## Satisfaction of Junior Faculty with Academic Role Functions

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The major objective of this descriptive investigation was to assess the satisfaction of junior pharmacy faculty members with the academic role functions of teaching, research and service. A secondary focus of the study examined relationships between junior faculty satisfaction and various group characteristics. Cover letters and questionnaire information were mailed and received by 439 full-time U.S. pharmacy school junior faculty members. Data were collected via electronic surveys from 195 (44 percent response rate). Results revealed that junior faculty, in general were ambivalent on the three role functions of teaching, research, and service (scoring just above "neutral" on the five-point Likert scale). They were most satisfied with the teaching role and least satisfied with the research role. Overall, females were significantly less satisfied than males, private school junior faculty members were significantly less satisfied than their public school colleagues, and those junior faculty members of schools of pharmacy in existence six years or less were significantly less satisfied than those members of programs in existence greater than six years. These results are explained along with a discussion of some potential interventions to improve the recruitment and retention of young faculty.

#### INTRODUCTION

The retention of pharmacy faculty is critical to ensuring adequate manpower at schools of pharmacy. A major factor in the ability of schools of pharmacy to retain faculty is the degree of job satisfaction perceived by faculty members. The organizational behavior literature is rich with investigations examining the relationship between job satisfaction and job turnover(1,2). Generally speaking, less satisfied employees are significantly more likely to leave their organizations than more satisfied employees. A major factor that influences turnover is the quality of academic life for the faculty member(3). A survey of 239 faculty from various disciplines who resigned their appointments revealed that an internal push usually preceded an attraction to an external pull, and that the push related more to intangible components of the job such as collegial relations than to tangible aspects such as salary(3).

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Studies in higher education, including several health professions, report that faculty members of colleges and universities in the United States are facing difficult times regarding various aspects of work, such as the integration of the primary academic roles: teaching, service, and research(4-7). This difficulty is especially pronounced among junior faculty members. For example, Boice examined the lives of junior faculty using the dimensions of social support and collegiality, teaching, and scholarly productivity(4). The author concluded that a major problem faced by junior faculty was a sense of loneliness or lack of collegiality.

Cadman examined why fewer young physicians were seeking careers in academia(5). The difficulty in balancing research, teaching, and patient care were among potential dissatisfaction variables characteristic of a career in academia. The authors suggested that medical schools implement mentoring systems for new physician-investigators to improve satisfaction.

Harrison and Kelly examined potential variables that may influence the career satisfaction of full-time physical therapy faculty(7). The authors estimated that 85 percent of all fulltime physical therapy faculty responded to the survey (163 faculty members). Results revealed that faculty members were satisfied with having taken an academic position, despite feelings of loneliness, tenure anxiety, heavy work loads, and a desire for more guidance from colleagues(7). The authors concluded that social and collegial supports such as mentorship relationships with senior faculty were key factors influencing faculty satisfaction.

In pharmacy, investigations have examined possible predictors of job satisfaction, such as job stress, burnout, and the impact that role conflict has on the overall life satisfaction of pharmacy faculty(8-10). Wolfgang studied, in part, job dissatisfaction among pharmacy faculty(8). Although certain components, such as securing financial research support and work load, were reported to cause stress, pharmacy faculty were generally satisfied with their careers. Nair and Gaither examined work and non-work roles and life satisfaction of pharmacy faculty(10). They concluded that pharmacy faculty were moderately satisfied with their lives. A major predictor of life satisfaction had to do with both non-work and work influences. Non-work influences such as being married, receiving social support from spouses or mates, and socializing with friends were positively related to life satisfaction. The only work influence on life satisfaction was "time spent at work," which was negatively related to it(10).

Lee *et al.*, in a report concerning the recruitment and retention of pharmacy practice faculty, stated that the retention of pharmacy faculty was related to both intrinsic and extrinsic job satisfaction(11). The authors suggested that schools of pharmacy should not only enhance faculty development programs, but should adopt a participatory style regarding decision-making. Doing so would give faculty members an opportunity to see how decision-making impacts the school and university. The authors hypothesized that this could be accomplished through the use of committees and task forces.

Two additional factors likely to impact faculty satisfaction include: (i) the changing role of faculty as pharmacy education transitions from a teaching to a more problem-based, learningcentered approach with a greater emphasis on educational outcomes, and (ii) the potential stress related to the implementation of the entry-level Doctor of Pharmacy degree. A problembased learning approach that emphasizes problem-solving and self-directed learning while promising many benefits, is very labor intensive(12,13). Difficulties associated with changing to a problem-based curriculum include limited human resources, large classroom size, lack of experience among educators in delivering problem-based instruction, and lack of financial resources(13).

