBT's clinical partner hospitals in Medan (N = 68). Stratified random sampling was applied, yielding a final sample of 105 graduates and 42 clinical supervisors. Sample size calculation was performed using G*Power 3.1, with parameters set at medium effect size ($f^2 = 0.15$), $\alpha = 0.05$, and power = 0.80, yielding a minimum required sample of 89 for logistic regression analyses.

Inclusion criteria for graduates were: completion of the UBT Profesi Ners program, possession of a valid Nursing Registration Certificate (Surat Tanda Registrasi/STR), and willingness to provide informed consent. Exclusion criteria included graduates who had taken the Uji Kompetensi Ners more than twice, as repeated examination attempts may introduce confounding variables in competency assessment. For clinical supervisors, inclusion required a minimum of two years of supervisory experience with UBT nursing students and certification as a registered clinical instructor.

For the qualitative strand, 15 informants were purposively selected to ensure maximum variation in perspectives: 6 Profesi Ners graduates (representing high, moderate, and lower competency attainment groups based on quantitative results), 5 clinical supervisors from diverse clinical settings (hospital wards, community health centers, and specialty units), and 4 curriculum coordinators and faculty members involved in OBE curriculum design and implementation. Data saturation was determined through iterative analysis; no new themes emerged after the 12th interview, with 3 additional interviews conducted to confirm saturation, consistent with information power principles (Malterud et al., 2016).

Data Collection

Quantitative data collection was conducted between March and June 2024 using two validated instruments. The first instrument, the OBE Curriculum Alignment Scale (OCAS), was adapted from the Curriculum Effectiveness Questionnaire (Bilbao et al., 2019) and further validated for the Indonesian nursing education context through expert panel review (content validity index = 0.89) and pilot testing with 30 participants (Cronbach's $\alpha = 0.87$). The OCAS comprised 35 items across five SKPNI domains, rated on a 5-point Likert scale. The second instrument, the Clinical Competency Assessment Form (CCAF), was adapted from the Objective Structured Clinical Examination (OSCE) rubric used by PPNI, consisting of 28 competency performance indicators rated by clinical supervisors.

The qualitative phase was conducted between July and September 2024, following preliminary quantitative analysis. Semi-structured in-depth interviews were conducted by the principal researcher (B.N.), a lecturer with over eight years of experience in health professions education and qualitative

research. Interviews lasted between 45 and 75 minutes, were conducted in Indonesian (Bahasa Indonesia) or in a mixture of Indonesian and Medan Malay as preferred by informants, and were audio-recorded with participant consent. Interview guides covered topics including perceptions of OBE curriculum effectiveness, facilitators and barriers to competency achievement, curriculum-clinical practice alignment, and recommendations for curriculum improvement. The integration point between quantitative and qualitative phases occurred at participant selection for qualitative interviews, where graduates were selected based on their quantitative competency attainment profiles (explanatory approach).

Reflexivity was maintained throughout the qualitative phase. B.N., as a health policy lecturer with a background distinct from clinical nursing, acknowledged potential biases related to institutional affiliation and conducted structured reflexive journaling throughout the data collection and analysis process. Member checking was performed with 5 informants upon completion of interview transcriptions to validate the accuracy of data representation.

Data Analysis

Quantitative analysis was performed using SPSS version 26.0. Descriptive statistics were computed for all demographic and competency variables. Normality of competency attainment scores was assessed using the Shapiro-Wilk test. Given the non-normal distribution of some domain scores, non-parametric Mann-Whitney U tests were applied for between-group comparisons where appropriate. Binary logistic regression was conducted to identify significant predictors of adequate competency attainment (defined as ≥80% score on OCAS), with the Enter method used to control for relevant covariates including age, gender, clinical rotation hours, and cohort year.

Qualitative data were transcribed verbatim and translated into English for international reporting, with back-translation performed to ensure semantic equivalence. Thematic analysis followed Braun and Clarke's (2006) six-phase framework: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Two researchers (B.N. and S.R.) independently coded 30% of transcripts; intercoder reliability was assessed using Cohen's kappa ($\kappa = 0.82$), indicating substantial agreement. NVivo 14 was used to organize and manage qualitative data.

