BRIDGING EDUCATIONAL GAPS: THE IMPACT OF THE BASS MODEL ON REFLEXIVITY AND CULTURAL HUMILITY IN MIDWIFERY STUDENTS

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ABSTRACT

Midwifery education in the United States stands at a crossroads. While midwife-led care is associated with improved outcomes, especially in racially and ethnically marginalized communities, the systems training midwives often prioritize efficiency, hierarchy, and compliance over reflection, presence, and relationship. This misalignment between midwifery philosophy and institutional norms leads to burnout, moral distress, and reduced reflective capacity, threatening workforce sustainability and ethical practice. Addressing these challenges requires educational models centering reflection and humility as competencies.

This dissertation examines whether structured reflection, using the Bass Model of Holistic Reflection, can foster reflexivity and cultural humility in graduate nurse-midwifery students. Reflexivity is the capacity to examine values, biases, and positionality and apply that awareness in care environments. Cultural humility is defined as a lifelong stance of openness, self-

awareness, and relational accountability. Both are vital for ethical midwifery practice, yet few empirical studies examine how these develop or can be fostered through curriculum design.

The Bass Model integrates Schön's reflection-in-action, Kolb's Experiential Learning Cycle, and Mezirow's Transformative Learning Theory into a scaffolded process moving learners from descriptive to transformative reflection. The model aligns with the Midwifery Model of Care, a humanistic paradigm emphasizing person-centered care and cultural safety, while counterbalancing systems prioritizing compliance. Reflection here includes cognitive, emotional, and relational dimensions, fostering reflexivity and resilience.

This study is the first pilot of the Bass Model in a U.S. graduate midwifery program. A longitudinal, quasi-experimental design followed sixteen students over two semesters in an ACME-accredited program in the southeastern United States. Structured reflection was embedded in academic and clinical work through scaffolded journals, peer circles, and faculty debriefs, aligned with the model's six phases.

To evaluate reflexivity and humility, three validated instruments were used: the Cultural Humility Scale–Adapted (CHS-A) measured students' self-perceived humility; the Holistic Reflection Self-Assessment (HRSA) captured reflective capacity; and the Modified Holistic Reflection Assessment Tool (MHRAT) was used by faculty to assess observable growth. These tools provided a multidimensional view, combining self-perception with faculty evaluation.

Quantitative analysis included descriptive statistics, paired-samples t-tests, Friedman tests, and Pearson correlations. Faculty-rated reflective depth increased significantly across five structured activities, $\chi^2(4) = 16.81$, $p = .002$, confirming the model's effectiveness. HRSA scores were consistently high, with a modest but significant increase in the first semester, $t(14) = 2.25$, $p =$

.041, d = 0.58. CHS-A scores rose slightly (M = 4.73 to 4.89), though ceiling effects limited measurable change.

Correlational analysis showed modest alignment between self- and faculty assessments. A moderate negative correlation between HRSA and MHRAT scores, r = –.40, p = .17, suggested students with lower self-perceived reflexivity often demonstrated the most observable growth. This reflects the developmental nature of humility; it is most visible in those willing to remain teachable.

Structured reflection proved measurable and transformative. As students advanced, they developed stronger connections between ethics and clinical practice, fostering cultural humility, resilience, and awareness, qualities essential for navigating modern midwifery complexities. Reflection was not only a learning strategy but also a protective practice, helping mitigate burnout and distress while sustaining ethical alignment.

This study offers a replicable model for cultivating ethically grounded midwives. The Bass Model provides educators with a scaffolded, evidence-based method to teach reflection as a skill supporting lifelong professional growth. As the first U.S. application of the model in midwifery education, the research adds to the literature and shows how structured reflection can bridge the gap between midwifery philosophy and practice. In a technocratic healthcare landscape, reflection emerges as a form of professional preservation and a means of keeping midwives grounded in purpose, humility, and ethical integrity.

Bridging Educational Gaps: The Impact of the Bass Model on Reflexivity and Cultural Humility in Midwifery Students

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DEDICATION

This work is dedicated to my grandmother, Helen Marie Greene.

We come from a long line of young mothers and generational poverty, yet today our family lineage shifts. As the first college graduate in my family, and now the first to earn a doctorate, I honor a promise made to her, and to the ancestral line of midwives and mothers who came before me. Their resilience lives in every step of this journey.

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I would like to acknowledge the many women leaders and midwives who pulled me up this path, one step at a time. They saw something in me long before I could see it in myself. Through their guidance, steadfast support, and belief in my becoming, they helped me achieve not only this doctorate, but a way of being in the world that aligns purpose with service. Their leadership has shaped my calling and helps pave the way for the next generations of midwives and mothers.

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Introduction

Maternal and newborn health outcomes are key indicators of a nation's healthcare quality, yet the United States continues to experience unacceptably high rates of maternal morbidity and mortality, particularly among racially and ethnically marginalized populations (Centers for Disease Control and Prevention [CDC], 2023; World Health Organization [WHO], 2019). These outcomes reflect deep-rooted inequities driven by structural racism, implicit bias, and fragmented models of care that often fail to provide culturally safe, continuous, or person-centered support (Agrawal, 2015; Sakala et al., 2022).

Midwives, guided by the Midwifery Model of Care, offer a relational, evidence-based, and equity-oriented approach that has been shown to improve maternal and newborn outcomes (Renfrew et al., 2014; United Nations Population Fund [UNFPA], World Health Organization [WHO], & International Confederation of Midwives [ICM], 2021). However, in the United States, mainstream health systems utilize biomedical and technocratic care paradigms that limit autonomy and continuity and are fundamentally misaligned with the philosophical underpinnings of the Midwifery Model of Care (Davis-Floyd et al., 2009).

These systemic tensions extend into midwifery education, where students often encounter a disconnect between the humanistic ideals of the midwifery philosophy and the hierarchical, efficiency-driven realities of clinical training. This gap disrupts the integration of reflective and relational ways of knowing, leaving students struggling to reconcile what they believe midwifery should be with what they experience in practice. Over time, this dissonance can lead to two common outcomes: some midwives experience moral distress and eventual burnout, while others

adapt by suppressing reflection and conforming to the dominant biomedical paradigm. Both pathways erode the critical consciousness, empathy, and moral courage that sustain midwifery's core values of cultural humility, respect, and advocacy.

When reflective capacity (reflexivity) and humility are lost, so too is the capacity to provide truly individualized, respectful care. The women and families midwives serve feel the consequences of this loss. Care becomes impersonal, cultural biases go unexamined, and opportunities for healing and trust are replaced by compliance and control. Addressing these challenges requires educational strategies that not only teach clinical competence but also cultivate reflective, resilient practitioners capable of sustaining midwifery philosophy within complex healthcare systems. This study responds to that need by examining whether structured reflective practice, guided by the Bass Model of Holistic Reflection, can foster reflexivity and cultural humility among graduate nurse-midwifery students.

The following sections expand upon this context by exploring the philosophical foundations of the Midwifery Model of Care, the importance of cultural humility in equitable practice, and the role of reflective learning in bridging the persistent theory–practice divide. Together, these backgrounds provide the rationale for employing the Bass Model of Holistic Reflection as both an educational strategy and a framework for this study. Understanding the philosophical roots of midwifery provides the foundation for addressing these challenges.

Problem Statement

Despite well-documented evidence that midwifery care improves maternal and newborn outcomes, midwives in the United States face significant barriers to providing culturally safe, relational, and individualized care. High rates of burnout and attrition stem from unsupportive

clinical environments, constrained autonomy, and philosophical misalignment between midwifery and dominant healthcare paradigms (Harvie et al., 2019; Lombardero et al., 2023). Addressing the sustainability of the midwifery workforce must therefore begin in midwifery education.

Many midwives are trained and employed within technocratic systems that conflict with the principles of the Midwifery Model of Care. This misalignment contributes to professional dissatisfaction, moral distress, and erosion of reflective capacity (Davis-Floyd et al., 2009; Renfrew et al., 2014). A key contributor to this problem is the lack of structured preparation to help students maintain reflexivity, humility, and alignment with midwifery philosophy amid real-world pressures. Although these competencies are widely recognized as essential, U.S. midwifery education lacks empirically tested, longitudinal models to support their development.

This study addresses that gap by evaluating the Bass Model of Holistic Reflection as a structured educational intervention designed to foster reflexivity and cultural humility in midwifery students. By embedding guided reflection within the academic curriculum and measuring growth over time, this research contributes empirical evidence to support the preparation of a resilient, reflective, and culturally humble midwifery workforce equipped to meet the needs of diverse populations in contemporary healthcare.

Purpose of the Study

The purpose of this study was to examine whether structured reflective practice, grounded in the Bass Model of Holistic Reflection, supports the development of reflexivity and cultural humility among midwifery students in a U.S.-based educational program.

While midwifery education traditionally emphasizes clinical competence and safety, less attention is given to reflective development. This gap becomes particularly significant when students are immersed in healthcare systems that conflict with the Midwifery Model of Care. Without intentional reflective guidance, learners may struggle to recognize when external pressures challenge their values, perpetuate implicit bias, or erode the formation of a mindful professional identity.

Bridging this theory–practice gap requires intentional pedagogical strategies such as guided reflection, peer mentorship, and faculty-facilitated dialogue. These approaches cultivate the reflexivity necessary to uphold culturally safe, values-based midwifery care in complex clinical systems.

To address this need, this study evaluated whether embedding structured reflection into midwifery education fosters measurable growth in cultural humility and reflective capacity over time. A longitudinal pretest–posttest design was implemented over two consecutive academic semesters (fall and spring, 16 weeks each) within an ACME-accredited midwifery program in the southeastern United States. The intervention consisted of reflection circles, scaffolded journaling, and peer mentorship activities integrated throughout the final year of the graduate program.

Background: Why Midwifery?

Midwifery is an ancient and relationship-centered profession grounded in the belief that pregnancy and birth are normal, life-affirming processes within the life cycle of women and birthing people. The Midwifery Model of Care guides practitioners to provide personalized, evidence-based, and holistic support that honors each person's physiological, emotional, and social well-being. This model emphasizes continuity of care, shared decision-making, informed

choice, and respect for cultural and individual preferences (Horton & Astudillo, 2014; Sakala et al., 2022).

Globally, midwives are recognized as essential to improving maternal and newborn outcomes, particularly in underserved or marginalized populations. The World Health Organization (WHO) and the International Confederation of Midwives (ICM) estimate that scaling up access to midwife-led care could prevent more than 4 million maternal and neonatal deaths each year (United Nations Population Fund [UNFPA], WHO, & ICM, 2021). Evidence shows that high-quality, integrated midwifery services could avert over 80% of maternal and newborn deaths, including stillbirths (Renfrew et al., 2014).

Despite this evidence, the United States lags far behind other high-income nations in integrating midwives into mainstream healthcare systems. Midwives represent only a small percentage of maternity care providers and often practice in environments shaped by biomedical and technocratic paradigms that emphasize risk management, standardization, and hierarchical control (Davis-Floyd et al., 2009). These systems are misaligned with midwifery's humanistic philosophy, limiting professional autonomy and eroding the continuity and relational aspects of care that define the profession. When midwifery is constrained by such structures, its transformative potential to improve equity and outcomes is diminished.

Preparing future midwives, therefore, requires more than clinical skill development. Midwifery education must intentionally cultivate the capacity to sustain the profession's core values amid systemic and cultural barriers. Educational strategies that foster reflection, cultural humility, and resilience are essential to equipping midwifery students with lifelong tools for navigating the complexities of modern healthcare. Through reflective practice, midwives learn to maintain presence, examine bias, practice humility, and make value-based decisions that honor

the individuality and humanity of those they serve. In this way, reflection becomes not only an educational process but also a mechanism for preserving the integrity and impact of the Midwifery Model of Care.

Background: Why Cultural Humility?

Cultural humility is a lifelong process of self-reflection, critical self-evaluation, and accountability in recognizing and addressing power imbalances within care relationships (Tervalon & Murray-García, 1998; Foronda et al., 2016). Unlike cultural competence, which implies mastery of another's culture, cultural humility emphasizes continuous learning, openness to difference, and a willingness to be taught by those receiving care. This approach aligns closely with the Midwifery Model of Care, which centers relational practice, mutual respect, and shared decision-making.

Situated within the humanistic paradigm of care, cultural humility calls on healthcare providers to examine their own biases, values, and assumptions while actively partnering with individuals from diverse backgrounds (Hook et al., 2013). In contrast, the technocratic paradigm that underpins many traditional medical models favors efficiency, standardization, and provider authority over relational connection (Davis-Floyd et al., 2009).

For midwives, cultural humility is both a professional competency and an ethical imperative. It forms the foundation for respectful, equitable, and person-centered care, particularly when serving populations who have historically experienced discrimination or marginalization. When humility is absent, communication falters, cultural differences are pathologized, and care becomes impersonal; reinforcing the very inequities midwifery seeks to dismantle.

Despite its central importance, cultural humility remains under-studied within U.S. midwifery education. Few empirical studies have explored how humility develops over time in student midwives or how educational strategies can effectively foster it. This gap highlights the need for intentional pedagogical frameworks that intertwine reflection, self-awareness, and relational learning. Reflection provides the developmental pathway for cultural humility, enabling practitioners to translate self-awareness into action.

Background: Why Reflection

Reflection is a foundational process in professional education and a critical component in developing cultural humility. It enables learners to make sense of experience, question assumptions, and integrate new insights into their evolving professional identities. Within midwifery, reflective practice bridges the gap between the philosophical ideals of the profession and the complex realities of clinical work. It enhances self-awareness, deepens critical thinking, and supports ethical reasoning; all key attributes for navigating emotionally demanding and ethically nuanced care environments (Bass et al., 2017; Schön, 1983).

Background: Why the Bass Model of Holistic Reflection

Structured reflection plays a critical role in helping midwives remain aligned with the core values of their profession, including respect, relational integrity, and cultural humility. In healthcare environments where technocratic and efficiency-driven approaches often dominate, reflective practice acts as a necessary counterbalance. It encourages practitioners to stay connected to each client's individuality, culture, and context. Through intentional reflection, midwives examine how their personal values, biases, and behaviors influence care decisions, fostering an approach that remains equitable, humanistic, and deeply personal.

The Bass Model of Holistic Reflection offers a comprehensive framework for developing these essential capacities among midwifery students. Drawing upon Kolb's (1984) Experiential Learning Theory and Mezirow's (1991) Transformative Learning Theory, the Bass Model integrates cognitive, emotional, and relational dimensions of learning. The model guides learners through repeated cycles of experience, reflection, conceptualization, and transformation, supporting both the development of self-awareness and the ability to change behavior when necessary. Instructional strategies such as reflection circles, peer mentorship, and scaffolded journaling provide multiple avenues for students to critically engage with their clinical experiences, both in real time and retrospectively, within supportive communities of their peers (Bass et al., 2017, 2020a, 2020b).

While the Bass Model has demonstrated its value internationally in midwifery education, it has not yet been empirically evaluated within U.S. midwifery programs. This study seeks to address that gap by investigating whether structured reflection, as conceptualized by the Bass Model of Holistic Reflection, can effectively promote the development of cultural humility and reflexivity among graduate nurse-midwifery students in the United States.

Conceptual Framework

This study is grounded in a multi-theoretical conceptual framework integrating Kolb's Experiential Learning Theory, Mezirow's Transformative Learning Theory, and the Midwifery Model of Care, operationalized through the Bass Model of Holistic Reflection. Together, these frameworks provide a robust foundation for understanding how structured reflection fosters reflexivity, cultural humility, and professional identity formation among midwifery students. Each theory contributes a complementary lens for explaining how midwives learn, transform, and sustain their philosophical and ethical commitments within complex healthcare systems.

Within this integrated framework, each theoretical source contributes a distinct role (see Table 1).

Table 1

Theoretical Source, Core Focus, and Role Within This Study

Theoretical Source	Core Focus	Role Within This Study
Kolb's Experiential Learning Theory (1984)	Learning as a cyclical process of experience, reflection, conceptualization, and experimentation	Describes **how** learning occurs through experience and reflection, guiding students as they connect clinical encounters with reflective processes.
Mezirow's Transformative Learning Theory (1991)	Critical reflection as a catalyst for perspective transformation	Explains **why** critical reflection transforms beliefs and behaviors, fostering self-awareness and inclusive, equity-based practice.
Midwifery Model of Care (Renfrew et al., 2014; UNFPA, WHO, & ICM, 2021)	Relationship-based, humanistic, culturally safe care	Defines **what** core values guide ethical, relational, and culturally humble practice within the midwifery philosophy.
Bass Model of Holistic Reflection (Bass et al., 2017, 2020a, 2020b)	Structured reflection integrating cognitive, emotional, and relational dimensions	Synthesizes the preceding theories into an **applied process** that operationalizes reflection, supports

Theoretical Source	Core Focus	Role Within This Study
		reflexivity, and sustains midwifery education and practice.

Note. This table illustrates how the four theoretical frameworks interrelate within the conceptual model guiding the study.

Kolb's Experiential Learning Theory

Kolb (1984) described learning as a dynamic, cyclical process involving four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Effective learning occurs when individuals engage directly with experiences, critically reflect on them, derive meaning, and apply those insights to new contexts. In clinical education, this cycle manifests as participation in patient care, guided reflection, theoretical integration, and application in subsequent practice.

In this study, Kolb's model provides the foundation for the reflective processes embedded within the Bass Model of Holistic Reflection. Through repeated cycles of experience and structured reflection, students deepen understanding, strengthen adaptive judgment, and integrate new learning, skills especially critical in culturally and ethically complex care environments.

Mezirow's Transformative Learning Theory

Mezirow's (1991) Transformative Learning Theory emphasizes the role of critical reflection in adult learning and change. Transformation occurs when learners encounter a *disorienting dilemma*, an experience that challenges previously held beliefs, assumptions, or

values. Through reflection, dialogue, and validation of new perspectives, learners reconstruct their meaning frameworks and adopt more inclusive, equitable ways of thinking and acting.

In midwifery education, disorienting dilemmas commonly arise as students navigate conflicting care paradigms, ethical tensions, or culturally diverse clinical encounters. The structured reflection strategies used in this study, such as journaling, reflection circles, and peer dialogue, create psychological safety for students to explore and reframe such experiences. This process promotes not only deeper learning but also the development of cultural humility, as students critically examine bias, privilege, and systemic inequity while expanding their understanding of relational care and social accountability.

Midwifery Model of Care

The Midwifery Model of Care provides the philosophical foundation of this framework. Rooted in the humanistic paradigm, it emphasizes relationship-based, person-centered care characterized by continuity, informed choice, cultural safety, and respect for physiologic processes (Renfrew et al., 2014; UNFPA, WHO, & ICM, 2021). This model prioritizes trust, autonomy, and equity within care relationships, standing in contrast to the dominant technocratic paradigm that privileges efficiency, hierarchy, and control (Davis-Floyd et al., 2009).

As midwifery students encounter these competing paradigms in their clinical education, reflection becomes essential to preserving professional identity and ethical alignment. Through reflective inquiry, students can critically evaluate how system pressures influence care decisions and consciously re-center their practice around midwifery values of respect, cultural humility, and advocacy.

