Evaluation of the Rutgers Pharmaceutical Industry Fellowship Program by 2005 Program Alumni

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Introduction
Since 1984, the Rutgers Pharmaceutical Industry Fellowship (RPIF) program has provided specialized postgraduate training experience within the pharmaceutical industry. The program focuses on enhancing and promoting the role of pharmacists in industry. Over the past 21 years, the program has grown exponentially to include thirteen different companies within the pharmaceutical industry and related medical communications businesses. Approximately 250 post-doctoral fellows have completed the program to date and nearly 70 Pharm.D. now participate in the fellowship program annually. Each year about 3% of the nation’s graduating pharmacists apply to the program. Past studies have focused on the perception of RPIF alumni industry. However, this study aims to focus on satisfaction and advancement of the 2005 alumni specifically.

Methodology
Design: A survey was distributed electronically to all 2005 alumni of the RPIF program (N=44), based on an existing database. Electronic reminders were sent to the RPIF graduates as the submission deadline approached. Participation was optional and survey responses remained confidential and anonymous, only to be disclosed to the fellow authors and not to the program directors. Completed surveys were analyzed from October 1 to November 1, 2005.

Population: 2005 Rutgers Pharmaceutical Industry Fellowship alumni (n=44)

Materials:
RPIF alumni 2005 database
Survey created by investigators consisting of the following:
What degree(s) did you have upon entering the fellowship program? What pharmacy school did you graduate from? How did you become interested in a career in industry? Did you have any practical experience in industry prior to starting the fellowship program? Please rank from 1-6 the reasons why you chose the Rutgers industry fellowship. How would you compare your skills before and after the fellowship program? Based on a 5 point Likert scale, how would you rate the importance of the fellowship program in obtaining employment upon completion? Based on a 5 point Likert scale, how would you rate the helpfulness of the fellowship program in obtaining employment upon completion? Were you satisfied with the experience you received during your fellowship program? All analysis was initiated and completed by November 7, 2005.

Results

Satisfaction:
- 100% of respondents (22 of 22 alumni) indicated the RPIF program directly following completion of their fellowship program.
- 95% of respondents (21 of 22 alumni) indicated the RPIF program accepted a majority of respondents into their current position.
- 86% of respondents indicated the RPIF program had an impact on their success in the workforce.

Drivers of Awareness:
- 50% of respondents accepted an offer of full time employment with their “host” RPIF program partner companies.
- 50% of respondents indicated previous experience in industry was an important factor.

Survey Analysis

Table 1. Mean Scores for Self-Assessment of Skill Proficiency Levels Before and After the RPIF Program

<table>
<thead>
<tr>
<th>Skill</th>
<th>Before RPIF</th>
<th>After RPIF</th>
<th>Mean Difference</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism</td>
<td>2.50</td>
<td>4.00</td>
<td>1.50</td>
<td>0.000</td>
</tr>
<tr>
<td>Leadership Skills</td>
<td>3.20</td>
<td>4.40</td>
<td>1.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Administrative Skills</td>
<td>3.30</td>
<td>4.60</td>
<td>1.30</td>
<td>0.000</td>
</tr>
<tr>
<td>Writing Ability</td>
<td>2.80</td>
<td>4.30</td>
<td>1.50</td>
<td>0.000</td>
</tr>
<tr>
<td>Business Savvy</td>
<td>3.10</td>
<td>4.30</td>
<td>1.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Clinical Skills</td>
<td>3.50</td>
<td>4.20</td>
<td>0.70</td>
<td>0.000</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>3.30</td>
<td>4.50</td>
<td>1.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Cross Functional Teams</td>
<td>3.40</td>
<td>4.50</td>
<td>1.10</td>
<td>0.000</td>
</tr>
<tr>
<td>Time Management</td>
<td>3.60</td>
<td>4.60</td>
<td>1.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Communication</td>
<td>3.70</td>
<td>4.50</td>
<td>0.80</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Discussion

The results of the survey analyses revealed the following:
- Completion of both one year and two year fellowship positions improved skill sets in all areas evaluated in the survey: communication, leadership, administrative, writing, business savvy, clinical, professionalism, time management, critical thinking, and cross functional team work.
- The skills that respondents reported having improved the most were participation in cross functional teams and business savvy. Although respondents reported some improvement in clinical skills, the degree of improvement was the least among all skills measured.
- Almost all (91%) of the respondents were either extremely satisfied or satisfied with their fellowship experience.
- A significant majority (84%) of respondents reported having previous experience in industry through clinical rotations, internships, or both.
- A majority of respondents indicated that the most important reasons for selecting the RPIF program were career advancement and gaining industry experience, while few indicated that location or “good CV builder” were important factors.
- A majority of respondents learned of the RPIF program from either classmates, friends, or family, or at the ASHP Midyear Meeting.

Limitations

Limitations of this study include:
- Two respondents did not correctly identify their ranking for reasons for participating in the RPIF program. Therefore, their data could not be included in the calculation of the means for this question.
- The results of the survey are also limited to 32 respondents of 44 2005 alumni. The degree of satisfaction of non-respondents is unknown.
- The data pertaining to skill proficiency was derived from self-assessment.
- Design of the study was retrospective in nature. Respondents were asked to recall and assess skill proficiency levels at least one year in the past.

Conclusions

Since its inception in 1984, the Rutgers Pharmaceutical Industry Fellowship program has provided an opportunity for professional advancement of pharmacists within industry. 2005 program alumni reported an improvement in the level of proficiency in certain skills, many of which could be considered to be valuable for a successful career in industry, as a result of their participation in the program. Conversely, the lowest reported skill set improvement was in clinical skills, which may be reflective of the lack of direct patient contact provided by industry fellowships. The high level of alumni satisfaction with the program is consistent with the program’s successful track record reported in previous studies. Further study would be required to compare RPIF program participant satisfaction levels with those of participants in other postgraduate training programs within pharmacy.

References
- Rutgers Pharmaceutical Industry Fellowship website: http://pharmaversity.rutgers.edu
- Data on File. Institute for Pharmaceutical Industry Fellowships, Ernest Mario School of Pharmacy, Rutgers University
- American Society of Health-System Pharmacists Midyear Clinical Meeting. December 7, 2005

Disclosure
All authors of this study are paid employees of Rutgers, the State University of New Jersey.