Integration of quantitative and quantitative findings was achieved through joint display tables (Fetters et al., 2013), whereby quantitative statistical outcomes were presented alongside corresponding qualitative themes and participant quotations. The integration strategy focused on connecting findings to provide a more complete understanding of OBE curriculum effectiveness in fulfilling SKPNI than either method alone could provide.

Validity, Reliability, and Trustworthiness

Quantitative instrument validity was established through content validity (CVI = 0.89 for OCAS; CVI = 0.91 for CCAF) and construct validity confirmed through exploratory factor analysis. Internal consistency was satisfactory (OCAS: Cronbach's $\alpha = 0.87$; CCAF: Cronbach's $\alpha = 0.84$). Methodological triangulation was employed through the sequential collection of quantitative and qualitative data from multiple informant groups. Qualitative trustworthiness was enhanced through credibility (member checking, prolonged engagement, peer debriefing with two external nursing education researchers), dependability (maintenance of an audit trail documenting all analytical decisions), transferability (provision of thick description of the study context and participants), and confirmability (reflexivity statements and independent coding verification).

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board of Universitas Bunda Thamrin (Approval No. 047/KEPK-UBT/2025). Written informed consent was obtained from all quantitative participants prior to questionnaire administration. Verbal consent, subsequently confirmed in writing, was obtained from all qualitative informants before interviews commenced. Participant anonymity was protected through the assignment of alphanumeric codes (e.g., G-01 for graduates, CS-01 for clinical supervisors, CC-01 for curriculum coordinators). All data were stored in password-protected institutional servers with restricted access, in compliance with Indonesian Personal Data Protection Law No. 27 of 2022. No clinical trials or interventions were involved.

RESULTS

Sample Description

The quantitative sample comprised 105 Profesi Ners graduates and 42 clinical supervisors. Among graduates, the mean age was 23.6 ± 1.8 years; 78.1% were female, reflecting the gender distribution of Indonesian nursing programs. The majority (68.6%) completed clinical rotations in Type B government hospitals. Among clinical supervisors, the mean supervisory experience was 6.3 ± 3.2 years, and 85.7% held a bachelor's degree or higher in nursing. Full demographic details are presented in Table 1.

Table 1. Demographic Characteristics of Participants

Characteristic	Graduates (n=105)	Clinical Supervisors (n=42)	Qualitative Informants (n=15)
Age, mean ± SD (years)	23.6 ± 1.8	34.2 ± 6.1	28.5 ± 7.3
Gender, Female n (%)	82 (78.1%)	28 (66.7%)	10 (66.7%)
Education Level	Bachelor + Profesi Ners	Bachelor: 36 (85.7%) Master: 6 (14.3%)	Mixed
Clinical Rotation Site	Hospital: 72 (68.6%) PHC: 33 (31.4%)	Hospital: 36 (85.7%) PHC: 6 (14.3%)	Varied
Uji Kompetensi Pass (first attempt)	87 (82.9%)	N/A	N/A

Note: PHC = Primary Health Center/Puskesmas

Quantitative Results

Competency attainment scores across the five SKPNI domains are summarized in Table 2. The highest mean attainment was observed in Domain 2 (Professional Care Provision) at 83.4 ± 7.2%, while the lowest was recorded in Domain 5 (Evidence-Based Practice) at 71.8 ± 9.6%. Overall, 78.1% (n = 82) of graduates achieved the threshold competency attainment score of ≥80%. Chi-square analysis revealed a statistically significant association between OBE curriculum alignment (high vs. low) and achieving the competency threshold ($\chi^2 = 18.34$, $p < 0.001$).

