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Development and Validation of Caring Based HIV Counseling Training Program for Nurses: A Delphi Methodology

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ABSTRACT

Human immunodeficiency virus (HIV) infection remains a growing public health concern in the Philippines, where new infections rose by about 550% between 2010 and 2024 and diagnosis gaps persist in CALABARZON. Nurses are often the first and most sustained point of contact in HIV testing and care, yet knowledge gaps, stigmatizing attitudes, and procedure-focused training may limit their ability to provide compassionate, person-centered counseling. This study aims to develop and validate a Caring-Based HIV Counseling Training Program for Nurses in Laguna, Philippines, using a methodological research design and a modified Delphi technique. Registered nurses from selected government and private healthcare facilities in Laguna will complete a researcher-developed training-needs assessment questionnaire covering six competency domains: HIV-related knowledge; counseling and therapeutic communication; caring behaviors and person-centered practice; ethical and legal responsibilities; cultural sensitivity and stigma reduction; and linkage to prevention, treatment, care, and support. The questionnaire will undergo expert review, pilot testing, and reliability testing using Cronbach's alpha. The needs-assessment findings, together with a review of current literature and guidelines, will inform a preliminary training program, which a multidisciplinary panel of approximately 15 to 20 experts will evaluate over successive anonymous Delphi rounds for relevance, clarity, comprehensiveness, cultural appropriateness, feasibility, and applicability. Consensus is defined in advance as at least 80% expert agreement, a median rating of at least 3.00, and an interquartile range of no more than 1.00. Content validity will be established through an Item-Level Content Validity Index of at least .78 and a Scale-Level Content Validity Index (average) of at least .90, overall agreement will be measured with Kendall's coefficient of concordance, and the experts' qualitative comments will undergo directed content analysis. The study is expected to produce an expert-validated, contextually relevant training program that strengthens nurses' capacity to deliver compassionate, stigma-free HIV counseling, with its effectiveness to be tested in a future pilot or quasi-experimental study.

Keywords: *caring-based nursing, content validity, Delphi technique, HIV counseling, nursing education, stigma reduction, training program development*

INTRODUCTION

Human immunodeficiency virus (HIV) remains a major global public health concern despite substantial advances in prevention, testing, and antiretroviral therapy. In 2024, approximately 40.8 million people were living with HIV worldwide, while 1.3 million acquired HIV and 630,000 died from AIDS-related illnesses (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2025). Although global trends indicate progress in reducing HIV-

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related morbidity and mortality, these gains have not occurred uniformly. Persistent stigma, unequal access to testing and treatment, misinformation, and deficiencies in the delivery of person-centered services continue to affect the HIV care continuum, particularly in resource-constrained settings (World Health Organization [WHO], 2021, 2024).

This concern is particularly urgent in the Philippines, which is experiencing the fastest-growing HIV epidemic in the Asia-Pacific region. New HIV infections increased from approximately 4,400 in 2010 to 29,600 in 2024, representing an increase of about 550%. It was also estimated that approximately 252,800 Filipinos would be living with HIV in 2025 (WHO Philippines, 2025). The epidemic is concentrated largely among young people and key populations, while delayed testing, limited knowledge, stigma, and inadequate linkage to treatment continue to undermine national prevention and treatment efforts (Cordero, 2025; Gangcuangco et al., 2023). These conditions emphasize the need to strengthen not only the availability of HIV services but also the quality and humaneness of counseling encounters within hospitals, treatment hubs, primary care facilities, and community-based settings.

HIV counseling constitutes an essential component of comprehensive HIV testing and care. It enables individuals to understand the testing process, provide informed consent, assess their risks, interpret test results, manage emotional responses, adopt preventive behaviors, and connect with appropriate treatment and support services. Contemporary HIV testing guidelines emphasize that counseling must be confidential, voluntary, nonjudgmental, culturally appropriate, and linked to prevention or treatment according to the client's test result and individual circumstances (WHO, 2021, 2024). In the Philippine setting, these principles are consistent with the Philippine HIV and AIDS Policy Act, which protects informed consent, confidentiality, access to pre-test and post-test counseling, and freedom from HIV-related discrimination.

The effectiveness of HIV counseling, however, depends substantially on the competencies and attitudes of the healthcare professional who delivers it. Nurses frequently serve as the first and most sustained point of contact for individuals seeking HIV testing and treatment. They undertake health education, risk assessment, psychosocial support, disclosure counseling, treatment preparation, adherence counseling, referral, and follow-up care. Because HIV is associated with sensitive matters involving sexuality, gender identity, intimate relationships, substance use, and social stigma, HIV counseling requires more than factual or procedural competence. It demands empathy, presence, respect, cultural humility, effective therapeutic communication, ethical sensitivity, and the ability to establish a trusting relationship with the client.

Available evidence nevertheless indicates that knowledge gaps, fear of occupational transmission, moral judgment, and stigmatizing attitudes may persist among healthcare workers. Such factors can influence the willingness of clients to undergo testing, disclose relevant information, accept referrals, initiate antiretroviral therapy, and remain engaged in care (Langi et al., 2022; Mosende et al., 2023). Among Filipino men who have sex with men, anticipated discrimination, internalized stigma, and previous negative experiences with healthcare providers have been identified as barriers to HIV testing and service utilization (Bustamante, 2022). Philippine evidence also demonstrates that retention in HIV care is influenced by interconnected individual, interpersonal, organizational, and health-system factors, indicating that counseling must address the person's broader emotional and social realities rather than concentrate exclusively on biomedical instructions (De Torres et al., 2024; Nepomuceno et al., 2023).

A caring-based approach may help address these limitations by positioning the person—not merely the HIV test or diagnosis—at the center of the counseling process. Caring-based counseling recognizes the inherent dignity, autonomy, vulnerability, culture, preferences, and lived experiences of every client. It requires nurses to create a psychologically safe environment in which clients can express fear, uncertainty, guilt, anger, or concerns about disclosure without being judged. Within this approach, scientific competence is integrated with compassionate presence, active listening, shared decision-making, advocacy, confidentiality, and continuing support. These attributes are particularly relevant to HIV care because the perceived attitude and behavior of the counselor can either reduce or reinforce the stigma experienced by the client.

Training has been associated with improved HIV-related knowledge and reductions in stigmatizing attitudes among healthcare workers (Yuan et al., 2025). Nevertheless, training programs that focus mainly on

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technical procedures and information transfer may not adequately develop the relational and affective competencies required for difficult counseling situations. Nurses must be prepared to communicate reactive or confirmatory results, manage emotional distress, assess possible self-harm and interpersonal risks, address concerns about partner notification, support treatment readiness, and facilitate linkage to continuing care. The growing use of community-based and self-testing approaches further requires counselors to provide flexible and individualized support through face-to-face and technology-assisted modalities (Chen et al., 2024; WHO, 2024). A structured caring-based HIV counseling training program must therefore integrate current scientific guidance with the ethical, interpersonal, psychosocial, and cultural dimensions of nursing practice.

Despite the central role of nurses in the Philippine HIV response, there remains a need for a locally responsive and systematically validated training program that defines the essential competencies, learning outcomes, content areas, teaching strategies, counseling protocols, and evaluation measures for caring-based HIV counseling. Imported or generic programs may not fully account for Filipino values, family relationships, religious and cultural influences, sexual and gender diversity, local referral systems, and differences in resources across healthcare settings. Developing a contextualized training program can contribute to greater consistency in nursing practice and help ensure that clients receive accurate, confidential, respectful, and compassionate counseling wherever HIV services are provided.