Bass Model of Holistic Reflection

The Bass Model of Holistic Reflection (Bass et al., 2017, 2020a, 2020b) integrates and operationalizes the theoretical components described above into a structured, practice-based model designed specifically for midwifery education. The model encourages reflection across three interrelated domains: cognitive (thinking), emotional (feeling), and relational (interpersonal connection), that together cultivate *reflexivity* and *cultural humility*.

In this framework, reflection is the process of examining experience and meaning, while reflexivity is the sustained, ongoing capacity to apply that self-awareness in context. Reflection leads to insight; reflexivity ensures that insight informs practice. Both are integral outcomes of the Bass Model.

The Bass Model operationalizes Kolb's experiential learning cycle and Mezirow's transformative reflection through accessible, evidence-based educational strategies that translate theory into practice. These are listed in Table 2.

Table 2

Reflection Strategies

Reflection Strategy	**Description**
Scaffolded written reflections	Guide students through iterative cycles of experience, analysis, and meaning making
Facilitated reflection circles	Foster collective learning and dialogue within supportive peer communities

Peer mentorship and dialogic feedback	Promoting mutual accountability and shared insight
Faculty-guided debriefing	Provides structured opportunities for integrating reflective insights into future clinical application

Together, these structured learning activities create psychologically safe and relationally supportive spaces for students to process complex experiences, challenge assumptions, and integrate learning across cognitive, emotional, and relational domains. In doing so, they operationalize the Bass Model's intent to cultivate reflexivity and cultural humility as enduring professional capacities within midwifery education.

In this study, the Bass Model of Holistic Reflection functioned as both the intervention and the evaluative framework. Reflective and cultural development were examined using a triangulated design incorporating three complementary instruments as visualized in Table 3.

Table 3

Assessment tool, Purpose, and Measures

Assessment Tool	**Purpose**	**Measures/Evaluates**
Cultural Humility Scale–Adapted (CHS-A)	Evaluates humility, openness, and responsiveness within care relationships	Humility, openness, responsiveness

Holistic Reflection Self-Assessment (HRSA)	Measures students' perceived growth in reflection, reflexivity, and integration of learning across experiences	Reflection, reflexivity, integration of learning
Modified Holistic Reflection Assessment Tool (MHRAT)	Enables faculty assessment of students' depth of reflection, relational engagement, and application of learning in practice	Depth of reflection, relational engagement, application of learning

Collectively, these tools provide both learner- and faculty-driven perspectives on reflective growth, ensuring alignment between self-perception and observed transformation. This triangulated approach offers a comprehensive view of student development over time and reflects the Bass Model's holistic orientation toward cognitive, emotional, and relational growth in service of cultural humility.

Summary

This integrated conceptual framework unites learning, transformation, and relational care within a humanistic paradigm of midwifery education. It positions structured reflection as both a pedagogical process and a transformative tool for cultivating reflexivity and cultural humility. These are the hallmarks of ethical, equitable, and sustainable midwifery practice.

Key Terms

Bass Model of Holistic Reflection (BMHR).

A structured, theory-informed framework for cultivating reflective capacity among health professions students. The model integrates cognitive (thinking), emotional (feeling), and relational (interpersonal) domains of reflection to support reflexivity, professional growth, and cultural humility (Bass et al., 2017, 2020a, 2020b).

Cultural Humility (CH).

A lifelong process of critical self-reflection, self-evaluation, and accountability in recognizing and addressing power imbalances within care relationships (Tervalon & Murray-García, 1998). Cultural humility emphasizes openness, mutual respect, and a willingness to learn from others rather than mastery of cultural knowledge. It is a continual, reflective stance rather than a finite skill set.

Reflexivity.

Reflexivity refers to a person's capacity for reflection. Reflexivity grows through reflective practices that include awareness of power, privilege, and systemic context, encouraging practitioners to engage consciously and ethically with diverse populations.

Reflection.

A cognitive and affective process of examining experience to derive meaning, promote self-awareness, and guide future action (Schön, 1983). Reflection serves as the developmental pathway through which cultural humility and reflexivity evolve. Within this study, reflection represents both a learning tool and a practice-based competency.

Midwifery Model of Care.

A humanistic, relationship-centered model emphasizing continuity, informed choice, cultural

safety, and respect for the physiologic processes of pregnancy and birth (Renfrew et al., 2014; UNFPA, WHO, & ICM, 2021). The model prioritizes person-centered, equitable care and stands in contrast to the technocratic model that prioritizes efficiency, risk management, and hierarchy.

Humanistic Paradigm.

A worldview and philosophical foundation that emphasizes empathy, respect, relationship, and the intrinsic worth of individuals. Within midwifery and healthcare, the humanistic paradigm supports personalized, relational, and equitable approaches to care, viewing the practitioner–client relationship as central to healing and transformation. It contrasts with mechanistic or technocratic frameworks that privilege control and standardization over connection.

Technocratic Paradigm.

A dominant biomedical worldview characterized by standardization, risk control, and institutional hierarchy, often at the expense of individualized, relationship-based care (Davis-Floyd et al., 2009). This paradigm frequently conflicts with the values of midwifery practice and education and contributes to moral distress and burnout among practitioners.

Holistic Reflection Self-Assessment (HRSA).

A self-report instrument developed to measure learners' growth in reflection, reflexivity, and integration of learning across cognitive, emotional, and relational domains. The HRSA aligns with the Bass Model's multidimensional approach to reflective development.

Cultural Humility Scale–Adapted (CHS-A).

A validated instrument assessing self-perceived cultural humility, openness, and responsiveness within interpersonal and clinical relationships. The CHS-A provides a quantitative measure of students' self-awareness and relational orientation in care.

Modified Holistic Reflection Assessment Tool (MHRAT).

A faculty evaluation rubric adapted from the Bass Model for assessing the depth, relational engagement, and application of reflection in student work. The MHRAT provides an external, faculty-driven perspective on reflective growth, complementing student self-assessments.

Research Questions

Grounded in the Bass Model of Holistic Reflection and aligned with the study's longitudinal pretest–posttest design, this research examined the impact of structured reflective practice on the development of reflexivity and cultural humility among graduate nurse-midwifery students. Two research questions guided the inquiry:

RQ1: *To what extent does participation in structured reflective practice, grounded in the Bass Model of Holistic Reflection, enhance midwifery students' reflexivity and cultural humility over two academic semesters?*

- **Measured by:**
    - *Holistic Reflection Self-Assessment (HRSA)* – student self-assessment of reflective capacity across cognitive, emotional, and relational domains.
    - *Cultural Humility Scale–Adapted (CHS-A)* – student self-assessment of cultural humility and openness within care relationships.

RQ2: *How do faculty and student evaluations of reflexivity compare when assessed using the Bass Model tools?*

- **Measured by:**

- *Modified Holistic Reflection Assessment Tool (MHRAT)* – faculty evaluation of reflective depth and integration.
- *Holistic Reflection Self-Assessment (HRSA)* – student self-evaluation of reflective growth.

These questions reflect the study's focus on examining within-subject change over time and triangulating student and faculty perspectives to assess growth in both self-perceived and observed reflective capacity. Together, they aim to determine whether structured reflection fosters measurable increases in reflexivity and cultural humility and whether the Bass Model instruments function reliably in a U.S. midwifery education context.

Significance of the Study

This study contributes to the fields of midwifery education, health professions pedagogy, and culturally safe care by addressing a critical gap in how reflective and culturally humble practice is fostered and measured in graduate nurse-midwifery education within the United States. Although cultural humility and reflexivity are widely recognized as essential competencies, few empirical studies have examined how these capacities evolve over time or how they can be intentionally cultivated through structured educational interventions in midwifery programs.

By evaluating a longitudinal, structured intervention grounded in the Bass Model of Holistic Reflection, this study provides one of the first empirical examinations of how reflective practice can operationalize midwifery values such as person-centered care, cultural humility, and reflexive professional growth, within clinical education. The use of validated instruments (the *Cultural Humility Scale–Adapted [CHS-A]*, *Holistic Reflection Self-Assessment [HRSA]*, and

Modified Holistic Reflection Assessment Tool [MHRAT]) strengthens the study's contribution by enabling triangulation across multiple perspectives and dimensions of learning.

This research also has practical significance for strengthening midwifery workforce sustainability. As burnout and attrition remain pressing challenges in the profession, this study explores a proactive educational approach that fosters resilience, critical self-awareness, and value alignment. These qualities are essential for sustaining reflective and compassionate practice within complex and often inequitable healthcare systems.

Finally, this work advances the transformation of maternal healthcare by emphasizing the development of clinicians who are not only technically competent but also self-reflective, culturally responsive, and ethically grounded. In doing so, it supports national and global efforts to reduce disparities and improve outcomes for all birthing people and their families.

Assumptions, Limitations, and Delimitations

This section outlines the guiding assumptions, potential limitations, and defined boundaries that frame the scope and interpretation of this study.

Delimitations

Delimitations represent the intentional parameters established by the researcher to maintain focus, feasibility, and methodological coherence. In this study:

- The research was conducted at a single ACME-accredited midwifery program in the southeastern United States, which may limit transferability to other geographic or institutional contexts.

- Only one student cohort, those in their final two semesters (fall and spring), participated in the intervention and data collection.
- The intervention focused exclusively on structured reflective practices guided by the *Bass Model of Holistic Reflection*; other reflective frameworks or informal practices were not examined.
- The selected instruments, the *Cultural Humility Scale–Adapted (CHS-A)*, *Holistic Reflection Self-Assessment (HRSA)*, and *Modified Holistic Reflection Assessment Tool (MHRAT)*, were chosen for their relevance to cultural humility and reflexivity, though they may not capture all related constructs such as empathy or communication skill.

These delimitations ensured that the study remained appropriately narrow in scope while aligning with its theoretical and methodological focus.

Limitations

Limitations reflect factors beyond the researcher's control that may influence the study's outcomes or generalizability. The following limitations were recognized:

- Reliance on self-report instruments (CHS-A and HRSA) introduces potential for social desirability bias or inaccurate self-assessment.
- Faculty evaluation using the MHRAT, while calibrated, remains subject to interpretation and potential rater bias.
- The single-site design and small sample size restrict generalizability to other midwifery programs.

- The absence of a control group limits causal inference regarding the direct effects of the intervention.
- Variability in students' clinical placements, personal experiences, and engagement with reflection activities may have influenced individual growth trajectories.

Despite these limitations, the longitudinal pretest–posttest design strengthened internal validity by allowing each participant to serve as their own control. Data were collected at four points (beginning and end of each semester), providing a reliable measure of developmental change over time.

Assumptions

This study rested on several foundational assumptions that supported its design, implementation, and interpretation:

- Participants engaged with reflection activities and survey instruments authentically and thoughtfully.
- Faculty applied the MHRAT rubric consistently and in accordance with established scoring guidelines.
- The *Bass Model of Holistic Reflection* provided a valid and appropriate framework for fostering reflective practice and cultural humility in midwifery education.
- The CHS-A, HRSA, and MHRAT accurately captured developmental changes in reflexivity and cultural humility.
- Students were exposed to comparable curricular and clinical learning experiences during the intervention period.

These assumptions, while untested, are reasonable and necessary within the context of educational research.

Chapter One Summary

This chapter introduced the ongoing challenges shaping midwifery practice and education in the United States, emphasizing the tension between the humanistic, relationship-based values of the midwifery model and the dominant technocratic systems that often constrain practice. Amid persistent inequities in maternal outcomes and rising rates of professional burnout, the need for reflective, culturally humble midwives has never been more urgent.

Chapter One outlined the theoretical and practical foundations of this study, including the Bass Model of Holistic Reflection as an educational intervention to foster reflexivity and cultural humility. The problem statement, purpose, research questions, and conceptual framework were presented alongside an overview of the study's methodology, assumptions, limitations, and delimitations.

Together, these elements establish the rationale for exploring whether structured reflective practice can strengthen the internal capacities midwives need to sustain alignment with their values and provide equitable, person-centered care. The next chapter provides a critical review of literature on midwifery education, reflective practice, cultural humility, and the theoretical models underpinning this study.

Chapter Two: Review of the Literature

This chapter presents a comprehensive review of the literature that informs the conceptual, theoretical, and methodological foundations of this study. As midwifery education evolves to meet the needs of increasingly diverse populations, there is a growing demand for pedagogical frameworks that cultivate both cultural humility and reflective capacity among students and educators. These twin capacities, humility and reflection, are central to sustaining the humanistic and relational philosophy of midwifery in the face of complex, inequitable healthcare systems.

This review explores the intersections between midwifery philosophy, reflective pedagogy, and cultural humility. These three pillars underpin this study's design, instruments, and research questions. It begins by examining the epistemological and humanistic foundations of midwifery education, emphasizing its roots in woman-centered care, relational accountability, and health equity. This discussion provides the philosophical backdrop for understanding how midwifery's values inform both educational approaches and professional identity formation.

We then turn to the persistent challenges within midwifery education, including burnout, moral distress, and the theory–practice divide, which often emerge when students encounter technocratic systems that conflict with midwifery philosophy. From this context, cultural humility is introduced as a critical framework for addressing disparities in care and preparing midwives to provide ethical, inclusive, and equitable practice. The review distinguishes cultural humility from cultural competence, emphasizing its dynamic, reflective nature and lifelong process of learning.

Next, the literature on reflective practice and the Bass Model of Holistic Reflection is reviewed, highlighting how structured reflection can serve as a mechanism for fostering reflexivity and cultural humility. This section also explores tools that operationalize these constructs in measurable ways, grounding this study's methodological approach.

To guide the discussion, the following thematic subheadings are used:

Table 4

Organizational Structure of Literature Review

Section	Topic
2.1	Foundations of Midwifery Education and Philosophy
2.2	Reflective Practice as a Pedagogical Framework
2.3	Cultural Humility in Healthcare and Midwifery
2.4	Burnout and the Theory–Practice Divide
2.5	Measuring Cultural Humility: The Cultural Humility Scale–Adapted (CHS-A)
2.6	Tools for Measuring Reflexivity: HRSA and MHRAT
2.7	Gaps in the Literature

The literature reviewed in this chapter provides the conceptual grounding for the study's two research questions, which explore how structured reflection influences the development of cultural humility and reflexivity among graduate nurse-midwifery students.

These constructs are operationalized through three instruments, the Cultural Humility Scale–Adapted (CHS-A), Holistic Reflection Self-Assessment (HRSA), and Modified Holistic

Reflection Assessment Tool (MHRAT), which together form a triangulated framework for evaluating reflective and relational growth in midwifery education.

2. 1 Foundations of Midwifery Education and Philosophy

Midwifery is grounded in a philosophy that centers pregnancy and birth as physiological, transformative life events, valuing woman-centered partnership and upholding justice, dignity, and cultural respect in care. This philosophy aligns with a humanistic paradigm in which care is holistic, relational, and embedded within the social and cultural context of each individual and family (Carolan & Hodnett, 2007). In everyday practice, this means midwives create personalized care plans that respond to the unique needs and circumstances of each patient, while consistently advocating for patient autonomy and self-determination.

The Midwifery Model of Care (MMOC) operationalizes this worldview by emphasizing continuity, informed choice, shared decision-making, and preservation of normal physiologic processes while providing individualized, evidence-based interventions when needed (Midwives Alliance of North America [MANA], 2020). For example, midwives facilitate discussions with families to ensure their preferences are incorporated into birth plans, helping them make informed choices about interventions and supporting their decisions throughout the childbearing process.

The American College of Nurse-Midwives (ACNM) Hallmarks of Midwifery similarly highlight advocacy, partnership, cultural safety, and protection of human dignity as central to professional identity, with practitioners striving to foster culturally safe environments and respectful communication in every interaction (ACNM, 2020). By explicitly linking these philosophical foundations to daily care, it becomes clear how midwifery standards and

professional guidelines are enacted to support holistic, equitable, and respectful care for diverse populations.

Philosophical Domains in Contemporary Midwifery

Contemporary midwifery is grounded in three interconnected philosophical domains: ontology, epistemology, and axiology, each of which informs the discipline's foundational principles regarding the nature of practice, sources of knowledge, and core values (Ouellet et al., 2024) as visualized in Table 5.

Table 5

Ontology, Epistemology, and Axiology

Aspect	**Description**
Ontology	Midwifery views childbearing as a normal and life-affirming process; pregnancy and birth as significant human experiences deserving respect, agency, and holistic care
Epistemology	Integrates empirical and relational ways of knowing; draws on scientific evidence and clinical data; values experiential knowledge from partnership, intuition, and reflective engagement
Axiology	Guided by values of equity, respect, and cultural humility; upholds justice and dignity; accountable within diverse cultural contexts

These domains are reflected in global policy frameworks such as the International Confederation of Midwives (ICM) Philosophy and Model of Midwifery Care, which recognizes cultural diversity, partnership, and self-determination as foundational (ICM, 2025).

Educationally, these philosophical foundations are embedded within competency frameworks that shape curricula worldwide. The 2024 ICM Essential Competencies for Midwifery Practice expanded to include competencies in sexual and reproductive health rights, climate change response, technology use, and interdisciplinary collaboration (ICM, 2025). These updates reflect the evolving realities of midwifery practice and reinforce its role in addressing complex global health challenges.

Within the United States, the ACNM Core Competencies for Basic Midwifery Practice (2020) mirror many of these global commitments while situating them in national regulatory contexts. Cultural safety, inclusivity, and the capacity to engage respectfully with diverse communities are defined as essential professional standards.

Translating these principles into effective practice necessitates educational settings that foster technical proficiency alongside reflective capacity, cultural humility, and resilience. Recent data highlight ongoing challenges: according to a national survey of U.S. midwifery students, approximately two-thirds reported encountering bias in clinical environments related to race, gender, body size, sexual orientation, or religion (Loomis et al., 2024). These biases resulted in emotional distress, impeded learning, and, for some individuals, led to reconsideration of their professional trajectory. The evidence underscores the critical need to integrate equity and inclusion as fundamental, embodied practices rather than simply aspirational values within midwifery education.

In summary, the philosophical underpinnings of midwifery are inherently humanistic, relational, and equity-focused, as detailed in both global and national competency frameworks. Achieving these objectives necessitates pedagogical strategies that integrate them into everyday learning activities, with an emphasis on structured reflection. The subsequent section examines reflective practice as a pedagogical approach for implementing, maintaining, and evaluating these foundational principles within midwifery education.

2.2 Reflective Practice as a Pedagogical Framework

Reflective practice is widely recognized in health professions education as a central process for linking theory to experience, enhancing clinical judgment, and cultivating professional growth (Schön, 1983; Kolb, 1984). In midwifery education, reflection serves as the bridge between philosophical ideals and the complex, often unpredictable realities of clinical practice. Reflection enables learners to critically engage with their experiences, transforming them into meaningful learning that informs future care decisions (Bass et al., 2017; Harvie et al., 2019).

Theoretical Foundations of Reflection

Schön's (1983) work on *reflection-in-action* and *reflection-on-action* emphasizes the practitioner's ability to think critically both during and after clinical encounters. Kolb's (1984) *Experiential Learning Theory* complements this by describing a four-stage cycle that includes concrete experience, reflective observation, abstract conceptualization, and active experimentation, through which knowledge is continually refined. These theories collectively establish reflection as a dynamic, iterative process that integrates experience, analysis, and application.