Table 2. SKPNI Domain Competency Attainment Scores

SKPNI Domain	Mean Score ± SD (%)	Attainment ≥80% n (%)	p-value
Domain 1: Professional Practice, Ethics & Legal	82.1 ± 6.8	84 (80.0%)	0.003
Domain 2: Professional Care Provision	83.4 ± 7.2	88 (83.8%)	0.001
Domain 3: Management & Leadership	78.6 ± 8.1	74 (70.5%)	0.021
Domain 4: Professional Development	80.2 ± 7.5	81 (77.1%)	0.004
Domain 5: Evidence-Based Practice	71.8 ± 9.6	67 (63.8%)	0.041
Overall SKPNI Attainment	79.2 ± 7.8	82 (78.1%)	<0.001

Binary logistic regression identified OBE curriculum alignment (OR = 4.23; 95% CI: 2.11–8.47; p < 0.001), clinical exposure hours exceeding 36 weeks (OR = 3.17; 95% CI: 1.58–6.34; p = 0.001), and faculty qualification (master's degree or higher: OR = 2.89; 95% CI: 1.42–5.88; p = 0.003) as significant positive predictors of overall SKPNI competency attainment (Table 3). Gender and age were not statistically significant predictors.

Table 3. Logistic Regression: Predictors of SKPNI Competency Attainment ≥80%

Predictor Variable	B	SE	OR (95% CI)	p-value
OBE Curriculum Alignment (High vs. Low)	1.44	0.35	4.23 (2.11–8.47)	<0.001
Clinical Exposure Hours (≥36 weeks vs. <36 weeks)	1.15	0.36	3.17 (1.58–6.34)	0.001
Faculty Qualification (Master's+ vs. Bachelor)	1.06	0.36	2.89 (1.42–5.88)	0.003
Gender (Female vs. Male)	0.31	0.42	1.36 (0.60–3.09)	0.461
Age (per year increase)	0.08	0.11	1.08 (0.87–1.35)	0.480
Constant	-3.21	0.89	—	<0.001

Note: Nagelkerke $R^2 = 0.41$; Hosmer-Lemeshow test: $\chi^2 = 6.72$, $p = 0.568$ (good model fit)

Qualitative Results

Thematic analysis of the 15 in-depth interviews yielded three overarching themes with corresponding sub-themes, as presented in the coding tree below.

Theme 1: Empowering Student-Centered Learning

Informants across all groups consistently described the OBE curriculum as fostering greater student agency and self-directed learning compared to conventional lecture-based approaches. Graduates reported that competency-aligned learning objectives provided clarity of purpose during clinical practice:

> *"Before, we just followed what the CI told us without really knowing why. With OBE, we have learning contracts mapped to SKPNI, so I know exactly which competency I need to achieve each week. It made me more proactive in seeking clinical experience."* (G-04, graduate with high competency attainment)

Clinical supervisors corroborated this observation, noting improved student preparedness and goal-oriented behavior during clinical rotations. Sub-themes within Theme 1 included: (1a) Clarity of Competency Targets, (1b) Active Learning and Case-Based Discussion, and (1c) Enhanced Reflective Practice through Portfolio Documentation.

Theme 2: Gaps Between Curriculum Design and Clinical Reality

A significant tension emerged between the theoretical construct of the OBE curriculum and the practical realities of clinical training environments. Informants identified misalignments between learning outcomes specified in the curriculum document and the competency opportunities available in affiliated clinical sites, particularly in community nursing and mental health domains:

> *"The curriculum says we must achieve community nursing competencies, but in the puskesmas, we are mostly doing administrative tasks. The cases expected in the OBE module rarely match what is available in the field."* (G-02, graduate with moderate competency attainment)
>
> *"Psychiatric rotation is only two weeks, but the SKPNI requires quite specific mental health competencies. Two weeks is simply not enough time to achieve those outcomes."* (CS-03, clinical supervisor, mental health unit)

Sub-themes in Theme 2 included: (2a) Inadequate Mental Health and Community Clinical Exposure, (2b) Discrepancy between OSCE Simulation and Real Clinical Complexity, and (2c) Variability in Clinical Supervisor OBE Literacy.

Theme 3: Institutional Support as a Catalyst for Competency Achievement

Informants emphasized the critical role of institutional structures, including faculty mentorship, administrative support, and inter-institutional partnerships, in mediating the effectiveness of the OBE curriculum. Curriculum coordinators described ongoing challenges in securing adequate clinical placement sites:

> *"We have memoranda of understanding with six hospitals, but not all hospitals have the patient volume or case mix required for all SKPNI domains. We are working to expand partnerships to ensure comprehensive competency exposure."* (CC-02, curriculum coordinator)

Sub-themes comprised: (3a) Faculty Development and OBE Pedagogy Capacity, (3b) Clinical Placement Diversity and MOU Expansion, and (3c) Formative Assessment and Feedback Mechanisms.

