SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

Assessing Pediatric Specialization in Pharmacy Education: A Survey of AACP-Accredited Schools

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SCHOOL OF PHARMACY

BACKGROUND

Need for pediatric-trained pharmacists

- Pediatric patients have unique pharmacokinetics, dosing challenges and medication safety concerns
- Over half of children under 12 use medications weekly, yet dosing errors occur in 40% of cases [1,2]
- Pharmacists play a key role in preventing medication errors and counseling caregivers
- Expanding pediatric education in pharmacy curricula can better prepare future pharmacists [3]

Gaps in pediatric-trained pharmacists

- Limited data exist on the availability of pediatric specializations in U.S. pharmacy schools
- Specialized tracks provide hands-on pediatric training but are not widely studied
- A recent study found variability in pediatric elective but lacked data on specializations [3]
- This study evaluates pediatric-focused programs to identify gaps and opportunities for improvement

OBJECTIVE

- To assess the availability, structure, and impact of pediatric pharmacy specializations in U.S. PharmD programs by identifying existing programs, exploring barriers to implementation, and evaluating how these specializations influence student education and career outcomes.

METHODS

Study Overview

- Assessed pediatric pharmacy specializations in U.S. PharmD programs through a national survey
- Examined specialization presence, requirements, barriers and post-graduation opportunities

Survey Design & Distribution

- Targeted academic affairs and curriculum representatives, reaching 129 out of 139 schools
- Collected data on structure, enrollment, coursework, experiential learning and career outcomes
- Administered via Qualtrics with a 2.5-week response period

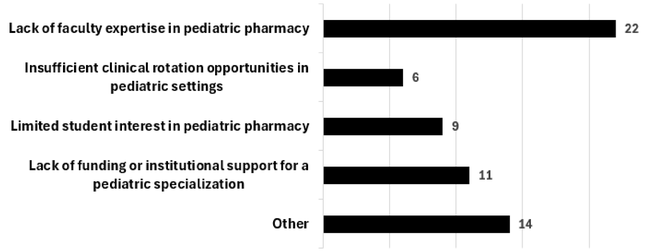
Data Analysis & Impact

- Used descriptive statistics to evaluate programs and barriers
- Identify challenges to offering pediatric specializations
- Use results to help inform future curriculum development

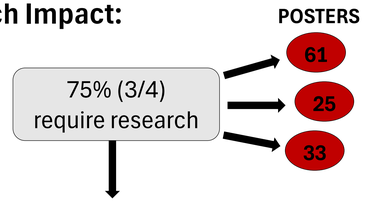
RESULTS

- 41 responses / 129 AACP accredited programs (32%)
- 4/41 (9.8%) – yes pediatric specialization
- 37/41 (90.2%) – no pediatric specialization

Barriers to offering a pediatric specialization



Research Impact:



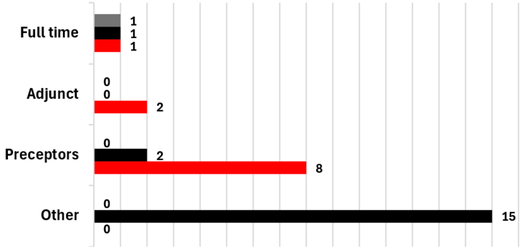
One program's pediatric specialization led to two platform presentations, and another resulted in 3-4 peer-reviewed manuscript publications

The length of time pediatric specializations have been offered varies: one program has offered it for 1 year, two programs for 7–10 years, and one program for over 10 years.

Application or pre-requisite requirements	# of programs
Minimum GPA	3
Specific coursework	2
Interview	1
Essay(s)	4
Resume	1
Experiential requirements	**# of programs**
IPPE - Pediatrics	1
Patient care APPE 1 - Pediatrics	4
Patient care APPE 2 - Pediatrics	2
Non-patient care APPE - Pediatrics	2
Research APPE	1
Didactic requirements	**Credit hours**
Average	4
Range	2 to 7

Overall assessment	
Course grade	3
Written/oral exam	0
APPE evaluations	4
Presentation of research	3

Faculty involved in pediatric specialization



Initial position following graduation	# of graduates		
PGY1 - children's hospital	22	12	8
PGY1 - general hospital	9	6	19
Pharmacist - children's hospital	3	0	2
Pharmacist - general hospital	2	0	9
Pharmacist - community	20	2	20
Other	1	0	0

# of students who have graduated with a pediatric specialization	# of students who are currently practicing in pediatric settings
41-60	21-40
21-40	80% of graduates
41-60	21-40

One program was excluded as it has not yet had graduates, with the specialization only in its first year.

CONCLUSION

- Fewer than 10% of surveyed pharmacy schools offer pediatric specialization tracks
- Faculty limitations, institutional challenges and low student interest hinder pediatric specializations
- Strong correlation between pediatric specialization and post-graduate pediatric-focused careers
- Expanding pediatric education opportunities can improve pharmacist preparedness for pediatric medication management, ultimately enhancing patient care
- Findings can help justify resource allocation for pediatric faculty, APPE sites, and curricular enhancements.

REFERENCES

1. U.S. Government Printing Office. Federal interagency forum on child and family statistics America's children: Key national indicators of well-being. Washington, DC: U.S. Government Printing Office; 2018.
2. Vernacchio L, Kelly JP, Kaufman DW, Mitchell AA. Medication use among children <12 years of age in the United States: Results from the Slone Survey. *Pediatrics.* 2009;124(2):446–454.
3. Chung AM, Padgett E, Eiland LS. Evaluation of pediatric electives and core pediatric topics offered at United States schools and colleges of pharmacy. *J Am Coll Clin Pharm.* 2023.