

Pharmacy Student Involvement in Student Organizations

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ABSTRACT. The purpose of this study was to describe the types of organizations pharmacy students are involved in and students' level of involvement. Responses were obtained from 351 pharmacy students representing eight U.S. colleges of pharmacy. On average, students were involved in 1.69 organizations ($SD = 1.54$, range 0 to 9, median = 1). Only 23% of students ($n = 81$) were not involved in an organization during the 1995-96 school year and over two-thirds of students were involved in one to three organizations. Of the organizations students were most involved with (up to a maximum of three evaluated), 87% of memberships held were in pharmacy organizations, 9% in campus organizations, and 4% in other organizations. Students were most involved in national pharmacy organizations (e.g., APhA-ASP, ASHP, and NARD) and pharmacy fraternities (43% and 24%, respectively). ANCOVA results indicate that the number of organizations students are involved in differs by year of graduation, with those two years away from graduation (1997) involved in more organizations. The extracurricular involvement inventory (EII) was used to measure level of students' organizational involvement for those students who held memberships in at least one organization. Students were classified into low, moderate, and high levels of involvement based upon their overall EII score. No significant relationship was found between level of involvement and gen-

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der, year of graduation, marital status, or self-reported grade-point average. This study indicates that students do actively participate in student organizations, represented predominantly by pharmacy organizations. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]

INTRODUCTION

Involvement in out-of-class activities has been shown to be an important factor in the development of the "whole" student. Activities such as living in campus residence and interaction with faculty and peers have been attributed to persistence in and satisfaction with the college experience (1). Other out-of-class experiences such as work, travel, and participation in extracurricular activities have been attributed to gains in the development of several aspects of students' social and intellectual maturity (1).

One out-of-class activity in particular, participation in student organizations, has often been identified as playing an integral role in the educational process (2). The benefits of involvement in organizations and organizational activities are recognized by students. In an analysis of 149 college students from twelve universities, Kuh found that the type of activity mentioned by most students as contributing to their learning and personal development was taking leadership responsibilities. More specifically, activities such as planning, organizing, managing, and decision-making were found to be beneficial by 85% of survey participants (3).

Within the pharmacy literature, little has been published on the relationship between involvement in out-of-class experiences and the overall personal and professional development of pharmacy students. Studies have examined the relationship between involvement in organizations and professional development, as measured by professional commitment (4,5). The results, however, have been conflicting. Slack and Murphy examined the factors associated with students' participation in professional organizations and found that self-efficacy had the greatest impact on student participation (6). Beyond this, little else is known about the types of organizations pharmacy students are involved in and the degree to which students are involved. The purpose of this study was two-fold. First, to

describe the types of organizations pharmacy students are involved in and their degree of involvement in these organizations. The second purpose was to evaluate whether demographic factors such as age, gender, reported grade-point average, or marital status had any impact on level of involvement.

METHODS

To obtain a national representation of pharmacy student involvement in organizations, students from eight colleges of pharmacy were selected; one from each APhA-ASP geographic region. One faculty member from each college was identified and asked to administer the survey to students in their last didactic year of pharmacy school. Scripted directions were included in an attempt to standardize questionnaire administration. Faculty members collected the surveys and mailed them back to the researchers. The study was conducted in the spring of 1996.

The questionnaire collected demographic information and information on the number and types of organizations students were involved in during the 1995-96 school year. Level of involvement was measured using a modified version of Winston and Massaro's extracurricular involvement inventory (EII), an eight-item inventory designed to measure both quantitative and qualitative aspects of organizational involvement (7). The EII asked respondents to identify the type of organization, the average number of hours per month spent involved in organizational activities, whether or not they held an office within the organization during the 1995-96 school year and, if applicable, the type of office held (e.g., president, vice-president, secretary, committee chair). Organizations were classified into pharmacy-related and nonpharmacy-related (campus) organizations. Pharmacy organizations were grouped into the following categories: national pharmacy organizations (e.g., APhA-ASP, ASHP, NARD), state/local pharmacy organizations, pharmacy fraternities (e.g., Kappa Epsilon, Kappa Psi, Lambda Kappa Sigma, Phi Delta Chi), pharmacy honorary (e.g., Rho Chi, Phi Lambda Sigma), and pharmacy school governments. Campus organizations were identified as: campus government (e.g., hall council, student government), social fraternity/sorority, religious

organization, academic honorary, service or philanthropic, performing group (e.g., choir, drama, debate) and an "other" category.