The Delphi methodology offers an appropriate approach for developing and validating such a program because it facilitates structured consensus among experts while allowing participants to provide independent judgments through successive rounds of review. The method is particularly useful when evidence is evolving, professional perspectives are diverse, and agreement is needed regarding the content and standards of a complex healthcare intervention (Nasa et al., 2021). Through iterative rating, controlled feedback, and revision, a Delphi panel composed of experts in HIV nursing, infectious disease care, counseling, mental health, nursing education, public health, program implementation, and advocacy can assess the relevance, clarity, appropriateness, and feasibility of the proposed training components. Predetermined consensus criteria and transparent reporting are necessary to strengthen the methodological rigor and reproducibility of this process (Nasa et al., 2021; Schifano et al., 2025).

Accordingly, this study seeks to develop and validate a Caring-Based HIV Counseling Training Program for Nurses in the Philippines using the Delphi methodology. The proposed program is intended to strengthen nurses' clinical knowledge, counseling competence, therapeutic communication, ethical decision-making, cultural sensitivity, stigma-reduction practices, and ability to facilitate linkage to prevention, treatment, care, and support. By integrating expert consensus with current evidence and the realities of Philippine healthcare, the study may provide a standardized and contextually relevant capacity-building intervention that supports compassionate nursing practice, improves clients' counseling experiences, and contributes to the country's broader HIV prevention and treatment goals.

As a doctoral student in nursing and a public health nurse, the researcher recognizes the urgent need to strengthen nurses' capacity to provide scientifically sound, compassionate, culturally sensitive, and stigma-free HIV counseling in Laguna. The increasing incidence of HIV in the Philippines and CALABARZON, together with persistent barriers involving misinformation, fear, discrimination, delayed testing, and poor continuity of care, underscores the importance of nurses who are competent not only in the technical aspects of HIV services but also in therapeutic communication and caring-based practice. Through professional encounters with individuals, families, and communities, the researcher has observed that the quality of nurse–client interaction can influence clients' willingness to seek testing, disclose relevant information, accept their results, initiate treatment, and remain engaged in care. These academic and professional perspectives therefore provide the impetus to develop and validate, through expert consensus using the Delphi methodology, a contextually appropriate Caring-Based HIV Counseling Training Program that can enhance nursing competence, promote dignified and person-centered care, and strengthen the public health response to HIV in Laguna.

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METHODS

Research Design

This study will employ a methodological research design using a modified Delphi technique to develop and validate the Caring-Based HIV Counseling Training Program for Nurses in Laguna. Methodological research is appropriate for studies concerned with the systematic development, refinement, and validation of instruments, competency frameworks, clinical guidelines, educational materials, and training interventions. In the present study, the design will facilitate the translation of current HIV counseling evidence, caring-based nursing principles, adult-learning concepts, and Philippine practice requirements into a structured training program that can be evaluated by qualified experts.

The modified Delphi technique will serve as the principal validation method. The Delphi method is a structured consensus-building process in which a purposively selected panel of experts independently evaluates a set of proposed statements or program components over successive rounds. Its essential features include expert participation, anonymity of individual responses, iterative assessment, controlled feedback, and statistical representation of group judgments (Nasa et al., 2021). A modified Delphi approach is appropriate because the first-round questionnaire will not be generated entirely from open-ended expert responses. Instead, the researcher will prepare an initial training program based on a review of recent literature, HIV counseling standards, theoretical foundations, Philippine policies, and the identified training needs of nurses.

The study will be conducted in three phases. Phase I will involve the development of the preliminary training program. Evidence from the literature and relevant guidelines will be organized into proposed competency domains, learning outcomes, module content, teaching strategies, learning activities, training duration, and assessment methods. This evidence-informed approach is consistent with contemporary Delphi practice, in which a literature review or other preliminary inquiry may be used to establish the initial set of items submitted to experts (Schifano & Niederberger, 2025). The preliminary program will subsequently be converted into a structured expert-validation questionnaire.

Phase II will consist of successive modified Delphi rounds. A multidisciplinary panel of experts in HIV nursing, infectious disease care, public health nursing, counseling, mental health, nursing education, program development, and HIV advocacy will be selected through purposive sampling. Experts will assess the program components according to relevance, clarity, comprehensiveness, cultural appropriateness, feasibility, and applicability to nursing practice in Laguna. The use of a heterogeneous panel is important because it incorporates different forms of clinical, academic, community, and programmatic expertise into the consensus process (Schifano & Niederberger, 2025).

During Delphi Round 1, the experts will independently evaluate the initial program using a structured rating scale and provide qualitative comments. The researcher will summarize the ratings and analyze the recommendations without identifying individual panel members. Program components that meet the predetermined consensus and content-validity criteria will be retained, while those that receive insufficient agreement or substantial recommendations will be revised, combined, or removed. In Delphi Round 2, the experts will reassess the revised program after receiving a controlled summary of the preceding round. A succeeding round may be undertaken when selected components remain below the established threshold or when further clarification is required. The process will end when the predetermined consensus level is attained or when the panel's responses demonstrate stability.

The quantitative data will be analyzed using frequency, percentage, median, interquartile range, and percentage agreement. The median will represent the panel's central judgment, while the interquartile range will indicate the dispersion of ratings. Content validity may be measured using the Item-Level Content Validity Index and Scale-Level Content Validity Index. An a priori consensus criterion must be established before the validation process because inconsistent or post hoc definitions of consensus may weaken the transparency and reproducibility of Delphi studies (Nasa et al., 2021; Schifano & Niederberger, 2025). Qualitative feedback will be categorized according to recurring recommendations and will provide the basis for revising the proposed program.

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Phase III will involve the finalization of the Caring-Based HIV Counseling Training Program. The final version will reflect the components that have satisfied the established standards for expert agreement and content validity. Comparable nursing program-development research has demonstrated that a modified Delphi process can refine program objectives, content, duration, organization, and delivery by incorporating expert judgments regarding both scientific relevance and implementation feasibility (Pereira et al., 2024). Delphi-based competency development has similarly been used to establish professionally acceptable nursing competencies through the iterative participation of local and international experts (Rusli et al., 2025).

The design is developmental and validation-oriented rather than experimental. It will determine whether the proposed program possesses acceptable content validity and expert consensus but will not yet test its effectiveness in changing nurses' knowledge, counseling competence, or caring practices. Therefore, the outcomes presented in the conceptual framework are the intended outcomes of future program implementation. After validation, a separate pilot or quasi-experimental study may be conducted to evaluate the program's feasibility, acceptability, and effectiveness among nurses in Laguna.

Participants and Study Settings

The study will be conducted in selected government and private healthcare facilities in the Province of Laguna, Philippines. These settings may include provincial and district hospitals, private hospitals, city and municipal health offices, rural health units, HIV treatment hubs, and primary HIV care facilities. Laguna is considered an appropriate setting because its combination of urban, industrial, and rural communities creates diverse public health and HIV service-delivery needs. The inclusion of different healthcare settings will enable the proposed program to reflect the experiences of nurses working in both facility-based and community-based services.

Two groups of participants will be involved in the study. The first group will consist of registered nurses currently practicing in selected healthcare facilities in Laguna. They will participate in the training-needs assessment that will inform the preliminary content of the proposed program. Participants must be registered nurses, currently employed or assigned in Laguna, have at least one year of nursing experience, and provide direct clinical, public health, counseling, testing, or health-education services. Nurses on prolonged leave, those performing exclusively nonclinical duties, and those who do not provide informed consent will be excluded. Participants will be recruited from different types of facilities to capture variations in HIV knowledge, counseling experience, caring behaviors, cultural sensitivity, stigma-reduction practices, and familiarity with referral and linkage-to-care procedures.

The number of nurses participating in the training-needs assessment will be determined using an appropriate sample-size calculation based on the estimated population of eligible nurses in the participating institutions. Proportionate or stratified sampling may be applied to ensure representation from government hospitals, private hospitals, rural health units, city or municipal health offices, treatment hubs, and primary HIV care facilities. When a complete sampling frame is unavailable, purposive sampling may be used, provided that the selection procedure and its limitations are clearly reported.

