



Participants' Perception of Knowledge Level During and After the Rutgers Pharmaceutical Industry Fellowship (RPIF) Program

RP457

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Introduction

During pharmacy school, Doctors of Pharmacy (Pharm.D.s) are well trained in the key aspects of drug therapy, including pathophysiology, pharmacology, and clinical applications. By contrast, pharmaceutical industry-based postgraduate training programs provide Pharm.D.s with an opportunity to develop new knowledge and skill sets through specialized training and hands-on experience in a particular discipline. Little has been done to evaluate the change in knowledge as a result of participating in these types of programs.

Objective

The purpose of this study was to identify the perceived knowledge level of Pharm.D. participants in the RPIF Program by surveying participants who have recently begun or completed the Program.

Methodology

Design:
A survey was distributed electronically via Zoomerang™ to i) fellows who have recently begun participating in, and ii) alumni who have recently completed, the RPIF Program. Respondents were directed to answer only those questions related to their particular experience. All fellows beginning either a 1- or 2-year program were compared to recent alumni having completed a similar 1- or 2-year program. A total of six fellowship disciplines were assessed: Drug Regulatory Affairs, Clinical Research (Phase I – III), Medical & Scientific Affairs, Marketing & Marketing-related, Drug Information / Medical Education, Drug Safety / Pharmacovigilance.
➢ Subjective questions assessed participants' own perceived level of knowledge, regarding their specific discipline.
➢ Factual questions (not shown) were designed to assess each participants' level of knowledge objectively, regarding their specific discipline.

Population:
A total of 95 participants having recently begun or completed either a 1- or 2-year RPIF Program.

Analysis:
Analysis of survey results was completed by the study authors in November, 2006. Data was collected using defined, graded scores (1 – 5) based on answers to questions as follows: Basic = 1, Fair = 2, Good = 3, Very Good = 4, Excellent = 5.

Materials:
➢ RPIF Database
➢ 34 question survey (10 subjective, 24 factual [not shown])
➢ Zoomerang™ Surveys @ www.zoomerang.com

Results

➢ 55% of the study population (52 of 95) completed the questionnaire.
➢ 30 respondents were current fellows who recently began the RPIF Program and 22 were recent RPIF Program alumni.
➢ Due to lack of comparative information the Pharmacovigilance discipline was excluded from the study analysis.
➢ Table 1 displays each participant's own subjective evaluation of knowledge level by discipline.

Survey Questionnaire

- Have you recently STARTED or COMPLETED a Pharmaceutical Industry Fellowship Program?
 - Started
 - Completed
- What is/are the length of the Fellowship you chose to pursue?
 - One-year
 - Two years
- Which of the following MOST CLOSELY RESEMBLES the type of Fellowship you chose to pursue?
 - Regulatory Affairs
 - Clinical Research
 - Medical Affairs/Medical Strategy
 - Marketing-Related
 - Drug/Medical Information
 - Medical Education-related
 - Drug Safety
- How would you evaluate your knowledge of Regulatory Affairs?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- How would you evaluate your knowledge of Clinical Research and Development?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- How would you evaluate your knowledge of Medical Affairs/Medical Strategy?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- How would you evaluate your knowledge of Marketing and Marketing-Related Activities?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- How would you evaluate your knowledge of Medical Information, CME, and Scientific Publications?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- How would you evaluate your knowledge of Drug Safety & Pharmacovigilance?
 - Excellent (5)
 - Very Good (4)
 - Good (3)
 - Fair (2)
 - Basic (1)
- AT THIS POINT IN YOUR CAREER, how would you rate your understanding of the following aspects of the Pharmaceutical Industry?
 - Commercial 1 2 3 4 5
 - Regulatory 1 2 3 4 5
 - Scientific 1 2 3 4 5
 - Overall 1 2 3 4 5

Results

Table 1: Respondents' Subjective Assessment by Discipline

		Basic	Fair	Good	Very Good	Excellent
Regulatory Affairs	Current Fellows	1		1	1	
	Recent Alumni					1
Clinical Research	Current Fellows		1	2	2	
	Recent Alumni			1	1	
Medical Affairs	Current Fellows	1		2	4	
	Recent Alumni					5
Marketing	Current Fellows		1	3	2	
	Recent Alumni			2	4	
Drug Information	Current Fellows		1	1	3	
	Recent Alumni			1	5	1