Building on this foundation, Mezirow's (1991) *Transformative Learning Theory* highlights the potential of critical reflection to challenge deeply held assumptions and reshape perspectives. Through this process, learners move beyond surface-level interpretation toward transformative understanding, characterized by increased empathy, ethical awareness, and cultural responsiveness.

Reflection and Reflexivity in Midwifery

In midwifery education, reflection serves as the primary process through which students make meaning from experience. It involves deliberate examination of actions, emotions, and outcomes to connect theory to practice and develop professional insight. Reflection helps learners interpret complex experiences, recognize personal biases, and align their decisions with midwifery values of respect, equity, and partnership.

Reflexivity, sometimes referred to as *reflective capacity*, represents the developmental outcome of sustained reflective practice. It is not a single act of reflection but an integrated, ongoing ability to think and act reflectively in real time. Reflexivity embodies the internalization of reflective habits that allow practitioners to monitor their responses, evaluate their assumptions, and adapt their behavior within dynamic care environments (Bass et al., 2017; 2021).

Through this lens, reflection is the process that leads to learning, while reflexivity is the capacity to sustain that learning across situations and relationships. Cultivating reflexivity enables midwives to maintain self-awareness, cultural humility, and ethical integrity even in settings that challenge their professional ideals. In this way, reflective practice becomes not just an educational exercise, but a core mechanism for preserving alignment with the humanistic and equity-oriented foundations of midwifery (Harvie et al., 2019; Bass et al., 2021).

Pedagogical Strategies

Research indicates that incorporating reflection into educational curricula through activities like journaling, faculty-led debriefing, and peer discussions, can enhance self-awareness, cultural sensitivity, and clinical reasoning (Embo et al., 2015; Crabtree, 2019). When reflective practices are scaffolded to move from basic description to more critical and transformative thinking, learners are better able to integrate their knowledge over time. Reflection builds the ability to think, empathize, and act with integrity within culturally diverse healthcare settings.

Structured models of reflection, such as the Bass Model of Holistic Reflection, provide educators with practical frameworks for implementing these principles in midwifery programs. The following section introduces the Bass Model, its theoretical foundations, and its application in developing reflexivity and cultural humility among student midwives.

The Bass Model of Holistic Reflection

The Bass Model of Holistic Reflection provides a structured, evidence-based approach for cultivating reflective capacity and professional growth in midwifery education. Developed by Bass and colleagues (2017, 2019, 2021) in collaboration with Australian midwifery educators, the model integrates Kolb's Experiential Learning Cycle, Mezirow's Transformative Learning Theory, and Schön's reflection-in- and on-action, into a cohesive framework aligned with the Midwifery Model of Care.

It was specifically designed to help learners connect midwifery's philosophical ideals to the complex realities of practice within diverse healthcare systems. At its core, the Bass Model promotes reflection as a scaffolded, developmental process that progresses from description to critical and transformative insight. It emphasizes that effective reflection must engage not only

the cognitive domain (thinking) but also the emotional (feeling) and relational (connecting) dimensions of learning. Through this holistic integration, the Bass Model fosters reflexivity, the capacity to sustain reflective awareness across clinical contexts, and helps students internalize professional values such as humility, accountability, and empathy. The Bass Model is operationalized through several key strategies as shown in Table 6:

Table 6

Operationalization Method and Description

Method	**Description**
Scaffolded Written Reflection	Structured journaling that evolves in complexity as learners advance, moving from narrative recounting toward analytical and integrative reflection.
Facilitated Reflection Circles	Small-group dialogue that promotes shared meaning-making, normalizes uncertainty, and strengthens professional identity through collective reflection.
Peer Mentorship and Dialogic Feedback	Opportunities for reciprocal learning that cultivate mutual accountability, active listening, and deeper emotional insight.
Faculty-Guided Debriefing	Instructor-led discussions that link reflective insights to theoretical concepts, ethical reasoning, and evidence-informed practice.

Together, these strategies create psychologically safe and relationally supportive environments in which midwifery students can process complex experiences, challenge assumptions, and refine their professional judgment. The Bass Model thus offers both a pedagogical process and a philosophical alignment, connecting the humanistic and equity-oriented values of midwifery with concrete educational methods that develop reflective and culturally humble practitioners.

This framework has been shown to enhance reflective writing, critical thinking, and clinical reasoning, as well as improve learners' ability to articulate ethical decision-making in culturally diverse care contexts (Bass et al., 2017; Sweet et al., 2018; Tickle et al., 2023). Within this study, the Bass Model serves as the foundation for structured reflection activities and informs the use of two assessment instruments, the Holistic Reflection Self-Assessment (HRSA) and the Modified Holistic Reflection Assessment Tool (MHRAT), which are reviewed in Section 2.6.

2. 3 Cultural Humility in Healthcare and Midwifery

Cultural humility has emerged as a core competency in healthcare education, particularly in relational disciplines such as midwifery, where the quality of the caregiver–client relationship is central to outcomes. Unlike cultural competence, which implies the acquisition of finite knowledge or mastery of other cultures, cultural humility is understood as a lifelong process of self-reflection, openness, and accountability for power differentials within care relationships (Tervalon & Murray-García, 1998; Foronda et al., 2016). It invites practitioners to remain curious, self-aware, and willing to be taught by those they serve.

Defining Attributes and Theoretical Development

Foronda et al. (2016) identified five defining attributes of cultural humility: openness,

self-awareness, egolessness, supportive interactions, and self-reflection/critique, positioning it as a relational and iterative process rather than a discrete outcome. Later, Foronda (2019) advanced a theory of cultural humility grounded in nursing epistemologies, describing the construct as a dynamic exchange between contextual awareness and relational engagement. This framework laid the foundation for quantitative measurement tools such as the Cultural Humility Scale (CHS) and its later adaptations, including the CHS-A used in the present study.

Reflection as the Developmental Mechanism

Cultural humility cannot exist apart from reflection; it depends on reflexive practice to transform insight into action. Reflection prompts practitioners to notice emotional responses and ethical tensions, while reflexivity extends this awareness by examining how one's positionality, biases, and social location shape interactions and decisions (Finlay, 2002; Bass et al., 2021). Within this study's framework, reflection represents the process and reflexivity the sustained capacity that results. When intentionally cultivated, these processes enable midwives to embody humility, not as sentiment, but as a lived ethic guiding everyday practice.

Application in Education and Practice

In professional education, cultural humility has shifted from a theoretical aspiration to a pedagogical priority. Recent literature emphasizes experiential, reflective, and dialogic learning as the most effective strategies for its development (Graham-Perel, 2024; Johanson et al., 2024; Mrayyan, 2025). Johanson et al. (2024) argue that learners require structured opportunities to engage in critical dialogue, self-accountability, and examination of systemic inequities, echoing the structured reflection activities embedded in the Bass Model. Similarly, Compton-McBride et al. (2024) highlight the educational value of productive discomfort, creating safe spaces where uncertainty and tension can be explored as catalysts for growth rather than avoided.

Mrayyan (2025) found that students perceive faculty humility and modeling of reflective practice as predictors of their own growth, reinforcing the importance of faculty-student congruence in reflective assessment. Such evidence supports the parallel use of learner- and faculty-evaluated tools (e.g., HRSA and MHRAT) to track reflective and cultural development over time.

Relevance to Midwifery Education

Within midwifery, cultural humility is both a professional competency and an ethical imperative. Midwifery's humanistic philosophy, centered on respect, partnership, and cultural safety, naturally aligns with humility's relational stance. Yet, as contemporary research reveals, inequities persist within clinical training environments, where students may experience bias, moral distress, or value dissonance (Loomis et al., 2024). Embedding structured reflection and reflexivity into midwifery curricula provides a pathway for addressing these challenges by equipping learners to recognize bias, navigate power dynamics, and sustain equitable relationships with clients and colleagues alike.

When reflection and cultural humility intersect, midwives cultivate the critical consciousness, resilience, and compassion necessary to uphold the Midwifery Model of Care in complex systems. In this way, cultural humility becomes not merely a desired attribute but a discipline of practice, one that is integral to the formation of reflective, ethical, and equity-minded midwives.

2.4 Burnout and the Theory–Practice Divide

Midwives are essential to improving maternal and newborn outcomes, yet the profession continues to experience high rates of burnout and attrition worldwide. Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment. It has

been documented across settings, with significant implications for provider well-being, patient safety, and workforce sustainability (Leiviska et al., 2025; Hosseini et al., 2025). In the United States, nearly 40 percent of midwives report burnout symptoms, with key predictors including inadequate leadership support, excessive workloads, limited autonomy, and the erosion of midwifery philosophy within biomedical systems (Thumm et al., 2021). Internationally, similar trends appear, demonstrating that higher moral-distress scores correlate with lower job satisfaction and an increased likelihood of leaving the profession (Svavarsdottir et al., 2023).

The COVID-19 pandemic intensified these challenges as midwives navigated rapidly changing protocols, moral injury, and heightened acuity (Panda et al., 2021). Burnout's impact extends beyond individual distress; it undermines continuity of care, increases implicit bias, and threatens the quality and safety of maternity care (Kuipers, 2022; Thumm et al., 2021). For a profession rooted in humanistic, relational values, the loss of reflective presence and empathy represents not only an occupational hazard but a philosophical crisis.

The Theory–Practice Divide

The theory–practice divide describes the dissonance between the humanistic ideals of midwifery education and the realities of practice within technocratic, efficiency-driven systems (Renfrew et al., 2014; UNFPA, WHO, & ICM, 2020). New graduates often encounter environments that prioritize institutional control over relational continuity, leaving little space for shared decision-making, advocacy, or reflection. This misalignment produces moral distress: the recognition of the right action paired with the inability to enact it and can accelerate burnout when midwives feel powerless to uphold their professional values (Svavarsdottir et al., 2023).

Clinical learning environments frequently mirror these systemic tensions. Students placed in medically dominated settings may have few opportunities to witness culturally safe or autonomy-affirming care and may internalize hierarchical patterns that conflict with midwifery philosophy. Without guided reflection and faculty modeling, these experiences risk normalizing moral compromise rather than cultivating the self-awareness and advocacy essential to transformative practice.

Reflection and Reflexivity as Protective Processes

Educational research increasingly positions structured reflection and reflexivity as protective mechanisms against burnout and professional disillusionment. Reflection allows learners to process emotional labor, integrate complex experiences, and reaffirm meaning in their work. Reflexivity extends this process by helping practitioners recognize how systemic conditions of power, culture, and policy, shape both their practice and their responses to it (Bass et al., 2021).

The Bass Model of Holistic Reflection provides a framework for embedding these skills within midwifery education. Its iterative, relational approach enables students to engage with moral tension rather than suppress it, supporting development of emotional intelligence, empathy, and ethical clarity. Over time, these capacities strengthen professional identity and sustain alignment with midwifery's core values of equity and respect. Reflection thus functions not only as a pedagogical tool but as a form of moral resilience, a means of maintaining integrity within imperfect systems (Kuipers, 2022).

Educational Strategies for Resilience and Retention

Global retention strategies emphasize improving organizational culture and autonomy, but at the educational level, preparing resilient midwives begins with cultivating reflective and relational competencies. Curricula that scaffold reflective writing, peer dialogue, and faculty-guided debriefing help normalize discussion of emotional strain and ethical ambiguity (Embo et al., 2015; Tickle et al., 2023). Integrating reflective practice throughout training equips students to navigate the inevitable theory–practice tensions of midwifery work, reducing risk for burnout and moral disengagement.

By linking reflection, reflexivity, and cultural humility, educators can prepare midwives who are not only clinically competent but also self-aware, compassionate, and adaptive; all qualities essential for sustaining the profession and advancing respectful, equitable maternity care.

2.5 Measuring Cultural Humility: The Cultural Humility Scale–Adapted (CHS-A)

Reliable, valid measurement of cultural humility is essential for advancing research in health-professions education. Although humility is inherently relational and context dependent, standardized tools make it possible to evaluate changes in learners' attitudes and behaviors over time and across learning environments. Quantitative measures complement qualitative insights by allowing systematic assessment of whether educational interventions, such as structured reflection, achieve their intended outcomes.

The Cultural Humility Scale (CHS), developed by Foronda et al. (2020), operationalizes the five defining attributes identified in their earlier concept analysis: openness, self-awareness, egolessness, supportive interactions, and self-reflection/critique (Foronda et al., 2016). Grounded in Foronda's (2019) theory of cultural humility, the CHS captures the attitudinal and behavioral

dimensions that underpin equitable, person-centered care. Psychometric testing with nursing populations demonstrated strong internal consistency ($\alpha = 0.88$) and construct validity through confirmatory factor analysis, establishing the instrument's reliability for educational research.

For this study, an adapted version, the Cultural Humility Scale–Adapted (CHS-A), was employed to assess midwifery students' self-reported humility within the context of a U.S. graduate midwifery program. The adaptation preserved theoretical alignment with Foronda's framework while refining item language to reflect midwifery philosophy and practice realities. Because it foregrounds self-reflection and critique, the CHS-A complements reflective-practice frameworks such as the Bass Model of Holistic Reflection, capturing the learner's orientation toward continual growth rather than static cultural knowledge.

Importantly, the CHS-A measures the presence of humility-related attitudes and behaviors but not the processes by which they develop. Understanding that process requires examining the reflective and reflexive mechanisms that translate experience into transformation. Transformation refers to how learners make meaning, confront bias, and integrate humility into their professional identity. These mechanisms are evaluated in conjunction with the reflective assessment tools described in Section 2.6.

2.6 Tools for Measuring Reflexivity: HRSA and MHRAT

Evaluating reflective capacity is essential for understanding how educational interventions influence professional development. Within this study, reflexivity, defined as the capacity for integrated awareness of self, others, and context, was assessed using two instruments derived from and conceptually aligned with the Bass Model of Holistic Reflection: The Holistic Reflection Self-Assessment (HRSA) and the Modified Holistic Reflection Assessment Tool

(MHRAT). Together, these measures capture both learners' self-perceived and externally observed growth in reflective ability, providing a multidimensional view of professional transformation.

Holistic Reflection Self-Assessment (HRSA)

The HRSA was developed following DeVellis's (2012) guidelines for scale construction and grounded in the theoretical and empirical foundations of the Bass Model (Bass et al., 2017). It assesses the cognitive, emotional, and social dimensions of reflection, representing the learner's internal processes of awareness, meaning making, and integration. Psychometric testing demonstrated high internal consistency (Cronbach's $\alpha = .91$) and excellent test–retest reliability ($r = .93$). Exploratory factor analysis identified three domains (self-awareness, integrative reflection, and transformative learning) that align with the Bass Model's stages of reflective development. Low correlations with social desirability and emotional intelligence indicate that the HRSA measures a distinct construct (Bass et al., 2021). Within educational contexts, the HRSA provides a means of quantifying internal reflective growth that often remains invisible in narrative assessment alone.

Modified Holistic Reflection Assessment Tool (MHRAT)

The MHRAT extends this evaluation by offering a faculty-based assessment of student reflection, allowing comparison between self-assessment and external evaluation (Tickle et al., 2019). Adapted from the original Holistic Reflection Assessment Tool, the MHRAT evaluates educational, professional, and philosophical dimensions of reflection, maintaining high internal consistency (Cronbach's $\alpha = .85$) and strong construct validity through correlations with established reflective-practice measures. Factor analysis supports its multidimensional structure,

reflecting the complexity of reflexivity as both an individual and relational phenomenon. By integrating professional judgment, the MHRAT bridges the subjective–objective divide in reflection assessment and strengthens triangulation of reflective growth.

Use in Midwifery Education

Both tools have been applied in midwifery and nursing education to assess longitudinal development of reflective capacity. Tickle et al. (2023) found that implementation of the Bass Model, measured through HRSA and HRAT, enhanced students' critical and transformative reflection, improving ethical decision-making, cultural safety, and professional resilience. These findings underscore the relevance of Bass-aligned instruments for evaluating reflection in programs that prioritize humanistic and equity-based care. In the current study, the combined use of HRSA and MHRAT allows for triangulation of self-perceived and faculty-observed growth, offering a more comprehensive understanding of how structured reflection fosters reflexivity and cultural humility over time.

Positioning Within the Broader Measurement Landscape

Several other validated tools assess reflective capacity, including the Self-Reflection and Insight Scale (Grant et al., 2002), the Reflection Questionnaire (Kember et al., 2000), and the Reflective Practice Questionnaire (Mann et al., 2009). However, these instruments were developed outside of midwifery and are less aligned with the relational, value-driven philosophy that defines the profession. By employing tools grounded in the Bass Model of Holistic Reflection, this study maintains conceptual coherence between its pedagogical framework and its measurement approach, contributing new evidence on the utility and transferability of Bass-based instruments within U.S. midwifery education.

2.7 Gaps in the Literature

Despite substantial scholarship on midwifery education, reflective practice, and cultural humility, significant gaps persist in understanding how these constructs interact to shape professional formation. Most existing research has been conducted in nursing or general healthcare education, where reflective practice is often conceptualized as a cognitive skill rather than a holistic, relational process rooted in the humanistic philosophy of midwifery (Bass et al., 2022; Murray-García & Tervalon, 2017). Consequently, the unique epistemology and values of midwifery remain underrepresented in empirical evaluations of reflection-based learning.

Lack of Empirical Application of the Bass Model in U.S. Midwifery

While the Bass Model of Holistic Reflection has been implemented and validated internationally, there is little evidence of its systematic application within U.S. midwifery programs. Research has yet to examine how structured reflection affects student development in reflexivity, cultural humility, or resilience within the U.S. context. This gap limits educators' ability to operationalize reflection as both a pedagogical process and a measurable outcome in midwifery curricula. The absence of longitudinal and mixed-methods research using theory-aligned tools such as the HRSA and HRAT further constrains understanding of how reflective development unfolds over time.

Disconnect Between Cultural Humility and Reflexivity Research

A second gap lies in the limited exploration of how cultural humility and reflexivity intersect. Although both are foundational to ethical and equitable midwifery practice, they are often studied as discrete constructs rather than as phases of a shared developmental process. In reality, reflection and reflexivity are the precursors to cultural humility by establishing the internal conditions necessary for humility to emerge.

Reflective practice invites learners to examine their assumptions, emotions, and values within care encounters. Reflexivity (reflective capacity) grows from this process. Through iterative processes, learners cultivate openness, self-awareness, and relational accountability. These are the core attributes of cultural humility. In this sense, one cannot authentically practice cultural humility without sustained reflective practice.

Although nursing and allied health studies demonstrate that reflective practice enhances empathy, identity formation, and culturally responsive care, few have examined the mechanisms through which reflection gives rise to humility or how these processes can be intentionally scaffolded through curriculum design. The lack of integrated research connecting reflexivity and humility limits the development of evidence-based pedagogies to support midwifery students' ethical and professional growth.

Table 7

Emerging Trends Highlighting Literature Gaps

Trend	**Details**
Overreliance on cultural-competence measures	Many studies continue to rely on tools assessing cultural competence rather than those designed for cultural humility, which is a lifelong, reflective process.
Limited longitudinal research	Few studies trace the development of cultural humility and reflexivity across multiple semesters, leaving questions about the sustainability and trajectory of growth.
Sparse linkage between reflection and clinical readiness	There is limited evidence connecting reflective practice directly to the ability to deliver culturally safe, individualized care.