The second group will comprise the multidisciplinary Delphi expert panel responsible for validating the proposed Caring-Based HIV Counseling Training Program. Approximately 15 to 20 experts may be purposively selected based on their knowledge and experience in HIV nursing, infectious disease care, public health, counseling, mental health, nursing education, training-program development, research, or HIV advocacy. Delphi panels are selected for the relevance and depth of their expertise rather than statistical representativeness; consequently, clearly defined eligibility criteria are more important than a large sample (Nasa et al., 2021; Schifano & Niederberger, 2025).

To qualify for the Delphi panel, an expert must satisfy at least one of the following criteria: possess a relevant graduate degree; have at least five years of professional experience in an applicable field; have direct experience in HIV testing, counseling, treatment, education, policy, research, or program implementation; hold a relevant certification or training in HIV counseling and testing; or have authored research, policies, modules, or professional materials related to HIV care or nursing education. The panel should include representatives from

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clinical practice, academe, public health, government programs, and community or advocacy organizations. Whenever feasible, a person living with HIV or an experienced community advocate may be included to ensure that the program reflects clients lived experiences and service needs.

The training-needs assessment may be conducted onsite or through a secure electronic survey, depending on facility policies and participant accessibility. The Delphi rounds will primarily be administered electronically to maintain anonymity, permit participation across different locations, and reduce the influence of professional hierarchy. Individual responses will not be disclosed to other panel members. Only aggregated quantitative findings and summarized qualitative comments will be provided during succeeding rounds.

Permission will be obtained from the appropriate healthcare institutions and local authorities before recruitment and data collection. Participation will be voluntary, and written or electronic informed consent will be secured. Because HIV-related subjects may involve sensitive professional and personal concerns, no unnecessary patient-identifying information will be collected. All research records will be coded, securely stored, and reported only in aggregated form.

Table 1: *Participant Groups*

Participant group	Proposed number	Primary role
Registered nurses in Laguna	Based on sample-size calculation	Identify HIV counseling training needs
Delphi experts	Approximately 15–20	Evaluate, revise, and validate the training program

Inclusion Criteria

The study will involve two groups of participants. Registered nurses participating in the training-needs assessment must possess a valid Professional Regulation Commission license, be currently employed in a selected government or private healthcare facility in Laguna, and have at least one year of clinical or public health nursing experience. They must be assigned to a hospital, rural health unit, city or municipal health office, HIV treatment hub, primary HIV care facility, or community health program and be involved in direct patient care, counseling, health education, testing support, referral, or other community health services. Previous experience in HIV counseling or caring for people living with HIV will not be required because the assessment seeks to determine the needs of both experienced and less-experienced nurses. Eligible nurses must be willing to complete the assessment and provide written or electronic informed consent.

The Delphi panel will consist of licensed healthcare professionals, nurse educators, counselors, researchers, public health practitioners, program managers, and recognized HIV community advocates with at least five years of relevant professional experience. Their expertise may be in HIV testing and counseling, infectious disease care, public health nursing, mental health, nursing education, training-program development, HIV research, policy, or advocacy. They must possess at least one recognized indicator of expertise, such as a relevant graduate degree, HIV counseling and testing certification, leadership responsibility in an HIV or public health program, or authorship of relevant research, guidelines, policies, or training materials. Experts must also be familiar with Philippine HIV policies or service-delivery systems, have access to the designated electronic survey platform, commit to completing all required Delphi rounds, and provide informed consent. Whenever feasible, the panel will include a person living with HIV or an experienced community advocate to ensure that the program reflects the needs, dignity, and lived experiences of its intended beneficiaries.

Exclusion Criteria

Registered nurses will be excluded from the training-needs assessment if they do not possess a valid Professional Regulation Commission license, are not currently employed in a participating healthcare facility in Laguna, or have less than one year of clinical or public health nursing experience. Nurses assigned exclusively to administrative or nonclinical duties without involvement in patient care, counseling, health education, referral, or community health services will also be excluded. Those who are on prolonged leave during data collection, cannot complete the research instrument, decline to provide informed consent, or withdraw their participation at any point will not be included in the final analysis.

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For the Delphi phase, prospective experts will be excluded if they have fewer than five years of relevant professional experience, lack demonstrable expertise in HIV care, public health, counseling, mental health, nursing education, program development, research, policy, or advocacy, or are unfamiliar with Philippine HIV services and practice requirements. Individuals who cannot commit to the required Delphi rounds, fail to submit their ratings within the designated period despite reasonable follow-up, provide substantially incomplete responses, or withdraw their consent will be excluded from the corresponding analysis. Individuals who have a direct conflict of interest that may compromise the independence of their judgments will likewise be excluded or required to disclose and appropriately manage such conflict before participating.

Instrumentation

The study will use two researcher-developed instruments: the Caring-Based HIV Counseling Training Needs Assessment Questionnaire and the Delphi Program Validation Questionnaire. Both instruments will be developed from recent HIV testing and counseling guidelines, caring-based and person-centered nursing principles, adult-learning concepts, Philippine HIV policies, and relevant empirical studies. The systematic development of the instruments will include construct definition, domain identification, item generation, expert review, pilot testing, and revision. These procedures are necessary to ensure that the instruments adequately represent the concepts they are intended to measure and produce understandable and consistent responses (Tsang et al., 2021).

Caring-Based HIV Counseling Training Needs Assessment Questionnaire

The first instrument will determine the training needs of registered nurses in Laguna. It will consist of two main sections. Section I will obtain the participants' professional characteristics, including age, sex, highest educational attainment, length of nursing experience, area of assignment, type of healthcare facility, previous HIV-related training, experience caring for people living with HIV, and experience providing HIV education or counseling.

Section II will assess perceived competence and training needs in six domains: HIV-related knowledge; counseling and therapeutic communication; caring behaviors and person-centered practice; ethical and legal responsibilities; cultural sensitivity and stigma reduction; and linkage to HIV prevention, treatment, care, and support. The items will be derived from current WHO recommendations, Philippine HIV practice requirements, and findings from studies showing that healthcare workers may possess basic HIV knowledge while continuing to experience gaps in counseling behavior and stigma-free care (Mosende et al., 2023; WHO, 2021, 2024).

Responses will be measured using a four-point scale:

Rating	Perceived competence	Training need
4	Highly competent	Very high training need
3	Competent	High training need
2	Slightly competent	Moderate training need
1	Not competent	Low training need

Perceived competence and training need should preferably be presented as separate ratings because a nurse may perceive an area as important for further training despite reporting a moderate level of competence. A comments section will allow participants to identify additional counseling situations, learning needs, and service-related challenges not covered by the structured items.

Before the main data collection, the questionnaire will be submitted to specialists in HIV care, public health nursing, nursing education, counseling, and research methodology for face and content review. The reviewers will assess whether the items are understandable, relevant, representative, and appropriate for nurses practicing in Laguna. It will then be pilot-tested among approximately 20 to 30 nurses who meet the eligibility criteria but will not participate in the main study. Feedback from the pilot participants will be used to revise unclear, repetitive, sensitive, or difficult items.

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Internal consistency will be assessed through Cronbach's alpha for the overall instrument and each multi-item domain. A coefficient of at least .70 will be considered acceptable for preliminary research use, although the interpretation will also consider the number of items and conceptual breadth of each domain. The pilot-test results will not be included in the final dataset.

Delphi Program Validation Questionnaire

The second instrument will be used by the expert panel to validate the proposed Caring-Based HIV Counseling Training Program. It will present the program components in a structured evaluation matrix covering the program rationale, goals, learning outcomes, competency domains, module content, teaching strategies, training duration, learning activities, learning resources, assessment methods, and implementation plan. The use of a structured questionnaire across successive rounds is consistent with the essential features of the Delphi method: anonymity, iteration, controlled feedback, and statistical representation of group judgment (Khodyakov et al., 2023; Nasa et al., 2021).

