

## **The Impact of a Gender Shift on a Profession: Women in Pharmacy**

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### **Abstract**

The face of pharmacy is changing as more women make up the ranks of the pharmacy profession. Women have been graduating from colleges and schools of pharmacy at a higher rate than men for over 20 years and men are retiring at a faster rate than women. These two trends combined have resulted in a practicing profession comprised of a greater percentage of women. Workforce shortages have been reported for nine years and are forecasted to continue for the next five to ten years. The impact of the gender shift offers threats and opportunities for a healthcare profession at the forefront of patient access. Threats resulting from this gender shift have been proposed resulting in decreased pharmacy ownership, diminished political advocacy, and decreased academic leadership.

However, with this gender shift the potential for transformational changes in the profession are in full view. The evolution of the practice to one that is more based in the provision of cognitive services through the delivery of direct patient care may offer advantages to new practitioners. Some data indicate that women have a greater interest in the direct patient care aspects of their practice over that of their male counterparts. In addition, as more women enter the practice and advance into leadership roles the traditional views of girls and young women will change. Finally, policy changes are more likely to occur to facilitate and support women in the profession. Rethinking traditional models and infusing change through innovative policies can propel the impact of this gender shift down a positive path resulting in increased job satisfaction and advancement of the profession.

### **Introduction**

Over the last two decades, a gender shift has occurred within the practice of pharmacy. A profession that was once dominated by men has become a profession that has increasingly attracted women into its fold. The changing demographics of the profession have significant implications for the potential impact on the workforce shortage. It has been suggested that women will be less likely to work full-time, and that this may negatively impact the number of professionals willing to own and operate their own stores, serve in management roles, and be involved in organizations that lead change within the profession. The impact of females within the profession and their responsibilities at home should be addressed in ways that prevent stifling of their professional careers. Policies should be implemented that facilitate flexible schedules without hindering advancement, that acknowledge the importance of involving new practitioners

in professional association leadership, that encourage innovation in the practice setting, and that facilitate leadership development and political advocacy.

### **Gender Changes in the Workforce**

The American Association of Colleges of Pharmacy reports that the number of students receiving their first professional degree in pharmacy consisted of 2781 men (40%) in 1989-90, as compared to 4175 women (60%). (AACP website) By 2003-04, women made up 67% of students receiving their first professional degree in pharmacy. These numbers have seen similar trends in other countries. In a workforce update based on the 2005 Register of Pharmaceutical Chemists in Great Britain, 24,845 (54.7%) of pharmacists were female. (Hassell and Eden 2006) Interestingly, the number of female pharmacists entering the profession was 1,569 out of 2,399 (65.4%) while the number of female pharmacists leaving the profession was lower than that of their male counterparts 1,490 out of 3,345 (44.5%).

The numbers also reflect that female pharmacists are generally younger than their male counterparts, with 54.8% of females under the age of 40 compared to 37.5% of men under the age of 40. (Hassell and Eden 2006) The trend of having increased numbers of female pharmacists as a proportion of the total has heightened concerns regarding the impact that female pharmacists may have on a potential workforce shortage if female pharmacists are more likely to work part-time or to work less years over the course of a life time than male pharmacists. In an article in 2001, Walton and Cooksey examined the impact of gender on part-time status and employment setting in the pharmacy labor market. Their analysis was based on census data between 1979 and 1998 and included 6,495 individuals that described their position as a pharmacist. Their results indicated that although relatively few pharmacists indicated working half-time or less (6%), female pharmacists were four times more likely to be employed part-time.

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They also reported that male pharmacists average 44.1 hour work weeks, compared to 37.2 hour work weeks for female pharmacists. (Walton and Cooksey 2001) Over the 20 year period studied, this indicated that female pharmacists could be expected to work 84% of the average number of hours worked weekly by male pharmacists. (Walton and Cooksey 2001) This study was limited by the fact that it included only pharmacists who reported being employed, and it did not identify pharmacists working in a field outside the mainstream settings of community pharmacy or hospital settings. In a four state summary of the workforce conducted in 2001, similar findings were reported. Survey data were collected from 1,742 pharmacists from four Midwest states (Iowa, Minnesota, Ohio, and Wisconsin). (Mott, et al. 2001) The majority of female respondents were under the age of 46 years, as compared to 40% of male pharmacists. Twenty-four percent of female pharmacists reported working part-time, as compared to 6.3% of men. Women in the younger age bracket were more likely to work part-time, whereas male pharmacists over the age of 60 years were more likely to be employed part-time. This study also showed that women were less likely to enter management positions even after the age of 40, 52.9% of men versus 36.1% of women. The difference was even more prominent before the age of 40 when 39.8% of men and 27.6% of women were in management positions. (Mott, et al. 2001)