Trend	Details
Underrepresentation of faculty perspectives	Few studies assess congruence between student self-assessment and faculty evaluation, despite evidence that educator modeling and feedback are critical to reflective development.
Lack of integrated measurement approaches	No published studies have employed a triangulated design using the CHS-A, HRSA, and MHRAT together to evaluate reflective and cultural growth in midwifery education.

(Tervalon & Murray-García, 1998; Whatley et al., 2023)

Addressing the Gaps: Study Contribution

This study directly responds to these identified gaps by:

- Implementing and evaluating the Bass Model of Holistic Reflection within a U.S. ACME-accredited midwifery program.
- Conducting quantitative longitudinal assessments across two semesters to measure changes in cultural humility and reflexivity using validated, theory-aligned tools (CHS-A, HRSA, and MHRAT).
- Triangulating student and faculty perspectives to examine alignment between self-perceived and observed reflective growth.
- Investigating the relationship between structured reflection and the development of cultural humility, reflexivity, and professional resilience over time.

This study directly links a structured reflective curriculum to measurable changes in cultural humility and reflexivity among graduate nurse-midwifery students. By pairing the Bass Model of Holistic Reflection with validated instruments (CHS-A, HRSA, and MHRAT) and tracking outcomes over two academic semesters, it evaluates not only whether students change, but how

that change occurs. In doing so, this research provides empirical evidence that structured reflection can function as a mechanism of professional transformation in U.S. midwifery education. The findings are intended to inform curriculum design by identifying concrete, replicable strategies for preparing midwives who can sustain humility, ethical integrity, and resilient practice in diverse and inequitable healthcare systems.

Chapter Two Summary

Chapter Two reviewed the philosophical foundations of midwifery, the role of reflective practice in professional formation, and the emergence of cultural humility as an ethical and relational imperative in care. We examined the pressures that threaten those commitments, burnout, moral distress, and the theory–practice divide; and argued that structured reflection and reflexivity are necessary protective processes for preserving midwifery values in technocratic systems. The Bass Model of Holistic Reflection was presented as a scaffolded, values-aligned educational framework designed to develop reflexivity, which in turn supports the emergence of cultural humility, professional resilience, and ethically grounded practice.

Chapter Two reviewed validated instruments for measuring these constructs, including the Cultural Humility Scale–Adapted (CHS-A), the Holistic Reflection Self-Assessment (HRSA), and the Modified Holistic Reflection Assessment Tool (MHRAT). Together, these tools provide a means of examining the relationship between reflexivity and cultural humility. However, despite their individual validation, critical gaps remain in the literature, particularly regarding the limited use of the Bass Model in U.S. midwifery programs; the lack of longitudinal evaluation of reflective capacity and cultural humility; and the absence of triangulated assessment across student and faculty perspectives.

By integrating an evidence-based reflective framework with validated measures of cultural humility and reflexivity, this study directly examines how structured reflection functions as a mechanism of professional transformation in midwifery education. Specifically, it evaluates whether the Bass Model of Holistic Reflection, implemented within a U.S. graduate midwifery program, fosters measurable growth in cultural humility and reflexivity over time. Through the combined use of the CHS-A, HRSA, and MHRAT, this research provides empirical evidence of both the process and outcomes of reflective learning. The findings aim to guide midwifery educators in designing curricula that prepare graduates to practice reflectively and with humility; equipping them with lifelong tools to sustain professional integrity, reduce burnout, and promote retention throughout their careers as practicing midwives.

Chapter Three builds directly on these identified gaps. It details the research design, setting, participants, procedures, instruments, and analytic plan used to evaluate whether a structured reflective curriculum grounded in the Bass Model of Holistic Reflection can foster reflexivity and cultural humility among graduate nurse-midwifery students over the course of two academic semesters.

Chapter Three: Methods

This chapter outlines the methodological framework for evaluating the Bass Model of Holistic Reflection within a U.S. graduate midwifery education program. The purpose of this study is to determine whether structured reflective practices, grounded in the Bass Model, can foster measurable growth in reflexivity and cultural humility among graduate nurse-midwifery students.

Building upon prior research conducted in Australian midwifery programs, this study adapts and applies the model in the U.S. context, where its use has not been empirically evaluated. The design reflects a quasi-experimental longitudinal approach, capturing change across two academic semesters to examine both within-student growth and congruence between student and faculty assessments of reflection.

By embedding structured reflection throughout academic and clinical components of the curriculum, this study aims to address persistent challenges in the profession including burnout, attrition, and value dissonance between midwifery philosophy and technocratic systems. The methodological approach reflects a dual purpose:

1. To evaluate the Bass Model as an educational intervention that promotes reflective and culturally humble practice, and
2. To generate empirical evidence to inform curriculum design that sustains professional identity, ethical integrity, and resilience among future midwives.

Purpose

The purpose of this study is to examine whether implementation of the Bass Model of Holistic Reflection within a U.S. midwifery program enhances students' reflective depth, self-awareness, and capacity for culturally humble care. This adaptation acknowledges the distinct

cultural and institutional contexts of U.S. midwifery education while maintaining theoretical fidelity to the model's humanistic foundations.

In this context, reflection is a transformative mechanism for professional formation. It supports midwives in translating philosophy into practice, cultivating resilience, and sustaining ethical, culturally responsive care. By operationalizing reflection as both a process and an outcome, this study contributes new evidence on how structured reflection can strengthen alignment between midwifery education and the relational, equity-oriented values that define the profession.

Background and Rationale

Contemporary midwifery education faces ongoing challenges related to burnout, attrition, and the misalignment between philosophical ideals and clinical realities (Harvie et al., 2019; Lombardero et al., 2023). While current models emphasize clinical competence and evidence-based care, they often underemphasize the reflective and relational dimensions that sustain professional identity and ethical integrity. These gaps not only affect student well-being but also influence workforce retention and the quality of care delivered to women and families.

Integrating structured reflection into midwifery curricula addresses these challenges by fostering a deeper understanding of the interdependence between reflective capacity (reflexivity) and cultural humility. Through guided engagement with experience, emotion, and context, students learn to recognize bias, navigate moral tension, and align their actions with midwifery philosophy. In doing so, reflection serves as both a pedagogical strategy and a professional safeguard, supporting resilience, self-awareness, and culturally responsive practice.

This study builds upon international evidence demonstrating the effectiveness of the Bass Model of Holistic Reflection as a structured approach to cultivating reflexivity. However, its

application within U.S. midwifery education remains unexplored. Adapting and evaluating the model in this context responds directly to gaps identified in the literature. Specifically, the absence of longitudinal, theory-aligned frameworks that measure both reflective growth and the development of cultural humility.

By embedding the Bass Model within an existing graduate midwifery curriculum, this research seeks to generate empirical data that link reflective processes to cultural humility outcomes, offering new insights into how reflection can function as a mechanism of professional transformation in diverse and complex healthcare systems.

Study Objective

The objective of this study is to evaluate whether the Bass Model of Holistic Reflection, implemented within a U.S.-based midwifery education program, promotes measurable growth in reflexivity and cultural humility among students over time. Specifically, the study aims to:

1. Assess changes in students' self-reported reflective capacity and cultural humility using the Holistic Reflection Self-Assessment (HRSA) and the Cultural Humility Scale–Adapted (CHS-A).
2. Compare student self-assessments with faculty evaluations using the Modified Holistic Reflection Assessment Tool (MHRAT) to examine congruence between internal and external measures of reflective growth.
3. Explore how structured reflection influences the integration of midwifery philosophy into practice, particularly in the context of culturally diverse and systemically inequitable clinical environments.

Addressing the Theory–Practice Gap

While midwifery education prioritizes clinical competence and patient safety, students frequently lack structured opportunities for critical reflection on their lived clinical experiences. This challenge becomes evident when learners encounter institutional practices that conflict with midwifery's humanistic model of care. Without guided reflection, students may experience cognitive dissonance or moral distress, struggling to reconcile their professional values with hierarchical or technocratic healthcare norms.

Intentional strategies such as guided reflection, peer dialogue, and faculty mentorship can help bridge this gap by enabling students to process dissonant experiences, articulate ethical reasoning, and develop reflexivity as a habitual professional stance. The Bass Model provides a structured pathway for this integration, scaffolding reflection from descriptive to critical and transformative levels. In doing so, it cultivates practitioners who are not only clinically skilled but also reflective, culturally humble, and resilient in upholding midwifery values within diverse systems of care.

Research Approach

To address these challenges, this study employs a longitudinal pretest-posttest design spanning two consecutive academic semesters (fall and spring, 16 weeks each) within an ACME-accredited midwifery program located in the southeastern United States. This educational intervention consists of reflection circles, scaffolded journaling, and peer mentorship activities, all integrated into the curriculum during the final year of the graduate program.

Evaluation Methods

Outcomes are assessed using three validated instruments:

1. Cultural Humility Scale-Adapted (CHS-A): Measures students' self-perceived cultural humility.

2. Holistic Reflection Self-Assessment (HRSA): Assesses students' self-reported reflective development.
3. Modified Holistic Reflection Assessment Tool (MHRAT): Used by faculty to evaluate students' reflective growth.

By comparing changes across these assessment tools and triangulating perspectives from both students and faculty, the study aims to produce empirical evidence regarding the impact of structured reflection on supporting values-based and culturally safe midwifery education.

Research Questions

Building on the conceptual and empirical gaps identified in the literature, this study investigates the impact of structured reflective practice, guided by the Bass Model of Holistic Reflection, on the development of reflexivity and cultural humility among graduate nurse-midwifery students. These questions are designed to evaluate both the internal and observable outcomes of reflective learning and to explore the congruence between student and faculty assessments of reflective capacity over time.

RQ1: *To what extent does implementation of the Bass Model of Holistic Reflection enhance reflexivity and cultural humility among graduate nurse-midwifery students over the course of two academic semesters?*

This question examines changes in these constructs as measured by the Holistic Reflection Self-Assessment (HRSA) and the Cultural Humility Scale–Adapted (CHS-A). Analyses will focus on identifying the direction, magnitude, and relationships of these changes over time, providing insight into how structured reflection influences professional formation within midwifery education.

RQ2: *How do faculty and student assessments of reflexivity align or diverge when evaluated using Bass Model–based tools—the Modified Holistic Reflection Assessment Tool (MHRAT) for faculty and the HRSA for students?*

This question explores the extent of congruence between self-perceived and externally observed reflective growth, as well as what these findings reveal about the reliability, validity, and pedagogical utility of these instruments within U.S. midwifery education.

Together, these research questions guide a longitudinal pretest–posttest design that triangulates quantitative data from students and faculty to assess growth in reflective capacity and cultural humility. Through this design, the study examines whether structured reflection can function as a mechanism of professional transformation, fostering alignment between midwifery philosophy, self-awareness, and culturally responsive care.

Visual Representation of Research Questions and Instruments

Figure 1 illustrates how the study's research questions align with constructs, instruments, and data sources. RQ1 examines changes in reflexivity and cultural humility, measured by the Holistic Reflection Self-Assessment (HRSA) and Cultural Humility Scale–Adapted (CHS-A). RQ2 explores congruence between student and faculty evaluations of reflexivity, comparing HRSA with the Modified Holistic Reflection Assessment Tool (MHRAT). This figure highlights the triangulated design used to capture both internal and observable dimensions of reflective growth.

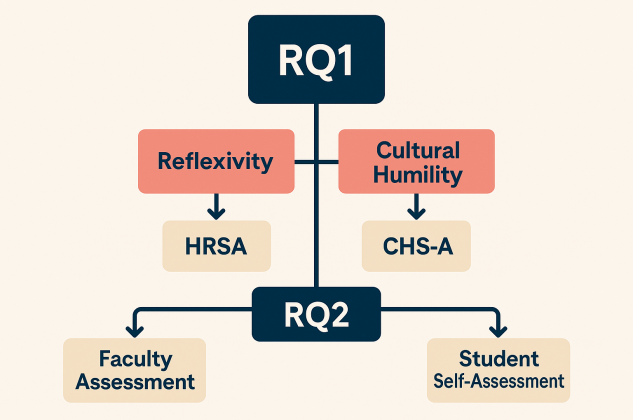


Figure 1

Mapping of research questions to constructs, instruments, and data sources. This figure illustrates the alignment between the study's research questions (RQ1 and RQ2), the constructs measured (reflexivity and cultural humility), the instruments used (HRSA, CHS-A, MHRAT), and the corresponding data sources (student self-assessment and faculty assessment).

Participants

The target population for this study consisted of graduate nurse-midwifery students enrolled in an ACME-accredited program at a university in the southeastern United States. This site was selected for its curricular alignment with the educational intervention and its emphasis on reflective practice and culturally responsive care.

A convenience sampling strategy was employed, including all eligible students who met the inclusion criteria within the designated program. Although this method constitutes non-probability sampling, it allowed for the evaluation of the Bass Model of Holistic Reflection within a real-world academic setting, yielding findings that may inform broader application across midwifery and health professions education.

Recruitment Procedures

Recruitment and data collection were conducted in accordance with Institutional Review Board (IRB) guidelines after the study was determined to be exempt under Category #1 (Educational Practices) by the East Carolina University UMCIRB (Study #24-001435, December 4, 2024). Documentation of this exemption is included in Appendix A.

All students enrolled in the final two semesters of the midwifery program were eligible to participate, as the Bass Model of Holistic Reflection had been embedded into required coursework during this period. Information about the study was shared through program announcements, a scheduled orientation session, and direct communication from the primary investigator, who also served as course faculty.

Students received a written overview describing the study's purpose, focus on reflective learning, and voluntary nature of participation. Confidentiality was maintained throughout, and participation had no influence on academic evaluation or program standing.

Inclusion and Exclusion Criteria

To ensure that participants could meaningfully engage with the reflective intervention, eligibility was limited to students in advanced stages of training.

Table 8

Inclusion and Exclusion Criteria for Study Participants

Criteria Type	Criteria Description
Inclusion	1. Enrolled in the intrapartum and postpartum–newborn clinical courses within the graduate midwifery curriculum. 2. Completing final clinical rotations at the time of the study, representing the culmination of the academic program where reflective

	and reflexive competencies are essential for professional formation and integration of cultural humility.
Exclusion	1. Prior exposure to the Bass Model of Holistic Reflection (none identified, N = 0). 2. Not in final clinical rotations, as limited experience could constrain depth of engagement with reflective processes.

Note. These criteria were established to identify students most capable of providing substantive data on the Bass Model's effectiveness in fostering reflexivity and cultural humility during the transition to professional practice.

Research Design

Our research employed a longitudinal, quasi-experimental design to evaluate the effectiveness of the Bass Model of Holistic Reflection in fostering cultural humility and reflexivity among graduate nurse-midwifery students in a U.S. educational context. Guided by the Bass Model, the research design emphasized reflection as both an intervention and a mechanism of professional transformation, assessing how structured reflective practices influence measurable changes over time.

The quasi-experimental approach was selected because it allows examination of developmental change within an authentic educational environment without disrupting established learning structures. Reflection, as conceptualized by the Bass Model, is iterative and relational; therefore, longitudinal measurement across two academic semesters provided the temporal depth necessary to capture progression through the model's phases.

Ethical Considerations and Design Rationale

The research design was developed in accordance with Institutional Review Board (IRB) guidelines and was determined to be exempt under Category #1 (Educational Practices) by the East Carolina University UMCIRB (Study #24-001435, December 4, 2024) (see Appendix A). The absence of a control group reflected both ethical and pedagogical considerations, withholding a beneficial reflective framework from a subset of students would have conflicted with principles of educational equity and professional preparation.

Instead, all eligible students participated in the intervention, ensuring that outcomes could be directly translated into curricular improvements and faculty development. This approach aligns with the humanistic and transformative paradigm underpinning the study, prioritizing learner growth, reflective engagement, and the cultivation of humility over experimental control.

By embedding structured reflection throughout the academic year, the design provided a real-world test of the Bass Model's feasibility and transferability to the U.S. midwifery context. The longitudinal structure allowed analysis of both individual and cohort-level changes, offering insight into how reflective and reflexive growth unfolds within the continuum of midwifery education.

Data Collection Procedures

Data collection was systematically structured to capture the development of reflexivity and cultural humility among midwifery students over two academic semesters. The Bass Model of Holistic Reflection served as the foundation for the educational intervention, framing both the reflective learning activities and the timing of assessments.

Assessments were distributed at multiple points throughout the academic year to monitor progress and identify changes in reflective capacity and humility over time. This longitudinal structure allowed for triangulation of self-reported and faculty-evaluated data, ensuring a comprehensive understanding of the reflective learning process.

Measurement Tools and Assessment Timeline

Data collection was organized to align directly with the Bass Model of Holistic Reflection, which emphasizes a developmental progression from descriptive to critical and transformative reflection. To evaluate this process, a combination of pretest, formative, and posttest assessments was administered at strategically selected points that corresponded with key stages in the midwifery curriculum.

Table 9

Study Timeline

Semester	Time Frame	Activity	Assessment Tool
Fall 2024	August	Pretest Surveys	HRSA, CHS-A, Demographic Survey
Fall 2024	September	1st Formative Assessment: Reflective Journal One	MHRAT
Fall 2024	October	2nd Formative Assessment: Virtual Student Reflection Circle (SRC)	MHRAT

Semester	Time Frame	Activity	Assessment Tool
Fall 2024	December	3rd Formative Assessment: Reflective Journal Two	MHRAT
Fall 2024	December (end)	Posttest Surveys	HRSA, CHS-A
Spring 2025	January	Pretest Surveys	HRSA, CHS-A
Spring 2025	February	4th Formative Assessment: Virtual SRC	MHRAT
Spring 2025	April	5th Formative Assessment: In-person SRC	MHRAT
Spring 2025	May (end)	Posttest Surveys	HRSA, CHS-A

Note. HRSA = Holistic Reflection Self-Assessment; CHS-A = Cultural Humility Scale–Adapted; MHRAT = Modified Holistic Reflection Assessment Tool.

Assessment Procedures and Data Collection

The sequencing of assessments followed the scaffolded design of the Bass Model, allowing students to first engage in structured individual reflection, then deepen reflexivity through dialogical and group reflection circles. This longitudinal design supported the study's aim of examining reflection as both a pedagogical process and a mechanism of professional transformation.

Pretest Assessments and Baseline Measurement

At the start of each semester (August 2024 and January 2025), students completed pretest surveys to establish baseline measures of reflexivity and cultural humility. These included the Holistic Reflection Self-Assessment (HRSA), the Cultural Humility Scale–Adapted (CHS-A), and a demographic questionnaire (administered in August only). Together, these instruments provided the foundation for evaluating changes over time in response to structured reflective learning activities.

Formative Assessments During the Fall Semester

Three formative assessments provided ongoing feedback and reinforced reflective skill development:

1. Reflective Journal One (Early Fall): Students examined experiences related to cultural humility, assessed via the MHRAT.
2. Virtual Reflection Circle (Mid-Fall): Conducted as a group dialogue and evaluated with the MHRAT to assess progress toward critical and transformative reflection.
3. Reflective Journal Two (Late Fall): Students analyzed a self-selected clinical experience, again evaluated with the MHRAT.