Five items on the EII measure the qualitative aspects of involvement. These questions, measured on a scale from "very often" to "never," capture the degree to which students participate in activities and the degree to which organizational duties or responsibilities are fulfilled by the student. The EII score for each organization is a product of the summed qualitative measures and the average number of hours per month spent in organizational activities (7). Students were asked to complete an EII for each organization they were most involved with, up to a maximum of three organizations. Previous literature suggests that pharmacy students are, on average, involved in two organizations (4,5). Thus, it was felt that three organizations would be sufficient to assess overall involvement while minimizing respondent burden. A student's overall EII score was calculated by summing the EII scores for each of up to three organizations. Finally, students who held a membership in an organization were categorized into low, moderate, and high involvement groups according to the means and standard deviations of their overall EII scores (7). Students who were not involved in any organization were categorized as "not involved."

ANCOVA was used to examine the relationship between number of organizations and the demographic profile of the student with age as the covariate and number of organizations as the dependent variable. Chi-square tests were conducted to test for independence between level of involvement and student characteristics such as gender, year of graduation, and marital status.

RESULTS

Demographics

Responses were obtained from 351 pharmacy students, representing an overall response rate of 49%. Of the eight colleges of pharmacy, three were all-Pharm.D. programs and five had both bachelor of science and Pharm.D. programs. Thirty-six percent of all respondents were from the all-Pharm.D. programs. Table 1 provides the demographic profile of those responding. Approximately

TABLE 1. Demographic Profile of Responders.^a

Variable	Number (percent)
Gender	
Females	237 (69)
Males	108 (31)
Average Age	25 years
Standard deviation	4.38
Marital Status	
Married	102 (30)
Not married	239 (70)
Ethnicity	
African-American	10 (3)
American Indian	29 (8)
Asian/Pacific Islander	10 (3)
Hispanic	6 (2)
White/Caucasian	276 (79)
Other	6 (2)
Anticipated Year of Graduation	
1996	84 (24)
1997	164 (48)
1998	51 (15)
1999-2000	44 (13)
Grade-Point Average	
3.50 to 4.00	81 (24)
3.00 to 3.49	148 (44)
2.50 to 2.99	84 (25)
2.00 to 2.49	18 (5)
1.99 or under	3 (1)

^aTotal sums within each category may not equal 351 due to missing data.

70% of the respondents were female, their average age was 25 years (range 19 to 50 years), 79% identified themselves as Caucasian/white, and 30% were married. The student group targeted in this analysis were those in their last didactic year, which for most college of pharmacy bachelor's degree programs would include those

graduating in 1996. For entry-level Pharm.D. programs, students in their last didactic year would include those graduating in 1997. Due to convenience sampling, a broader distribution in year of graduation was obtained. The class of 1997 represented the greatest percentage of students (48%), followed by the classes of 1996 (24%), 1998 (15%), and 1999-2000 (13%).

Incidence of Involvement

On average, students were involved in 1.69 organizations ($SD = 1.54$, range 0 to 9, median = 1). Only 23% of students did not hold a membership in an organization during the 1995-96 school year, and 66% were involved in one to three organizations. Eleven percent of respondents were involved in four or more organizations (see Table 2).

Results from ANCOVA analysis found a significant relationship between number of organizations joined and year of graduation ($F = 5.46$, $p = 0.0011$). According to the least squared (LS) means, students graduating in 1997 held more memberships in student organizations (LS means = 1.99) followed by the classes of 1998, 1996, and 1999-2000 (LS means = 1.60, 1.25, and 1.14, respectively). No significant relationship was found between number of organizations joined and age, gender, reported grade-point average, or marital status.

Level of Involvement

Level of involvement, as categorized by the EII, measures not only the number of organizations students are involved in but also the degree to which students are involved. Results indicate that 26% of students ($n = 91$) were involved to a low degree, 25% ($n = 87$) were moderately involved, and 26% ($n = 90$) were highly involved in organizations. Twenty-three percent ($n = 81$) of all students were not involved (see Table 3).

Chi-square tests of independence did not find a significant difference between level of involvement and gender, year of graduation, marital status, or reported grade-point average. Although not significantly related, it is interesting to note the distribution across level of involvement for year of graduation. From Table 3, the distribution across level of involvement for those graduating in 1997 was

TABLE 2. Frequency Distribution of Number of Organizations Joined by Students.

