

## Evaluating a Four-Year Cocurriculum Focused on Professional Identity Formation and Well-Being: Longitudinal Feedback from Students and Faculty

Fiona M. Doyle<sup>1</sup>, Daniel K. O'Connor<sup>1\*</sup>

<sup>1</sup>Department of Pharmacy Education, School of Pharmacy, University College Cork, Cork, Ireland.

\*E-mail ✉ [daniel.oconnor@outlook.com](mailto:daniel.oconnor@outlook.com)

### Abstract

The development of professional identity within the PharmD program occurs progressively and is shaped by numerous curricular and co-curricular influences. This study aims to evaluate perceptions of student pharmacists and faculty advisors from 2019 to 2024 regarding a 4-year longitudinal cocurriculum, Exploring Leadership and Self-Awareness (ELSA), which integrates professional identity formation and well-being. An annual survey-based evaluation was implemented to examine curriculum content and operational aspects. The instrument included 3 domains with 19 Likert-scale agreement items, along with open-ended questions completed by first-, second-, and third-year student pharmacists and pharmacy faculty at a single institution.

Overall, student responses indicated favorable perceptions, with more than 70% agreement related to ELSA's structure, educational content, and faculty advisor involvement. Across the comprehensive survey, mean agreement levels were 91% for first-year students, 86.6% for second-year students, and 90.4% for third-year students. Faculty advisors likewise reported strong agreement levels (>56%) regarding student participation and the perceived value of ELSA materials. The integrated and longitudinal ELSA cocurriculum offers multiple experiences that enhance self-awareness and support both personal growth and professional development. Feedback from students and faculty advisors demonstrates its beneficial influence and identifies opportunities for ongoing improvement of the cocurricular program.

**Keywords:** Professional identity, Well-being, Professional development, Faculty advising, Pharmacy education

### Introduction

Pharmacists face ongoing demands driven by changes in health care systems and societal expectations. Consequently, pharmacy education must extend beyond knowledge acquisition to include the cultivation of professional skills, attitudes, and behaviors that prepare graduates for continual adaptation. The significance of professionalism development is reflected in the Accreditation Council for Pharmacy Education (ACPE) Standards, including both the 2016 standards in effect

during the creation of ELSA and the updated 2025 standards. ACPE Standard 4 (2016) emphasizes leadership, innovation/entrepreneurship, and professionalism as key elements in preparing capable pharmacy professionals who can contribute meaningfully to individual and community health [1]. The revised ACPE Standards 2025 continue to highlight professionalism, self-awareness, and leadership (Standard 2.1), as well as well-being (Standard 4.1) [2]. Clarifying the relationship between professional identity and leadership development among students is necessary to close existing educational gaps. Consistent with accreditation expectations, professional identity encompasses the shared sense of self, values, principles, and behaviors that characterize members of a profession [2]. Increasingly recognized as a foundational construct, professional identity influences attitudes, motivations, behaviors, and interactions with peers, patients, and

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society [3]. Supporting professional identity development is essential for advancing excellence, strengthening collaboration, and responding to the evolving demands of pharmacy practice. Prior research highlights professional identity formation (PIF) as a critical component of pharmacy education [4]. Studies exploring student pharmacists' self-perceptions found that many lacked a clear and cohesive understanding of the pharmacist role, suggesting constrained professional self-concepts [3, 4]. Similar observations were noted among our students, along with employer feedback underscoring the need for stronger confidence and leadership among new graduates. Additionally, curricular mapping identified gaps in leadership instruction, prompting alignment with the WesternU College of Pharmacy's mission to "develop leaders in pharmaceutical care and research who will advance global health outcomes through innovative pharmacy practice, interprofessional collaboration, scholarship, and service."

In response to ACPE Standards 2016 Domain 4 requirements and identified curricular gaps, a structured, progressive, 4-year cocurriculum—Exploring Leadership and Self-Awareness (ELSA)—was established. ELSA represents a comprehensive and integrative model emphasizing PIF, personal and professional growth, well-being, and reflective career planning. It is required for all PharmD students at WesternU College of Pharmacy. Influences on PIF include didactic and experiential coursework, student involvement, mentorship and role modeling, prior work experiences, professional meetings, and experiential education [3–5]. ELSA was deliberately designed to integrate these elements. The purpose of this study is to evaluate and track perceptions of student pharmacists and

