Assessing the Impact of Industrial Drug Information Fellowship and Residency Programs on Career Development

Kim L. Nguyen, Pharm.D., Sobha M. Michael, Pharm.D., Christy M. Copeland, Pharm.D., Evelyn R. Hermes-DeSantis, Pharm.D., BCPS

Introduction

With the increasing emergence of the Doctor of Pharmacy degree, many graduates are seeking to distinguish themselves and expand their career opportunities through fellowship and residency programs. Post-doctoral fellowship and residency programs within the pharmaceutical industry are designed to provide pharmacists specialized postgraduate training in a variety of areas including drug information. The role of drug information specialist, particularly pharmacists, in the industrial setting includes a broad range of responsibilities beyond the scope of providing medical information. The post-doctoral programs in drug information provide the opportunity for pharmacists to apply clinical knowledge, utilize communication skills, and enhance leadership capabilities thus broadening their knowledge base and development of business skills.

Objectives

- Assess the impact of post-doctoral industrial drug information fellowship and residencies on career development
- Measure the level of satisfaction after completing a post-doctoral drug information fellowship and residency program within a pharmaceutical industry
- Identify the experiences that made fellows and residents marketable at the completion of the program
- Identify initial career positions accepted by fellows and residents at the completion of their program

Study Design

- Cross-sectional survey
- A 16 question survey was distributed to pharmacists who had previously completed an industrial drug information fellowship or residency program within the past five years
- Forty-four surveys were distributed to graduates of post-doctoral drug information fellowships or residencies within various pharmaceutical companies
- The majority of alumni of drug information post-doctoral fellowship and residency programs within the pharmaceutical industry: Career development
- The following items were assessed using a cross-sectional survey to gather responses from alumni that participated in drug information post-doctoral fellowship and residency programs within the pharmaceutical industry:
  - Career development
  - Experiences that enhanced marketability
  - Satisfaction
  - Rotational experiences
  - Level of position obtained post-fellowship/residency

Data Collection

- A 16 question survey was distributed to pharmacists who had previously completed an industrial drug information fellowship or residency program within the past five years
- Forty-four surveys were distributed to graduates of post-doctoral drug information fellowships or residencies within various pharmaceutical companies
- The following items were assessed using a cross-sectional survey to gather responses from alumni that participated in drug information post-doctoral fellowship and residency programs within the pharmaceutical industry:
  - Career development
  - Experiences that enhanced marketability
  - Satisfaction
  - Rotational experiences
  - Level of position obtained post-fellowship/residency

Results

The results of this survey were based on responses from 23 out of 44 pharmacists with a response rate of 52%. All pharmacists who responded completed an industrial drug information post-doctoral fellowship or residency program that was 1 year or less in duration.

- Industry
- Independent Practice
- Academic
- Retail

Distribution of Surveys

<table>
<thead>
<tr>
<th>University</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>AstraZeneca</td>
<td>tame</td>
</tr>
<tr>
<td>Biotech</td>
<td>tine</td>
</tr>
<tr>
<td>Biogen</td>
<td>ike</td>
</tr>
<tr>
<td>Celltrion</td>
<td>ron</td>
</tr>
<tr>
<td>Gilead</td>
<td>ead</td>
</tr>
<tr>
<td>GlaxoSmithKline</td>
<td>lko</td>
</tr>
<tr>
<td>Novartis Pharmaceuticals</td>
<td>rats</td>
</tr>
<tr>
<td>Procter &amp; Gamble</td>
<td>amble</td>
</tr>
<tr>
<td>Pfizer</td>
<td>ter</td>
</tr>
<tr>
<td>Schering-Plough Corporation</td>
<td>mar</td>
</tr>
</tbody>
</table>

Discussion

Majority of alumni from post-doctoral fellowship and residency programs in industrial drug information were satisfied with their professional development and career enhancement as a result of the program and felt it influenced their career decisions. One alumni responded that he/she would not recommend this program to others, however, agreed that he/she was satisfied with the program at its completion. Few of the alumni did not feel the program helped influence their decision to pursue a career in drug information or industry which may be due to personal goals, changing career paths, financial situations, etc. However, these factors were not measured in this study.

Many of the alumni had a greater tendency to pursue a career within the pharmaceutical industry, particularly within drug information. However, alumni were also qualified to obtain positions within a variety of other areas within the pharmaceutical industry and pharmacy in general.

Medical writing was the predominant experience among all fellows and residents who had training in company relations, and public relations were identified as having the least impact on marketability but this may be due to the lack of participation in these area of experience.

Each industrial drug information fellowship and residency program individualizes their program and some programs allow opportunities for fellows and residents to rotate through various internal or external departments. Of those alumni with rotational experiences, majority felt rotational experiences may have helped them gain the qualifications necessary to obtain their initial career position.

Conclusions

The majority of alumni of drug information post-doctoral fellowship and residency programs within the pharmaceutical industry were satisfied with their professional and career development following the completion of their fellowship and residency. Most alumni felt the skills attained through the programs increased their marketability and helped them qualify for the various career paths they attained.

This survey may be used to assist preceptors to further enhance drug information fellowship and residency programs available within the pharmaceutical industry.

Acknowledgements

James G. Alexander, Pharm.D., Joseph A. Baron, Pharm.D., FCCP
Yeom Chia, Pharm.D., Karen Cohen, Pharm.D., Mark Faust, RPh., Svetlana Kurinsky

Figure 1: Initial Level of Positions Following an Industrial Drug Information Fellowship or Residency

Figure 2: Initial Level of Positions Following an Industrial Drug Information Fellowship or Residency

Figure 3: Rotational Experiences helped gain the Qualifications for Initial Career

Figure 4: Alumni Views Regarding the Post-Doctoral Fellowships and Residencies in Industrial Drug Information Programs

Figure 5: Experiences that Enhanced Fellow or Resident Marketability

Figure 6: Rotational Experiences helped Fellowship or Residency