The Delphi experts will evaluate each program component according to six criteria:

1. Relevance – the extent to which the component is necessary for caring-based HIV counseling;
2. Clarity – the extent to which it is understandable and unambiguous;
3. Comprehensiveness – the extent to which it adequately covers the required competency;
4. Cultural appropriateness – its responsiveness to Philippine and Laguna contexts;
5. Feasibility – the practicality of implementing it in the intended healthcare settings; and
6. Applicability – its usefulness to the roles and responsibilities of nurses.

Each criterion will be assessed using a four-point scale:

Rating	Interpretation
4	Highly acceptable
3	Acceptable but requires minor revision
2	Requires major revision
1	Not acceptable

A four-point scale will encourage experts to make a definite judgment by omitting a neutral midpoint. Each program component will also contain a space for comments, suggested revisions, proposed additions, or reasons for exclusion. Combining standardized ratings with open-ended responses is consistent with common Delphi practice and allows quantitative consensus results to be interpreted alongside expert explanations (Schifano & Niederberger, 2025).

Content Validity and Consensus Criteria

Content validity will be assessed using the Item-Level Content Validity Index and Scale-Level Content Validity Index. The I-CVI will be calculated by dividing the number of experts who rate an item as 3 or 4 by the total number of experts who rated the item:

The S-CVI/Ave will be calculated by obtaining the average of the I-CVI values for all items in the program or within each program domain:

An I-CVI of at least .78 and an S-CVI/Ave of at least .90 may be used as evidence of satisfactory content validity. However, these thresholds will be established before the Delphi rounds and applied consistently. Percentage agreement, median, and interquartile range will provide additional indicators of consensus and rating stability. A component may be considered accepted when it obtains at least 80% agreement, a median rating of at least 3.00, and an interquartile range of no more than 1.00. Items that fail to satisfy the criteria will be revised or removed based on the experts' quantitative ratings and qualitative comments.

In the succeeding Delphi round, the experts will receive the revised program and an anonymized summary of the previous round's ratings and recommendations. They will be asked to reassess components that were modified or did not initially meet the consensus threshold. The use of controlled feedback allows experts to

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reconsider their judgments without being pressured by dominant personalities or professional hierarchies (Khodyakov et al., 2023; Nasa et al., 2021). The process will continue until the predetermined consensus is achieved or the responses become stable.

Administration of the Instruments

The instruments may be administered through a secure electronic platform or printed questionnaire, depending on the participating institutions' policies and the participants' accessibility. Each instrument will be accompanied by an informed-consent form and clear instructions. The needs-assessment questionnaire will be completed once, whereas the Delphi validation questionnaire will be administered in successive rounds. Each expert will be assigned a unique code to permit the comparison of responses across rounds while maintaining anonymity.

Data Gathering Procedure

Data gathering will commence only after the research protocol has been approved by the appropriate institutional research ethics committee. The researcher will obtain written authorization from the Provincial Health Office, participating local government units, hospitals, rural health units, HIV treatment hubs, primary HIV care facilities, and other concerned institutions in Laguna. Coordination will be undertaken with nursing service administrators, medical directors, HIV program coordinators, and facility heads to identify eligible participants and determine appropriate arrangements for data collection.

Phase I: Preparation and Validation of the Needs-Assessment Instrument

The researcher will develop the Caring-Based HIV Counseling Training Needs Assessment Questionnaire based on recent literature, HIV testing and counseling guidelines, Philippine HIV policies, caring-based nursing principles, and adult-learning concepts. Specialists in HIV care, public health nursing, counseling, nursing education, and research methodology will review the questionnaire for relevance, clarity, comprehensiveness, and contextual appropriateness. Recommendations will be incorporated before pilot testing.

The revised questionnaire will be pilot-tested among approximately 20 to 30 registered nurses who possess characteristics similar to those of the intended participants but will not be included in the main study. Participants will evaluate the instructions, wording, response options, length, and overall comprehensibility of the instrument. Pilot-test data will be used to determine internal consistency through Cronbach's alpha. Items found to be unclear, repetitive, or inconsistent will be revised or removed before the final administration.

Phase II: Training-Needs Assessment

After receiving institutional permission, the researcher will coordinate with designated facility representatives to identify nurses who satisfy the inclusion criteria. Eligible participants will receive an invitation containing the study's purpose, procedures, expected completion time, potential risks and benefits, confidentiality safeguards, voluntary nature, and the researcher's contact information. Written or electronic informed consent will be secured before access to the questionnaire is provided.

The training-needs assessment may be administered through printed copies or a secure electronic survey platform. Participants will be given adequate time to complete the questionnaire without interference from supervisors or the researcher. No patient information or unnecessary personal identifiers will be collected. Completed printed questionnaires will be placed in sealed envelopes, while electronic responses will be stored in a password-protected account accessible only to the researcher and authorized research personnel.

The responses will be checked for completeness, coded, and entered into the designated statistical database. The researcher will analyze the nurses' perceived competence and training needs concerning HIV knowledge, therapeutic communication, caring practice, ethical and legal responsibilities, cultural sensitivity, stigma reduction, and linkage to care. The findings will be combined with evidence from the literature to determine the priority content and competencies of the preliminary training program.

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Phase III: Development of the Preliminary Training Program

Based on the training-needs assessment and literature review, the researcher will prepare the initial Caring-Based HIV Counseling Training Program. The draft will include the program rationale, goals, learning outcomes, competency domains, module content, teaching strategies, learning activities, suggested duration, learning resources, assessment methods, and implementation plan.

The preliminary program will be converted into a structured Delphi Program Validation Questionnaire. Each component will be evaluated according to relevance, clarity, comprehensiveness, cultural appropriateness, feasibility, and applicability. Open-ended spaces will allow experts to recommend additions, revisions, combinations, or removal of program components.

Phase IV: Recruitment of the Delphi Experts

Potential experts will be identified through professional organizations, academic institutions, healthcare facilities, government health programs, HIV treatment centers, and community or advocacy organizations. The researcher will review their professional qualifications using the predetermined eligibility criteria. Approximately 15 to 20 qualified experts will be invited to participate.

The invitation will explain the purpose of the Delphi process, the expected number of rounds, estimated completion time, confidentiality measures, and importance of completing all rounds. Experts who agree to participate will provide written or electronic informed consent. Each panel member will be assigned a code to allow responses to be matched across rounds without disclosing individual identities to the other experts.

Phase V: Modified Delphi Round 1

During the first Delphi round, the experts will receive the preliminary training program, validation questionnaire, rating instructions, consensus criteria, and deadline for completion. They will independently evaluate every program component using the four-point rating scale. They will also be encouraged to provide qualitative comments and recommend additional content that may have been omitted.

The researcher will send a reminder before the deadline to experts who have not yet completed the questionnaire. Reminders will be respectful and limited to the frequency approved by the ethics committee. Experts who decline further participation will not be pressured to continue.

After the first round, responses will be encoded and analyzed using the Item-Level Content Validity Index, Scale-Level Content Validity Index, percentage agreement, median, and interquartile range. Qualitative comments will be grouped according to recurring recommendations. Items satisfying the predetermined criteria will be provisionally accepted, while those that fail to reach consensus will be revised, combined, or removed.

Phase VI: Modified Delphi Round 2

The second-round questionnaire will include the revised program components and an anonymized summary of the panel's first-round ratings and comments. Experts will be asked to reassess revised or unresolved items in consideration of the group feedback. They may retain or modify their earlier ratings and provide reasons for their decisions.

The second-round data will be analyzed using the same statistical and content-validity procedures. Items that meet the established criteria will be accepted. Items that remain below the threshold will be reviewed in relation to the experts' comments and may undergo further revision.