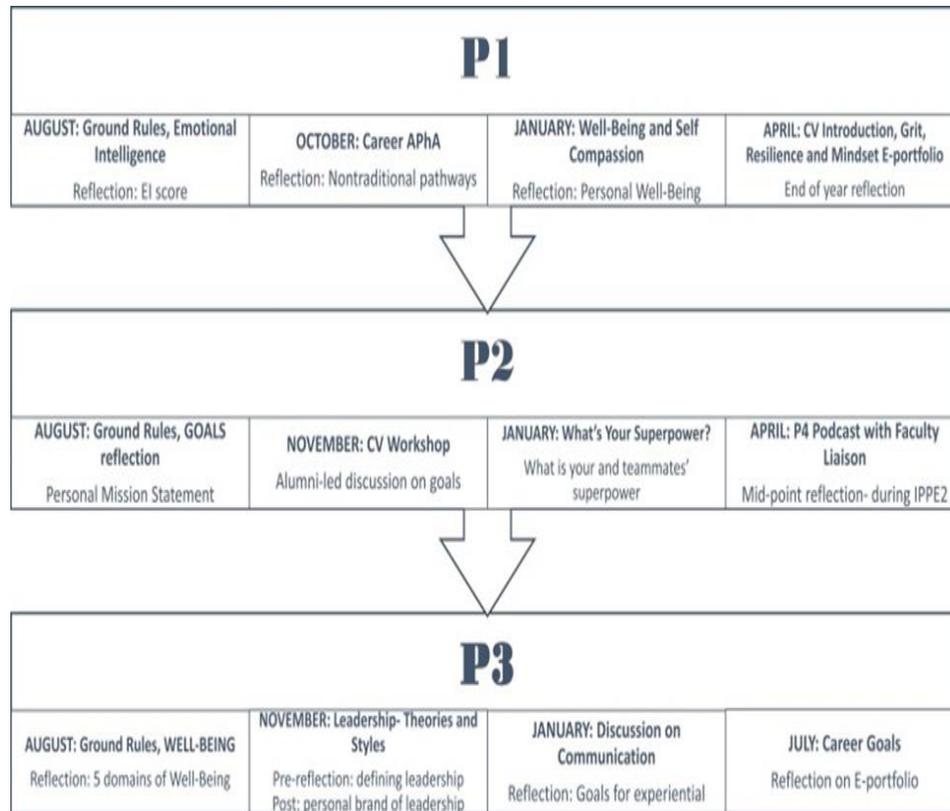
faculty advisors regarding the ELSA longitudinal cocurriculum.

## Materials and Methods

### *ELSA program structure*

As depicted in **Figure 1**, the ELSA cocurriculum begins in the orientation week for first-year pharmacy (P1) students, who complete the Strengths Finder assessment. The results guide team assignments, forming groups of 6–8 students within each cohort. Teams are rotated each year—except from third year pharmacy (P3) to fourth year—to give students exposure to peers with diverse backgrounds and skills. During the P2 and P3 years, team composition considers academic performance, age, ethnicity, and gender. Each team is paired with a faculty advisor for mentoring throughout the year.

For P1 students, advisors are primarily from the Department of Biotechnology and Pharmaceutical Sciences, corresponding to the focus on foundational sciences and early practice content. In contrast, P2 and P3 students work with Pharmacy Practice and Administration faculty, aligning with the more advanced curricular content. This arrangement allows students to develop meaningful interactions with advisors who are also engaged in their coursework. P1 students receive an initial orientation to ELSA, while faculty advisors undergo refresher sessions at the start of each year. Advisors are encouraged to check in regularly with teams to support well-being, facilitate self-awareness discussions, and guide leadership and professionalism development. Teams initially meet to establish expectations and accountability, then convene four times per year (twice each semester) during lunch to discuss assigned topics, with meals provided by the college (**Figure 1**).



**Figure 1.** ELSA curriculum schedule (Assignments and Assessments). Abbreviations: APhA, American Pharmacists Association; CV, Curriculum Vitae; ELSA, Exploring Leadership and Self Awareness; IPPE2, Introductory Pharmacy Practice Hospital Experience; P1, first year pharmacy; P2, second year pharmacy; P3, third year pharmacy.

P1 ELSA sessions focus on self-awareness, including personal strengths, emotional intelligence in leadership, early career exploration, well-being, and cultivating grit and resilience. P2 sessions emphasize developing a personal mission statement, acknowledging individual contributions in teams, and identifying personal and professional goals. P3 topics include leadership style identification, promoting well-being, and refining experiential learning objectives.