Formative Assessments During the Spring Semester

Two additional formative assessments extended the reflective sequence:

1. Virtual Reflection Circle (Early Mid Spring): Evaluated with the MHRAT to capture mid-year development.

2. In-Person Reflection Circle (Late Spring): Facilitated at semester's end to assess integration of humility, empathy, and professional identity formation.

Together, these activities established a scaffolded reflective arc mirroring the Bass Model's developmental trajectory from awareness and analysis to integration and transformation.

Posttest Surveys

At the end of each semester, students completed posttest surveys (HRSA and CHS-A) to measure changes in reflective capacity and cultural humility. These data served as the primary quantitative indicators of growth, complemented by qualitative insights from formative assessments.

Demographic Data Collection and Relevance

Demographic data were collected at study onset to contextualize participants' reflective and cultural humility development. The online, de-identified survey captured age, gender identity, race, ethnicity, geographic region, first-generation college status, and educational pathway.

Analyzing these data allowed exploration of how diverse lived experiences influenced reflective growth, addressing a documented gap concerning Black, Indigenous, and People of Color (BIPOC) midwifery students. Representation of diverse participants strengthened the inclusivity and relevance of findings, offering insight into how reflective practice supports culturally safe midwifery education.

Modifications to Pretest Instruments

Revisions to the pretest instruments enhanced efficiency, accuracy, and data security for evaluating the Bass Model intervention. Each instrument was migrated from a static format (paper or PDF) to a secure online survey platform, streamlining administration and centralizing data management.

This digital transition also reflected philosophical alignment with the Bass Model's emphasis on accessibility, engagement, and reflective transparency. Embedding assessments in a digital environment enabled students to complete surveys at their own pace while maintaining confidentiality under the oversight of the principal investigator.

Table 10

Modifications to Pretest Instruments

Instrument	**Original Format**	**Modified Format**	**Purpose**
Demographic Survey	Paper/PDF	Online Survey	Collect participant background information
Holistic Reflection Self-Assessment (HRSA)	Paper/PDF	Online Survey	Measure self-assessed levels of reflexivity
Cultural Humility Scale–Adapted (CHS-A)	Paper/PDF	Online Survey	Measure self-assessed levels of cultural humility

Note. This table summarizes the transition of pretest instruments from paper-based to online formats for improved accessibility and data management.

Transitioning to a digital format created a more reliable foundation for evaluating change in reflexivity and cultural humility over time while reducing logistical barriers and promoting data accuracy.

Modifying the Holistic Reflection Assessment Tool (HRAT) for U.S. Midwifery Education

The Holistic Reflection Assessment Tool (HRAT), developed by Bass, serves as a faculty counterpart to the HRSA and provides a structured framework for evaluating students' reflective development across cognitive, emotional, and relational domains (Tickle et al., 2019). To align with the needs of U.S. midwifery education and the study's digital delivery format, the HRAT underwent substantial modification. The original five-page paper version, though comprehensive, presented challenges in accessibility, consistency, and data management.

Table 11

Comparison of Original HRAT and Modified MHRAT Features

Feature	Original HRAT	Modified MHRAT
Format	Paper-based, manual scoring	Digital rubric embedded in Canvas
Evaluation Method	Narrative, qualitative	Quantitative scoring of qualitative reflection
Developmental Continuum	Nonreflective → Critical-emancipatory	Retained, with expanded descriptors

Feature	Original HRAT	Modified MHRAT
Alignment with Midwifery Domains	General reflection	Includes cultural safety, evidence-informed practice, critical thinking
User	Faculty only	Faculty and student (dual use)
Integration	Standalone assessment	Embedded in coursework and Student Reflection Circles (SRCs)

Note. HRAT = Holistic Reflection Assessment Tool; MHRAT = Modified Holistic Reflection Assessment Tool.

The dual use of the MHRAT by both faculty and students enhanced transparency, engagement, and reflective depth throughout the study. Faculty employed the rubric to evaluate reflective journals and Student Reflection Circles (SRCs), while students used it as a self-assessment guide. This reciprocal structure fostered metacognitive awareness and supported the Bass Model's emphasis on iterative, dialogic learning.

Copies of both the original HRAT and the MHRAT are included in Appendix B for reference.

Data Management

All data collected during the study were securely stored in a password-protected online database accessible only to the research team. Participant confidentiality was rigorously maintained, and all data were de-identified prior to analysis to protect privacy. The study adhered to East Carolina University Institutional Review Board (IRB) standards, with exemption granted under Category #1 (Educational Practices; Study #24-001435). To mitigate potential conflicts of interest, a clear separation was maintained between the researcher's instructional and

investigative roles. These measures ensured ethical integrity, data security, and compliance with institutional guidelines for human-subjects research.

Data Analysis

Quantitative analyses were conducted to evaluate pre–post change in cultural humility (CHS-A) and reflexivity (HRSA). Because each instrument was administered at two time points per academic term, paired-samples *t* tests were used to assess within-subject change. Cronbach's alpha (α) was calculated to assess internal consistency at each time point. Faculty-rated reflective growth across five formative activities (MHRAT) was analyzed using a Friedman test for related samples. Planned repeated-measures ANOVA was not feasible due to sample size and incomplete respondent continuity across semesters; the paired-*t* framework provides an equivalent approach for two-level data. Associations among instruments were explored using Pearson correlations (e.g., MHRAT means with HRSA and CHS-A posttest scores).

Analysis for Research Question 1 (RQ1)

RQ1: *To what extent does the Bass Model of Holistic Reflection enhance reflexivity and cultural humility among graduate nurse-midwifery students over two academic semesters?*

Descriptive Statistics

Baseline and post-intervention levels of reflexivity and cultural humility were summarized using descriptive statistics, including mean, median, standard deviation, and range. These measures provided an overview of central tendencies and variability across time points for

both the Holistic Reflection Self-Assessment (HRSA) and the Cultural Humility Scale–Adapted (CHS-A).

Paired-Sample t Tests

Paired-sample *t* tests were conducted to compare HRSA and CHS-A pretest and posttest scores. Outputs included mean difference, *t* value, *p* value, and effect size (Cohen's *d*). Effect sizes were interpreted using Cohen's (1988) guidelines: small (0.2), medium (0.5), and large (0.8).

Longitudinal Analysis

Given the study's two-semester duration, longitudinal analysis was performed using paired-sample *t* tests for pre–post comparisons and a Friedman test for repeated reflective measures assessed via the Modified Holistic Reflection Assessment Tool (MHRAT). This approach enabled examination of developmental trajectories and provided a multidimensional view of growth in reflective capacity and cultural humility over time.

Correlation Analyses

Pearson correlation coefficients were calculated to explore relationships between reflexivity and cultural humility, as measured by HRSA and CHS-A scores at both pretest and posttest time points.

Table 12

Summary of Statistical Tests for Research Question 1

Statistical Test	Purpose	Measures	Output
Descriptive Statistics	Summarize baseline and post-intervention levels	HRSA, CHS-A	Mean, median, SD, range
Paired *t* Tests	Determine significant mean difference	HRSA, CHS-A	*t* value, *p* value, Cohen's *d*
Effect Size	Quantify intervention impact	HRSA, CHS-A	Small (.2), medium (.5), large (.8)
Longitudinal Analysis	Evaluate reflective and humility changes across semesters	MHRAT	*F* values, *p* values, interaction effects
Correlation Analysis	Examine relationships between constructs	HRSA, CHS-A	*r* values, significance levels

Analysis for Research Question 2 (RQ2)

RQ2: *How do faculty and student assessments of reflexivity align or diverge when evaluated using the Bass Model tools—the Modified Holistic Reflection Assessment Tool (MHRAT) for faculty and the HRSA for students?*

Descriptive Statistics

Means, medians, standard deviations, and ranges were computed for both faculty-rated (MHRAT) and student self-assessed (HRSA) measures.

Comparison of Assessments

Paired-sample *t* tests compared MHRAT and HRSA scores to determine whether significant differences existed between faculty and student evaluations. Outputs included mean difference, *t* value, *p* value, and Cohen's *d*.

Rater Reliability

Only one faculty member (the principal investigator) completed MHRAT scoring; therefore, inter-rater reliability was not estimable. Internal consistency was assessed using Cronbach's alpha (α); the single-rater limitation is acknowledged.

Correlation Analysis

Pearson correlation coefficients were calculated to explore relationships between MHRAT and HRSA scores.

Table 13

Summary of Statistical Tests for Research Question 2

Statistical Test	Purpose	Measures	Output
Descriptive Statistics	Summarize faculty and student assessments	HRSA, MHRAT	Mean, median, SD, range
Paired-Sample *t* Tests	Compare faculty and student assessments	HRSA, MHRAT	*t* value, *p* value, Cohen's *d*

Statistical Test	Purpose	Measures	Output
Correlation Analysis	Examine alignment between instruments	HRSA, MHRAT	*r* values, significance levels

Instrument Validity and Reliability

Validity refers to the degree to which an instrument measures what it is intended to measure, while reliability concerns the consistency of that measurement. Ensuring both was central to this study.

Table 14

Instrument Validity and Reliability

Aspect	Description
Content Validity	Established through literature review and expert consultation to ensure comprehensive representation of constructs.
Construct Validity	Assessed through theoretical alignment and observed correlations among instruments (e.g., higher HRSA scores corresponding with faculty-evaluated reflexivity).
Internal Consistency	Evaluated using Cronbach's alpha (α); coefficients ≥ .70 were considered acceptable.
Test–Retest Reliability	Considered during study design but not feasible due to academic-schedule constraints; this limitation is acknowledged.

Internal Validity

Internal validity reflects the degree to which observed outcomes accurately represent the effects of the intervention.

Table 15

Internal Validity Measures

Aspect	**Details**
Recruitment and Sampling	Limited pool of graduate midwifery students (N = 16), challenges with representativeness and generalizability, comparative analysis with four international cohort studies, typical sizes of 8–50 students, cohort aligns with global norms for small professional programs
Data Collection	Multiple formative and summative assessments, conducted across two semesters, enhance rigor, control for external variables, standardized administration, consistent tools, reduced bias, strengthened reliability
Data Management	Participant data collected and stored via university-sponsored online platforms, ensured security and standardization, data anonymized, encrypted, protected from

	unauthorized access, in accordance with institutional policy

These combined strategies enhanced internal validity and the trustworthiness of findings despite small-sample constraints.

Ethical Considerations

Given the involvement of student participants, ethical safeguards were prioritized throughout the study.

Table 16

Ethical Considerations

Aspect	Description
Fair Treatment and Equity	Procedures were regularly reviewed to ensure equitable participation and absence of bias in recruitment and data handling.
Conflict of Interest	No conflicts of interest were identified. The researcher maintained clear separation between instructional and research roles.
Respect for Cultural Sensitivities	Cultural norms, beliefs, and values were honored in all interactions, ensuring participant comfort and respect.

Adherence to these principles upheld the ethical standards of midwifery education and human-subjects research.

Limitations

Several limitations are acknowledged. The small, single-site sample limits generalizability beyond the study context. The quasi-experimental design, while ethically appropriate, lacks a control group, limiting causal inference. Self-report measures (HRSA and CHS-A) may introduce response or social-desirability bias. The longitudinal design posed challenges related to participant attrition and external influences between data points. Despite these limitations, the use of validated instruments, standardized procedures, and triangulated evaluation (MHRAT, HRSA, CHS-A) enhances the credibility and interpretive value of findings.

Conclusion

Chapter Three presented a comprehensive methodological framework for evaluating the Bass Model of Holistic Reflection within a U.S. graduate midwifery education context. Through a longitudinal, quasi-experimental design, this study integrated structured reflection, validated assessment tools, and robust ethical safeguards to examine the development of reflexivity and cultural humility.

The methodology contributes to the growing body of evidence supporting reflection as a mechanism for professional transformation. By embedding reflective practice into midwifery curricula, this study aimed to prepare midwives who are not only clinically competent but also reflective, culturally humble, and resilient practitioners. In doing so, it advances the broader goal of fostering equity, integrity, and sustainability within midwifery education and practice.

The following chapter presents the results of these analyses, offering both quantitative outcomes and interpretive insights regarding the Bass Model's impact on student development.

Chapter Four

Results

This chapter details the findings from quantitative analyses conducted to evaluate the effects of the Bass Model of Holistic Reflection on the development of reflexivity and cultural humility among graduate nurse-midwifery students. The research utilized a quasi-experimental, single-group pretest–posttest design.

Data were collected at four primary intervals: before the intervention in August 2024, at the end of that semester in December 2024, at the beginning of the Spring 2025 semester in January, and at the conclusion of the intervention in May 2025. Additional data were gathered from five reflection activities that occurred throughout the Fall 2024 and Spring 2025 semesters.

Table 17

Study Instruments

Assessment Tool	**Description**	**Purpose**
Cultural Humility Scale–Adapted (CHS-A)	8-item Likert scale	Measure students' openness to and engagement with principles of cultural humility
Holistic Reflection Self-Assessment (HRSA)	Self-evaluation tool	Students assess their own reflexivity and personal growth
Modified Holistic Reflection Assessment Tool (MHRAT)	Rubric used by faculty	Score students' reflective writings and participation in reflective circles

This chapter addresses two central research questions:

RQ1: To what extent does the Bass Model of Holistic Reflection enhance reflexivity and cultural humility among graduate nurse-midwifery students over two semesters, as measured by the HRSA and CHS-A? How do these changes develop over time, and what patterns or relationships are observed between the intervention and shifts in these scores?

RQ2: How do faculty and student assessments of reflexivity compare when using the Bass Model tools, the MHRAT (faculty) and HRSA (student), and what insights do these comparisons provide regarding the reliability and utility of these assessment instruments within the US context?

Participant Demographics

This section details the demographic characteristics of the 16 graduate nursing students who participated in the study. All participants were enrolled in the Master of Science in Nurse-Midwifery program and identified as female, representing 100% of the study sample. All sixteen participants completed both semesters of the study, providing a consistent longitudinal dataset. These demographic data provide important context for interpreting changes in reflexivity and cultural humility observed in subsequent analyses.

Age Distribution

The participants' ages were distributed primarily across two ranges: 25–34 years and 35–44 years. Each group included seven students, accounting for 43.75% of the sample per group. Additionally, two students (12.5%) were in the 45–54 age range.

Racial and Ethnic Backgrounds

In terms of racial and ethnic identification, many participants were White/Caucasian, comprising 68.75% (n = 11) of the cohort. African American/Black students made up the remaining 31.25% (n = 5).

Employment Status

Employment status among the students varied. Half of the participants (50%, n = 8) reported working full-time, while 18.75% (n = 3) were employed part-time, and 25% (n = 4) worked per diem.

Nursing Experience

Student nursing experience ranged from four years to more than ten years. Seven students (43.75%) had between four and six years of experience, six students (37.5%) reported seven to ten years, and three students (18.75%) had more than ten years of nursing experience.

Practice Settings

Most participants practiced in hospital settings, representing 87.5% (n = 14). The remaining students practiced in a birth center (n = 1) or an academic institution (n = 1).

Prior Exposure to Reflective Practices

Most students reported minimal (62.5%, n = 10) or moderate (18.75%, n = 3) exposure to reflective practices before joining the study. Three students indicated no prior exposure to such practices.

Previous Cultural Humility Training

When asked about prior training in cultural humility, 75% (n = 12) of the participants reported moderate exposure, while 25% (n = 4) indicated minimal exposure. None of the students had received extensive training in cultural humility.

Experience with Student Reflection Circles

None of the participants had prior experience with student reflection circles before the study.

Comfort with Reflective Practices in Professional Work

Regarding their comfort level with implementing reflective practices in their professional roles, most students described themselves as somewhat comfortable (56.25%, n = 9). Four students (25%) felt comfortable, two (12.5%) were not comfortable, and one student (6.25%) expressed feeling very comfortable.

Comfort Applying Cultural Humility to Patient Care

When asked about their comfort in applying cultural humility to patient care, more than half (56.25%, n = 9) reported feeling comfortable, five students (31.25%) felt very comfortable, and two students (12.5%) described themselves as somewhat comfortable.

Table 18

Participant Demographic Table (n=16)

Characteristic	Category	n	%
Gender	Female	16	100%
Age	25–34 years	7	43.75%

Age	35–44 years	7	43.75%
Age	45–54 years	2	12.5%
Racial/Ethnic Background	White/Caucasian	11	68.75%
Racial/Ethnic Background	African American/Black	5	31.25%
Employment Status	Full-time	8	50%
Employment Status	Part-time	3	18.75%

Nursing Experience	**4-6 years**	**7**	**43.75%**
Nursing Experience	7-10 years	6	37.5%
Nursing Experience	More than 10 years	3	18.75%
Practice Settings	Hospital	14	87.5%
Practice Settings	Birth center	1	
Practice Settings	Academic institution	1	
Prior Exposure to Reflective Practices	Minimal	10	62.5%
Prior Exposure to Reflective Practices	Moderate	3	18.75%
Prior Exposure to Reflective Practices	None	3	
Previous Cultural Humility Training	Moderate	12	75%

Previous Cultural Humility Training	Minimal	4	25%
Previous Cultural Humility Training	Extensive	0	
Experience with Student Reflection Circles	Prior experience	0	
Comfort with Reflective Practices in Professional Work	Somewhat comfortable	9	56.25%
Comfort with Reflective Practices in Professional Work	Comfortable	4	25%
Comfort with Reflective Practices in Professional Work	Not comfortable	2	12.5%
Comfort with Reflective Practices in Professional Work	Very comfortable	1	6.25%
Comfort Applying Cultural Humility to Patient Care	Comfortable	9	56.25%

Comfort Applying Cultural Humility to Patient Care	Very comfortable	5	31.25%
Comfort Applying Cultural Humility to Patient Care	Somewhat comfortable	2	12.5%
Gender	Female	16	100%
Age	25–34 years	7	43.75%
Age	35–44 years	7	43.75%
Age	45–54 years	2	12.5%
Racial/Ethnic Background	White/Caucasian	11	68.75%
Racial/Ethnic Background	African American/Black	5	31.25%
Employment Status	Full-time	8	50%
Employment Status	Part-time	3	18.75%

Instrument Reliability

Reliability analyses were conducted to assess the internal consistency of the two student self-report instruments used in the study: The Cultural Humility Scale–Adapted (CHS-A) and the Holistic Reflection Self-Assessment (HRSA). Overall, these analyses indicate that the study instruments demonstrated adequate reliability for evaluating changes in reflexivity and cultural humility across time.

Cultural Humility Scale–Adapted (CHS-A)

The CHS-A is an 8-item instrument measured on a 5-point Likert scale. Internal consistency was high at the pretest stage (Cronbach's $\alpha = .93$), indicating strong internal reliability among items measuring attitudes and openness toward cultural humility. However, at the posttest, the reliability decreased substantially ($\alpha = .51$), falling below the generally acceptable threshold of .70. Item-level diagnostics suggested that several items had low item-total correlations, and removing certain items (e.g., Item 4) modestly improved reliability but did not restore it to pretest levels. This drop in reliability may be partially attributed to a ceiling effect, as many students scored at the higher end of the scale at posttest, which reduced the variability needed for reliable estimates.

