

A Cross-Sectional Survey of Informatics Training Integrated into Postgraduate Year 1 Pharmacy Residencies

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BACKGROUND

- Informatics and technology are rapidly growing fields in healthcare and pharmacy practice, necessitating individuals with specialized training that combines information technology and pharmacy clinical knowledge.
- The ASHP Foundation Pharmacy Forecast 2021 which asked leaders with experience and expertise in health-system pharmacy to examine current practice trends and predict future growth areas, identified the role of informatics/technology specialist as a continually growing practice area.¹
- Despite the importance of pharmacy informatics, only 64% of pharmacy programs require a pharmacy informatics or health informatics elective.²
- Beyond Doctor of Pharmacy training, graduates can complete post-graduate residencies that may offer specialized informatics training, either in the form of a rotation as part of a first-year general residency (PGY-1) or as a specialized second-year residency (PGY-2).
- There is no research describing how many PGY-1 residencies offer informatics rotations, or specific information about those rotations.
- This information is important for understanding pharmacy informatics training gaps and identifying opportunities to enhance future training.

OBJECTIVE

- To describe the informatics training provided in first-year post-graduate pharmacy residencies (PGY-1) in the United States (U.S.).

RESULTS

- 14.9% response rate (n=25 out of 168 programs).
- 19 programs (76%) offered an informatics rotation.
- 5 programs indicated their pharmacy informatics rotations was required.
- Pharmacy informatics rotations have been offered for an average of 6.7 years (range: 0-22).
- On average 1.5 residents complete the informatics rotation each year and this number has stayed the same over time for most programs (n=11, 57.9%).
- For residents who complete the pharmacy informatics rotation, it is estimated that on average 6% (range: 0-80%) go on to complete a PGY-2 in pharmacy informatics.

SKILLS/COMPETENCIES ADDRESSED IN PHARMACY INFORMATICS ROTATIONS

Skill/competency	Number of programs addressing skill/competency, n (%)
Information technology and automation	18 (94.7)
Data analytics	17 (89.5)
Clinical decision support	17 (89.5)
EHR workflow	17 (89.5)
Medication use safety	14 (73.7)
Project management	12 (63.2)
Hospital operations	12 (63.2)
Centralized and decentralized inventory	12 (63.2)
Standards and best practices	11 (57.9)
Interface testing	11 (57.9)
Teaching	7 (36.8)
Leadership and management	7 (36.8)
Literature review and evaluation	7 (36.8)
Research	3 (15.8)

BARRIERS EXPERIENCED RELATED TO OFFERING A PHARMACY INFORMATICS ROTATION

Barrier	Number of programs experiencing barrier, n (%)
Lack of resources	4 (66.7)
Lack of interest from residents	3 (50.0)
Appropriate expertise not available at our practice site(s)	3 (50.0)
Lack of time	3 (50.0)
Lack of interest from residency program directors	2 (33.3)
COVID-19/virtual environment	1 (16.7)
Other:	3 (50.0)

- A previous elective rotation in IT was offered, but the pharmacist position was eliminated. This spring, a pharmacist was added back to the Epic Willow team, so an elective IT rotation will become available again, probably for the 23-24 year.
- Our informatics team is decentralized and staffing has been unstable. We used to offer the rotation but our team lost a lot of personnel and has never really recovered and stabilized.
- Part of a large health system, Epic is centralized and most work offsite or from home.

METHODS

Research Design and Setting

- Cross-sectional online survey developed in BlueQ (Qualtrics)

- Surveyed residency program directors (RPDs) of first-year post-graduate pharmacy training programs (PGY-1) in the United States.

Data Collection/Study Procedures

- Contact information was obtained from the ASHP Residency Program website.

- An initial invitation e-mail was sent with reminders sent two and four weeks after the initial invitation.

Data Analysis

- Quantitative data was analyzed descriptively and reported out as frequency counts and percents.

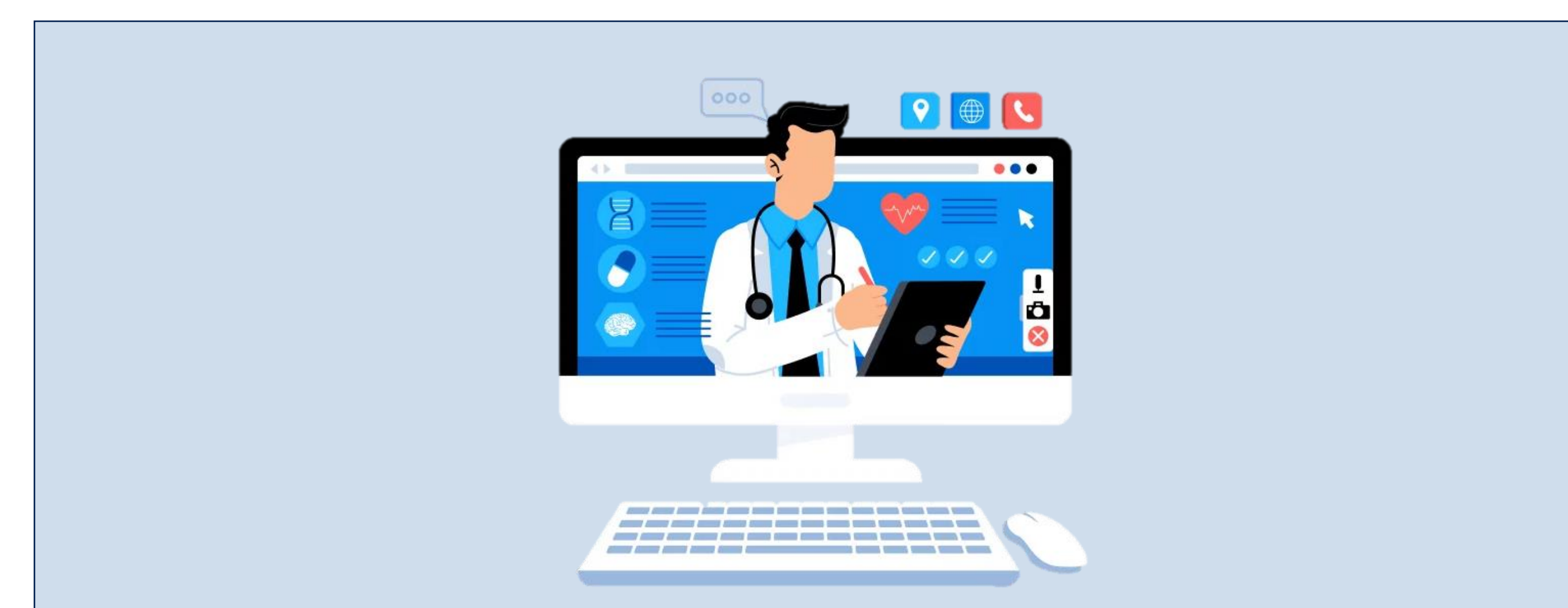


Image obtained from: <https://www.netsolutions.com/insights/5-healthcare-problems-which-digital-technologies-can-solve-for-a-fit-and-healthy-world/>

CONCLUSIONS

- There may be a need to increase informatics exposure in Pharm.D. training to expose students to pharmacy informatics as a potential rotation option prior to beginning a post-graduate residency.
- While resources and need exist to support building skills in informatics, the number of residents participating in the rotation remained the same, indicating a relative lack of interest.
- Future research should examine resident interests and the reason there is not more interest in a growing area of practice. Opportunities to advocate for the importance of pharmacy informatics should be identified.

REFERENCES

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