Phase VII: Subsequent Delphi Round, if Necessary

A third Delphi round may be conducted when important program components remain unresolved or when substantial revisions require another expert evaluation. Only revised or disputed items will be presented to minimize participant fatigue. The Delphi process will conclude when the predetermined consensus level is attained, ratings demonstrate sufficient stability, or further rounds no longer produce meaningful changes.

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Phase VIII: Finalization of the Training Program

After completing the Delphi rounds, the researcher will consolidate the accepted components and prepare the final Caring-Based HIV Counseling Training Program for Nurses in Laguna. The final version will contain the validated objectives, competency domains, modules, learning activities, counseling tools, delivery strategies, assessment methods, and implementation and evaluation plan.

A summary of the validation results will be prepared, indicating the components retained, revised, combined, or removed and the corresponding basis for each decision. The final program and summary findings may be shared with participating experts and institutions after the study has been completed.

Data Protection

All participants will be identified through assigned codes rather than names. Printed documents will be stored in a secured cabinet, while electronic records will be encrypted or password-protected. Delphi experts will not be informed of the identities or individual responses of other panel members. Research data will be retained for the period required by the approving institution and will subsequently be securely destroyed in accordance with the approved protocol and applicable data-protection policies.

Data Analysis

The data collected from the training-needs assessment and modified Delphi validation will be encoded, cleaned, tabulated, and analyzed using appropriate statistical software. Quantitative data will be examined using descriptive statistics, content-validity measures, and consensus indicators, while qualitative comments will undergo directed content analysis.

Participants' Professional Characteristics

The characteristics of the nurses and Delphi experts will be summarized using frequency and percentage for categorical variables, such as sex, educational attainment, area of assignment, type of healthcare facility, previous HIV-related training, and experience providing HIV counseling. Mean and standard deviation or median and interquartile range will be used for continuous variables, such as age and length of professional experience, depending on the distribution of the data.

Training-Needs Assessment

The nurses' perceived competence and training needs will be analyzed using weighted mean, standard deviation, frequency, percentage, and rank. Separate scores will be computed for the following domains:

1. HIV-related knowledge;
2. Counseling and therapeutic communication;
3. Caring behaviors and person-centered practice;
4. Ethical and legal responsibilities;
5. Cultural sensitivity and stigma reduction; and
6. Linkage to prevention, treatment, care, and support.

The weighted mean will be calculated using the following formula:

where:

- refers to the frequency of each response;
- refers to the numerical value assigned to the response; and
- refers to the total number of responses.

The following scale may be used to interpret the mean scores:

Mean range	Perceived competence	Training need
3.26–4.00	Highly competent	Very high
2.51–3.25	Competent	High
1.76–2.50	Slightly competent	Moderate
1.00–1.75	Not competent	Low

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The domain and item means will be ranked to identify priority areas for inclusion in the training program. High training-need scores, particularly when accompanied by low perceived-competence scores, will be considered priority learning areas. The open-ended responses will be analyzed thematically to identify additional concerns, counseling challenges, preferred learning strategies, and recommendations that are not adequately represented by the quantitative items.

Reliability Analysis

The internal consistency of the training-needs assessment questionnaire will be determined using Cronbach's alpha. Reliability will be computed for the overall instrument and each multi-item domain. A coefficient of at least .70 will be regarded as acceptable for preliminary research use. Items with weak item-total correlations or those that substantially reduce the reliability of a domain will be reviewed for revision or removal.

Delphi Expert Ratings

The Delphi experts' ratings will be analyzed using frequency, percentage, median, interquartile range, percentage agreement, Item-Level Content Validity Index, and Scale-Level Content Validity Index. The median will represent the experts' central judgment, while the interquartile range will indicate the degree of dispersion or consistency in their ratings.

The percentage agreement will be computed as:

A program component will generally be considered to have reached consensus when it meets all the following predetermined criteria:

- At least 80% of experts assign a rating of 3 or 4;
- Median rating of at least 3.00; and
- Interquartile range of no more than 1.00.

Items that satisfy these criteria will be retained. Items that show moderate agreement or receive substantial qualitative recommendations will be revised and returned to the panel during the succeeding round. Items with consistently low ratings and no compelling justification for retention will be removed.

Content Validity Index

The Item-Level Content Validity Index will be calculated by dividing the number of experts who rate an item as 3 or 4 by the total number of experts:

An I-CVI of at least .78 will indicate satisfactory content validity. The Scale-Level Content Validity Index using the averaging method will be obtained by calculating the mean of all I-CVI values:

An S-CVI/Ave of at least .90 will be interpreted as evidence of excellent overall content validity. Separate content-validity indices may be calculated for relevance, clarity, comprehensiveness, cultural appropriateness, feasibility, and applicability.

Stability and Overall Expert Agreement

Changes in the median, interquartile range, and percentage agreement across the Delphi rounds will be examined to determine response stability. Consensus will be considered stable when ratings show minimal change between two consecutive rounds and no major new recommendations emerge.

If inferential testing of the study hypothesis is required, Kendall's coefficient of concordance () may be used to determine the overall degree of agreement among experts. Kendall's ranges from 0 to 1, with values closer to 1 indicating stronger agreement. Its statistical significance will be evaluated at the .05 level. The following guide may be used in interpreting the coefficient:

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Kendall's	Interpretation
0.00–0.19	Very weak agreement
0.20–0.39	Weak agreement
0.40–0.59	Moderate agreement
0.60–0.79	Strong agreement
0.80–1.00	Very strong agreement

The null hypothesis will be rejected when Kendall's is statistically significant at, supported by the achievement of the predetermined Delphi consensus and content-validity criteria.

Qualitative Analysis of Expert Comments

The experts' narrative comments will undergo directed content analysis. Responses will be read repeatedly, assigned initial codes, and categorized according to recommendations to retain, revise, combine, add, or remove program components. Additional categories may include concerns regarding terminology, clinical accuracy, cultural appropriateness, implementation feasibility, teaching strategies, and competency assessment. The qualitative findings will be used to explain the quantitative ratings and guide revisions between Delphi rounds.

Management of Missing Data and Panel Attrition

Incomplete questionnaires will be reviewed before analysis. A response with substantial missing data will be excluded from the relevant analysis, while an item with an isolated missing response will be calculated using the actual number of experts who rated that item. The number of experts invited, participating, withdrawing, and completing each round will be reported. Attrition rates will also be presented to support the transparent interpretation of consensus results.

Ethical Considerations

Before conducting the study, the complete research protocol will be submitted to an accredited institutional research ethics committee for review and approval. Data gathering will begin only after ethical clearance and the necessary permissions from the Provincial Health Office, local government units, hospitals, rural health units, HIV treatment hubs, primary HIV care facilities, and other participating institutions in Laguna have been secured. The researcher will comply with the Philippine National Ethical Guidelines for Health and Health-Related Research, the Data Privacy Act of 2012, and applicable institutional policies.

Informed and Voluntary Participation

All prospective participants will receive an informed-consent form explaining the purpose of the study, participation requirements, expected duration, possible risks and benefits, confidentiality safeguards, and intended use of the findings. They will be given sufficient time to read the information and ask questions before deciding whether to participate. Participation will be entirely voluntary, and refusal will not result in any penalty, loss of benefits, or unfavorable treatment from the researcher, employer, or healthcare institution.

Participants may decline to answer any question or withdraw from the study at any time without providing a reason. Nurses will be assured that participation, refusal, or withdrawal will not affect their employment, performance evaluation, professional standing, or access to training opportunities. Delphi experts may discontinue participation at any stage without being pressured to complete the remaining rounds.

Privacy, Confidentiality, and Anonymity

Only information directly relevant to the study will be collected. Participants' names and unnecessary personal identifiers will not appear in the questionnaires, database, reports, or publications. Unique identification codes will be assigned to the nurses and Delphi experts. The coding list, when required, will be stored separately from the research data.