Number of Organizations	Number of Students (percent)
0	81 (23)
1	98 (28)
2	95 (27)
3	39 (11)
4	17 (5)
5	12 (3)
6	6 (2)
7	1 (<1)
9	2 (1)

TABLE 3. Level of Involvement.^a

Level	Total	Gender		Year of Graduation			
	N (percent)	Females	Males	1996	1997	1998	1999/00
Not involved	81 (23)	49 (21)	28 (27)	22 (26)	35 (22)	8 (16)	12 (30)
Low	91 (26)	63 (27)	25 (24)	25 (30)	42 (26)	10 (20)	10 (23)
Moderate	87 (25)	61 (26)	24 (23)	26 (31)	38 (23)	14 (27)	8 (19)
High	90 (26)	62 (26)	28 (27)	11 (13)	47 (29)	19 (37)	13 (30)

^aPercentages are by category (*i.e.*, total, gender, and year of graduation).

quite similar compared to the distribution for those graduating in 1996 and 1998. Students graduating in 1996 had a smaller proportion "highly involved" (13%) while those graduating in 1998 had a smaller proportion "not involved" (16%). In other words, those closest to graduating are less likely to be highly involved compared to those further from their date of graduation who are more likely to be involved than not involved.

Types of Organizations

The types of organizations students participate in appear to be predominantly pharmacy organizations. Of the organizations students were most involved in (up to three), 87% of memberships

were held in pharmacy organizations, 9% in campus organizations, and 4% in "other." The highest percentage of memberships were held in national pharmacy organizations and pharmacy fraternities (43% and 24%, respectively). Of the memberships held in campus organizations ($n = 41$), a greater number of memberships were held in religious organizations ($n = 10$), followed by social fraternities/sororities ($n = 9$), and campus government ($n = 8$). A breakdown of the number of memberships held in organizations is presented in Table 4.

Further analysis of the up to three organizations students were most involved in indicated that for those involved in organizations, 212 (81%) students were involved in only pharmacy organizations, 14 (5%) were involved in only campus organizations, and 38 (14%) were involved in both pharmacy and campus organizations.

DISCUSSION AND CONCLUSION

The number of organizations students participate in does not appear to be influenced by age, gender, grade-point average, or

TABLE 4. Memberships Held in Student Organizations.

Organization	Number (Percent) ^a
Pharmacy	
National pharmacy	206 (43)
State/local pharmacy organizations	23 (5)
Pharmacy fraternity	117 (24)
Pharmacy honorary	56 (12)
Pharmacy school government	16 (3)
Campus	
Campus government	8 (2)
Social fraternity/sorority	9 (2)
Religious organization	10 (2)
Academic honorary	6 (1)
Service or philanthropic	4 (< 1)
Performing group	4 (< 1)
Other	19 (4)

^aPercent of total memberships held.

marital status. However, the number of organizations joined is significantly different across year of graduation with students in the class of 1997 involved in, on average, a greater number of organizations. Level of involvement, as defined by the EII, was not significantly related to any of the student characteristics examined: gender, marital status, year of graduation, and grade-point average. The result relative to year of graduation may be confounded somewhat by including students from both B.S. and Pharm.D. programs. It might be anticipated that students in Pharm.D. programs in the year prior to clerkships had the most seniority and greatest likelihood of participating in organizations.

The types of organizations students hold memberships in are predominantly pharmacy organizations. One might expect this given the closed environment of many colleges of pharmacy. The strong push for organizational involvement in the profession at many colleges and the time limits associated with rigorous study would naturally tend to hamper participation in nonpharmacy-related organizations. Further, colleges of pharmacy may be located in health-sciences centers or geographically distant from the main campus of the university, further decreasing the likelihood of participation in nonpharmacy organizations.

Pharmacy students appear to be actively involved in student organizations, with 77% of all students involved in at least one organization and approximately 49% involved in two or more organizations. These results indicate that students appear to be taking advantage of opportunities to participate in organizations during their college experience. These findings are encouraging in light of the growing evidence indicating a positive relationship between level of involvement in organizations and gains in students' overall personal and intellectual development (1,3).

A majority of the students surveyed in this study were involved in pharmacy organizations. If this pattern of involvement exists across all colleges of pharmacy, there is a unique opportunity for students to develop professionally as well as personally and intellectually through participation in pharmacy organizations. Many activities carried out by pharmacy student organizations, including brown-bag seminars and participation in health fairs, encourage the development and application of professional skills. These activities

provide a unique training ground for pharmacy students allowing them to share their knowledge and interact with the community they will soon serve. The relationship between level of involvement in student organizations and its impact on the personal and professional development of pharmacy students was not examined in this study. However, this relationship should be evaluated in future studies in order to quantify the benefits pharmacy students gain through participation in student organizations.

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