Designing Interprofessional Simulations That Actually Work

A Practical Framework for Allied Health Educators

Katherine L. March, PharmD
The University of Tennessee Health Sciences College of Pharmacy
Memphis, TN

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SECTION 1: FRAMING THE PURPOSE

Why IPE Simulations Matter: The Workforce Case

Patient safety and care quality are directly tied to how well interprofessional teams function.

Medical errors linked to communication failures remain a leading cause of preventable harm.

IPE prepares graduates to be collaborative practice-ready before entering clinical settings.

Accrediting bodies — ACPE, AACN, LCME — now require demonstrated IPE/ICP competency in curricula.

SECTION 1: FRAMING THE PURPOSE

Learning Objectives

Define interprofessional education (IPE) as distinct from multidisciplinary or collaborative practice, using the IPEC 2023 framework.

Identify six sequential steps in designing a theoretically grounded interprofessional simulation.

Select at least two evidence-based engagement strategies appropriate for virtual or in-person delivery.

Critically analyze a case study simulation for alignment to IPEC competency domains.

SECTION 2: DEFINING IPE AND IPCE

What IPE Is and Is Not

*IPE occurs when students from two or more professions **learn from, about, and with each other** to enable effective collaboration and improve health outcomes.*

Term	What it means	Key difference
Multidisciplinary	Each profession works in parallel, reporting separately	No shared learning
Interdisciplinary	Professions interact around a shared goal	May not include structured learning about each other
Interprofessional	Professions learn from, about, and with each other	Explicit shared learning process
IPCP	The practice outcome: collaborative patient care	IPE is the educational input; IPCP is the practice output

SECTION 2: DEFINING IPE AND IPCE

The IPEC 2023 Competency Framework

The November 2023 update retains four core domains but reduces sub-competencies from 39 to 33 and embeds new cross-cutting constructs.

- Values and Ethics — now includes One Health (human, animal, plant, and environmental health interconnection)
- Roles and Responsibilities — understanding scope, assets, and limitations of all team members
- Interprofessional Communication — now explicitly incorporates SDOH and cultural humility
- Teams and Teamwork — now includes well-being and resilience as a team-functioning sub-competency
- **New cross-cutting constructs: DEI, interprofessional leadership, One Health, well-being, team science**

SECTION 2: DEFINING IPE AND IPCE

What is Simulation?

The November 2023 update retains four core domains but reduces sub-competencies from 39 to 33 and embeds new cross-cutting constructs.

Simulation is a **planned, realistic learning experience** where students from two or more professions:

- act in their authentic professional roles
- interact with each other in real time
- make decisions together in a safe environment
- reflect on teamwork during structured debriefing

The purpose is to practice **how to work together**, not just clinical content.

SECTION 2: DEFINING IPE AND IPCE

What Simulation Is and Is Not

*IPE occurs when students from two or more professions **learn from, about, and with each other** to enable effective collaboration and improve health outcomes.*

IS	IS Not
Active and role-based	A shared lecture or presentation
Intentionally designed around learning objectives	Watching a video or demonstration
Interactive across professions	Professions working separately or sequentially
Followed by guided reflection or debrief	Unstructured role play without feedback

SECTION 2: DEFINING IPE AND IPCE

Common Types of IPE Simulation

*Technology level varies — **intentional interprofessional design is what matters most**.*

Standardized patient simulation
Live patient encounters focused on communication, roles, and collaborative care

Mannequin-based simulation
Acute or high-stakes scenarios emphasizing teamwork, leadership, and coordination

Low-fidelity or table-top simulation
Case-based role play or team huddles that support scalable, low-resource IPE

Virtual or telehealth simulation
Video-based team encounters reflecting modern, multi-site practice

SECTION 2: DEFINING IPE AND IPCE

Why Simulation Is an Especially Powerful IPE Modality

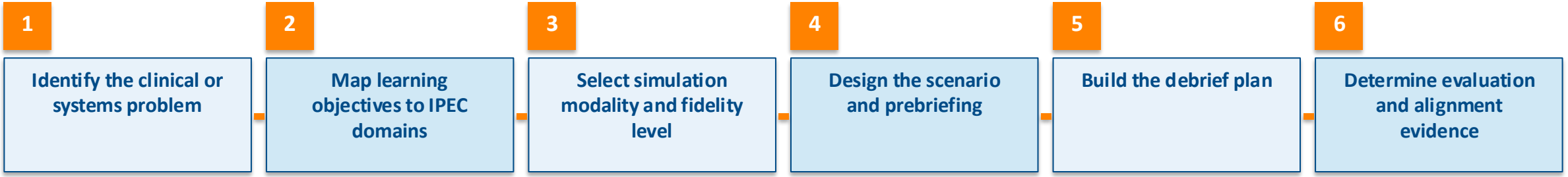
- Provides a psychologically safe space for learners to fail and debrief without risking patient harm.
- Only modality allowing direct, real-time observation of interprofessional team behaviors — enabling self- and observer-based assessment.
- Scalable: often times, the same scenario can be adapted for in-person, hybrid, and virtual delivery.
- Evidence shows significant pre-to-post gains in self-assessed collaboration competencies and attitudes toward teamwork.