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The individual identities and responses of Delphi panel members will not be disclosed to the other experts. During subsequent rounds, the panel will receive only aggregated statistical results and anonymized summaries of comments. Findings will be presented in grouped form so that no participant, facility, or community can be identified through the final report.

Protection of HIV-Related Information

The study will assess professional training needs and will not collect clients' HIV status, medical records, counseling records, or other patient-identifying information. Participants will be instructed not to include the names, diagnoses, addresses, or identifiable stories of patients in their open-ended responses. Any accidentally disclosed identifying information will be immediately removed from the research record.

Because HIV is a highly sensitive and potentially stigmatizing health condition, all questions will use respectful, person-first, gender-sensitive, and nonjudgmental language. The researcher will avoid assumptions about the participants' HIV status, sexual orientation, gender identity, or personal behavior. Participation in the study will not be interpreted as evidence that an individual is living with HIV or belongs to a key population.

Potential Risks and Risk Management

The study is expected to involve minimal risk. Participants may experience mild discomfort when responding to questions concerning professional competence, attitudes, stigma, sexuality, or sensitive counseling situations. They may skip any question, temporarily stop answering, or withdraw from the study without consequence. Contact information for an appropriate counseling, employee-assistance, or mental health service may be provided should participation cause unexpected emotional distress.

Professional risk will be minimized by ensuring that supervisors and institutional administrators do not have access to individual responses. Needs-assessment results will not be used to evaluate employee performance or impose disciplinary action. The researcher will report identified competency gaps only at the group level.

Benefits and Compensation

Participants may not receive a direct personal benefit from the study. However, their contributions may support the development of a contextually appropriate HIV counseling training program that can strengthen nurses' knowledge, therapeutic communication, caring practice, stigma-reduction behavior, and linkage-to-care competencies. No excessive financial or material incentive will be offered. If reimbursement or a modest token is provided, it will be disclosed in the consent form and will not be large enough to exert undue influence.

Prevention of Coercion and Undue Influence

Recruitment will be conducted in a manner that minimizes the influence of authority relationships. Nursing administrators and supervisors may assist in distributing invitations but will not select participants based on personal preference, observe questionnaire completion, or know who declined participation. When the researcher has supervisory, academic, or professional authority over a prospective participant, an independent research assistant may facilitate recruitment and consent.

Data Security and Retention

Printed questionnaires and consent forms will be stored separately in secured cabinets accessible only to the researcher and authorized research personnel. Electronic data will be kept in encrypted or password-protected files. Data transmitted through an electronic survey platform will be downloaded to secured storage and removed from the platform when permitted by the approved protocol.

Research records will be retained for the period required by the ethics committee and participating institution. After the retention period, printed records will be shredded, while electronic records will be permanently deleted using secure data-destruction procedures. Research data will not be reused or shared for purposes outside the approved protocol without additional ethical authorization when required.

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Conflicts of Interest and Researcher Reflexivity

The researcher will disclose any professional, institutional, financial, or personal relationships that may influence the study. As a doctoral nursing student and public health nurse, the researcher will remain aware that professional experience and beliefs about caring and HIV services may affect the interpretation of participants' responses. A decision trail will therefore be maintained to document how training components are retained, revised, or removed based on empirical findings and expert recommendations.

Research Integrity and Dissemination

All data will be reported honestly and accurately. The researcher will not fabricate, falsify, selectively omit, or manipulate responses. Expert comments will be summarized without changing their intended meaning, and all sources will be appropriately acknowledged. The study's findings may be presented in a dissertation, academic conference, professional forum, or scholarly publication. Participating institutions and experts may receive a summary of the results, but confidential and identifying information will not be disclosed.

Scope and Limitations

This study will focus on the development and content validation of a Caring-Based HIV Counseling Training Program for registered nurses in Laguna, Philippines. It will cover six principal competency domains: HIV-related knowledge; counseling and therapeutic communication; caring behaviors and person-centered practice; ethical and legal responsibilities; cultural sensitivity and stigma reduction; and linkage to HIV prevention, testing, treatment, care, and support services. The program will include learning outcomes, module content, teaching strategies, learning activities, proposed duration and delivery mode, learning resources, counseling tools, competency assessments, and an implementation and evaluation plan.

The study will involve two participant groups. Registered nurses from selected government and private healthcare facilities in Laguna will participate in the training-needs assessment. These settings may include hospitals, rural health units, city and municipal health offices, HIV treatment hubs, primary HIV care facilities, and community health programs. A multidisciplinary panel with expertise in HIV care, public health, counseling, mental health, nursing education, program development, research, policy, or advocacy will participate in the modified Delphi validation. The study will be conducted through a needs assessment, development of the preliminary program, successive Delphi rounds, analysis of expert consensus and content validity, and finalization of the validated program.

The study will be limited to nurses and experts who meet the established eligibility criteria and voluntarily participate. Because the nurse participants will be drawn from selected institutions in Laguna, their reported training needs may not represent all nurses in the province or other areas of the Philippines. Differences in facility resources, patient populations, organizational policies, availability of HIV services, and previous training exposure may further limit the transferability of the findings.

The training-needs assessment will rely primarily on self-reported competence and perceived learning needs. Consequently, responses may be affected by recall bias, social-desirability bias, or participants' inaccurate estimation of their abilities. The assessment will not independently verify clinical competence through direct observation, objective structured clinical examinations, or review of actual counseling sessions. Confidential administration and anonymous reporting will be used to reduce these limitations.

The Delphi findings will reflect the collective judgments of the selected experts rather than the views of all HIV professionals, nurses, or people living with HIV. Consensus will indicate professional agreement but will not necessarily establish that every component is effective in actual practice. Panel attrition, differences in specialization, and the predetermined consensus criteria may also influence the final program. The inclusion of experts from different disciplines and, whenever feasible, a community advocate or person with relevant lived experience will help broaden the perspectives represented.

The study will establish the program's content validity, relevance, clarity, comprehensiveness, cultural appropriateness, feasibility, and applicability. It will not implement the full program or determine its effects on nurses' knowledge, counseling competence, caring behavior, client satisfaction, HIV-testing uptake, treatment

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initiation, retention in care, or viral suppression. Therefore, the outcomes presented in the conceptual framework will remain intended outcomes requiring evaluation in a subsequent pilot, quasi-experimental, or randomized study.

Finally, the proposed program will complement existing Department of Health training, certification, and service requirements. It will not authorize unqualified nurses to independently perform HIV testing or counseling functions reserved for appropriately trained or certified personnel. Changes in HIV science, national policies, testing technologies, treatment recommendations, and local referral systems may require the program to be periodically reviewed and updated.

Literature Review

This review is organized into five themes relevant to the development and validation of a Caring-Based HIV Counseling Training Program for Nurses in Laguna: (1) the HIV epidemic and care continuum in the Philippine and local context; (2) nurses' knowledge and competencies in HIV counseling; (3) HIV-related stigma, discrimination, and barriers to care; (4) caring-based and person-centered HIV counseling; and (5) the development and validation of nursing training programs through the Delphi methodology.

HIV Epidemic and Continuity of Care in the Philippine Setting

The continuing rise of HIV infections in the Philippines establishes the public health urgency of improving counseling and other support services. Although international efforts have expanded HIV testing and antiretroviral treatment, the Philippines continues to experience a markedly different epidemiological pattern. Gangcuangco et al. (2023) reported that the country has one of the fastest-growing HIV epidemics in the Western Pacific, with the greatest burden concentrated among males and key populations. Cordero (2025) similarly observed that the Philippine epidemic is sustained by stigma, inadequate HIV knowledge, limited use of preventive interventions, and barriers to testing and treatment. These studies indicate that increasing the number of testing facilities is necessary but insufficient when people remain reluctant to access available services.

