



National Survey to Assess Pharmaceutical Sciences Graduate Students' Professional Development Needs



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BACKGROUND

- Preparing graduate students for the workplace is critical for continuing to foster competent and confident pharmaceutical scientists.^{1,2}
- To help accomplish this, the AACP Graduate Education Special Interest Group Colleagues in Training Committee (CITC) develops programming for pharmaceutical sciences graduate students.
- To inform future programming that is relevant and engaging, graduate students' needs and preferences should be addressed.

OBJECTIVE

- To investigate professional development needs of pharmaceutical sciences graduate students.

METHODS

Study Design

- Cross-sectional electronic survey.

Survey Development

- 22-item survey developed by the CITC.
- Pre-tested for content and face validity.
- 5 domains: 1) preferred programming topics; 2) preferred programming format; 3) mentoring needs; 4) career goals; 5) demographics.

Sampling & Recruitment

- Survey invitation posted on AACP Connect and emailed to Graduate Program Officers/Directors and Associate Deans for Research at US pharmacy schools/colleges.
- Eligible respondents: trainees enrolled in US pharmaceutical sciences MS, PhD, or post-doc programs.

Data Collection & Analysis

- Survey fielded May to June, 2022.
- Data analyzed using descriptive statistics.

RESULTS

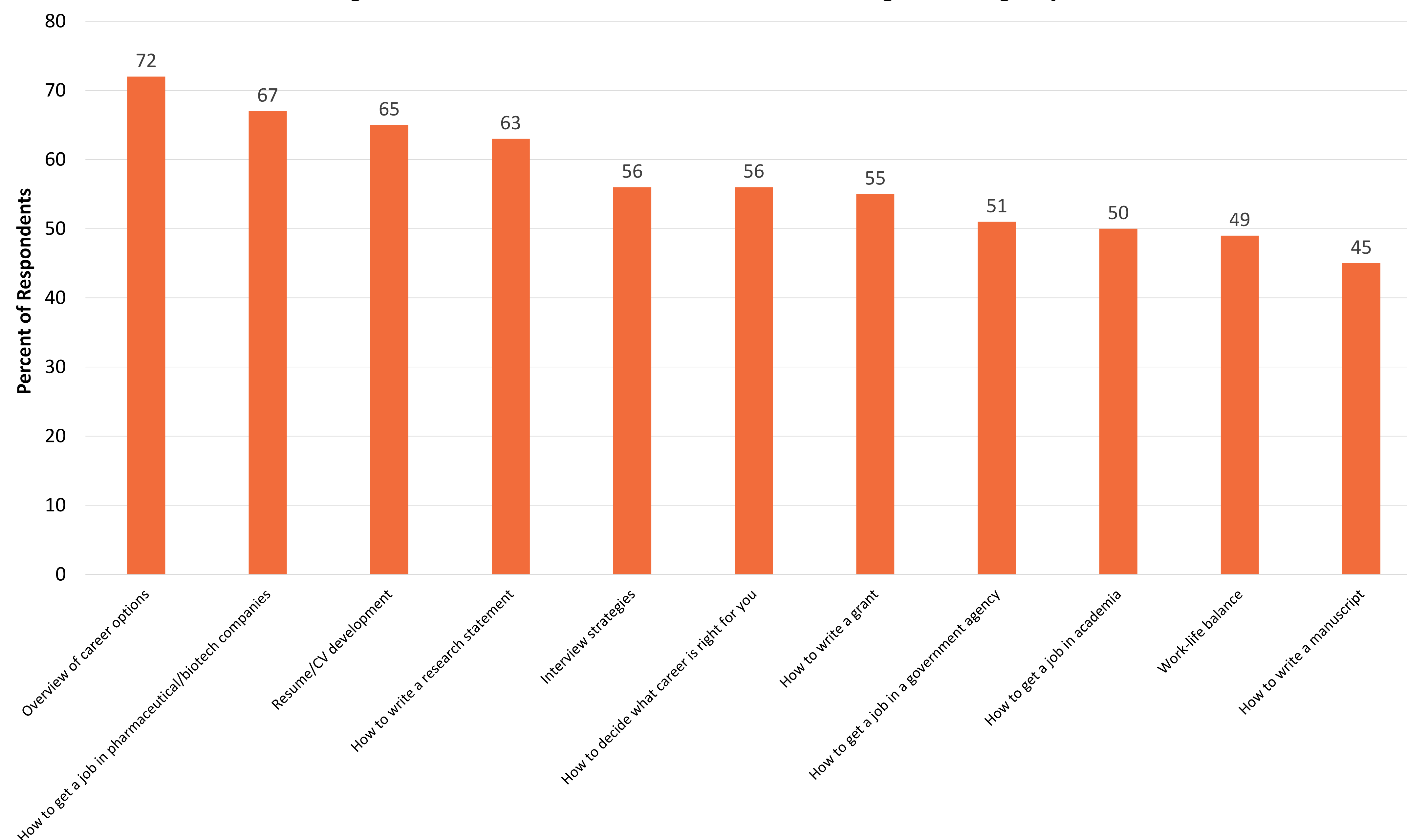
Table 1: Participant Characteristics

Characteristic	n (%)
Age (years), n=98	
Mean, SD	30, 6.05
Range	22-65
Gender, n=98	
Male	38 (39%)
Female	57 (58%)
Non-binary	2 (2%)
Race/ethnicity, n=98	
African-American or Black	4 (4%)
Asian	33 (34%)
Hispanic/Latin(x)	3 (3%)
White	50 (51%)
Nationality, n=98	
Domestic	54 (55%)
International	40 (41%)
Major, n=97	
Basic Sciences – e.g. Pharmaceuticals, Chemistry	58 (60%)
Clinical Sciences – e.g. Clinical Pharmacology	10 (10%)
Economic, Social, and Administrative Sciences (ESAS)	23 (24%)
Enrolled Program, n=97	
MS	11 (11%)
PhD	81 (84%)
Post-doc Fellow	5 (5%)

Key Findings

- 108 survey responses were analyzed.
- This represents 2% of the 5,349 MS and PhD enrollments at US schools of pharmacy in 2022 according to the AACP Profile of Pharmacy Students.
- Preferred programming topics included: overview of career options (72%), how to get a job in pharmaceutical/biotech companies (67%), and resume/CV development (65%).
- 47% preferred live in-person programming, 30% live webinars, and 23% recorded webinars.
- While 85% of participants reported that they had a major advisor, only 17% had a written mentorship contract. Additional mentorship sources included other faculty members, senior students, and working professionals.
- 44% planned careers in pharmaceutical/biotech companies, 27% academia, and 10% government agencies.

Figure 1: Graduate Students' Preferred Programming Topics, n=108



CONCLUSIONS

- Future programming may prioritize strategies for pharmaceutical sciences graduate students to decide what career is the right fit and developing job application materials.

LIMITATIONS

- Sample size.
- Student needs may differ between fields, such as basic sciences, clinical sciences, and ESAS.
- Generalizability to pharmaceutical fields of study outside those surveyed.

FUTURE STUDIES

- Beyond AACP programming, results are relevant for graduate school curricula.
- Designing and implementing individualized development programs targeting soft skills training.
- Investigate needs of PharmD students interested in post-grad MS or PhD programs.

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