A study examining turnover rates for pharmacists also explored the gender differences in reasons for turnover. (Mott 2000) Data included mailed survey results from 541 pharmacists in four states (Alabama, Ohio, Massachusetts, and Oregon). The annual turnover rate among male pharmacists was  $9.7 \pm 2.85\%$ , compared to an annual turnover rate among female pharmacists of  $15.0 \pm 4.39\%$ . The highest ranking reasons for turnover among male pharmacists were salary and a desire for change. The highest ranking reason for turnover among female pharmacists was

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the need for relocation secondary to their husband's career. Over this fifteen year period, men were also likely to stay in their jobs longer. (Mott 2000)

The number of female pharmacists entering academia has also increased, as a percentage, over the last two decades. In 1992-93, there were 732 women faculty which comprised 26% of the total faculty. In the 2005-06 Profile of Pharmacy Faculty, females comprised 1,706 (40.6%) of 4,201 total faculty members. The distribution of full-time pharmacy faculty members is shown in Table 1. The number of female academicians in part time positions was 284 (50.9%) out of 558, excluding emeriti members. The number of female academicians is seen much more commonly among the ranks of Instructor (59.8%) and Assistant Professor (56.6%) and much more rarely at more senior level ranks such as Associate Professor (35.3%) and Professor (17.8%). Women serve as chief administrators in only 16 of the 87 (18.4%) deanships among colleges of pharmacy in the United States. The number of female faculty members choosing tenure tracks has also been assessed. Based on data from the 2002-03 AACCP faculty database, 58% of full-time female faculty members were in non-tenure track appointments, compared to 28% of men. (Svarstad, et al. 2004) Although the database does not reveal the time that it takes a male or female to receive tenure, women were less likely to be tenured in 7 of the 9 disciplines. The percent of women having tenure was 4%, 8%, and 11% lower than men in the age groups defined (30-39 year, 40-49 years, and 50-59 years), respectively. (Svarstad, et al. 2004)

The data suggest that barriers may exist to advancement for female academicians, given the small number of females among the highest academic ranks. In an online questionnaire, data from 468 graduate students explored why fewer men than women perceive barriers to becoming professors. (van Anders 2004) Both men and women identified interest in teaching and research as positive reasons for seeking an academic career. However, women were significantly more

likely to perceive parenting and the need for mobility as factors that negatively impacted their desire for an academic career. Women were also more likely to feel that the academic environment and lifestyle were negative factors related to academia as a career. (van Anders 2004)

Several reasons for barriers in the academic pipeline have been postulated. Faculty search committees may not be looking beyond their typical pool. (Fodor 2005) There also may be a tenured pool of male professors who are not retiring for two to three decades, and thus positions may not be available for some time. Family issues are also felt to be a major factor. A study that utilized time-diary data to assess trends in the division of household labor by gender found that women continue to be responsible for the majority of housework regardless of their employment status, marital status, or parental status. (Bianchi et al. 2000) Although time constraints are an important predictor of the allocation of household duties, women tend to be more affected by these factors than men, suggesting that gender role ideologies continue to play a large role. (Bianchi et al. 2000)

### **Gender Differences in Salary**

The four-state pharmacy workforce study also compared salary data from male and female pharmacists. (Mott, et al 2001) Female pharmacists in full-time positions were paid a mean hourly wage of \$30.73, compared to \$31.88 for male pharmacists. Female pharmacists in part-time positions earned an hourly wage of \$29.25, compared to \$29.99 for male pharmacists. In independent pharmacies and small chain pharmacies, the numbers were most significant. Female pharmacists in independent stores earned \$1.43 less per hour than male pharmacists working in the same setting. (Mott, et al 2001)

A significant gap is also evident when comparing salary data based on gender among academicians in colleges of pharmacy. In 2005-06, the Profile of Pharmacy Faculty reports salary data based on gender, academic rank, and discipline as shown in Table 2. Significant differences are seen, particularly at the rank of Professor, suggesting that the gender pay gap is narrower at the lower ranks and wider at advanced ranks. These data suggest that gender differences seen in salary, occur even among individuals with the same background, qualifications, and years in service.