The entry-level Doctor of Pharmacy degree necessitates the recruitment and retention of additional faculty (particularly practice faculty). To avoid potentially costly counter-productive behaviors (i.e., absenteeism, performance, and turnover), it may be more important than ever for pharmacy schools to assess faculty and to implement interventions to improve satisfaction if needed.

The major objective of this investigation was to examine pharmacy junior faculty members' satisfaction with their academic role functions. Thus, the present investigation differs from previous studies in two important respects: (i) it thoroughly assesses the academic role satisfaction based on the three role functions of teaching, research and service, and (ii) it samples only junior faculty who have not faced the tenure/promotion decision to be promoted to the rank of associate professor. Junior faculty were chosen as the target population because of the isolation, anxiety, and stress that may dominate their lives while striving for tenure and/or promotion at their institutions(7). They are also most likely to be affected by dynamic changes that might influence the balance between academic role functions, such as embracing problembased learning while increasing scholarly publication output, since their role functions are more stringently evaluated when the first tenure/promotion decision is made.

Secondary objectives examined possible antecedents to faculty satisfaction with academic roles. For example, because private pharmacy schools are tuition-driven, and may differ from public pharmacy schools on how rewards are distributed, it might be interesting to examine differences, if any, in the satisfaction of junior faculty from private and public schools. Also, as stated previously, awarding only the Doctor of Pharmacy degree has changed the environment for practice faculty members (*i.e.*, greater clinical responsibilities). This, along with the increasing number of female faculty members might provide insight into junior faculty satisfaction. Thus, the following secondary research questions were addressed:

- What is the relationship between junior faculty satisfaction and type of school (private, public)?
- What is the relationship between the career satisfaction of practice junior faculty and other junior pharmacy faculty?
- What is the relationship between male and female junior faculty on career satisfaction?
- What is the relationship between number of hours worked and career satisfaction?

#### **METHODS**

This descriptive investigation utilized an electronic survey methodology and was approved by the authors' Institutional Review Board. The target population was junior faculty members of schools and colleges of pharmacy in the United States. A junior faculty member was defined as a full-time (working more than 20 hours per week) pharmacy faculty member with an academic rank of assistant professor. A cover letter asking for feedback on satisfaction with the academic roles of teaching, research, and service, was mailed to a systematic random sample of 470 assistant professors of pharmacy employed in schools and colleges of pharmacy throughout the United States. The sampling frame consisted of assistant professors listed in the 1999-2000 American Association of Colleges of Pharmacy (AACP) roster(14).

Randomly selected assistant professors were invited to visit a specific web site to fill out a Faculty Satisfaction questionnaire on-line. Complete anonymity was assured all participants. The on-line Faculty Satisfaction questionnaire was designed so that both respondents and their location were unidentifiable. The sampled faculty members were given a user identification number and password to access the on-line survey, which was a replication of what respondents would have received if the questionnaire was mailed to them.

The number of respondents required for this investigation was determined to be 138 (0.80 power with a 0.30 effect size)(15). In an attempt to maximize response rates, a modified Dillman approach was used, whereby three reminders spaced two weeks apart were sent to the study population(16). Data were downloaded from the web site and analyzed using SPSSTM version 9.0 (SPSSTM Inc, Chicago IL).

The instrument used to assess Junior Faculty satisfaction was a 52 item questionnaire adapted from Serefin (17). It measures faculty satisfaction with the role functions of teaching, research, and service. Items are grouped into three dimensions: teaching statements, research statements, and service statements. A separate biographical section is also included.

The non-biographical items used a five-point Likert-rype scale. Respondents were asked the extent to which they were satisfied with statements concerning the three role functions of teaching, research, and service. Each item was anchored at 1 (very dissatisfied) and 5(very satisfied). For example, respondents were asked the extent to which they were satisfied with their institutions' procedures used to evaluate faculty in their courses. In addition, respondents were asked to indicate the relative importance of the three role functions ("1 = very unimportant" to "5 = very important") in obtaining promotion and/or tenure.

Serefin reported the reliability for each item on the Faculty Satisfaction questionnaire using a Cronbach's alpha coefficient 17). Coefficients were reported to be 0.85 for teaching satisfaction, 0.80 for research satisfaction, and 0.85 for service satisfaction. Validity was established by an expert review panel(17).