In P4, ELSA centers on career planning linked to experiential education. Faculty advisors facilitate only alternate sessions to encourage independent team functioning, accountability, and leadership skill application. Advisors receive discussion prompts aligned with the session's focus to help teams reflect on experiences and improvement areas. Students complete reflections after each session.

All reflections are submitted individually via the E\*Value e-portfolio, which serves as a repository for ELSA materials and a tracking tool for student progress.

Grading is Pass/Fail, assessing timeliness, effort, and professionalism, conducted by one of two faculty liaisons per PharmD year. Faculty liaisons rotate responsibilities for sessions, student and advisor communications, and attendance monitoring. The ELSA task force consists of a facilitator, four faculty liaisons, the Associate Dean for Curricular Affairs, and the Assistant Dean for Student Affairs. Two faculty coordinate career planning and CV development. The task force oversees syllabus design, session topics, reflection prompts, logistics, and quality improvement based on feedback collected at year-end.

ELSA represents the sixth domain of the Professional Development Curriculum, which also includes professional education, patient care/service, legislative advocacy, leadership/service, and healthcare-related community service and philanthropy. The goal is to cultivate leaders who are aware of their strengths and resilient throughout their PharmD journey. By incorporating these elements, students can develop professional identity, values, and purpose. The program

also provides opportunities to engage with practicing pharmacists who model professional behaviors and encourage mentorship through professional organizations and experiential education.

### Assessment

Evaluation of the ELSA program occurs at the end of each academic year and incorporates feedback from students, faculty advisors, and the ELSA task force. Student input is gathered through a 19-item survey administered via Qualtrics, which covers areas including alignment of the curriculum with learning objectives, relevance of session topics, usefulness of assignments, engagement with faculty advisors, and staff support. Responses are collected on a 4-point Likert scale, where 4 indicates “strongly agree” and 1 indicates “strongly disagree.” Participation is voluntary, with students allowed two weeks to respond and receiving periodic reminders. Items related to content explore whether materials were engaging, appropriate, and beneficial. Questions about faculty advisors focus on their involvement, scheduling, comfort, and effectiveness of prompts, while staff-related items assess accessibility, responsiveness, and assistance provided.

Faculty advisors complete a separate survey addressing logistics, scheduling, session content, lunch meetings, and staff support. These items specifically measure the ease of time commitment, perceived engagement of students during sessions, faculty interactions outside of ELSA, understanding of session outcomes, usefulness of discussion prompts, and overall perceived contribution of ELSA to the curriculum.

The ELSA assessment protocol has been reviewed and exempted by the WesternU Institutional Review Board. Data were collected from P1, P2, and P3 students, as well as faculty advisors, for the academic years 2018–2019, 2021–2022, 2022–2023, and 2023–2024. P4 students were excluded because they participate in Advanced Pharmacy Practice Experiences. Survey data were analyzed descriptively and compared across cohorts (P1–P3) and academic years. Reliability was confirmed with a Cronbach’s alpha of 0.948. “Strongly agree” and “agree” responses were combined to calculate an overall percentage of agreement for each item, and averages across domains were calculated to produce summary scores. Differences between cohorts and across years

were evaluated using one-way ANOVA at a 95% confidence level (**Table 1**). Faculty survey results were analyzed using the same methods, and open-ended responses were reviewed to identify recurring themes.

**Table 1.** Comparison of student feedback scores by class and year

| Class | 2019      | 2022     | 2023     | 2024     |
|-------|-----------|----------|----------|----------|
| P1    | 73 (100%) | 19 (38%) | 36 (32%) | 49 (38%) |
| P2    | –         | 14 (28%) | 49 (44%) | 26 (20%) |
| P3    | –         | 15 (34%) | 29 (24%) | 36 (28%) |

Abbreviations: ANOVA, analysis of variance; P1, first year pharmacy; P2, second year pharmacy; P3, third year pharmacy.

Average scores from the three sections—curricular design and review, session content, and advisor involvement—were analyzed. One-way ANOVAs compared scores between cohorts for each year (2022–2024; 2019 included only P1 and was excluded). No significant differences were observed between cohorts. When comparing across years, P1 scores remained stable, P2 scores showed a significant difference ( $p < 0.05$ , #Q3\_Advisor:  $p < 0.05$ ), and P3 scores remained unchanged.