### **Gender and Stress**

In a 1988 study, women faculty members from colleges of pharmacy in the United States and Canada were surveyed to estimate satisfaction with an academic career and to estimate perceptions of stress and work load levels. Results indicated that the highest level of satisfaction was linked to finding the work satisfying. Other satisfying aspects of an academic position were having a job that matched their abilities, having others to collaborate with, and having opportunities to advance. Stress was relayed as an important factor, however. Fifty percent of the Americans reported that their present position was “as much as they could handle, and 43% felt that it was “more than they could handle comfortably.” (Henderson, Keeney and Ferguson 1998)

### **Gender and Work Preferences**

A study of male and female pharmacy managers in Ontario, Canada examined their attitudes and behaviors in the workplace. (Cockerill, et al 1999) This study revealed that the work commitment was similar between male and female pharmacy managers. However, the

study showed that female managers reported spending more time on activities related to parenting. Female managers were more likely to be involved in direct patient care activities and found those activities to be more satisfying than did their male colleagues. They found that female managers were more supportive of increasing patient counseling within their pharmacies. (Cockerill, et al 1999)

### **Potential Impact on the Profession**

Increased number of women in the profession has raised concerns regarding the number of graduates interested in buying independent pharmacies in the future. Store owners fear that more women graduates will be seeking part-time work and avoiding positions that involve management responsibilities and less flexible schedules. Some see this as a threat to the continued success of independent pharmacy and fear that the current direction may lead to pharmacists with an employee mentality as opposed to an employer mentality.

Professional pharmacy organizations are also challenged to involve more women than has traditionally been the case. Female pharmacists may be less likely to be involved in professional/volunteer organizations because of time commitments divided between work and family responsibilities. Moreover, female pharmacists have seen few female role models in leadership positions at a state and national level in pharmacy organizations. Women have also been underrepresented in receiving national awards from pharmacy organizations, with only 1 of 39 women receiving the prestigious Research Achievement or Tyler awards from the American Pharmacists Association between 1981-2002. (Svarstad, et al. 2004) If female pharmacists do not feel valued or included among the leaders of these associations, the gender shift may have a negative impact on the influence that these organizations may have in the future. Conversely,

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the gender shift could positively impact the future of these organizations if women are involved early. Women have traditionally been involved in civic organizations to a large extent and have had major impact on their communities, schools, and churches. If their talents and energy were captured within the professional organizations and if they were involved in the leadership structure of these organizations, the gender shift may positively impact this facet of the profession.

Colleges of Pharmacy are also challenged to recruit talented female faculty members into academia. Factors negatively influencing female pharmacists' decisions regarding a career path involving postgraduate preparation include financial obligations and raising a family. (Shepherd, et al. 1988) Factors that influenced students decisions in a positive way regarding postgraduate educational plans (pursuing a Ph.D. or M.S. degree) included having undergraduate research experiences and having a faculty mentor. (Shepherd, et al. 1988) A qualitative study of women chief executive officers in health care settings showed that mentors played an important role in their advancement. (Roemer 2002) Nineteen of the 35 female CEOs said that they had received mentoring, either in the form of coaching or in the form of psychosocial support. They described being mentoring as having opportunities to observe their mentors in action, having mentors promote or help them up the corporate ladder, and being accepted as a professional by a female in a leadership role. (Roemer 2002) Increasing the number of women prepared for academic careers or for leadership roles in health care management will likely be improved if colleges of pharmacy make directed efforts to attract talented female students into summer and elective research programs and if formal mentoring programs are initiated.

Other potential positive factors that may result from this gender shift include the impact that female role models in formerly male dominated professions have on future generations of

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young women. Female pharmacists, scientists, physicians, and engineers will likely change the traditional views that girls are less likely to succeed in science and math courses, and will encourage young women to consider career options that were heretofore elusive.

Increasing numbers of female pharmacists may also impact the development of pharmacist/patient relationships. Some argue, that as nurturers, females may be more likely than their male counterparts to nurture the types of pharmacist/patient relationships that result in improved communication and better patient care. Others argue that having more part-time pharmacists may erode the pharmacist/patient relationships that have been the cornerstone of pharmaceutical care delivery in community pharmacies. As the practice model continues to evolve, it will be important to recognize the impact of flexible schedules and part-time work on these relationships. Because the consumers and caregivers who frequent pharmacies are more commonly female, the female pharmacists may provide additional benefit by being more approachable than their male colleagues.