#### RESULTS

Of the 470 cover letters mailed providing access to the questionnaire, fifteen were returned as undeliverable. This left 455 potential respondents for the study. After three follow-up mailings, questionnaires were completed by 211 respondents. However, sixteen respondents listed themselves as associate professors and were eliminated from statistical analysis. This resulted in 195 useable questionnaires, or a 44 percent response rate (195/439).

To assess the impact of nonresponse error on the questionnaire, a methodological procedure recommended by Churchill was used(18,19). It is based on the premise that late responders may be similar to nonresponders on variables of interest. By keeping track of those responding to the initial mailing and subsequent reminders, the means of the variables of interest can be calculated and then compared among the different subgroups to determine if the subgroups are significantly(18). If no discernable trend is evident, nonresponders can be assumed to be no different from responders. Based on such analysis, it appeared that nonresponse bias was not a problem in this study. The demographic characteristics of those who responded are summarized in Table I. The extent to which the

# Table I. Demographic characteristics of responding assistant professors

Academic disciplinePharmacy Practice12765.1	
Pharmacy Practice 127 65.1	
Pharmaceutics 15 7.7	
Pharmacology 18 9.2	
Medicinal/Pharmaceutical	
Chemistry / 3.6	
Other 9 4 6	
Total 195 100	
<b>T ( ) ( ) ( ) ( )</b>	
Higher education teaching experience in years 0-3 94 48 2	
4 - 6 67 34.4	
> 6 34 17.4	
Total 195 100	
Highest conferred degree	
Doctorate 189 96.9	
Masters 5 2.6	
Bachelor $1  0.5$	
1 otal 195 100	
Type of institution	
Public 132 67.7	
Private 63 32.3	
1 otal 195 100	
Length of pharmacy program existence in years	
0-3 26 13.3	
4 - 6 39 19.5	
> 6 131 67.2	
10tai 195 100	
Average workweek in hours	
20 - 40 9 4.6	
41-50 93 4/./ > 50 03 47.7	
750 95 47.7 Total 195 100	
175 100	
Term of contract	
9/10 months 22 11.3	
12 month 161 82.6	
Total 195 100	
1,00	
Age in years	
30  of  100  so 31 - 40  gs $50.3$	
> 50 7 3.6	
Total 195 100	
Condor	
Female 112 57.4	
Male 82 42.1	
Missing 1 0.5	
Total 195 100	
Marital status Single 54 27.7	
Married 126 64.6	
Divorced/Separated 11 5.6	
Other 4 2.1 Total 195 100	

#### Table II. Mean score items grouped by satisfaction with role functions

Role functions and items	Mean <sup>a</sup>	SD
Teaching		
The academic freedom to select and decide the design, content, objectives, and instructional materials		
of the courses you teach	4.09	0.90
Teaching as a professional career	3.88	0.93
Teaching in the classroom	3.85	0.82
Teaching methods (lectures, seminars, audiovisual aids, games) used in the courses offered in your	3.75	0.89
The appropriateness of procedures (papers, grades, exams) used to evaluate students in your courses	3.69	0.88
The typical student admitted into your program	3.45	0.84
Specialized facilities, such as laboratories, studios, and equipment needed for teaching in your field	3.37	1.02
Class size	3.36	0.99
Advising of students	3.23	0.96
Teaching workload	3.09	1.09
Clear understanding of the teaching requirements		
needed for tenure and/or promotion	3.05	1.08
The appropriateness of procedures used to evaluate		
faculty in their courses	2.79	1.02
Institutional teaching rewards	2.72	0.95
Teaching domain mean	3.41	0.56
Descent		
Research Opportunities to publish	3 40	1.06
opportunities for processing data	3 24	1.00
Clear understanding of the research requirements needed for tenure and/or promotion	2.96	1.14
The department as an academically stimulating place for research	2.96	1.20
Institutional financial support for research	2.86	1.00
Institutional research rewards	2.86	0.84
Secretarial and technical assistance	2.74	1.24
Technical assistance in analyzing data	2.70	1.03
The release time offered by the institution for research	2.60	1.10
Research domain mean	2.93	0.74
Opportunities outside the university for participating		
in new developments in your field	3 57	0.87
Attending faculty meetings	3 29	0.97
Outside consulting	3.28	0.78
Working on committees	3.23	0.90
Working with the school system	3.19	0.81
Financial and academic support for making presentations, attending conferences, seminars etc	3.13	1.22
Department efforts in support of the career development of faculty members	3.05	1.15
Available in-service training opportunities	3.05	0.92
Clear understanding of the service requirements needed for tenure and/or promotion	2.98	1.02
Institutional service rewards	2.76	0.84
Service domain mean	3.15	0.58
Total faculty satisfaction mean	3.20	0.52