## Results and Discussion

Survey response rates ranged from 78% to 97% for P1, 69% to 97% for P2, and 80% to 97% for P3, with an overall average participation rate of 41%, reflecting the voluntary nature. In 2023–2024, 49 of 73 P1 students, 26 of 62 P2 students, and 36 of 105 P3 students completed the survey. Data from 2019–2020 and 2020–2021 were excluded due to COVID-19–related modifications to ELSA delivery.

### Student feedback

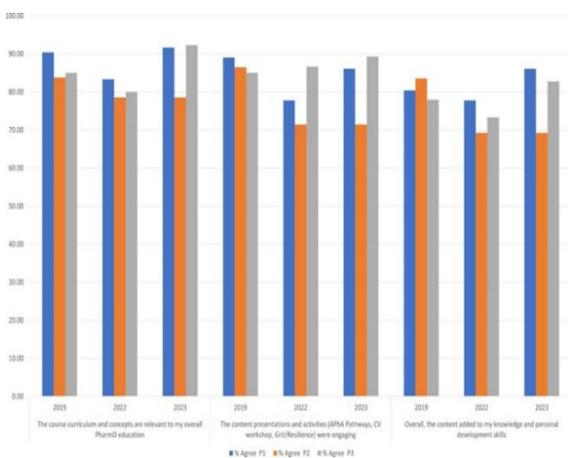
Regarding curriculum design, over two-thirds of students across all cohorts agreed that the learning objectives were clear and that the curriculum was relevant (**Table 2**). Between 70% and 93% of students across all years agreed that assignments, content presentations, and resources were useful (**Table 2**). Feedback related to faculty advisors was similarly positive. Across all cohorts and years, students reported an average of 91.7% ( $\pm 5.2$ ) agreement regarding comfort with, engagement in, and contributions from faculty advisors (**Table 2**).

**Table 2.** ELSA student feedback from 2018 to 2024 at western university of health sciences college of pharmacy

| PharmD Year Level   | P1               | P1               | P1              | P1              | P2               | P2            | P2               | P2              | P3             | P3               | P3              | P3               |
|---|------------------|------------------|-----------------|-----------------|------------------|---------------|------------------|-----------------|----------------|------------------|-----------------|------------------|
| Academic Year   | 2018–<br>2019    | 2021–<br>2022    | 2022–<br>2023   | 2023–<br>2024   | 2018–<br>2019    | 2021–<br>2022 | 2022–<br>2023    | 2023–<br>2024   | 2018–<br>2019  | 2021–<br>2022    | 2022–<br>2023   | 2023–<br>2024    |
| Survey Response Rate (%)  | 73/116<br>(62.9) | 18/114<br>(15.7) | 36/63<br>(57.1) | 49/73<br>(67.1) | 74/133<br>(55.6) | 14/93<br>(15) | 49/107<br>(45.7) | 26/62<br>(41.9) | 60/120<br>(50) | 15/116<br>(12.9) | 29/99<br>(31.5) | 36/105<br>(34.2) |
| Percentage of Respondents Selecting "Strongly Agree" or "Agree" on a 4-Point Likert Scale Measuring Agreement |                  |                  |                 |                 |                  |               |                  |                 |                |                  |                 |                  |
| <b>Category</b>   |                  |                  |                 |                 |                  |               |                  |                 |                |                  |                 |                  |
| Design and review of the curriculum   | 94.1             | 86.9             | 93.5            | 96.4            | 88.7             | 69.0          | 90.5             | 97.4            | 90.0           | 93.3             | 90.5            | 90.4             |
| Course content  | 87.2             | 78.9             | 86.8            | 84.5            | 86.4             | 70.1          | 90.3             | 89.7            | 79.5           | 84.4             | 85.9            | 96.1             |
| Academic advisor  | 91.8             | 97.2             | 97.2            | 95.8            | 90.5             | 78.2          | 93.1             | 94.8            | 91.7           | 92.9             | 92.9            | 97.1             |
| Overall satisfaction  | 91.0             | 87.7             | 92.5            | 92.2            | 88.5             | 72.4          | 91.3             | 94              | 87.1           | 90.2             | 89.8            | 94.5             |

Abbreviations: ELSA, Exploring Leadership and Self-Awareness; P1, first year pharmacy; P2, second year pharmacy; P3, third year pharmacy.