Holistic Reflection Self-Assessment (HRSA)

The Holistic Reflection Self-Assessment (HRSA) was used to measure the integration of reflexivity and cultural humility within professional contexts through multiple assessment items. Reliability analyses indicated that the HRSA demonstrated strong internal consistency at both the pretest and posttest stages. Specifically, the instrument achieved a Cronbach's alpha of .90 at pretest and .93 at posttest. These results suggest that students provided consistent responses across all HRSA items, confirming that the instrument maintained reliable measurement properties throughout the duration of the study.

Modified Holistic Reflection Assessment Tool (MHRAT)

The Modified Holistic Reflection Assessment Tool (MHRAT) was utilized as a faculty-rated rubric to evaluate students' reflective writing and their participation in reflection circles.

Unlike self-report instruments, the MHRAT does not rely on student responses and therefore internal consistency coefficients, such as Cronbach's alpha, were not applicable for this measure. Throughout the study, the MHRAT demonstrated stable scoring trends across different timepoints. This consistency was evident in the assessment of key reflection components, which included Self-Awareness, Integration, and Transformation. The reliable scoring patterns across these domains support the face and content validity of the MHRAT within the context of this evaluation.

RQ1: Cultural Humility Over Time

To address Research Question 1 (*To what extent does the Bass Model of Holistic Reflection enhance reflexivity and cultural humility over time?*), students' cultural humility and reflexivity scores were assessed at two timepoints: pretest (January 2025) and posttest (April 2025). Analyses focused on the Cultural Humility Scale–Adapted (CHS-A) and the Holistic Reflection Self-Assessment (HRSA) as primary indicators.

CHS-A Pre- and Posttest Results

Descriptive Statistics and Analysis

Descriptive analyses of the Cultural Humility Scale–Adapted (CHS-A) demonstrated an increase in mean scores from the pretest to the posttest. At the pretest stage, the mean score was 4.73 (SD = 0.35), which rose to 4.89 (SD = 0.20) at posttest. To determine whether this change was statistically significant, a paired samples t-test was conducted. The test results indicated that the difference was not statistically significant; t (15) = 1.45, p = .172, and Cohen's d = 0.37. This effect size reflects a small-to-moderate change.

Table 19

CHS-A Descriptive Statistics

Timepoint	Mean	SD	N
Pretest	4.73	0.35	16
Posttest	4.89	0.20	16

Semester-Based Comparisons

A comparison of CHS-A scores across semesters revealed similar patterns. In 2024, mean scores increased from 37.87 at pretest to 39.13 at posttest (out of a maximum possible score of 40). The paired samples t-test showed t (14) = 1.44, p = .172, and Cohen's d = 0.37. Internal consistency, as measured by Cronbach's alpha, was high at pretest (α = .93) but dropped substantially at posttest (α = .51). This decline in reliability aligns with the presence of ceiling effects and restricted variance, as most students scored near the upper limit following the intervention.

In 2025, CHS-A scores showed a small, non-significant decrease from a mean of 39.31 at pretest to 38.59 at posttest, with t (12) = −1.51, p = .157, and Cohen's d = −0.42. Reliability remained relatively high, with α = .83 at pretest and α = .77 at posttest.

Table 20

CHS-A changes between semesters

Semester	n	Pre M (SD)	Post M (SD)	t(df)	p	Cohen's d	α Pre	α Post
2024	15	37.87 (—)	39.13 (—)	1.44(14)	.172	0.37	.93	.51

2025	13	39.31 (—)	38.59 (—)	-1.51(12)	.157	-0.42	.83	.77
Year	CHS-A Pre-Mean	CHS-A Post Mean	t(df)	p	d	Internal Consistency Pre (α)	Internal Consistency Post (α)	Notes
2024	37.87	39.13	1.44 (14)	.172	0.37	.93	.51	Lower post-alpha consistent with ceiling effects and restricted variance
2025	39.31	38.59	−1.51 (12)	.157	−0.42	.83	.77	

Interpretation of Findings

Although the observed increase in CHS-A scores from pretest to posttest was not statistically significant, the positive direction and the small-to-moderate effect size may indicate a meaningful trend in educational or practical contexts. However, these results must be interpreted with caution due to the ceiling effect observed at posttest. Many students rated

themselves at or near the maximum score for CHS-A items, which restricted variability and contributed to reduced reliability of the measure.

HRSA Pre- and Posttest Results

Descriptive Statistics and Analysis

The Holistic Reflection Self-Assessment (HRSA) was administered to students at both the beginning (pretest) and end (posttest) of the intervention, revealing consistently high scores throughout. When scores were averaged across semesters, there was a slight increase from the pretest (M = 4.80, SD = 0.35) to the posttest (M = 4.84, SD = 0.32), indicating overall stability and modest improvement in self-assessed reflexivity.

Semester-Based Comparisons

A closer examination of HRSA scores by academic semester provided further insight into changes over time. For the 2024 semester, mean scores rose from 147.27 at pretest to 166.20 at posttest. Statistical analysis using a paired samples t-test revealed a significant difference (t (14) = 2.25, p = .041, d = 0.58), suggesting meaningful growth in reflexivity for this group following their initial exposure to the Bass Model. Internal consistency was strong at both timepoints, with Cronbach's alpha values of .92 before the intervention and .95 after.

For the 2025 semester, mean scores increased from 165.46 to 179.23. Although this gain did not reach statistical significance (t (12) = 1.75, p = .105, d = 0.49), the effect size indicated a moderate improvement. Reliability of the measure remained consistently high, with alpha values of .91 at pretest and .93 at posttest.

Table 21

HRSA changes between semesters

Semester	n	Pre M	Post M	t(df)	p	Cohen's d	α Pre	α Post
2024	15	147.27	166.20	2.25(14)	.041*	0.58	.92	.95
2025	13	165.46	179.23	1.75(12)	.105	0.49	.91	.93

*Note. HRSA = Holistic Reflection Self-Assessment. Scale range depends on total items. *p < .05.*

Interpretation of Findings

These findings suggest that students entered the program exhibiting a high level of self-reported reflexivity and cultural humility, with many maintaining or enhancing these capacities over time. The 2024 semester demonstrated a statistically significant improvement, whereas the 2025 semester showed a moderate, though not statistically significant, increase. This is potentially influenced by sample size and ceiling effects. In both years, the strong internal consistency of the HRSA underscores its reliability as an assessment of self-reported reflexivity.

RQ2: Reflective Growth Over Time

Research Question Two explored how students' reflective capacity evolved across five structured reflection activities using the Modified Holistic Reflection Assessment Tool (MHRAT). To evaluate students' reflective growth over time, five distinct assessment points were established throughout the Fall 2024 and Spring 2025 semesters. At each timepoint, students participated in either a written reflection journal or a live reflection circle. Each activity was evaluated by faculty using the Modified Holistic Reflection Assessment Tool (MHRAT), which captures six essential dimensions of reflective practice: Self-Awareness, Remembering, Integration–Reflection, Integration–Knowing, Transformative Integration, and Transformative Transformation. The table below outlines each assessment timepoint, providing a brief

description, the corresponding date, and the mean MHRAT score achieved by students at that stage.

Table 22

The Five Timepoints & MHRAT Score Trajectory

Timepoint Code	Description	Date	Mean MHRAT Score
RJ_932024	Initial Reflection Journal	Sept 3, 2024	90.13
SRC_112524	Virtual Reflection Circle	Nov 25, 2024	93.33
FRJ_121224	Final Written Reflection	Dec 12, 2024	96.07
SRC_3325	Virtual Reflection Circle	Mar 3, 2025	97.87
SRC_42225	In-Person Final Reflection Circle	Apr 22, 2025	99.33

Progression of Reflective Development: MHRAT Score Analysis

To assess changes in students' reflective development over the course of the intervention, a Friedman test was performed on the median scores from the Modified Holistic Reflection Assessment Tool (MHRAT) at five distinct timepoints. This nonparametric statistical analysis

allowed for the evaluation of repeated measures, capturing the dynamics of students' reflective engagement throughout the study period.

Key Findings

The results indicated a statistically significant increase in reflection scores, with χ^2 (4) = 16.81, p = .002. This outcome provides robust support for the hypothesis that students experienced progressive growth in the depth and quality of their reflections as the intervention advanced. The systematic use of the Bass Model of Holistic Reflection played a crucial role in structuring and guiding students' reflective practices, facilitating meaningful engagement and development over time.

Table 23

Friedman Test for MHRAT Scores Across Five Reflection Activities

Timepoint	Mean	Median	χ^2(df)	p
RJ1 (Sep 2024)	85.0	—		
SRC1 (Nov 2024)	100	—		
RJ2 (Dec 2024)	96.0	—	16.81(4)	.002**
SRC2 (Mar 2025)	97.9	—		
SRC3 (Apr 2025)	99.3	—		

Note. *MHRAT = Modified Holistic Reflection Assessment Tool. **p < .01.*

Trends in Reflective Growth

The data revealed a consistent upward trend in MHRAT scores across all measured timepoints, underscoring the effectiveness of the intervention in nurturing students' reflexivity. Notably, the most substantial improvements in reflective depth occurred between the initial

journaling exercise and the final reflection circle, illustrating the cumulative impact of ongoing, structured reflection activities on students' abilities.

Table 24

Descriptive Statistics for MHRAT Scores

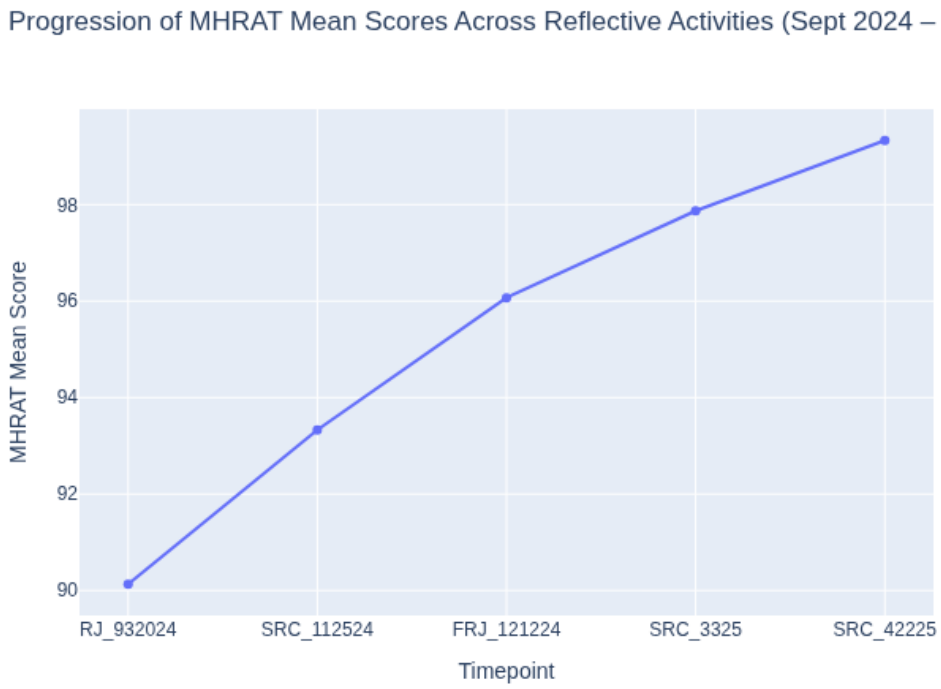
Timepoint	Mean Score
RJ_932024	90.13
SRC_112524	93.33
FRJ_121224	96.07
SRC_3325	97.87
SRC_42225	99.33

Visual Representation

Figure 2 displays a line chart illustrating the progression of mean MHRAT scores across five reflective activities, spanning from September 2024 to April 2025. The chart visually reinforces the observed upward trajectory, highlighting the intervention's sustained and cumulative influence on student reflection.

Figure 2

Progression of MHRAT mean scores across five reflective activities (Sept 2024 – Apr 2025).



Note. This figure illustrates the upward trajectory in reflective depth, as measured by the Modified Holistic Reflection Assessment Tool (MHRAT), across five structured reflection activities during the academic year.

This section examined the evolution of students' reflective capacity over time using the Modified Holistic Reflection Assessment Tool (MHRAT) across five structured reflection activities during the 2024–2025 academic year. Faculty assessments revealed a consistent, statistically significant increase in reflective depth, as evidenced by rising mean MHRAT scores from the initial journal entry to the final reflection circle. The Bass Model of Holistic Reflection contributed to this progressive development, with students demonstrating enhanced self-awareness and integrative thinking at each timepoint. The upward trend in scores, supported by the Friedman test results, confirms the intervention's effectiveness in fostering deeper, more meaningful reflection.

Correlational Analyses

To examine the relationships among the three assessment instruments utilized in this study, Pearson correlation analyses were performed separately for the pretest and posttest timepoints. These analyses were exploratory in nature and aimed to uncover patterns in how students' self-assessments, as captured by the CHS-A and HRSA, compare to faculty assessments, as measured by the MHRAT, at different stages of the intervention.

Pretest Correlations

Table 25

Pretest correlation matrix

Variable	CHS-A Pre	HRSA Pre
CHS-A Pre	1.00	0.19
HRSA Pre	0.19	1.00
MHRAT Mean	0.04	0.23

At the pretest stage, none of the correlations reached statistical significance. There was a small positive relationship observed between CHS-A and HRSA scores (r = .19), but this association was weak.

Posttest Correlations

Table 26

Posttest correlation matrix

Variable	CHS-A Post	HRSA Post

CHS-A Post	1.00	-0.10
HRSA Post	-0.10	1.00
MHRAT Mean	-0.11	-0.38

In the posttest analysis, the correlations among the instruments remained statistically non-significant. Notably, the relationships between the MHRAT mean and both self-assessment instruments (CHS-A and HRSA) showed small negative trends.

Pearson Correlations (Posttest)

Table 27

Pearson correlations

Variable Pair	r	p
MHRAT – HRSA	-0.40	.173
MHRAT – CHS-A	0.36	.229

Correlations between faculty ratings and student self-reports at posttest were MHRAT–HRSA r = –.40, p = .17, and MHRAT–CHS-A r = .36, p = .23, suggesting distinct perspectives captured by each measure. Additionally, correlations were examined between HRSA and CHS-A scores at pre- and post-intervention. These relationships were small and nonsignificant, suggesting the instruments capture related but distinct dimensions of reflexivity and cultural humility.

Additional Comparison: Student vs. Faculty Ratings

To further investigate the relationship between students' self-perceptions of reflexivity and faculty assessments, an additional analysis was conducted comparing posttest HRSA scores

with the average MHRAT scores across all five reflection activities. A Pearson correlation indicated a moderate negative relationship ($r = -0.384$, $p = .158$) between HRSA posttest scores and MHRAT averages. While not statistically significant, this trend implies an inverse association: students who rated themselves highly on reflexivity often received lower scores from faculty, and vice versa. This finding is consistent with earlier results and underscores that student self-perception and faculty evaluation may capture distinct aspects of reflective development.

Group Comparison: High vs. Low HRSA

To further explore the divergence between self- and faculty assessments, participants were divided into "High HRSA" ($n = 8$) and "Low HRSA" ($n = 7$) groups based on a median split of posttest HRSA scores. A Mann-Whitney U test was conducted to compare mean MHRAT scores between these groups:

- High HRSA group mean MHRAT: 97.92
- Low HRSA group mean MHRAT: 98.71
- $U = 20.00$, $p = .3833$

Although no statistically significant difference was found, the group with lower self-reported HRSA scores received slightly higher faculty-assigned MHRAT scores. This pattern suggests that students may over- or underestimate their reflective growth in self-assessments. The misalignment between student and faculty ratings highlights the importance of utilizing both perspectives to provide a more comprehensive evaluation of reflective development.

Summary of Results

This chapter presents the findings of a quasi-experimental study investigating changes in cultural humility and reflexivity among graduate nurse-midwifery students over two semesters. Results are organized by instrument and correspond to the study's primary research questions.

For RQ1, students showed a positive, though not statistically significant, increase in cultural humility as measured by the CHS-A (from M = 4.73 to M = 4.89, p = .172). The effect size was small-to-moderate (d = 0.37), indicating meaningful growth that could be limited by a ceiling effect and the small sample size. The HRSA, assessing reflexivity, reflected stable and consistently high self-assessment scores among participants.

For RQ2, growth in reflexivity was evaluated using the MHRAT across five sequential reflection activities. The Friedman test revealed a statistically significant increase over timepoints (χ^2 (4) = 16.81, p = .002), supporting the hypothesis that students deepened their reflective capacities through structured engagement with the Bass Model of Holistic Reflection.

Correlational analyses revealed generally low relationships among instruments, with one notable exception: a moderate negative correlation between HRSA posttest and MHRAT scores (r = –.384, p = .158). A pattern emerged with those students rating themselves higher on reflexivity tending to receive lower faculty scores, and vice versa, which was reinforced by group comparisons. Specifically, students with lower self-reported HRSA scores received slightly higher faculty-assigned MHRAT scores, as shown in the Mann-Whitney U test (U = 20.00, p = .3833). Although not statistically significant, these trends suggest students may over- or underestimate their reflective growth in self-assessments. This misalignment underscores the value of incorporating both self- and faculty perspectives in evaluating reflective development.

Overall, these results support the importance of reflection-based curricula and indicate that while students perceive themselves as highly culturally humble and reflective, faculty assessments provide additional nuance to understanding their developmental progress.

Conclusion

In summary, this chapter demonstrates measurable growth in students' reflective depth and consistent trends toward enhanced reflexivity and cultural humility through engagement with the Bass Model of Holistic Reflection. While not all quantitative findings reached statistical significance, the positive direction of change, moderate effect sizes, and significant increase in MHRAT scores collectively support the model's effectiveness in fostering meaningful reflective development. The combined use of self-assessment and faculty evaluation provided a comprehensive view of learning progression, underscoring both the value and the challenges of assessing reflection-based outcomes in midwifery education.

The next chapter interprets these findings within a broader theoretical and empirical context, discussing implications for reflective pedagogy, cultural humility training, and curriculum design in graduate midwifery education. Chapter Five also addresses study limitations and offers recommendations for future research and educational practice.

Chapter 5

Discussion

The purpose of this study was to examine how structured reflection, grounded in the Bass Model of Holistic Reflection, shapes the development of reflexivity (reflective capacity) and cultural humility among graduate nurse-midwifery students. This work was born out of urgency. Maternal morbidity and mortality in the United States continue to rise, with Black, Indigenous, and other racially and ethnically minoritized women bearing the heaviest burden. These outcomes are not solely clinical failures; they are moral ones that reveal disconnection, bias, and the gradual silencing of reflective and relational ways of knowing in maternity care.

Within that landscape, midwives are called to hold space for safety, dignity, and justice, yet they are trained and often employed inside systems that reward speed and compliance more than presence and reflection. The cost is visible in high rates of burnout, moral distress, and attrition among midwives who entered the profession to serve but struggle to reconcile its philosophy with its realities. Reflection becomes the first casualty of exhaustion; humility and empathy soon follow.

This study responds to that crisis. It asks whether intentional, structured reflection can help future midwives remain whole, professionally aligned, self-aware, and ethically grounded, as they move through environments that too often fragment care. Guided by Kolb's experiential learning theory, Mezirow's transformative learning theory, and the Midwifery Model of Care, the Bass Model provides a framework for healing that divide. It integrates cognitive, emotional, and relational learning so that students not only think about what they do, but also *feel, question, and re-center* their practice around human connection and equity.

