

# SUD Counseling Research Update

2025-07-10

## Study 1 Results Summary

We completed Study 1 with N=391 undergraduate students using machine learning (L1-regularized logistic regression) to predict interest in SUD counseling careers. The model achieved strong performance (ROC AUC = 0.787).

### Key Findings

**1. Career Uncertainty is the Strongest Predictor** - Students committed to mental health careers rarely consider SUD counseling (only 8.5% interested) - Students uncertain about mental health careers show much higher interest (33.3%) - Students with no mental health career plans show highest interest (64.0%) - This suggests SUD counseling attracts career explorers, not mental health specialists

**2. Professional Exposure Matters** - Clear dose-response relationship: - No familiarity with SUD counselors: 27.6% interested - Some familiarity: 38.6% interested - More familiarity: 56.1% interested

**3. Timing Matters** - First-year students: 40.3% interested - Second-year students: 33.5% interested - Interest appears to decline in later years (though smaller samples limit conclusions)

**What Wasn't Significant:** Religion/spirituality and race/ethnicity showed no statistically significant effects despite initial appearances.

## Study 2 Analysis Plan

Study 2 uses focus group data from 19 participants across 7 sessions. Given the small sample size, we're taking a different approach than originally planned.

## New Approach: Person-Level Classification

Instead of classifying individual utterances, we'll use Google Gemini to read ALL of each person's comments throughout the focus group and make a holistic judgment about their interest level.

**Why This Makes Sense:** - We care about whether the PERSON is interested, not individual statements - People express mixed feelings - the LLM can weigh these naturally - Someone might show interest through questions without directly stating "I'm interested" - The full context provides a more accurate picture

## Implementation Steps

1. **Organize transcripts by person** - compile all utterances from each participant
2. **Use Gemini for person-level classification:**
  - INTERESTED: Shows genuine interest in SUD counseling career
  - NOT\_INTERESTED: Expresses disinterest or preference for other paths
  - NEUTRAL/UNCLEAR: Cannot determine clear interest level
3. **Extract supporting quotes** - have Gemini identify key utterances that support its classification
4. **Analyze language patterns** between interested vs not-interested groups
5. **Link to demographics** - examine if survey responses correlate with interest

## Analysis Focus

With only 19 people, we'll focus on: - **Descriptive patterns** rather than statistical prediction - **Rich examples** of how students express interest or disinterest - **Themes** that validate or extend Study 1 findings - **Practical insights** for recruitment messaging

## Linking to Qualtrics Survey Data

**Important:** A subset of focus group participants also completed a separate Qualtrics survey with additional questions about: - Demographics (age, year, major, etc.) - Career interests and plans - Personal experiences with mental health/substance use - Attitudes toward counseling professions

We will link each person's focus group classification (INTERESTED/NOT\_INTERESTED/NEUTRAL) to their survey responses to explore: - Whether demographic factors relate to interest patterns - How survey responses align with expressed interest in focus groups - Additional context about participants' backgrounds and experiences

All analyses will be descriptive given the small sample size, focusing on patterns and examples rather than statistical significance.

## Timeline

Results should be ready for the next team meeting.

## **Expected Outcomes**

This approach will tell us: - How many focus group participants showed interest (base rate) - What language distinguishes interested from not-interested students - Whether themes align with Study 1's career uncertainty finding - Specific barriers and attractions in students' own words

The combination of Study 1 (what predicts interest) and Study 2 (how interest is expressed) will provide actionable insights for SUD counseling recruitment efforts.