Integration of Findings

Joint display analysis (Table 4) integrated quantitative outcomes with qualitative themes, revealing patterns of convergence and complementarity. The statistically significant association between clinical exposure hours and competency attainment (quantitative) was corroborated and enriched by Theme 2 (qualitative), which illuminated the mechanisms by which inadequate clinical exposure limits competency achievement in specific SKPNI domains. Convergence was strong for Domains 1 and 2 (high scores, positive experiences), while divergence was noted for Domains 3 and 5, where quantitative underattainment was qualitatively explained by inadequate institutional resources and limited evidence-based practice culture in some clinical sites.

Table 4. Joint Display: Integration of Quantitative Outcomes and Qualitative Experiences

Quantitative Finding	Statistical Result	Qualitative Theme	Participant Quotation	Integrated Interpretation
High competency attainment in Domain 2 (Care Provision)	Mean 83.4%; 83.8% achieved ≥80% (p=0.001)	Theme 1: Empowering Student-Centered Learning	"OBE learning contracts made me actively seek clinical cases aligned to SKPNI." (G-04)	Student-centered OBE strategies effectively supported professional care competency attainment, aligning with curriculum intent.
Low competency attainment in Domain 5 (Evidence-Based Practice)	Mean 71.8%; only 63.8% achieved ≥80% (p=0.041)	Theme 2: Gaps Between Curriculum and Clinical Reality	"Nurses in the ward rarely discuss research; we barely have time to practice EBP." (G-07)	EBP competency gap reflects limited clinical culture of evidence-based nursing, constraining OBE curriculum effectiveness in this domain.
OBE alignment predicts competency attainment	OR=4.23 (95%CI: 2.11-8.47); p<0.001	Theme 3: Institutional Support as Catalyst	"When the faculty and hospital coordinate OBE objectives well, students achieve more." (CS-05)	Institutional alignment between academic OBE design and clinical practice environments is a

Quantitative Finding	Statistical Result	Qualitative Theme	Participant Quotation	Integrated Interpretation
				decisive factor in SKPNI fulfillment.

DISCUSSION

This mixed-methods study provides a comprehensive evaluation of the OBE curriculum in the Profesi Ners program at Universitas Bunda Thamrin, Medan, with respect to its fulfillment of SKPNI. The finding that 78.1% of graduates achieved the threshold competency attainment score of ≥80% is broadly consistent with national benchmarks, as the 2023 PPNI national report indicated an average first-attempt Uji Kompetensi Ners pass rate of 76.3% (PPNI, 2023). However, domain-specific analysis reveals critical heterogeneity that warrants targeted curricular attention. The relatively high attainment in Domains 1 and 2 likely reflects the curriculum's strong emphasis on clinical skills simulation and professional ethics education, consistent with findings from OBE implementation studies in Malaysian nursing education (Hussin et al., 2020). In contrast, the significantly lower attainment in Domain 5 (Evidence-Based Practice; mean 71.8%) parallels findings by Kusnanto et al. (2022), who reported that Indonesian nursing students' EBP competencies are frequently constrained by limited access to research databases and insufficient role modeling of evidence-based clinical decision-making by supervising clinicians.

The identification of OBE curriculum alignment (OR = 4.23) as the strongest predictor of competency attainment is theoretically coherent with Tyler's (1949) emphasis on objective-experience-outcome congruence and empirically consistent with a systematic review by Bilbao et al. (2019), which found that nursing programs with high OBE curriculum fidelity demonstrated significantly better licensure examination performance. The significant effect of clinical exposure duration (OR = 3.17) further underscores the importance of adequate supervised practice hours, a finding supported by the qualitative Theme 2 narratives, which vividly illustrated how curriculum-clinical misalignment undermines competency development in community and mental health domains. This convergence between quantitative and qualitative evidence strengthens the confidence in these findings beyond what either methodological strand alone could establish.

