# The Effect of Undergraduate Exposure and Experience on Choosing to Pursue a Pharmacy Degree

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## BACKGROUND
- Shortage of pharmacists identified by Department of Health and Human Services in 2001
- Despite investment of significant recruitment resources to achieve optimum enrollment, fewer applicants are being submitted for consideration to pharmacy school, and the number of students pursuing pharmacy school continues to decline
- American Association of Colleges of Pharmacy (AACP) Recruitment Admissions Task Force speculates that qualified candidates may be pursuing other healthcare professions due to lack of awareness of and limited exposure to the expanding role of the pharmacist
- Limited studies have been conducted to evaluate the primary factors motivating students to pursue a career in pharmacy

## OBJECTIVES
- Identifies underlying factors (deterrents and motivators) impacting initial consideration of pursuing a pharmacy degree
- Evaluates first year pharmacy students’ understanding of the various opportunities in pharmacy as markers of the impact of pre-matriculation experiences including undergraduate pharmacy club membership and pharmacy work experience

## METHODS
A 16-item survey, using Survey Monkey®, including demographics, factors influencing the decision to pursue pharmacy and of undergraduate resources to assist students in the pursuit of pharmacy, and identification of the roles a pharmacist can perform was developed to assess both the extent to which students were exposed to the role of a pharmacist, as well as factors influencing students’ choice to pursue pharmacy. The survey included exposure and influence acquired through school, work experience, or personal relationships. Survey responses were analyzed using SPSS® for trends and significant correlations. This study was deemed exempt by the Institutional Review Board.

## RESULTS
Thirty-four first-year pharmacy students from 23 undergraduate programs completed an electronic survey in the spring 2017 semester (49.3% response rate). Using a 4-point Likert scale (1=completely disagree; 4=completely agree), the mean score was 1.88 for the statement “My undergraduate university provided resources that enhanced my understanding of pharmacy”. Nineteen students (55.9%) reported no pharmacy school application guidance from their undergraduate program. Twenty-three students (67.6%) worked in a pharmacy setting; the majority of those students (70%) completely agreed that it enhanced their understanding of pharmacy, and 33.3% cited work as the main motivator in the decision to apply to pharmacy school. Only two of 15 pharmacist tasks were appropriately identified by all participants. Four respondents (13%) believed pharmacists can prescribe medications. Only 33% knew that a pharmacist can be a Medical Science Liaison. (See supplemental handout)

## DISCUSSION/CONCLUSION
Studies assessing factors contributing to students’ motivation to pursue pharmacy school have found that experience in the form of shadowing a pharmacist or working as a technician, as well as exposure to the academic expectations and variety of potential careers in pharmacy during an undergraduate career are most influential. The results of this study support these findings. Despite 16 undergraduate students reporting the presence of a pharmacy club, 31% were not members. Of those who were not members, 60% did not know they wanted to pursue pharmacy until after graduation. The strength of this study is the holistic assessment of factors contributing to the choice to pursue a pharmacy career. The study is limited by its small, localized sample size. Future studies should survey undergraduate pre-health students to identify awareness of and exposure to the opportunities in pharmacy, ultimately assessing the potential for a future career.

This survey highlights an opportunity for pharmacy recruitment strategies targeting qualified applicants to include improved collaboration with undergraduate programs directed toward students earlier in the educational process to comprehensively expose potential future pharmacy students to the breadth and depth of a pharmacy career. Investing in this population of students provides potential to increase interest in pharmacy practice, ultimately increasing the applicant pool and achieving increased enrollment at schools and colleges of pharmacy.

## Sources of Impact on Decision to Pursue Pharmacy

<table>
<thead>
<tr>
<th>Source</th>
<th>Level of Agreement</th>
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<tbody>
<tr>
<td>Undergrad provided sufficient exposure to role of pharmacist</td>
<td>1.2</td>
</tr>
<tr>
<td>Undergrad faculty member improved my understanding of pharmacy</td>
<td>1.5</td>
</tr>
<tr>
<td>Resources offered by my undergrad highly influenced my decision to pursue pharmacy school</td>
<td>1.5</td>
</tr>
<tr>
<td>Family member who works in pharmacy enhanced my understanding of pharmacy</td>
<td>1.5</td>
</tr>
<tr>
<td>Working as a pharmacy technician enhanced my understanding</td>
<td>1.8</td>
</tr>
</tbody>
</table>

* 1=completely disagree 2=somewhat disagree 3=somewhat agree 4=completely agree

## REFERENCES
5. Willis SC, Shann P, Hassell K. Who will be tomorrow’s pharmacists and why did they study pharmacy? Pharmaceut J. 2006;277(107-8).

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