Results

Figure 1: Mean Score of Respondents' Subjective Assessment by Discipline

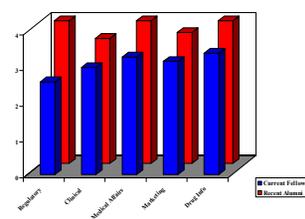


Figure 2: Cumulative Mean Score – Respondents' Subjective Assessment by Discipline

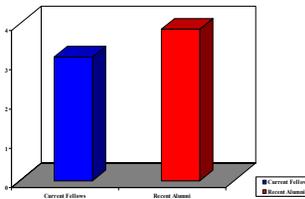
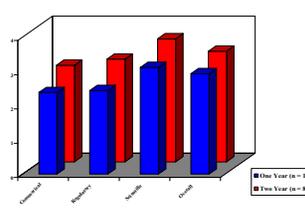


Figure 3: Perceived level of knowledge after completion of 1- vs. 2-Year fellowship



Presented at the 41st ASHP Midyear Clinical Meeting, Anaheim, CA

Results

➢ Figure 1 illustrates that higher mean scores were reported by recent alumni when compared to current fellows having recently begun the Program when asked to rate their own subjective knowledge of their discipline.
➢ Figure 2 illustrates that recent alumni reported greater overall subjective assessment scores in comparison to current fellows having recently begun the Program.
➢ Alumni of a 2-year program reported higher subjective assessment scores than alumni of a 1-year program (Figure 3).
➢ Results from the factual questions (not shown) indicate that recent alumni scored higher than current fellows having recently begun the Program (mean scores of 3.55 vs. 3.41, respectively).

Discussion

➢ When comparing recent alumni to current fellows having recently begun the Program, results yielded a clear difference in subjective scores across all disciplines.
➢ Cumulative scores for recent alumni were 20% higher than scores for current fellows having recently begun the Program with regard to their self-assessed knowledge level (mean scores of 3.86 vs. 3.15, respectively).
➢ Alumni having completed a 2-year fellowship program have spent more time in the industry setting than those completing a 1-year fellowship. This is reflected in their higher perceived knowledge level.
➢ Respondents completing a 2-year fellowship demonstrated a clear difference in their self-perceived understanding of Commercial, Regulatory, Scientific, & Overall aspects by 18%, 23%, 15%, & 10%, respectively.
➢ Both subjective and factual scores were higher in recent alumni vs. current fellows who recently began the Program, however the relationship between these concepts requires further study.

Limitations

➢ Only RPIF Program participants were surveyed. These results may not be representative of all industry-based postgraduate training programs.
➢ The survey results are specific to the disciplines evaluated and do not necessarily apply to other disciplines within the RPIF Program.
➢ Comparing current fellows who recently began the Program to recent alumni introduced variability between groups.
➢ Current fellows who recently began the Program and recent Program alumni were surveyed a number of months after beginning or completing the RPIF Program.
➢ Results for certain disciplines were limited due to small sample size.

Conclusions

➢ Recent RPIF Program alumni reported a higher perceived level of knowledge than that reported by current fellows having recently begun the Program. This is consistent with the RPIF Program's focus on individual, hands-on, specialized training & development in disciplines that are new to participants.
➢ The level of knowledge gained in a particular discipline is greater in a 2-year program than a 1-year program in that discipline.
➢ The RPIF program provides an opportunity for career development through 1- and 2-year fellowship programs. This study would need to be repeated to identify trends and/or report comparative data.

References

➢ 1. Rutgers Pharmaceutical Industry Fellowship website: <http://pharmafellows.rutgers.edu>
➢ 2. Lam et al. Emerging Trends Within Industry-Based Post Graduate Training Programs for Pharmacists. Presented at the ASHP Midyear Clinical Meeting, Dec. 2003, New Orleans, LA

Disclosure

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