In this framework, reflection is the process, reflexivity is the cultivated capacity to sustain reflective awareness in action, and cultural humility is the ethical expression that arises when reflective capacity becomes a habit of being. Together they form the antidote to the dehumanizing drift of technocratic care.

Throughout two semesters, students participated in a series of structured activities including reflection circles, scaffolded journaling, and peer dialogue. These methods were intentionally designed to help students make sense of their clinical experiences and deepen their understanding of professional practice.

Quantitative findings revealed a striking paradox. Although students' self-reported humility showed minimal measurable change, faculty assessments documented a clear increase in the depth, authenticity, and integration of their reflective work overtime. This divergence is telling: the students who rated themselves as *least humble*, those who questioned their own readiness or awareness, were often the very ones who demonstrated the greatest growth in reflective capacity.

This pattern exposes the heart of humility itself. True humility does not declare itself; it is recognized through openness, self-questioning, and the willingness to remain teachable. In this study, humility emerged less as a quantifiable trait and more as a developmental stance, a posture of curiosity and relational accountability that matured through structured reflection.

The following discussion interprets these outcomes through experiential and transformative learning theories. Together, these frameworks illuminate how reflection, when intentionally scaffolded, becomes the mechanism through which professional growth, ethical awareness, and resilience take root. They also reinforce the argument that midwifery education must do more than produce technically competent graduates; it must safeguard the reflective and

relational core of the profession so that midwives remain capable of empathy, discernment, and sustained presence in care.

To ground the discussion that follows, it is helpful to return to the central focus of this investigation. The study examined how engagement in the Bass Model of Holistic Reflection influenced two key outcomes among graduate nurse-midwifery students: the development of cultural humility and the expansion of reflexivity, or reflective capacity. Using a triangulated design that combined student self-assessment with faculty observation, the study sought to capture a more holistic picture of reflective growth. These questions were designed to explore whether intentional, structured reflection could serve as both a pedagogical tool and a professional safeguard. one capable of strengthening ethical awareness, mitigating burnout, and reconnecting the theory and practice of midwifery care.

Discussion of Key Findings

Evolving Understandings of Cultural Humility

Quantitative analysis of the Cultural Humility Scale–Adapted (CHS-A) revealed minimal measurable change across the course of the intervention. Mean scores showed small increases in 2024 and slight decreases in 2025; however, paired-sample *t*-tests indicated that none of these differences were statistically significant. Reliability analyses demonstrated strong internal consistency at pretest ($\alpha = .93$ in 2024; $\alpha = .83$ in 2025) but dropped at posttest in 2024 ($\alpha = .51$), consistent with ceiling effects. Many students entered the program already scoring near the maximum on CHS-A items, leaving little room for quantifiable growth.

These findings should not be interpreted as evidence that reflective practice was ineffective. Rather, they point to the limitations of self-report instruments in capturing the nuanced, relational, and often subconscious evolution of humility. The CHS-A may effectively

measure baseline openness to cultural learning but lacks the sensitivity to detect deeper developmental shifts in advanced learners. This pattern echoes critiques in the literature that self-assessment tools for humility and empathy are highly susceptible to social desirability bias and ceiling effects (Foronda et al., 2016; Hook et al., 2013).

The observed stability in scores likely reflects the already high baseline humility of graduate nursing and midwifery students, individuals who often choose these professions because of their orientation toward service and equity, rather than a true absence of change. Yet, when viewed alongside faculty assessments, a different story emerges. Students who rated themselves highest on the CHS-A often received lower MHRAT scores, while those who expressed uncertainty or self-critique demonstrated the greatest observable growth in reflective capacity.

This inverse pattern reveals an important truth about humility: it is most visible in those who question their own mastery. As Tervalon and Murray-García (1998) argued, humility is not a fixed trait but a lifelong stance of self-evaluation and openness. In this study, humility manifested not as a number on a scale, but as a lived attitude that deepened through structured reflection. Students who engaged most honestly with discomfort by acknowledging bias, vulnerability, and the limits of their understanding, displayed the clearest evidence of growth.

Taken together, these findings suggest that cultural humility may be better captured through observed reflective behaviors than through self-report measures. Within the Bass Model framework, humility evolves as reflective capacity matures. This outcome becomes apparent not in how students describe themselves, but in how they demonstrate awareness, empathy, and accountability in action.

Developing Reflexivity Through Structured Reflection

Reflexivity, defined in this study as the capacity to engage in sustained, critical, and self-aware reflection, demonstrated measurable and meaningful growth throughout the intervention. Quantitative results from the Holistic Reflection Self-Assessment (HRSA) showed moderate to significant improvements in students' self-perceived reflective capacity. In 2024, the increase reached statistical significance (t (14) = 2.25, p = .041, d = 0.58), while in 2025 students exhibited a moderate, non-significant rise (t (12) = 1.75, p = .105, d = 0.49). Reliability remained consistently high across both semesters (α = .90–.95), confirming the HRSA as a stable and internally consistent measure for this population.

Faculty assessments using the Modified Holistic Reflection Assessment Tool (MHRAT) provided an additional and perhaps more nuanced perspective. Across five structured reflective activities, student scores demonstrated a clear and statistically significant upward trajectory (χ^2 (4) = 16.81, p = .002). These data indicate that, while students may have struggled to recognize their own growth, faculty observed a progressive deepening of reflective engagement over time.

This divergence between self-assessment and faculty observation is one of the most illuminating findings of the study. It underscores the value of triangulation in assessing reflective development: self-report tools capture students' internal sense of awareness and intention, while faculty ratings document observable evidence of reflective thinking in action. Together, these perspectives provide a more comprehensive and authentic picture of reflexive growth than either could offer alone.

Correlational analyses further supported this distinction. Posttest results revealed a moderate negative correlation between HRSA and MHRAT scores (r = –.40, p = .17) and a weak positive correlation between CHS-A and MHRAT (r = .36, p = .23). Although these relationships were not statistically significant, they suggest that self-perceived reflection and

externally observed reflexivity represent related but distinct constructs. Students may articulate awareness differently from how they demonstrate it in practice, particularly as reflective depth begins to mature beyond conscious self-description.

Within the context of the Bass Model of Holistic Reflection, these findings affirm the model's effectiveness in fostering growth across cognitive, emotional, and relational domains. Over time, students' reflections evolved from descriptive accounts toward critical analysis and synthesis, aligning with the model's six developmental phases. Faculty feedback illuminated this transformation: students increasingly made explicit connections between self-awareness, ethical responsibility, and clinical decision-making. Reflexivity thus emerged not only as a learned process but as a developing mindset, one that shaped how students approached uncertainty, power, and ethical complexity in clinical care.

This growth carries weight in the current landscape of midwifery education, where students must navigate high-intensity clinical environments with limited opportunities for integration and meaning-making. Structured reflection offered a contained, intentional space to metabolize experience, to transform stress, doubt, and emotional labor into clarity and professional alignment. In doing so, it addressed some of the profession's most pressing challenges: burnout, moral distress, and the widening gap between midwifery's philosophy and practice realities. The measurable gains in reflexivity documented here suggest that structured reflection, when purposefully designed and supported, serves as both a pedagogical strategy and an act of professional preservation.

Interpreting Findings Through Theory and Literature

The outcomes of this study both affirm and extend existing scholarship on cultural humility, reflexivity, and reflective practice in health professions education. As in prior work, cultural

humility emerged not as a static competency but as an evolving orientation, a stance of openness, curiosity, and self-evaluation that cannot be captured in a single assessment moment (Tervalon & Murray-García, 1998; Hook et al., 2013). The relative stability of CHS-A scores is therefore unsurprising; many midwifery students enter training already grounded in values of empathy and equity. What changed, however, was not their self-description of humility but the *expression* of humility in practice, visible through deeper, more integrated reflection. This pattern parallels findings by Foronda et al. (2016), who noted that humility may plateau on self-report scales while continuing to evolve in authentic relational behavior.

The results concerning reflexivity align with and enrich prior studies using the Bass Model of Holistic Reflection. International research has shown that structured reflection promotes transformative learning and professional resilience (Bass et al., 2022), and this study extends that evidence into the U.S. midwifery context. The significant upward trajectory of MHRAT scores illustrates how guided reflection can foster cognitive, emotional, and ethical integration even when self-assessed progress appears modest. The triangulated research design, incorporating both student and faculty perspectives, builds on recommendations by Schön (1983) and Kolb (1984), who argued that reflection must be observed, practiced, and revisited to reveal its true developmental impact.

The divergence between self and faculty ratings resonates with Sandars' (2009) observation that learners are often poor judges of their own reflective capacity. The very students who questioned their readiness or self-awareness often demonstrated the deepest growth, illustrating the paradox of humility as a driver of reflexivity. In this way, the findings bridge the moral and pedagogical aims of reflection: humility becomes the soil from which sustained self-awareness grows, and reflexivity becomes the mechanism through which humility matures in action.

Interpreted through Kolb's experiential learning theory, the process documented here represents a full learning cycle from concrete experience in clinical settings to reflective observation and conceptual re-framing, culminating in active experimentation in subsequent care encounters. Mezirow's transformative learning theory is evident in the perspective shifts that faculty observed, particularly as students began to question assumptions about power, privilege, and patient autonomy. The Bass Model operationalized these transformations, guiding students through iterative phases of awareness, remembering, reflection, holistic knowing, integration, and transformation. The steady rise in MHRAT scores thus mirrors the developmental progression envisioned by the model.

Ultimately, this research situates the Bass Model as both pedagogical and moral infrastructure, a means of preserving the reflective core of midwifery practice within an increasingly technocratic and fragmented healthcare system. It provides evidence that structured reflection is not merely an academic exercise but a restorative process that reconnects learning, humanity, and justice in professional identity formation.

From Reflection to Action: Implications

Implications for Midwifery Education

The findings of this study carry significant implications for the design of graduate midwifery curricula. When structured reflection is scaffolded across semesters and reinforced through faculty and peer dialogue, it cultivates reflective practitioners capable of self-awareness, ethical discernment, and sustained presence in care. Activities such as reflective journaling, storytelling, and facilitated reflection circles provide students with a safe space to process the emotional and moral dimensions of clinical practice.

Even without large shifts in self-reported humility, faculty-observed gains in reflexivity represent meaningful educational outcomes. They suggest that reflection itself is a form of practice, one that allows midwives to metabolize experience, integrate knowledge, and remain aligned with the philosophy of their profession amid the pressures of a technocratic system. Structured reflection thus serves a dual purpose: it functions as both a pedagogical strategy and a protective factor against burnout, disconnection, and moral fatigue. As these issues continue to threaten the sustainability of the midwifery workforce, the value of reflection becomes increasingly clear by offering a means for practitioners to remain resilient, connected, and ethically grounded in their work.

Implications for Assessment Practices

This research contributes to the growing science of reflection-based assessment by evaluating the Bass Model of Holistic Reflection and its associated tools, the HRSA and MHRAT, within graduate midwifery education. It expands both theoretical and practical understanding of how reflective capacity and cultural humility can be measured, nurtured, and interpreted across a professional curriculum.

The findings reinforce the necessity of triangulated assessment in evaluating reflective growth. Relying solely on a single instrument, particularly self-report measures such as the CHS-A, risks overlooking dimensions of development that are experiential, relational, or tacit. Integrating student self-assessments with structured faculty ratings yields a more balanced and authentic portrait of learning by honoring both what students perceive they are learning and what they demonstrate through reflective behavior.

Beyond its empirical findings, this study advances methodological practice by demonstrating that the HRSA and HRAT, when used together, offer a coherent and practical framework for

assessing reflection and reflexivity in graduate health education. Continued psychometric refinement through expanded response ranges, scenario-based items, and qualitative reflection integration, will further enhance sensitivity and validity, particularly among advanced learners.

Although this study used a single faculty rater, the process highlights a broader need for standardized faculty training and calibration. As reflection-based pedagogy becomes more prevalent, programs should develop systems for inter-rater reliability and faculty reflection, enhancing both the credibility of assessment and the reflective capacity of educators themselves.

Implications for Professional Identity Formation and Sustainability

The implications of this research reach to the core of professional identity formation in midwifery. Our findings suggest that structured reflection functions as a protective mechanism, a way to preserve integrity, empathy, and moral resilience as midwives-in-training navigate increasingly complex and technocratic systems of care. Across the study, students demonstrated measurable gains in reflexivity and faculty-observed depth of reflection, indicating that structured engagement with the Bass Model of Holistic Reflection can strengthen both self-awareness and ethical grounding within the Midwifery Model of Care.

These results have profound implications for burnout, moral distress, and the persistent theory–practice divide, all of which threaten the sustainability of the midwifery workforce. When students are taught to process clinical experiences reflectively rather than absorb them silently, they develop the internal tools to withstand and interpret the emotional labor of caregiving in unsupportive environments. Reflection transforms experience into meaning, reducing the moral residue that accumulates when values and practice are misaligned. In this way, reflexivity becomes a form of professional self-preservation, enabling midwives to remain attuned to their purpose while sustaining compassion over the long arc of their careers.

Reflexivity is developmental, not a single attainment but a cultivated capacity that deepens through practice, mentorship, and community. Structured reflective activities provide the scaffolding for this growth, anchoring students' professional identity and bridging the gap between who they are becoming and who they hoped to be when they entered the profession. This integrative process addresses one of the most urgent needs identified in the literature: maintaining alignment between personal values and professional realities.

Beyond individual sustainability, these findings have implications for leadership and workforce retention. Midwives who are supported in reflective practice are more likely to remain engaged, contribute to collaborative and ethical team cultures, and mentor others in sustaining reflective habits. Reflection-based curricula thus serve not only as educational strategies but as leadership pipelines, cultivating practitioners who guide others through the complexities of midwifery practice with humility and integrity. Structured reflection keeps the heart of midwifery alive by linking personal meaning to professional purpose.

Implications for Research and Theoretical Development

This study advances both the theoretical and empirical foundations of nursing and midwifery science. It represents the first application and evaluation of the Bass Model of Holistic Reflection and its accompanying instruments, the HRSA and HRAT, within a U.S. educational context, providing a foundation for future inquiry into structured reflection as both a pedagogical framework and a measurable construct.

By integrating student self-assessment with faculty observation, this study deepens understanding of how reflexivity develops over time and across learning environments. The findings affirm that reflection is a dynamic, evolving process, one that can be cultivated and evaluated without compromising its ethical or humanistic depth. Extending established models

such as Kolb's experiential learning cycle and Mezirow's transformative learning theory, this research demonstrates that reflection operates simultaneously as a learning strategy, a developmental process, and a moral practice integral to professional identity formation.

Importantly, this work introduces a replicable framework for examining reflection-based learning within and beyond midwifery education. Future research should explore longitudinal applications of the Bass Model, assess inter-rater reliability among faculty evaluators, and expand its use across diverse cultural and institutional settings. Collectively, these efforts will strengthen the evidence base positioning reflection as a core dimension of professional formation, cultural humility, and sustainable practice, a process through which practitioners remain grounded in both competence and compassion.

In summary, the implications of this study span education, assessment, professional identity formation, and theoretical advancement. Collectively, our findings illustrate that structured reflection is both measurable and deeply human, a process that sustains ethical practice, cultural humility, and the professional integrity of midwives. While these results offer valuable insight into how reflection functions within graduate education, they must be interpreted within the context of the study's scope and design. The following section outlines the study's limitations and considerations for interpreting these findings.

Limitations

Several limitations should be considered when interpreting these findings. This study involved a relatively small, single-site sample, which limits the generalizability of results. The quasi-experimental design, while appropriate for this exploratory work, did not include a control group, restricting causal inference. Reliance on self-report instruments (CHS-A and HRSA) introduced possible social-desirability bias and ceiling effects, as many students began with high

baseline scores. In addition, faculty ratings using the MHRAT were conducted by a single evaluator, preventing inter-rater reliability analysis. These limitations highlight the need for future research using larger, multisite samples, calibrated faculty raters, and longitudinal designs to strengthen the evidence base for reflection-based education. Despite these limitations, the study's findings offer several meaningful directions for educational practice and future inquiry.

Recommendations for Educational Practice

1. **Integrate Structured Reflection Across Curricula.**

   Midwifery programs should embed structured reflection, grounded in models such as the Bass Model of Holistic Reflection, throughout coursework and clinical training. Activities such as reflection circles, narrative writing, and peer dialogue provide opportunities for students to deepen reflexivity, cultural humility, and self-awareness in the context of real clinical experiences.

2. **Adopt Triangulated Assessment Approaches.**

   Programs should avoid overreliance on single instruments and instead use a combination of self-report tools (e.g., HRSA, CHS-A), faculty ratings (e.g., MHRAT), and qualitative reflections to capture multiple dimensions of reflective growth. This approach provides a more authentic and balanced picture of student development.

3. **Address Measurement Challenges.**

   To reduce ceiling effects, scales such as the CHS-A should be refined or supplemented with scenario-based or open-ended items. Faculty should receive training in rater calibration to improve consistency and reliability in tools like the MHRAT. Investing in these processes will strengthen both educational outcomes and research validity.

4. **Promote Equity and Respectful Care.**

   Reflection-based curricula should be explicitly linked to the goals of respectful and culturally responsive maternity care. Educators can reinforce this connection by situating reflective practice within conversations about health disparities, power dynamics, and systemic inequities. Reflection becomes not only a pedagogical strategy but a moral practice that nurtures equity in care.

Recommendations for Future Research

1. **Expand Sample Size and Sites.**

   Future studies should replicate this work across multiple midwifery and nursing programs with larger, more diverse samples to improve generalizability and explore contextual differences.

2. **Include Control or Comparison Groups.**

   Incorporating comparison groups would allow for stronger causal inferences about the effects of structured reflection on student learning, identity formation, and professional outcomes.

3. **Refine Instruments and Calibration Processes.**

   Continued psychometric evaluation of the CHS-A, HRSA, and HRAT is needed to address ceiling effects, enhance sensitivity to change, and ensure inter-rater reliability. Faculty calibration and shared evaluation training should be included in future research designs.

4. **Adopt Mixed-Methods Designs.**

   Qualitative analyses of reflective journals, narratives, and group dialogue would

complement quantitative findings and illuminate how students integrate learning through reflection. These approaches can capture nuance that self-report surveys alone may miss.

5. **Track Long-Term Outcomes.**

   Future studies should examine whether growth in reflexivity and cultural humility during graduate education translates into sustained reflective practice, improved patient outcomes, and long-term workforce retention among midwives.

Conclusion

Our research examined the impact of structured reflection, guided by the Bass Model of Holistic Reflection, on the development of reflexivity and cultural humility among graduate nurse-midwifery students. While quantitative measures of cultural humility (CHS-A) revealed limited change, student self-assessments of reflexivity (HRSA) and faculty evaluations (MHRAT) demonstrated meaningful and observable growth. Faculty ratings showed a consistent upward trajectory in reflective capacity across the academic year, affirming the value of triangulated assessment and the transformative potential of guided reflection.

