

Abstract

Background: Evidence on longitudinal quantitative assessment of Professional Identity Formation (PIF) is limited.

Aim: To examine whether PIF can be tracked longitudinally using the PSIQ alongside professionalism, leadership, and resilience.

Methods: Longitudinal cohort of 146 RCSI medical students followed annually (DEM 5 years; GEM 4 years). Hierarchical mixed-effects modelling assessed developmental trajectories.

Results: PSIQ scores increased significantly across training in DEM ($\beta = (2.61; 95\% \text{ CI } [2.33, 2.89], p < 0.001)$) and GEM ($\beta = 2.39; 95\% \text{ CI } [2.00, 2.78], p < 0.001$). No consistent longitudinal change was observed in professionalism, leadership, or resilience.

Conclusion: PSIQ shows sensitivity to developmental progression and supports longitudinal monitoring of professional identity in medical education.

Background

- Professional Identity Formation (PIF) is central to medical education and reflects how students internalize professional values, roles, and behaviours.
- Existing research on PIF is largely qualitative or cross-sectional, limiting understanding of developmental change over time.
- Longitudinal quantitative evidence is needed to evaluate whether PIF can be tracked throughout medical training.
- The PILLAR study was established to assess PIF alongside professionalism, leadership, and resilience in medical students.

Aims

To determine whether Professional Identity Formation can be quantitatively tracked longitudinally across medical training using the Professional Self-Identity Questionnaire (PSIQ), compared with professionalism, leadership, and resilience.

Objectives

- Assess longitudinal change in Professional Identity Formation using PSIQ across medical training
- Compare developmental trajectories of PIF with professionalism, leadership, and resilience

Methods

Design: Longitudinal cohort study with repeated annual assessments.

Setting: RCSI University of Medicine and Health Sciences, Dublin.

Participants:

- 146 medical students followed from entry to final year
- Direct Entry Medicine (DEM): n = 95 (5-year Programme)
- Graduate Entry Medicine (GEM): n = 51 (4-year Programme)

Measures:

- Professional Identity Formation — Professional Self-Identity Questionnaire (PSIQ)
- Professionalism — perception of unprofessional behaviours scale
- Leadership — Medical Leadership Competency Framework (MLCF)
- Resilience & Well-being — Brief Resilience Scale (BRS) and EPOCH

Statistical Analysis

Hierarchical mixed-effects model

- Random intercept for student
- Time treated as continuous
- VIF < 5 (no multicollinearity)
- Linktest confirmed model fit

Results

PIF increased significantly across training

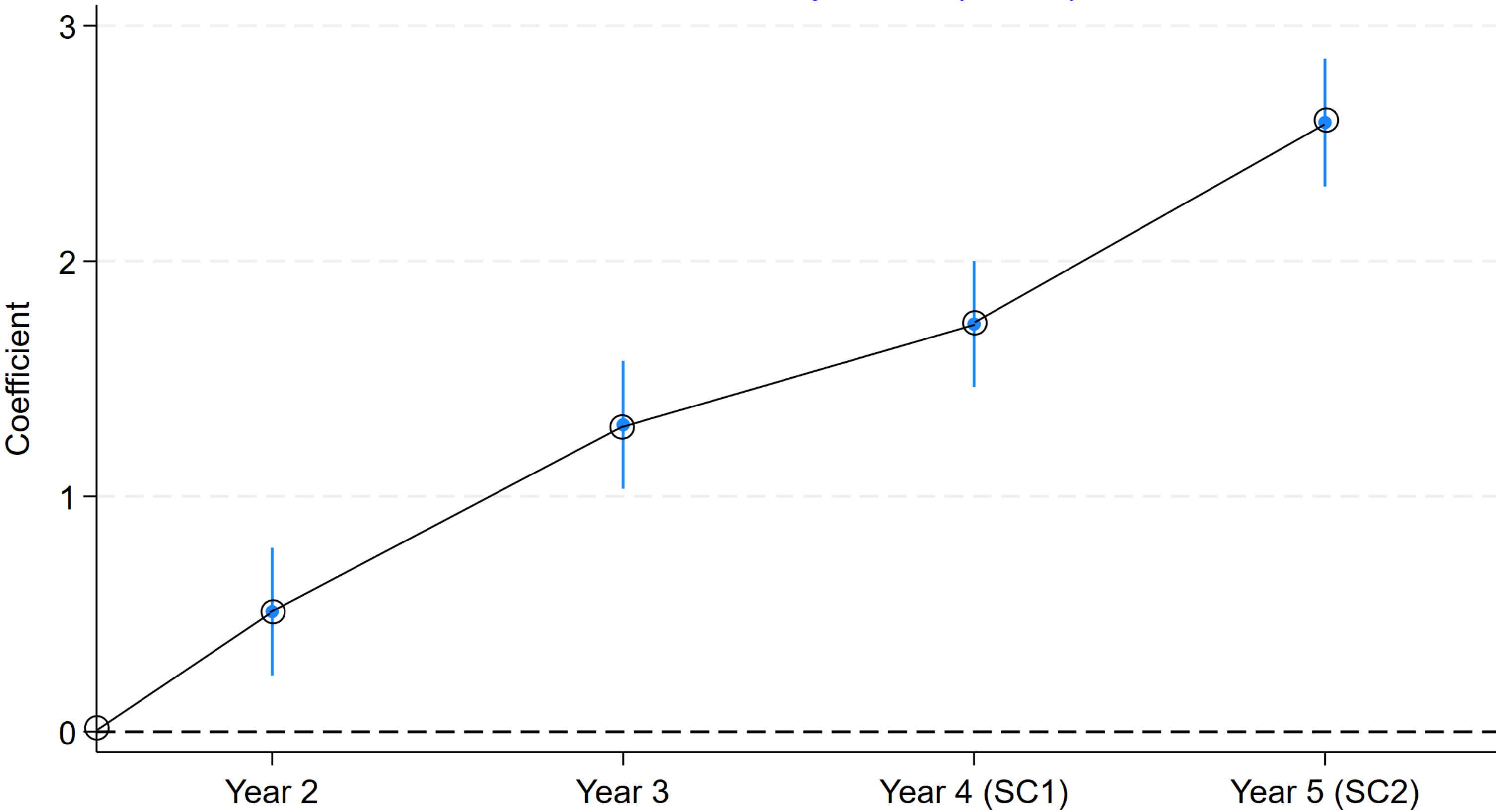
- DEM: $\beta = (2.61; 95\% \text{ CI } [2.33, 2.89], p < 0.001)$
- GEM: $\beta = (2.39; 95\% \text{ CI } [2.00, 2.78], p < 0.001)$