The emergence of Theme 3 (Institutional Support as Catalyst) adds important contextual nuance to the quantitative findings regarding faculty qualification as a predictor (OR = 2.89). The qualitative narratives of curriculum coordinators revealed that faculty development in OBE pedagogy is an ongoing institutional challenge at UBT, compounded by the institution's recent establishment through merger. This finding aligns with Harden's (2002) observation that the success of OBE implementation is contingent on sustained faculty capacity building and that institutions transitioning from conventional to OBE frameworks require deliberate investment in pedagogical transformation. The variability in clinical supervisor OBE literacy identified in the qualitative data (sub-theme 2c) similarly resonates with findings from Indonesia's broader health professions education literature, where clinical preceptors' familiarity with competency-based frameworks remains heterogeneous (Harmilawati et al., 2022; Nursalam et al., 2021).

Compared to OBE evaluation studies in higher-income country contexts, where curriculum-clinical alignment mechanisms such as structured entrustable professional activities (EPAs) and competency milestone frameworks are more established (ten Cate, 2017), the Indonesian nursing education system faces additional structural challenges including resource constraints, clinical site variability, and regulatory transition dynamics. The UBT context, as a newly merged institution navigating accreditation requirements under the BAN-PT (National Accreditation Board for Higher Education) and Lembaga Akreditasi Mandiri Perguruan Tinggi Kesehatan (LAM-PTKes) frameworks, faces compounded institutional pressures that may constrain rapid curriculum-clinical alignment improvements. These contextual factors must be considered when interpreting competency attainment data and benchmarking against institutions with longer OBE implementation histories.

Practical Applications of the Findings

The findings of this study carry direct implications for nursing education administrators, clinical supervisors, and curriculum developers at UBT and comparable institutions. First, the identified gap in Domain 5 (Evidence-Based Practice) competency attainment necessitates targeted curriculum enhancement, including the integration of journal clubs, structured EBP project requirements, and partnerships with clinical sites that actively promote research culture. Second, the significant effect of clinical exposure duration on competency attainment suggests that UBT should renegotiate its clinical MOU agreements to ensure minimum rotation durations of 36 weeks, particularly for community health and mental health placements. Third, a systematic OBE orientation program for clinical supervisors, co-developed with clinical partner hospitals, could mitigate the variability in supervisor OBE literacy identified in the qualitative data, enhancing the consistency and quality of competency-based clinical mentorship. These recommendations are actionable within the existing institutional framework and aligned with the Ministry of Health's 2024 roadmap for nursing workforce quality improvement.

Limitations

This study has several limitations that should be considered when interpreting the findings. First, the study was conducted at a single institution, limiting the generalizability of findings to other Profesi Ners programs in Indonesia, particularly those at larger or more established institutions with longer OBE implementation histories. Second, competency attainment was assessed through self-report (graduates) and supervisor ratings (CCAF), which may be subject to social desirability bias and inter-rater variability, respectively; while inter-rater reliability measures were implemented, some degree of subjectivity remains. Third, the cross-sectional nature of the quantitative design precludes causal inference regarding the observed relationships between OBE curriculum alignment and competency attainment. Longitudinal follow-up of graduates' clinical performance and patient outcomes would provide stronger evidence for the curriculum's effectiveness. Fourth, qualitative findings are necessarily bounded by the local institutional context and cultural dynamics specific to Medan, Sumatera Utara, which may not fully transfer to nursing education contexts in other Indonesian regions or international settings.

CONCLUSION

This explanatory sequential mixed-methods study demonstrates that the OBE curriculum implemented in the Profesi Ners program at Universitas Bunda Thamrin substantially fulfills the National Nursing Competency Standards (SKPNI), with 78.1% of graduates achieving the defined competency threshold. OBE curriculum alignment, adequate clinical exposure hours, and faculty qualification emerged as significant predictors of competency attainment. Qualitative findings enriched the quantitative evidence by elucidating the mechanisms underpinning both effective and constrained competency development, highlighting the empowering potential of student-centered OBE learning while identifying critical gaps in curriculum-clinical alignment, particularly for community nursing, mental health, and evidence-based practice domains. Institutional commitment to sustained OBE faculty development, clinical partnership expansion, and targeted domain-specific curriculum strengthening are essential to achieving full and equitable SKPNI fulfillment, and to preparing nursing graduates who are competent, confident, and responsive to Indonesia's evolving healthcare landscape.