These findings reveal both the challenge and the promise of measuring constructs such as humility and reflexivity, qualities that are lived rather than claimed, expressed through relationships rather than numbers. Even when growth was not easily quantified, reflection made it visible: in the ways students questioned assumptions, connected theory to practice, and reclaimed the moral center of their work. Structured reflection emerged as more than a teaching strategy; it became a practice of preservation, a way for midwives to remain aligned with the purpose and philosophy that first called them to the profession.

Ultimately, this study affirms that reflection and humility are foundational to midwifery education and the sustainability of the profession. Through intentional reflection, midwives learn

to weave skill with empathy, knowledge with wisdom, and action with integrity. Amid the noise of technocratic systems, reflection becomes a quiet act of resistance, a way to remember, to restore, and to remain whole. It is how midwives stay connected to their calling, and to the people they serve.

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Appendix A IRB Exemption

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
Willis Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** ·
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Belinda Lashea
CC: Pamela Reis
Date: 12/4/2024
Re: UMCIRB 24-001435
Reflection in Midwifery

I am pleased to inform you that your research submission has been certified as exempt on 12/4/2024. This study is eligible for Exempt Certification under category # 1.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
CHS-A(0.01)	Surveys and Questionnaires
Consent Form Reflection in Midwifery(0.01)	Consent Forms
Consent Form Reflection in Midwifery(0.01)	Recruitment Documents/Scripts
Demographics(0.01)	Data Collection Sheet
Demographics(0.01)	Surveys and Questionnaires
HRSA(0.01)	Surveys and Questionnaires
Proposal (0.01)	Study Protocol or Grant Application
Student Information Module 1 Critical Reflections on Cultural Humility in Midwifery _ 2024 Fall Postpartum~Newborn Care for the Midwife.pdf(0.01)	Additional Items

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

Appendix B

Holistic Reflection Assessment Tool (HRAT)

Holistic Reflection Assessment (Formative) N6117
Holistic Reflection capability is evaluated using formative assessment. You are required to complete the Holistic Reflection Self-Assessment Tool (HRSA). In addition, you receive feedback from your faculty using the Holistic Reflection Assessment Tool (HRAT) following reflection circles.

Below you can see the comparison of your own self-evaluation of reflective capacity with what the faculty are also evaluating during the student reflection circles.

Holistic Reflection Self-Assessment (HRSA) STUDENT	**Holistic Reflection Assessment Tool (HRAT) FACULTY**
Characteristic	**Characteristic**
AWARENESS **Self-Awareness** (Being present to self, others, environment)	**AWARENESS** **Self-Awareness** (Being present to self, others, environment)
I am aware of my values and beliefs	1.Aware of values and beliefs
I am conscious of how my culture gender, ethnicity) influences my perspective	2.Conscious of how culture (gender, ethnicity) influences perspective
My current state of well-being physical, mental, emotional) impacts my perception of experiences	3.Awareness of current state of well-being (physical, mental, emotional) and impact on perception of experiences
My current state of well-being (physical, mental, emotional) impacts my interpretation of experiences	4.My current state of well-being (physical, mental, emotional) impacts my interpretation of experiences
I make a conscious effort to reflect on my experiences	5.Makes a conscious effort to reflect on personal experiences
I find the personal nature of reflection challenging	6.Appears to find the personal nature of reflection challenging
AWARENESS **Remembering** (Description, Significance)	**AWARENESS** **Remembering** (Description, Significance)
I find it difficult to choose a significant experience to reflect on	7.Appears to find it difficult to choose a significant experience to reflect on
I am usually able to see the big picture and significance of the experience	8.Able to see the big picture and significance of the experience
I find it difficult to clearly describe my experience in a factual manner	9.Appears to find it difficult to clearly describe experience in a factual manner
I use reflection as debrief to initially process emotionally challenging situations	10.Uses reflection as debrief to initially process emotionally challenging situations
I examine experiences in an open minded, non-judgemental manner	11.Examines experiences in an open minded, non-judgemental manner
INTEGRATION **Reflection** (Making sense thoughts, feelings, actions, diverse perspectives)	**INTEGRATION** **Reflection** (Making sense thoughts, feelings, actions, diverse perspectives)
12. I find it difficult to get out of the emotional, processing phase of reflection	12. Appears to find it difficult to get out of emotional, processing phase reflection
13. I reflect in cycles over time to deepen my understanding of an experience	13. Evidence use reflective cycle over time to deepen understanding of experience
14. I use reflective prompts to guide my reflective thinking	14. Use of reflective prompts to guide reflective thinking
15. Reflection generates new insights into why I think, feel, act in a certain way	15. Reflection generates new insights & understanding thoughts, feelings, actions
16. I find conversations with others supports my ability to reflect deeply	16. Draws on conversations with others support to ability to reflect deeply
17. It is challenging to reflect on my feelings	17. Appears to find it challenging to reflect on own feelings
18. I use writing to deepen reflection on my thoughts and feelings	18. Use reflective writing to deepen reflection on thoughts, feelings, and actions

INTEGRATION **Holistic ways of Knowing, Being and Doing** (multiple ways of knowing)	**INTEGRATION** **Holistic ways of Knowing, Being and Doing** (multiple ways of knowing)
19. I draw on diverse ways of knowing & thinking to make sense of my experience	19. Draws on diverse ways of knowing and thinking to make sense of experience
20. I use reflective conversations with others to explore different perspectives	20. Use of reflective conversations with others to explore different perspectives
21. I actively reflect on core values & beliefs embedded in my practice philosophy	21. Actively reflects on core values & beliefs embedded in practice philosophy
22. Reflective dialogue with others deepens my understanding of the experience	22. Reflective dialogue with others used to deepen understanding of experience
23. I use reflection to support my ability to be culturally safe	23. Use of reflection to support ability to be Culturally Safe
24. I encourage the woman to reflect on her needs and experience to inform care	24. Encourages the woman to reflect on her needs and experience to inform care
TRANSFORMATIVE **Integration** (Making meaning and evaluating learning)	**TRANSFORMATIVE** **Phase 5 Integration** (Making meaning and evaluating learning)
25. I critically reflect on clinical experience to generate practice knowledge	25. Critically reflects on clinical experience to generate practice knowledge
26. I use reflection to challenge ritualistic practice	26. Use of reflection to challenge ritualistic practice
27. I apply reflective thinking to inform professional judgment in clinical practice	27. Applies reflective thinking to inform professional judgment in practice
28. I find it difficult to integrate past understandings with new insights generated through reflection	28. Appears to find it difficult to integrate past understandings with new insights generated through reflection
29. I incorporate feedback from others to inform identification of learning needs	29. Incorporates feedback from others to inform identification of learning needs
TRANSFORMATIVE **Transformation** (Transformation perspective, self, and practice)	**TRANSFORMATIVE** **Transformation** (Transformation perspective, self, and practice)
30. Reflection has transformed my perspective over time	30. Reflection has transformed perspective over time
31. My ability to critically reflect has developed through use of a structured model of a reflection	31. Ability to critically reflect has developed through use of a structured model of a reflection
32. I continuously reflect on my actions to evaluate how these meet woman's/person's needs	32. Continuously reflects on actions to evaluate how these meet the woman's/person's needs
33. I see the big picture and interconnectedness of various aspects of experience	33. Sees the big picture & interconnectedness of various aspects of an experience
34. I find reflection is a form of self-care that builds my capacity to respond to challenging situations	34. Uses reflection as a form of self-care to build capacity to respond to challenging situations
35. I use reflection to self-evaluate strengths and areas for improvement	35. Use of reflection to self-evaluate strengths and areas for improvement
36. Through reflection I have developed insight into sense of professional identity	36. Uses reflection to develop insight into sense of professional identity
37. Reflection helps me to think creatively to generate change in practice	37. Uses reflection to think creatively to generate change in practice

Reflexive Comment

Appendix C
Modified Holistic Reflection Assessment Tool (MHRAT)

Criteria	Ratings		Pts
AWARENESS Self-Awareness (Being present to self, others, environment)	**10 to >0.0 pts** **Full Marks** 1.Aware of values and beliefs 2.Conscious of how culture (gender, ethnicity) influences perspective 3.Awareness of current state of well-being (physical, mental, emotional) and impact on perception of experiences 4.Makes a conscious effort to reflect on personal experiences	**0 pts** **No Marks**	10 pts
AWARENESS Remembering (Description, Significance)	**10 to >0.0 pts** **Full Marks** 1. Able to see the big picture and significance of the experience 2. Uses reflection as debrief to initially process emotionally challenging situations 3. Examines experiences in an open minded, non-judgemental manner	**0 pts** **No Marks**	10 pts
INTEGRATION Reflection (Making sense thoughts, feelings, actions, diverse perspectives)	**15 to >0.0 pts** **Full Marks** 1. Evidence of use of the reflective cycle over time to deepen understanding of experience 2. Use of reflective prompts to guide reflective thinking 3. Reflection generates new insights & understanding thoughts, feelings, actions 4. Draws on conversations with others support to ability to reflect deeply	**0 pts** **No Marks**	15 pts
INTEGRATION Holistic ways of Knowing, Being and Doing (multiple ways of knowing)	**15 to >0.0 pts** **Full Marks** 1. Draws on diverse ways of knowing and thinking to make sense of experience 2. Actively reflects on core values & beliefs embedded in practice philosophy 3. Reflective dialogue with others used to deepen understanding of experience 4. Use of reflection to support ability to be Culturally Safe	**0 pts** **No Marks**	15 pts
TRANSFORMATIVE Phase 5 Integration (Making meaning and evaluating learning)	**20 to >0.0 pts** **Full Marks** 1. Critically reflects on clinical experience to generate practice knowledge 2. Use of reflection to challenge ritualistic practice 3. Applies reflective thinking to inform professional judgment in practice 4. Incorporates feedback from others to inform identification of learning needs	**0 pts** **No Marks**	20 pts
TRANSFORMATIVE Transformation	**30 to >0.0 pts** **Full Marks**	**0 pts**	30 pts

Appendix D
Holistic Self Reflection Assessment (HRSA)

Category / Criteria	Strongly Disagree 1	Disagree 2	Tend to Disagree 3	Tend to Agree 4	Agree 5	Strongly Agree 6	Comments
SA SELF AWARENESS (Self, Others. Environment)							
1. I am aware of my values and beliefs	1	2	3	4	5	6	
2. I am conscious of how my culture (eg gender, ethnicity) influences my perspective	1	2	3	4	5	6	
3. My current state of well-being (eg physical, mental, emotional) impacts my perception of experiences	1	2	3	4	5	6	
4. My current state of well-being (eg physical, mental, emotional) impacts my interpretation of experiences	1	2	3	4	5	6	
5. I make a conscious effort to reflect on my experiences	1	2	3	4	5	6	
6. I find the personal nature of reflection challenging	6	5	4	3	2	1	
MS MAKING SENSE (Remembering; Description, Significance)							
7. I find it difficult to choose a significant experience to reflect on	6	5	4	3	2	1	
8. I am usually able to see the big picture and significance of the experience	1	2	3	4	5	6	
9. I find it difficult to clearly describe my experience in a factual manner	6	5	4	3	2	1	
10. I use reflection as debrief to initially process emotionally challenging situations	1	2	3	4	5	6	
11. I examine experiences in an open minded, non-judgemental manner	1	2	3	4	5	6	

Category / Criteria	Strongly Disagree 1	Disagree 2	Tend to Disagree 3	Tend to Agree 4	Agr ee 5	Strongly Agree 6	Comments
RF: REFLECTION (thoughts, feelings, actions)							
12. I find it difficult to get out of the emotional or processing phase of reflection	6	5	4	3	2	1	
13. I reflect in cycles over time to deepen my understanding of an experience	1	2	3	4	5	6	
14. I use reflective prompts to guide my reflective thinking	1	2	3	4	5	6	
15. Reflection generates new insights into why I think, feel and act in a certain way	1	2	3	4	5	6	
16. I find conversations with others support my ability to reflect deeply on my experience	1	2	3	4	5	6	
17. It is challenging to reflect on my feelings	6	5	4	3	2	1	
18. I use writing to deepen reflection on my thoughts and feelings	1	2	3	4	5	6	
KN: Knowing (holistic ways of knowing & thinking)							
19. I draw on diverse ways of knowing and thinking to make sense of my experience	1	2	3	4	5	6	
20. I use reflective conversations with others to explore different perspectives	1	2	3	4	5	6	
21. I actively reflect on the core values and beliefs embedded within my practice philosophy	1	2	3	4	5	6	
22. Reflective dialogue with others helps me to deepen my understanding of the experience	1	2	3	4	5	6	
23. I use reflection to support my ability to be culturally safe	1	2	3	4	5	6	
24. I encourage the woman to reflect on her needs and experience to inform care	1	2	3	4	5	6	

Category / Criteria	Strongly Disagree 1	Disagree 2	Tend to Disagree 3	Tend to Agree 4	Agree 5	Strongly Agree 6	Comments
MM: MAKING MEANING (Evaluation, analysis, learning)							
25. I critically reflect on clinical experience to generate practice knowledge	1	2	3	4	5	6	
26. I use reflection to challenge ritualistic practice	1	2	3	4	5	6	
27. I apply reflective thinking to inform my professional judgment in clinical practice	1	2	3	4	5	6	
28. I find it difficult to integrate past understandings with new insights generated through reflection	6	5	4	3	2	1	
29. I incorporate feedback from others to inform identification of my learning needs	1	2	3	4	5	6	
RP: HOLISTIC REFLECTIVE PRACTICE (Integration, Synthesis, Transformation)							
30. Reflection has transformed my perspective over time	1	2	3	4	5	6	
31. My ability to critically reflect has developed through use of a structured model of a reflection	1	2	3	4	5	6	
32. I continuously reflect on my actions to evaluate how these meet the woman's needs	1	2	3	4	5	6	
33. I see the big picture and interconnectedness of various aspects within an experience	1	2	3	4	5	6	
34. I find reflection is a form of self-care that builds my capacity to respond to challenging situations	1	2	3	4	5	6	
35. I use reflection to self-evaluate strengths and areas for improvement	1	2	3	4	5	6	
36. Through reflection I have developed insight into my sense of professional identity	1	2	3	4	5	6	
37. Reflection helps me to think creatively to generate change in practice	1	2	3	4	5	6	

Appendix E

Cultural Humility Scale- Adapted (CHS-A)

Cultural Humility Scale- Adapted (CHS-A)

DIRECTIONS: There are several different aspects of one's cultural background that may be important to a person, including (but not limited to) race, ethnicity, nationality, gender, age, sexual orientation, religion, disability, socioeconomic status, and size. Some things may be more central or important to one's identity as a person, whereas other things may be less central or important.

Please identify the aspect of your cultural background that is most central or important to you

Strongly Disagree (1) Mildly Disagree (2) Neutral (3) Mildly Agree (4) Strongly Agree (5):

1. I want to learn more about people from other cultural backgrounds.

1 2 3 4 5

2. Learning about other cultural backgrounds is an important step in communicating effectively.

1 2 3 4 5

3. People from different countries and cultures have perspectives that I can benefit from.

1 2 3 4 5

4. I enjoy hearing people talk about their culture. I make an effort to honor the beliefs, customs, and values of other cultures.

1 2 3 4 5

5. I am fairly open to exploring the backgrounds of people from other countries and cultures.

1 2 3 4 5

6. Learning about other cultures enhances a person's communication skills.

1 2 3 4 5

7. It is important to be considerate of cultural norms and backgrounds that are different than my own.

1 2 3 4 5

8. I try to keep an open mind about other cultural norms, beliefs, and values.

1 2 3 4 5

Appendix F Demographic Survey

Demographic Survey for Midwifery Research Study

Instructions: Please answer the following questions to the best of your ability. Your responses will remain confidential and will be used solely for research purposes.

Section 1: Personal Information

1. **Age:**
   - Under 25
   - 25-34
   - 35-44
   - 45-54
   - 55-64
   - 65 and over
2. **Gender:**
   - Female
   - Male
   - Non-binary/Third gender
   - Prefer not to say
3. **Ethnicity:**
   - African American/Black
   - Asian
   - Hispanic/Latino
   - Native American/Alaska Native
   - Native Hawaiian/Pacific Islander
   - White/Caucasian
   - Other (please specify): _____
   - Prefer not to say
4. **Highest Level of Education Completed:**
   - Associate Degree in Nursing (ADN)
   - Bachelor of Science in Nursing (BSN)
   - Master of Science in Nursing (MSN)
   - Doctor of Nursing Practice (DNP)
   - PhD in Nursing or related field
   - Other (please specify): _____
5. **Current Employment Status:**
   - Full-time
   - Part-time
   - Per diem
   - Unemployed
   - Other (please specify): _____

Section 2: Professional Background

6. **Years of Experience in Nursing:**
   - Less than 1 year
   - 1-3 years
   - 4-6 years
   - 7-10 years
   - More than 10 years
7. **Current Practice Setting:**
   - Hospital
   - Birth Center
   - Home Birth Practice
   - Academic Institution
   - Other (please specify): _____
8. **Primary Areas of Practice:**
   - Antenatal Care
   - Intrapartum Care
   - Postpartum Care
   - Gynecological Care
   - Family Planning
   - Other (please specify): _____

Section 3: Educational Background and Training

10. **Exposure to Reflective Practices in Education:**
    - None
    - Minimal
    - Moderate
    - Extensive
11. **Exposure to Cultural Humility Training in Education:**
    - None
    - Minimal
    - Moderate
    - Extensive
12. **Participation in Student Reflection Circles:**
    - Yes
    - No
13. **Engagement in Peer Mentorship Programs:**
    - Yes
    - No

Appendix G Student Module

8/19-29 Module 1 Critical Reflections on Cultural Humility in Midwifery

To-Do Date: Aug 19 at 11:59pm

Overview

Module One builds the foundation for each of you to fully embrace and understand the **Midwifery Model of Care (https://ecu.instructure.com/courses/132360/files/14499656?wrap=1)** **(https://ecu.instructure.com/courses/132360/files/14499656/download?download_frd=1)**

The practice and tradition of midwifery is ancient, it is our craft, our identity, and most of all , it is what sets us apart from the medical model of care. We are the revolution in healthcare that our mothers have been searching for!

In this module students will be introduced to reflective practice, through the **Bass Model of Holistic Reflection**. Our focus is on deep and critical reflection on your experiences, and how those shape the midwife you are becoming. This module introduces the concept of cultural humility, and how the integration of reflection and cultural humility serves as a toolkit for not only surviving midwifery school, but also in shaping and growing in your practice as a midwife throughout your career.

We will work with these models and concepts throughout the semester. There are 3 assignments related to holistic reflection throughout the semester. These activities are scaffolded, meaning they build on one another, as you grow in your understanding and skills of practicing reflectively, humbly, and respectfully.

The 3 assignments together are worth 10% of your course grade, each assignment is weighted as follows:

1. Reflective Writing on Cultural Humility, due 9/3 (3%)

2. Student Reflection Circle, attend 1 of 3 offered 10/21, 11/4, or 11/25 (3%)

3. Final Reflection Journal, due 12/6 (4%)

The goal is simple, to provide you with a framework for processing your experiences in clinical; to provide you with the tools you need to practice the midwifery model of care respectfully and with cultural humility; and ultimately to transform these impactful clinical experiences into fodder for your future practice as a midwife!