The national trend is also reflected in CALABARZON, the region in which Laguna is situated. As of September 2024, the Department of Health–Center for Health Development IV-A had recorded 22,142 diagnosed people living with HIV in CALABARZON, while approximately 38,400 individuals in the region were estimated to be living with the infection (Philippine Information Agency, 2025). The difference between diagnosed and estimated cases suggests an important testing and diagnosis gap. Considering Laguna's combination of urban centers, industrial communities, educational institutions, rural municipalities, and highly mobile populations, nurses may encounter individuals seeking HIV-related assistance in hospitals, rural health units, primary care facilities, workplaces, schools, and community outreach settings. This requires counseling competencies that can be applied beyond specialized HIV treatment hubs.

Studies of the Philippine HIV care continuum further show that diagnosis and treatment initiation do not automatically lead to long-term engagement in care. Nepomuceno et al. (2023), in their investigation at the University of the Philippines–Philippine General Hospital treatment hub, reported that 99.5% of enrolled clients were linked to care and 95.0% initiated antiretroviral therapy, but only 78.8% were retained in care. The reduction between treatment initiation and retention illustrates the continuing need for counseling after diagnosis. In another Philippine study, De Torres et al. (2024) described HIV adherence as a journey influenced by the individual's beliefs, social relationships, economic circumstances, interactions with healthcare providers, and experience of the health system. Together, these studies establish that counseling must extend from pre-test preparation to post-test support, treatment readiness, adherence, disclosure, and long-term retention.

The literature therefore portrays HIV as both a biomedical and psychosocial concern. The World Health Organization (WHO, 2021) emphasized that HIV testing must be connected to appropriate prevention, treatment, and support services. Its updated guidance further promotes person-centered service delivery, including self-testing and differentiated testing options, without removing the responsibility of providers to facilitate appropriate counseling and linkage to care (WHO, 2024). In Laguna, nurses are strategically positioned to fulfill this

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responsibility because they maintain direct and sustained contact with individuals, families, and communities. The evidence supports the development of a nursing intervention that strengthens counseling as a continuing process rather than treating it as a single informational session.

Nurses' Knowledge and Competencies in HIV Counseling

Nurses perform a wide range of functions in the HIV care continuum, including health education, risk assessment, specimen-related preparation, pre-test and post-test counseling, emotional support, treatment preparation, adherence monitoring, partner-services education, referral, and follow-up care. These responsibilities demand competence in HIV transmission, testing algorithms, antiretroviral therapy, opportunistic infection prevention, pre-exposure prophylaxis, post-exposure prophylaxis, and treatment as prevention. Nurses must also understand confidentiality, informed consent, documentation, referral pathways, and the legal rights of people living with HIV. The WHO (2021) consequently recommends that HIV services be delivered by appropriately trained personnel who can provide accurate information and connect clients to relevant services.

Philippine research, however, indicates that healthcare workers' knowledge does not always translate into appropriate attitudes and practices. Mosende et al. (2023) studied 171 healthcare workers in highly urbanized areas of Leyte and found that participants possessed moderate HIV knowledge and generally favorable work attitudes, yet prejudicial attitudes and discriminatory behaviors remained evident. Knowledge was positively related to attitudes, and attitudes were associated with behavior, but knowledge alone was not directly correlated with reported behavior. The findings suggest that factual instruction is necessary but cannot independently ensure compassionate or nondiscriminatory practice. Training programs must therefore address the cognitive, affective, ethical, and behavioral dimensions of HIV care.

Counseling competence also involves therapeutic communication. Nurses must be able to ask sensitive questions without sounding accusatory, listen without interrupting, clarify misconceptions, recognize nonverbal responses, convey difficult information, and manage emotional reactions. Fernández-Alcántara et al. (2025) reviewed 35 studies involving virtual tools for communication training and identified 24 different learning platforms. The review showed that simulated and virtual patients allow health professionals to rehearse clinical interviews, shared decision-making, empathy, and difficult conversations. Nevertheless, the tools were heterogeneous, and many did not sufficiently describe their technological or instructional foundations. These findings suggest that simulation can strengthen the proposed training program, but scenarios and assessment criteria must be explicitly aligned with HIV counseling competencies.

The importance of targeted training is reinforced by Ticha et al. (2024), whose integrative review examined programs designed to improve nurses' adherence counseling for people living with HIV and tuberculosis. The authors identified ineffective patient-provider communication, inadequate empathy, insufficient staff preparation, and poor engagement as barriers to adherence counseling. They recommended interactive workshops, practical activities, supervised follow-up, plain-language communication, teach-back strategies, and the development of constructive nurse–patient relationships. Although the review was conducted in South Africa, its findings are applicable to the proposed program because nurses in Laguna similarly need practical preparation for communicating with clients of varying educational, linguistic, and cultural backgrounds.

The reviewed studies demonstrate that an effective HIV counseling nurse requires more than knowledge of the disease. Competence must include therapeutic communication, emotional assessment, ethical judgment, cultural humility, crisis response, shared decision-making, and coordination with other services. These competencies should be demonstrated in realistic situations rather than evaluated solely through written examinations. Accordingly, the proposed training program should combine structured lectures with role-playing, case analysis, return demonstrations, standardized-client encounters, reflective exercises, and competency-based

HIV-Related Stigma, Discrimination, and Barriers to Counseling

HIV-related stigma remains one of the most persistent barriers to testing, disclosure, treatment initiation, and retention in care. Stigma may be enacted through overt discrimination, avoidance, unnecessary infection-control practices, breaches of confidentiality, moral judgment, and the use of disrespectful language. It may also be anticipated by clients who fear being identified, rejected, or treated differently. The European Centre for

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Disease Prevention and Control (2024) emphasized that stigma in healthcare settings contributes to delayed care, avoidance of health facilities, and poor treatment adherence. Thus, the healthcare environment may either protect clients from stigma or reproduce the discrimination experienced in the wider community.

Studies involving healthcare workers demonstrate that stigma may persist even among individuals with clinical education. Langi et al. (2022) found substantial levels of fear of occupational HIV transmission and negative perceptions of people living with HIV among hospital and primary healthcare workers. The persistence of these concerns indicates that knowledge about standard precautions and transmission routes may be incomplete or may not be translated into actual practice. Yuan et al. (2025) likewise found that although healthcare-worker stigma decreased over time, prejudice and stereotypes continued in certain areas. Importantly, HIV-related training was associated with reduced stigma, supporting the inclusion of structured education and reflective activities in professional development programs.

In the Philippines, stigma is compounded by social and cultural judgments concerning sexuality, gender identity, and perceived morality. Bustamante (2022) identified anticipated discrimination, internalized shame, and fear of negative healthcare experiences as barriers to HIV testing among men who have sex with men. Mosende et al. (2023) also found that Philippine healthcare workers could possess essential HIV knowledge while still demonstrating prejudicial attitudes and discriminatory behavior. These findings reveal a gap between knowing the biomedical facts of HIV and practicing equitable, respectful care. For this reason, a training program that merely updates clinical information may have limited influence on counselor behavior.

The effects of stigma extend beyond the decision to undergo testing. De los Santos et al. (2022) examined health facility-related stigma and the health-seeking behavior of people living with HIV in the Philippines. Their findings showed that stigmatizing experiences within health facilities were associated with how clients approached and used healthcare services. De Torres et al. (2024) similarly showed that respectful relationships with providers could support care adherence, whereas negative experiences could undermine engagement. The counseling encounter therefore represents a critical moment when trust may either be developed or lost.

The literature supports incorporating explicit stigma-reduction content into HIV counseling training. Such content should include values clarification, examination of implicit bias, gender-sensitive and culturally appropriate language, standard precautions, confidentiality, legal and ethical obligations, and guided contact with people who possess relevant lived experience. Case scenarios should expose nurses to common manifestations of stigma, including unnecessary isolation, labeling, disclosure without consent, judgmental questioning, and refusal or delay of services. Reflection and feedback must then help participants recognize how their own beliefs and communication patterns influence the dignity, safety, and healthcare decisions of clients.