Activity Break!

- Think of an interprofessional activity or simulation you currently run *or* want to run.
  - How would you describe the **team performance problem** it's trying to address?
  - Which **IPEC domain** does it target most clearly?
  - Where does it feel weak, informal, or hard to defend?

SECTION 3: SIX STEPS TO DESIGNING AN INTERPROFESSIONAL SIMULATION

The Six-Step Design Framework



Grounded in the INACSL Healthcare Simulation Standards of Best Practice (2021) and IPEC competency mapping literature.

SECTION 3: SIX STEPS

Step 1: Identify the Problem

Start with a real, observed gap in interprofessional team performance — not a content topic.

Ask: What is the team doing poorly? What would look different if this simulation worked?

Ground the problem in your local context: patient population, handoff failures, SDOH complexity, or a recent safety event.

The problem statement drives every subsequent design decision.

Example: 'Nurses and pharmacists fail to align on medication counseling for patients with limited health literacy and SDOH complexity.'

SECTION 3: SIX STEPS

Step 2: Map Learning Objectives to IPEC Domains

Write 3–5 measurable objectives using Bloom's verbs — each tagged to at least one IPEC domain. Ensure at least one objective addresses each relevant domain.

Objective	IPEC Domain
Demonstrate active listening techniques during handoff	Interprofessional Communication
Negotiate role assignment when two team members share overlapping scope	Roles and Responsibilities
Advocate for a patient's SDOH-related barrier within the team discussion	Values and Ethics
Apply closed-loop communication during a complex patient scenario	Teams and Teamwork

SECTION 3: SIX STEPS

Step 3: Select Fidelity and Modality

Fidelity = degree of realism in the simulation environment — physical, conceptual, and psychological. High fidelity is not automatically better.

Dimension	What it means	Example
Physical	Equipment, manikin, space	High-fidelity manikin vs. paper case
Conceptual	Accuracy of clinical content	Realistic lab values, real drug names
Psychological	Emotional and relational realism	Role tension, patient distress, power dynamics

Modality options: In-person high-fidelity manikin | Standardized patient (SP) scenario | Virtual simulation | Unfolding paper case

SECTION 3: SIX STEPS

Step 4: Design the Scenario and Prebriefing

Scenario Structure (INACSL 2021)

- Patient/case profile: demographics, chief complaint, history, SDOH context
- State changes: pre-scripted progression (stable → deteriorating → stabilized)
- Embedded cues: triggers for communication, role negotiation, handoff
- Props and environment: physical or virtual resources present

Prebriefing Is Not Optional

- Establish psychological safety explicitly before the scenario begins
- Orient all learners to roles, equipment, and ground rules
- Clarify what will happen in debrief so learners can reflect during the scenario
- Provide role cards specifying each profession's scope for this scenario

SECTION 3: SIX STEPS

Step 5: Build the Debrief Plan — The Learning Happens Here

Debriefing is where the simulation's educational value is realized — it must be planned, not improvised. Use Advocacy-Inquiry model or Plus-Delta.

- Reactions (5 min): What are you feeling? What surprised you?
- Description (3 min): What happened? Establish shared facts before interpretation.
- Analysis (10 min): Why did the team respond that way? Where did communication break down?
- Application (5 min): What would you do differently? How does this apply to your practice?
- **Use open-ended questions that surface interprofessional dynamics, not just clinical decisions.**
- **Tie observations back to IPEC domains before closing.**

SECTION 3: SIX STEPS

Step 6: Determine Evaluation and Alignment Evidence

- Evaluation must be tied directly to stated learning objectives — not global satisfaction ratings alone.
- Use validated tools: IPEC Competency Self-Assessment (IPEC-V3), ICCAS-R, or observer-based I-CATIS.
- Observer-based assessments consistently show lower ratings than self-report — plan for both.
- Document alignment: a matrix showing objective → IPEC domain → activity → assessment item.
- **This alignment matrix is your accreditation artifact.**

Activity Break!

In your breakout group (3–5 people), choose ONE focus:

- Option A — Alignment Check
  - Think of an IPE simulation you currently run or want to run
  - Where does alignment feel weakest?
    - Objectives, modality choice, debrief, or assessment
- Option B — The Hardest Step
  - Which of the six design steps is hardest to do well at your institution?
  - Why does it tend to get rushed, minimized, or skipped
- Option C — Accreditation Reality Test
  - If asked tomorrow to defend one simulation to an accreditor, what part would make you most nervous?