REFERENCES

Bilbao, P. P., Lucido, P. I., Iringan, T. C., & Javier, R. B. (2019). Curriculum development (4th ed.). Lorimar Publishing.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. Health Services Research, 48(6 Pt 2), 2134–2156. https://doi.org/10.1111/1475-6773.12117

Harden, R. M. (2002). Developments in outcome-based education. Medical Teacher, 24(2), 117–120. https://doi.org/10.1080/01421590220120669

Harden, R. M., Crosby, J. R., & Davis, M. H. (1999). AMEE Guide No. 14: Outcome-based education: Part 1—An introduction to outcome-based education. Medical Teacher, 21(1), 7–14. https://doi.org/10.1080/01421599979969

Harmilawati, H., Kadar, K., & Sjattar, E. L. (2022). Factors associated with nursing competency achievement: A systematic review. Nurse Education Today, 108, 105180. https://doi.org/10.1016/j.nedt.2021.105180

Hussin, H., Mokhtar, M., & Ahmad, Z. (2020). Outcome-based education in Malaysian nursing programs: An evaluation of implementation and challenges. Journal of Nursing Education and Practice, 10(3), 45–54. https://doi.org/10.5430/jnep.v10n3p45

Indonesian Ministry of Education, Culture, Research and Technology. (2020). Peraturan Menteri Pendidikan dan Kebudayaan No. 3 Tahun 2020 tentang Standar Nasional Pendidikan Tinggi. Ministry of Education.

Indonesian Ministry of Health. (2019). Peraturan Menteri Kesehatan No. 26 Tahun 2019 tentang Peraturan Pelaksanaan Undang-Undang Nomor 38 Tahun 2014 tentang Keperawatan. Ministry of Health.

Kusnanto, K., Asmoro, C. P., & Harmayetty, H. (2022). Nursing students' evidence-based practice competency in Indonesian higher education: A descriptive study. Jurnal Ners, 17(1), 38–44. https://doi.org/10.20473/jn.v17i1.35211

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. Qualitative Health Research, 26(13), 1753–1760. https://doi.org/10.1177/1049732315617444

Nursalam, N., Fibriansari, R. D., Yuwono, S. R., Hadi, M., Efendi, F., & Bushy, A. (2021). Development of an innovative model for clinical nursing education in Indonesia. International Journal of Nursing Sciences, 8(1), 3–11. https://doi.org/10.1016/j.ijnss.2020.12.002

Persatuan Perawat Nasional Indonesia (PPNI). (2023). Laporan Nasional Uji Kompetensi Ners Tahun 2023. PPNI.

Spady, W. G. (1994). Outcome-based education: Critical issues and answers. American Association of School Administrators.

ten Cate, O. (2017). Entrustability of professional activities and competency-based training. Medical Education, 39(12), 1176–1177. https://doi.org/10.1111/j.1365-2929.2005.02341.x

Tyler, R. W. (1949). Basic principles of curriculum and instruction. University of Chicago Press.

World Health Organization. (2020). State of the world's nursing 2020: Investing in education, jobs and leadership. WHO. https://www.who.int/publications/i/item/9789240003279

Zainudin, Z. N., Yusop, Y. M., & Othman, Z. (2022). Challenges in implementing outcome-based education in health professions: A systematic review. BMC Medical Education, 22(1), 312. https://doi.org/10.1186/s12909-022-03380-0

Sulastri, S., & Aini, N. (2023). Relationship between OBE curriculum implementation and nursing competency examination outcomes in Indonesia: A retrospective cohort study. Jurnal Pendidikan Keperawatan Indonesia, 9(1), 22–31. https://doi.org/10.17509/jpki.v9i1.56123

Wulandari, R., Efendi, F., & Ni'mah, L. (2022). Curriculum evaluation model for nursing professional programs in Indonesia: An integrative review. Nurse Education in Practice, 63, 103401. https://doi.org/10.1016/j.nepr.2022.103401

Purnamasari, I., Handiyani, H., & Gayatri, D. (2021). Student perceptions of the professional nurse clinical education program in Indonesia. Enfermería Clínica, 31(S5), S93–S97. https://doi.org/10.1016/j.enfcli.2020.09.026