No consistent longitudinal change observed in:

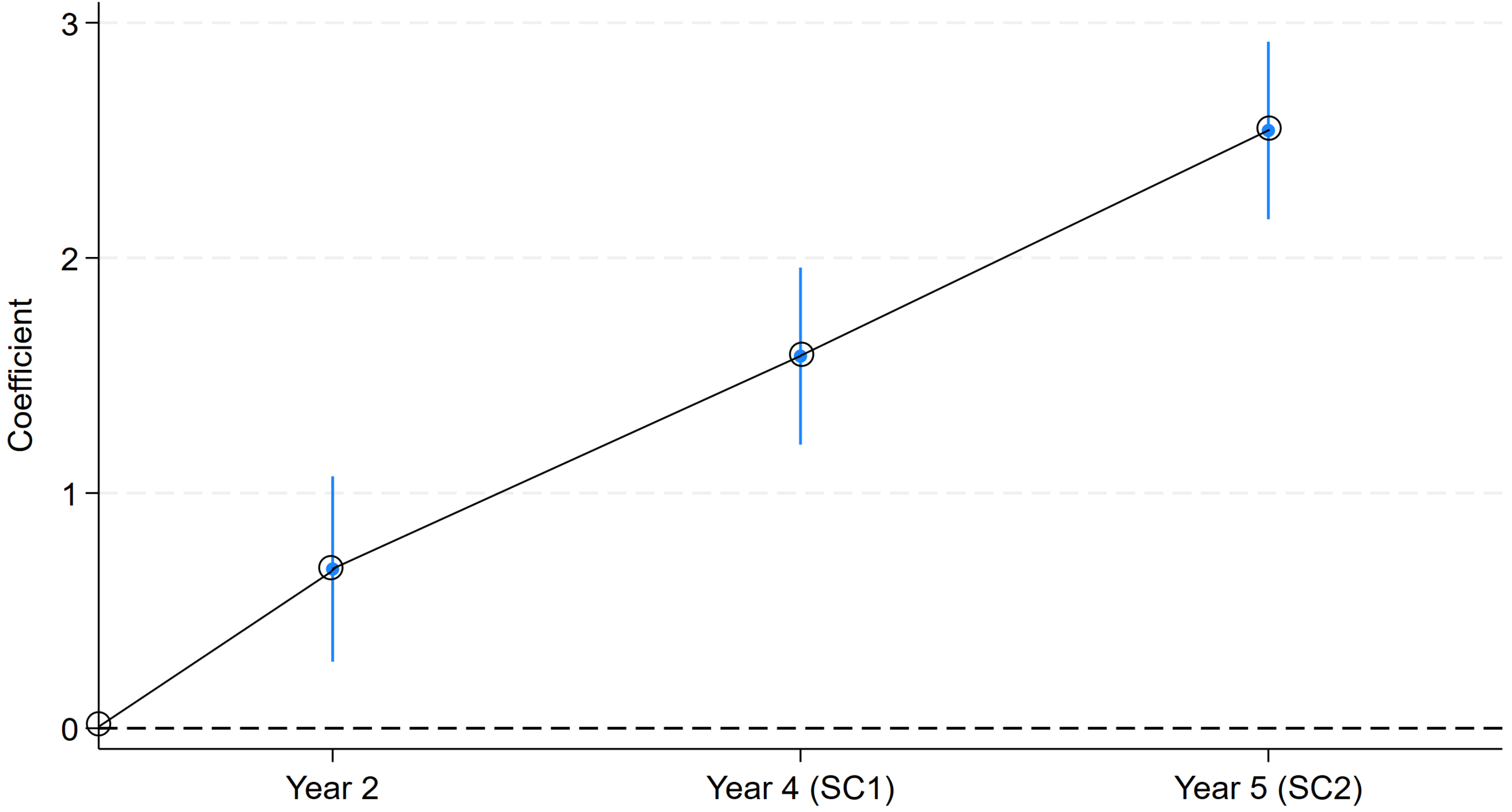
- Professionalism
- Leadership
- Resilience / well-being

Professional identity develops progressively across medical school, independent of related constructs.

PIF Coefficient Estimates by Year (DEM) with 95% CI



PIF Coefficient Estimates by Year (GEM) with 95% CI



Discussion

- PSIQ detected progressive professional identity development across training.
- Growth occurred independently of professionalism, leadership, and resilience.
- Findings support PSIQ as a sensitive longitudinal assessment tool.
- Longitudinal monitoring will help educators evaluate curriculum impact.

Conclusion

- Professional Identity Formation increases consistently across medical training and can be measured longitudinally using the PSIQ.
- The PSIQ shows promise as a practical tool for monitoring professional identity development in medical education.

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