Responses to targeted questions about the ELSA co-curricular program and the pertinence of its topics to PharmD training revealed agreement levels ranging from **\*\*83.3%\*\*** to **\*\*91.7%\*\*** across the three class years. Broadly, learners found the session deliveries and exercises—including American Pharmacists Association (APhA) Pathways, CV Workshop, and Grit/Resilience components—captivating (77.8%–89%) and noted that the material overall enhanced their understanding along with individual growth abilities (77.8%–86.1%) (**Figure 2**). Free-text responses came from less than 15% of participants and consisted mostly of favorable remarks on small-group engagements with faculty mentors, plus requests for extended duration and further contact with them.



**Figure 2.** Multi-year perceptions regarding ELSA pertinence, involvement, and benefit among P1, P2, and P3 cohorts from 2019–2024 (See PPT). Abbreviations: APhA, American Pharmacists Association; CV, Curriculum Vitae; ELSA,

Exploring Leadership and Self-Awareness; P1, first-year pharmacy student; P2, second-year pharmacy student; P3, third-year pharmacy student.

#### Cohort comparisons

The study encompassed P1 (n = 177), P2 (n = 89), and P3 (n = 80) learners at WesternU spanning 2019 to 2024, with data restricted to P1 in 2019 and absent for 2020–2021. In the period 2022 through 2024, yearly class proportions shifted modestly: P1 constituted 32% to 38%, P2 represented 20% to 44%, and P3 accounted for 24% to 34% of yearly participants.

Review of composite survey ratings detected no meaningful statistical variances among class levels (P1, P2, P3) within individual years (2022–2024). Over the timeframe, the P2 cohort exhibited a statistically notable elevation in aggregate scores, ascending from 2.96 in 2022 to 3.33 in 2023 and 3.44 in 2024 (p = .040). This rise stemmed chiefly from the Advisor domain, which displayed a matching progressive pattern (2022 = 2.88; 2023 = 3.34; 2024 = 3.49; p = .013). By comparison, P1 and P3 cohorts revealed no substantial variations over time.

#### Responses from faculty

Key findings from faculty appear in **Table 3**, with agreement rates (agree/strongly agree) exceeding 66% for every item. On program material aspects, instructors deemed ELSA elements stimulating, suitable, and useful (72%–90%). They largely endorsed practical scheduling, observed active student involvement, and perceived student ease (66%–82%). Instructors also supplied constructive input after ELSA activities, supporting refinements for upcoming iterations. Notable

recommendations addressed operational matters, such as assigning backup mentors for abrupt absences during midday ELSA gatherings.

**Table 3.** Perceptions of ELSA from faculty members, 2018 to 2024, western university of health sciences college of pharmacy.

| Survey Year  | 2019          | 2022          | 2023          | 2024          |
|--|---------------|---------------|---------------|---------------|
| Number of Respondents (Response Rate %)  | 18/49 (36.7%) | 15/49 (30.6%) | 11/49 (22.4%) | 10/49 (20.4%) |
| Percentage of Respondents Selecting "Strongly Agree" or "Agree" on a 4-Point Likert Scale Measuring Agreementa |               |               |               |               |
| Statement  |               |               |               |               |
| The presentations of content were engaging   | 76.5          | 80            | 72.7          | 77.8          |
| The content was suitable for supporting the achievement of ELSA objectives                                     | 70.9          | N/A           | 72.7          | 88.9          |
| The advisor effectively led the lunch meetings (overall rating)  | 66.9          | 71.4          | 81.8          | 85.2          |
| Student pharmacists appeared actively engaged in the ELSA meetings   | 56.3          | 80            | 91.0          | 80            |

Abbreviations: ELSA, Exploring Leadership and Self-Awareness; N/A, not applicable.

ELSA represents a longitudinal and integrative initiative designed to foster leadership, self-awareness, and professional identity formation early in the PharmD curriculum and to continue building these skills throughout the program. Survey response rates for the ELSA Feedback Survey were lower during the 2021–2022 academic year due to disruptions from the COVID-19 pandemic. Additionally, a gradual decline in response rates is observed as students advance through the curriculum. In other course evaluations, we have implemented a policy releasing grades only after completing evaluations, which results in near-complete participation. Applying a similar strategy for ELSA could be considered to enhance future survey response rates.