<sup>a</sup> On a scale from 1 = "very dissatisfied" to 5 = "very satisfied."

sampled junior faculty members are satisfied with each of these role functions is depicted in Table II. A *t*-test for Independent samples was used to test the following relationships:

- 1. Junior faculty satisfaction and type of school (private or public).
- 2. Workload and junior faculty satisfaction.
- 3. Male and female junior faculty satisfaction.
- Pharmacy practice junior faculty and other (Pharmaceutics, Pharmacology, Medicinal/Pharmaceutical Chemistry, and Social and Administrative Sciences) junior faculty satisfaction.

Table III shows the relationships for total faculty satisfaction (the combined three role functions of teaching, research, and service) with various group characteristics. Table IV dis plays an analysis of the significant relationships between junior faculty satisfaction on each of the three role functions and group characteristics. Table V reveals the frequency to which junior faculty perceived the relative importance of each role function in relation to obtaining promotion and/or tenure.

#### DISCUSSION

The primary goal of this descriptive study was to assess the career satisfaction of junior pharmacy faculty members on the three role functions of teaching, research, and service. As a group, the total faculty satisfaction mean score on the three roles (based on the Likert scale with anchors of "1 = very dissatisfied" and "5 = very satisfied) was "3.20." This is only slightly above a "neutral" response to the overall career satisfaction instrument and signifies that junior faculty members sampled were somewhat ambivalent about career satisfaction based on the three role functions. This is contrary to a previ-

#### Table III. Relationships between faculty satisfaction scores with group characteristics

Group characteristics	Ν	Mean <sup>a</sup>	SD	t (P value)	<u> </u>
Total Faculty Satisfaction	-	-			
Gender					
Male	77	3.30	0.51	2.26	
Female	110	3.12	0.52	(0.025)*	
Academic Discipline					
Pharmacy practice	123	3.17	0.50	-1.52	
Other (see Table I)	58	3.30	0.51	(0.130)	
Teaching Experience (years)					
0-3	91	3.22	0.49	0.70	
> 3	97	3.17	0.55	(0.48)	
Type of Institution					
Private	61	3.03	0.49	-3.14	
Public	127	3.28	0.52	(0.002)**	
Length of Program Existence (years)					
0 - 6	60	3.05	0.52	-2.70	
> 6	128	3.26	0.51	(0.008)**	
Percentage of Vacation Time Used					
50percent or less	97	3.19	0.50	-0.16	
> 50percent	91	3.20	0.55	(0.874)	
Average Work Week (hours)					
50 or less	99	3.24	0.50	1.28	
> 50	89	3.14	0.55	(0.203)	

<sup>a</sup> On a scale from 1 = "very dissatisfied" to 5 = "very satisfied."

\* Statistical significant differences were found using an independent sample's *t*-test at (*P*<0.05).

\*\* Statistical significant differences were found using an independent sample's t-test at (P<0.01).

#### Table IV. Relationships between role function satisfaction and group characteristics

Group characteristics	Ν	Mean <sup>a</sup>	SD	t (P value)	
Faculty Satisfaction with Teaching	-			-	
Length of Program Existence (years)					
0 - 6	61	3.28	0.57	-2.22	
> 6	130	3.48	0.55	(0.027)*	
Faculty Satisfaction with Research Academic Discipline					
Pharmacy practice	124	2.82	0.68	-3.52	
Other (see Table I)	58	3.22	0.77	(0.001)**	
Gender					
Male	78	3.10	0.79	2.78	
Female	111	2.80	0.67	(0.006)**	
Type of Institution					
Private	61	2.59	0.65	-4.49	
Public	129	3.08	0.73	(0.00)**	
Length of Program Existence (years)					
0 - 6	61	2.73	0.74	-2.58	
> 6	129	3.02	0.51	(0.011)*	
Faculty Satisfaction with Service Length of Program Existence (years)					
0 - 6	60	3.03	0.57	-2.02	
> 6	128	3.21	0.57	(0.045)*	

<sup>a</sup> On a scale from 1 = "very dissatisfied" to 5 = "very satisfied."

\* Statistical significant differences were found using an independent sample's t-test at (P<0.05).