Caring-Based and Person-Centered HIV Counseling

Caring-based nursing positions the client as a whole person rather than as a diagnosis, laboratory result, or health risk. It's essential attributes include authentic presence, empathy, respect, active listening, protection of dignity, acceptance of individual differences, and responsiveness to physical, emotional, social, cultural, and spiritual needs. These qualities are especially important in HIV counseling because clients may enter the encounter with anxiety, shame, uncertainty, fear of disclosure, or previous experiences of discrimination. A technically correct counseling session may still be ineffective when the client feels rushed, judged, or emotionally unsupported.

Duffy et al. (2022) developed a person-centered care framework for HIV treatment settings through a systematic review. The framework emphasized respect for clients' values and preferences, effective communication, coordinated care, emotional support, accessible services, and the active participation of people living with HIV. Rather than treating person-centeredness as a general expression of kindness, the authors identified it as a service-delivery approach that should shape interpersonal behavior, organizational systems, and community engagement. This framework supports the proposed study's position that caring must be translated into identifiable and teachable counseling behaviors.

Beres et al. (2024) reviewed person-centered interventions intended to improve patient-provider interactions in HIV services. The interventions included provider communication training, client empowerment,

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shared decision-making, service redesign, and mechanisms for receiving client feedback. The review found that person-centered interventions could improve communication and clients' service experiences, although differences in intervention design and outcome measures limited direct comparisons. The study suggests that caring-based counseling should combine provider behavior change with strategies that allow clients to participate actively in decisions concerning testing, prevention, disclosure, and treatment.

The significance of caring relationships is also evident in Philippine studies. De Torres et al. (2024) found that the adherence journeys of Filipinos living with HIV were shaped by supportive relationships, acceptance, access to reliable information, and positive interactions with providers. Nepomuceno et al. (2023) demonstrated that effective linkage and antiretroviral initiation must be followed by continuous support to maintain retention. These findings indicate that caring is not merely an abstract professional value; it can influence whether clients return, follow treatment recommendations, disclose concerns, and continue using services.

A caring-based counseling program for Laguna should therefore operationalize caring through measurable behaviors. These may include introducing oneself respectfully, assuring privacy, asking permission before discussing sensitive matters, using the client's preferred name and pronouns, listening without judgment, recognizing emotional cues, using understandable language, encouraging questions, affirming autonomy, and jointly establishing a plan for follow-up. The program should also prepare nurses to balance compassionate support with professional boundaries and accurate clinical guidance. In this manner, caring becomes an observable nursing competency that can be taught, practiced, assessed, and improved.

Development and Delphi Validation of Nursing Training Programs

Training-program development should begin with a systematic assessment of the target learners, practice environment, client population, and expected competencies. Ticha et al. (2024) found that effective nurse training for HIV adherence counseling requires relevant participant identification, interactive teaching, practical workshops, effective communication exercises, clinical knowledge, and reinforcement of the nurse–patient relationship. Their review also emphasized that guidelines alone do not guarantee consistent implementation. Nurses need structured opportunities to apply counseling principles to realistic situations and receive feedback about their performance.

Recent program-development studies demonstrate the value of combining evidence reviews with expert validation. Pereira et al. (2024) developed and validated a program to promote positive nursing practice environments through a modified Delphi process involving 22 experts. Across two rounds, experts evaluated the program's objectives, duration, organization, session structure, and content. While broad agreement was achieved, expert feedback led to revisions concerning participant workload and session length. This illustrates how Delphi review can identify issues of feasibility and implementation that may not be apparent from a literature review alone.

Delphi methods have also been applied to the validation of nursing competencies. Rusli et al. (2025) used an e-Delphi process to establish and content-validate competencies for home-based nursing care with input from local and international experts. The study showed that competency development benefits from a multidisciplinary panel capable of assessing clinical relevance and practical application. In a separate methodological study, Kim et al. (2025) applied a real-time Delphi approach to develop a nursing simulation scenario evaluation tool. The experts assessed the relevance and adequacy of the items, demonstrating how iterative consensus can strengthen both instructional content and evaluation standards.

Nasa et al. (2021) explained that the Delphi method is appropriate when a problem requires the collective judgment of experts and when direct evidence does not provide a complete or contextually appropriate answer. The method generally includes the careful selection of experts, multiple rounds of rating, anonymous responses, controlled feedback, and revision based on panel comments. Anonymity can reduce the effects of professional hierarchy, while repeated rounds allow participants to reconsider their judgments in relation to the summarized responses of the group. For the present study, these characteristics allow nursing, HIV, public health, counseling, education, and community experts to evaluate the proposed program without permitting one discipline or senior participant to dominate the process.

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Nevertheless, the rigor of a Delphi study depends on transparent methodological decisions. Schifano and Niederberger (2025), in a scoping review of 287 health-related Delphi studies, found considerable variation in panel composition, questionnaire design, analysis, feedback, and consensus thresholds. Although 81% of the studies defined consensus through percentage agreement, many did not adequately explain how qualitative comments were analyzed. Their findings indicate that the present study should establish its expert-selection criteria, rating scale, consensus threshold, procedures for revising items, number of rounds, and treatment of qualitative feedback before data collection.

Taken together, the literature supports the use of a modified Delphi methodology to develop and validate the Caring-Based HIV Counseling Training Program for Nurses in Laguna. The initial program may be constructed from current HIV guidelines, caring science, Philippine evidence, and training needs. Experts may subsequently evaluate each component for relevance, clarity, cultural appropriateness, feasibility, and comprehensiveness. This process will help ensure that the final program is not only theoretically sound but also suitable for the realities of hospitals, treatment hubs, primary care facilities, and community health settings in Laguna.

Research Gaps

Although existing studies have examined the Philippine HIV epidemic, healthcare workers' knowledge and attitudes, HIV-related stigma, person-centered care, therapeutic communication, and adherence counseling, limited research has integrated these areas into a structured, caring-based HIV counseling training program specifically designed for nurses. Current training commonly emphasizes biomedical knowledge, testing procedures, and regulatory requirements, while the caring dimensions of counseling—such as empathy, therapeutic presence, cultural sensitivity, stigma reduction, emotional support, and respect for client autonomy—remain insufficiently operationalized and evaluated. Moreover, there is a lack of locally developed and systematically validated programs responsive to the cultural characteristics, referral systems, service resources, and nursing realities of Laguna. No identified study has used a Delphi methodology to establish expert consensus on the objectives, competencies, content, teaching strategies, and assessment methods of a Caring-Based HIV Counseling Training Program for nurses in this setting. The present study addresses these gaps by developing and validating a contextually appropriate, evidence-informed, and competency-based training program intended to improve the scientific and humanistic quality of HIV counseling in Laguna.

Synthesis of the Literature

The reviewed literature consistently demonstrates that the Philippine HIV epidemic requires more accessible, person-centered, and stigma-free services. Studies have established the importance of knowledge, therapeutic communication, respectful provider relationships, emotional support, and continuity across the HIV care cascade. They have also shown that nurses are central to testing, counseling, treatment initiation, adherence, and retention. However, knowledge alone does not consistently eliminate prejudice or produce caring behavior, underscoring the need for training that integrates technical, interpersonal, ethical, and reflective competencies.
Existing studies have separately examined HIV knowledge, healthcare-worker stigma, person-centered HIV services, communication training, adherence counseling, and Delphi-based program validation. However, there remains limited evidence of a locally developed and expert-validated program that deliberately combines HIV counseling competencies with caring-based nursing principles for nurses in Laguna. The present study addresses this gap by developing and validating a Caring-Based HIV Counseling Training Program through the Delphi methodology. Its intended contribution is a contextually appropriate and competency-based program capable of strengthening both the scientific accuracy and human quality of HIV counseling.

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