Analysis of trends across the 2019, 2022, 2023, and 2024 academic years revealed some consistent patterns for each class (P1, P2, P3). Agreement with survey statements was generally highest among P1 students, declined for P2 students, and rose again for P3 students. First-year students typically exhibit enthusiasm and responsiveness to new activities like ELSA. In contrast, the decline in agreement observed for P2 students is mirrored in course evaluations, anecdotal feedback, and perceptions of engagement. By P3, students demonstrate increased professional maturity and often approach the final didactic year with a more measured attitude.

The challenges for P2 students include adapting to an intensive 18-day block system and transitioning from foundational sciences to therapeutic content. Many students also begin working as intern pharmacists during

this year, reducing time to fully engage with co-curricular activities such as ELSA. The rapid succession of ten consecutive courses in the P2 year can create emotional strain, influencing attitudes toward co-curricular participation. Agreement levels for P3 students were generally higher, reflecting both academic growth and anticipation of experiential learning. However, the P3 cohort in 2021–2022 reported the lowest agreement, likely due to the majority of their prior didactic coursework being delivered virtually, making the transition to in-person activities more challenging.

Interestingly, survey scores did not vary significantly between curricular and calendar years, except for the P2 question regarding faculty advisors. Faculty perceptions of ELSA content were higher in 2022 compared to 2019 and 2023, though the reason for this remains unclear. Students appeared most engaged from a faculty perspective in 2023, consistent with statistically significant results for questions related to faculty advisors. This may reflect the return to full in-person instruction after 2019. Faculty feedback after sessions continues to inform adjustments to prompts and logistics. Based on experience since 2018 and ongoing student and faculty feedback, ELSA is well-received and has a meaningful impact on students. As is common with “soft skills,” the full benefits of ELSA are often more apparent after graduation, as students enter professional practice. Alumni frequently report that leadership and self-development skills acquired through ELSA become

increasingly relevant as workplace responsibilities expand.

Several limitations should be considered. Survey gaps exist for the pandemic-affected years, and while ELSA continued virtually, engagement and outcomes were difficult to measure and not fully comparable to in-person years. Low response rates may reflect survey fatigue, and variability in respondent numbers limits generalizability. These surveys only assess perceptions of professional identity formation and do not measure the impact on Advanced Pharmacy Practice Experiences or career outcomes. Future research could explore how ELSA influences success in rotations, career placement, and other post-graduate achievements.

It is essential to recognize the resources required to implement ELSA. Financial considerations include providing lunch during ELSA sessions and covering access to assessment tools. Since ELSA meetings occur during the lunch hour, meals are offered to both students and faculty advisors. Students also receive complimentary access codes for tools such as the Gallup Clifton StrengthsFinder, Emotional Intelligence Leadership Inventory, APhA Pathways questionnaire, and surveys on grit, resilience, and mindset [6]. Scheduling sessions that accommodate all students and faculty advisors can be challenging. Additional resources include personnel who manage session logistics, arrange venues, coordinate meals, and disseminate communications and assignments to students and faculty. Collecting and organizing reflection data also requires dedicated staff.

In response to evolving societal and professional demands, fostering leadership abilities and a professional mindset, while promoting self-care and care for others, remains crucial for future healthcare providers. The ELSA program at WesternU addresses these needs. Beginning in 2023, the curriculum expanded its focus on well-being and was renamed Wellness Leadership and Self-Awareness (WELSA) [6]. Students are encouraged to use the E\*Value e-portfolio as a centralized repository for their professional development profiles throughout the curriculum. All assessments and reflections are stored on this platform, allowing students to track progress, revisit their strengths, and continue reflective practice. During the 2023–2024 academic year, alumni were incorporated into the program to provide students with opportunities to engage with practicing pharmacists across various specialties, enhancing their understanding of the profession.

The WELSA task force intends to continue evaluating the impact of the curriculum on student professional growth. Future research plans include investigating the effects of APhA Pathways and CV workshops on residency, fellowship, and employment outcomes. Additional studies are planned to examine correlations between students' GPA and measures of grit and resilience.

### Conclusion

The ELSA (now WELSA) cocurriculum provides a structured framework that combines key resources to enhance self-awareness and leadership development, supporting overall personal and professional growth. Survey data suggest that both students and faculty find the curriculum content relevant and valuable. While organizing these activities requires coordinated effort among multiple college personnel, results indicate a meaningful positive effect on students' development. Ongoing efforts will aim to strengthen the curriculum further and continue assessing its impact on professional growth.

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