\*\*Statistical significant differences were found using an independent sample's t-test at (P<0.01).

ous study that assessed total faculty dissatisfaction of pharmacy faculty of all ranks(8), which showed that pharmacy faculty, in general, were satisfied with their jobs. A plausible explanation for our results may be the conclusions reached by Jackson *et al*(9), who reported that younger faculty members at the assistant professor level endured more stress regarding promotion and tenure and thus were at greater risk for burnout than more senior professors. The association between stress and job dissatisfaction was positive(8). Junior faculty were most satisfied with the teaching domain ( $\overline{x} = 3.41$ ) and least satisfied with research ( $\overline{x} = 2.93$ ). This is important, given that 47.2 percent of the respondents deemed research to be "very important" in obtaining tenure and/or a promotion to associate professor, compared to 28.7 percent and 9.2 percent respectively, who viewed teaching and service as "very important" in obtaining tenure and/or promotion. A major contributing factor to the lower level of satisfaction with research was junior faculty response to the item "the

 Table V. Relative importance of teaching, research and service to tenure/promotion

Role function	$N^{a}$	Mean <sup>b</sup>	SD
Teaching	193	3.98	0.93
Research Service	192 193	4.17 3.49	1.07 0.95

<sup>a</sup>Differences due to missing data.

<sup>b</sup>On a scale from 1 = "very unimportant" to 5 = "very important."

release time offered by the institution for research" ( $\overline{x} = 2.60$ ).

Although the present investigation did not directly assess time spent in teaching versus scholarly activity, previous research in the health professions reported that the majority of junior faculty spend four to eight hours preparing for each hour of lecture during their first few years on the job(7). Therefore, having a heavy teaching load in the first few years of an appointment at the assistant professor level may effectively reduce one's satisfaction with research simply because junior faculty may not have enough time to devote to the perceived very important role of research.

A secondary focus of this investigation was to examine relationships between faculty satisfaction scores and group characteristics. Results of statistical analysis regarding total career satisfaction revealed three interesting relationships that were significant at either the 0.05 or 0.01 alpha level. First, male junior faculty appeared to be more satisfied with the three roles of teaching, research, and service than their female colleagues. Second, junior faculty at public institutions were significantly more satisfied than those at private institutions. Finally, those junior faculty appointed at pharmacy programs which have been in existence longer than six years were significantly more satisfied than those appointed to programs in existence six years or less. To obtain a more precise characterization of these differences, each role function was examined separately.

Previous studies in pharmacy have reported that females may experience more burnout than males (possibly due to role conflict), but experience similar levels of life satisfaction and score similarly to males on job dissatisfaction(8-10). An examination of each role function revealed that the only one on which junior faculty differed significantly on concerning gender was research. Specifically, female faculty scored a mean of 2.80 on the research dimension, compared to a mean of 3.10 for male faculty members. Explanations regarding this result are speculative. Role conflict may contribute to this explanation. Virtually all respondents were under 40 years of age. Therefore, most female respondents were in their prime child bearing years (and more likely to have young children). Females are usually the primary care-givers of their children. Assuming that teaching is a primary responsibility of junior faculty members, scholarship may suffer due to the role conflict that female junior faculty members experience. Thus, perceived dissatisfaction with research may be the result.

To analyze the relationship between academic discipline and total satisfaction, disciplines were divided into two groups: pharmacy practice and other (Pharmaceutics, Pharmacology, Medicinal/Pharmaceutical, Chemistry, and Social and Administrative Sciences). This was done because pharmacy practice faculty comprised approximately 68 percent of all respondents. On total satisfaction, practice faculty members were not significantly different than other faculty members. However, closer examination revealed that junior practice faculty members were significantly less satisfied with the research function than the others. One explanation may be a perceived difficulty in engaging in research due to maintaining clerkship sites. Perhaps the culture of many clerkship sites encourages and rewards patient care rather than research.

Whether or not junior faculty were employed by a public or private school of pharmacy significantly influenced total career satisfaction. Those junior faculty members employed by public institutions were significantly more satisfied with total career satisfaction. Closer examination showed that junior faculty members at public institutions were significantly more satisfied with the role function of research than were those junior faculty members at private institutions. According to Blumberg and Pringle, performance is a function of ability, motivation, and opportunity. If one of these variables is missing, performance may be greatly hindered(20). For example, if private schools, because of a lack of resources available for research, do not provide junior faculty members with opportunities to do research the result may be decreased satisfaction with this role function. In addition, many private schools are more teaching-oriented than public schools. Therefore, more effort may be expected in terms of teaching, which may hinder opportunities to conduct research.