Instructions:

Choose one focus as a group
Discussion time: 7–8 minutes
Be prepared to share one insight or vulnerability

SECTION 4: BEST PRACTICES FOR ENGAGEMENT

Principles That Apply Regardless of Modality

- Psychological safety first: establish in **prebriefing**, reinforce at start of debrief.
- Role specificity: give every participant a role that reflects their professional identity.
- Real stakes: use patient complexity, time pressure, or SDOH elements that reflect authentic care environments.
- Structured interdependence: design the scenario so no single profession can complete the task alone.
- Adequate mix: aim for 2 professions minimum; 3–4 yields richer role dynamics without exceeding facilitation capacity.

SECTION 4: BEST PRACTICES FOR ENGAGEMENT

In-Person Engagement Strategies

Strategy	How it works	IPEC Domain
Role rotation	Learners swap roles mid-scenario or across runs	Roles and Responsibilities
Fishbowl observation	One team performs while others observe with structured guides	Teams and Teamwork
In-situ simulation	Scenario runs in the actual clinical workspace	All domains (high psychological fidelity)
Pause-and-discuss	Facilitator freezes scenario at critical juncture for real-time reflection	Communication; Teams and Teamwork
Embedded SP with SDOH complexity	SP portrays patient with language barriers, housing insecurity, or mistrust	Values and Ethics; Communication

SECTION 4: BEST PRACTICES FOR ENGAGEMENT

Virtual Engagement Strategies

Virtual IPE is feasible and evidence-supported when designed deliberately. The VIPE program has enrolled 5,000+ students across 60 universities using synchronous virtual IP scenarios.

Strategy	How it works	Tool/Platform
Async prework + sync debrief	Learners complete scenario independently; team debrief is synchronous	LMS + Zoom/Teams
Breakout rooms with role cards	Small IP groups work a case in breakout rooms, report back	Zoom, Teams
Chat-based structured prompts	Facilitator poses IPEC-domain questions in chat; pairs respond first	Any video platform
Screen-share case unfolding	Shared screen shows patient data evolving in real time	Teams shared doc
Virtual standardized patient	Live actor on camera plays patient; IP team interacts via video	Zoom + SP training

SECTION 5: CASE STUDY — PUTTING IT TOGETHER

Case Study: Mr. Torres at Discharge

Setting: Inpatient medicine unit | 15-minute discharge window

Patient: Mr. Torres, 68M, Spanish-preferred-language, newly diagnosed T2DM, discharged on metformin + lisinopril. Lives alone, limited health literacy, no pharmacy identified, expresses medication skepticism.

IP Team

- Staff pharmacist — medication counseling, adherence
- Bedside RN — discharge teaching, follow-up coordination
- Social worker — housing stability, food access, follow-up support
- Respiratory therapist — co-morbid COPD, inhaler education overlap

Scenario State Changes

- Initial: 15-minute window; roles not pre-assigned
- Midpoint trigger: Mr. Torres discloses he cannot afford both medications — asks which to stop
- Final trigger: Interpreter service unavailable — team must navigate without professional interpretation

SECTION 5: CASE STUDY

Case Study Analysis: Mapping to the Design Steps

Design Step	How it appears in this scenario
1. Problem identified	Discharge communication failures for patients with SDOH complexity and health literacy barriers
2. Objectives mapped to IPEC	Negotiate shared care plan (Teamwork); address SDOH in team discussion (Values/Ethics); use plain language with confirmed understanding (Communication); clarify who owns medication reconciliation (Roles)
3. Modality/fidelity	Standardized patient actor — medium fidelity; adaptable to virtual via video-based SP
4. Scenario and prebriefing	Role cards for each profession; psychological safety contract; SP trained with language, behavioral, and SDOH cues
5. Debrief plan	Advocacy-inquiry with specific prompts targeting the cost-disclosure trigger and interpreter absence trigger
6. Evaluation	ICCAS-R pre/post; observer ratings of closed-loop communication and role negotiation using behaviorally anchored checklist

SECTION 5: CASE STUDY

Discussion Questions for the Room

In your clinical setting, which IPEC domain is most visibly underdeveloped in your team's day-to-day practice?

If redesigning this scenario for your profession-specific training, what would you add to make role conflict more authentic?

What is the single biggest barrier to implementing an interprofessional simulation at your institution — and which design choice could address it?

The 2023 IPEC update added well-being and team resilience. How would you embed that into a simulation without making it feel artificial?

How do you ensure a simulation designed for students is equally useful for CE of practicing clinicians?

Key Takeaways and Resources

✓IPE is defined by 'learn from, about, and with' — simulations must produce that, not just co-located learning.

✓IPEC 2023 adds DEI, SDOH, One Health, and well-being — these belong in scenario design, not just objectives.

✓The six design steps (Problem → Objectives → Modality → Scenario/Prebriefing → Debrief → Evaluation) are non-negotiable for alignment integrity.

✓Debrief quality drives learning transfer more than scenario fidelity.

✓Virtual delivery is evidence-supported when built on psychological safety and structured interdependence.

Resources: IPEC Core Competencies 2023 (ipecollaborative.org) | INACSL Standards of Best Practice 2021 | ICCAS-R | I-CATIS

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