Finally, length of program existence was a significant factor in junior faculty satisfaction, both on total satisfaction, and on all three role functions. Perhaps the time, obstacles, and stress of beginning a new program in pharmacy reduces junior faculty satisfaction. Another contributing factor may be the propensity of new private schools, because they are both new and more tuition-driven than public schools, to adopt a consumer model of education (*i.e.*, by considering students to be customers)(21). There are several problems with this model, including intense pressure on faculty to placate students, in order to receive higher student ratings to satisfy tenure and promotion criteria. This environment may promote an anti-scholarly orientation toward education and may result in a lower level of overall satisfaction for junior faculty members.

Many factors contribute to a faculty member's job satisfaction. These factors include both extrinsic and intrinsic satisfaction. According to Herzberg's Motivation-Hygiene theory, extrinsic factors such as salary, departmental policies, and amount of supervision are related to job dissatisfaction while intrinsic factors such as growth, advancement, responsibility, recognition, and achievement are related to job satisfaction(22). Specifically, extrinsic satisfaction results in a lack of job dissatisfaction, but is not sufficient for job satisfaction. Characteristics that faculty members find intrinsically rewarding result in job satisfaction. Specific faculty intrinsic job satisfaction is dependent upon factors such as the following(11):

- a congruence between the pharmacy school's institutional mission, and the professional role and responsibilities of the individual faculty member;
- available job promotion and tenure opportunities; and
- the perceived institutional priority placed on supporting faculty development and growth.

What are potential interventions schools of pharmacy can do to enhance career satisfaction among junior faculty? At least two interventions can be offered. First, during the selection process, pharmacy schools can strive to find candidates who, not only have the ability, experience, and motivation to perform, but also have a value system that is compatible with the institution. A junior faculty member's satisfaction is likely to be higher if his or her values fit will with the institution. For example, a faculty member who places a high value on being able to conduct research is likely to be poorly matched at schools of pharmacy that provide little support or opportunity for research. To get the most out of this intervention, a realistic job preview should be given concerning "what it's like to work here" (23). Realistic job previews are methods to provide perspective colleagues with a balanced picture of job expectations and the reward system. Previous research has demonstrated that realistic job previews can significantly reduce turnover and improve job satisfaction(23).

Secondly, as recommended by Lee et al., schools of pharmacy can enhance intrinsic faculty satisfaction by designing effective faculty development programs that meet the professional growth needs of each junior faculty member(11). This may include developing effective mentorship programs whereby experienced faculty members sponsor junior faculty members to provide support and to help build self-confidence. Successful mentors are good teachers who can present ideas clearly, listen well, and empathize with the problems of their proteges. For example, approximately 60 percent of the respondents of this investigation were female, with most being under the age of 40. A specific mentorship program could be tailored to specifically address the unique problems and concerns that females in child-bearing years might experience. The end result might be increased satisfaction and reduced turnover.

This investigation was subject to several limitations. First, it is difficult to conduct a survey that includes attitudinal items, such as job satisfaction, because attitudes can change quickly. In addition, the instrument used was not designed to measure the extent to which faculty development was provided by the junior faculty member's institution. A third limitation is the possibility that, despite attempting to assess nonresponse bias, those who responded to the survey were systematically different from those who did not respond. Fourth, the instrument did not differentiate between tenure-track and nontenure track respondents. Promotion requirements are generally different between tenure and non-tenure track faculty, and the results could be different if the study controlled for this fact. Also, since approximately seventeen percent of the respondents were assistant professors for more than six years, it is possible that their responses may be systematically different from those of respondents with fewer years' experience in higher education. Finally, the design of the study allowed for an analysis of bivariate rather than multivariate relationships. Thus, interaction effects, if any, were not assessed.

Further investigations are needed to examine why junior faculty are satisfied or dissatisfied with teaching, research, and service. Additional studies could also compare the satisfaction of junior faculty with senior faculty members on the role functions of teaching, research, and service.

#### CONCLUSIONS

This investigation reports new and useful information regarding junior faculty members' satisfaction with the three role functions of teaching, research, and service. It sought to answer the question: How satisfied are pharmacy junior faculty members with the role functions of teaching, research, and service? Junior faculty members are most satisfied with the teaching role function and least satisfied with the research role function. However, results indicate that junior faculty are somewhat ambivalent concerning their career satisfaction, scoring just above the neutral point on overall satisfaction.

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