### **Policy Initiatives**

Policy changes within academic pharmacy may have the most far-reaching effects. Schools of pharmacy should provide coursework that exposes all students to entrepreneurship, political advocacy, and management skills. Colleges should work together to provide opportunities for students to enter dual degree programs that decrease the amount of time required for them to complete educational programs in areas such as law, business, and public health, while completing their professional pharmacy degree.

Colleges should also actively seek female pharmacists into the academy and should implement policies that ensure opportunities that recognize stages of family responsibility across

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the continuum of life (from the childbearing years through the years associated with elder care for aging parents). Academic institutions can model policies that provide support for working professionals including job sharing, flexible schedules, on-site amenities (i.e. daycare, after school care, fitness centers), and health care benefits for part-time employees. Academic institutions must also reevaluate traditional tenure guidelines and consider policies that allow alterations in the tenure clock. Policies should be gender neutral and allow broader definitions of family, so that both male and female academicians can consider academic careers even if family responsibilities are significant during some their productive working years.

Our corporate pharmacy environments must be challenged to facilitate leadership development by encouraging women to consider management roles, particularly recognizing the changing desires that women may have as their family responsibilities diminish. Corporate pharmacy should support spousal relocation for women that seek advancement, recognizing that this type of policy may result in the recruitment and retention of talented executives. The profession should also acknowledge the importance of having new practitioners, including women, on boards of pharmacy and among the leadership of professional organizations. These organizations need to actively recruit women and support their advancement through the organizations by recognizing their contributions and achievements.

### **Conclusion**

The gender shift that has occurred with the profession of pharmacy has sparked debate regarding the potential impact that this might have on the workforce shortage, pharmacist salaries, the impact of professional organizations, and the future of independent pharmacy ownership. Leaders in colleges of pharmacy, national and state pharmacy organizations,

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corporate pharmacies, and boards of pharmacy need to consider policies that might positively affect the influx of female pharmacists. Rethinking traditional models and infusing change through innovative policies can allow this gender shift to have positive implications on pharmacist satisfaction, advancement of the profession, and improvements in patient care.

**Table 1: Distribution of 2005-06 Full-Time Pharmacy Faculty by Rank and Gender**

Faculty Rank	Male	Female	Total
Dean	71	16	87
Associate Dean	126	34	160
Assistant Dean	63	50	113
Professor	742	161	903
Associate Professor	688	375	1063
Assistant Professor	754	983	1737
Instructor	41	61	102
Lecturer	10	13	23
Librarian	0	13	13
<b>Total</b>	<b>2495</b>	<b>1706</b>	<b>4201</b>

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**Table 2: Average 2005-06 Full-Time Pharmacy Faculty Salaries by Discipline, Rank, and Gender for Calendar-year Appointments**

Discipline	Faculty Rank					
	Professor		Associate Professor		Assistant Professor	
	N	Average Salary	N	Average Salary	N	Average Salary
<b>Medicinal/Pharmaceutical</b>						
<b>Chemistry/Pharmacognosy</b>	<b>149</b>	<b>135,564</b>	<b>86</b>	<b>86,628</b>	<b>92</b>	<b>72,898</b>
Male	136	136,610	77	86,832	71	73,382
Female	13	124,628	9	84,883	21	71,264
<b>Pharmaceutics/Pharmacy</b>	<b>130</b>	<b>132,224</b>	<b>111</b>	<b>90,189</b>	<b>97</b>	<b>77,009</b>
Male	111	133,142	84	90,619	63	77,091
Female	19	126,865	27	88,852	34	76,858
<b>Pharmacology</b>	<b>117</b>	<b>125,001</b>	<b>100</b>	<b>90,785</b>	<b>91</b>	<b>73,258</b>
Male	104	125,382	65	91,730	63	72,747
Female	13	121,953	35	89,029	28	74,406
<b>Social and Administrative</b>						
<b>Sciences</b>	<b>59</b>	<b>116,867</b>	<b>74</b>	<b>90,154</b>	<b>73</b>	<b>77,703</b>
Male	47	118,060	45	91,393	37	76,916
Female	12	112,194	29	88,232	36	78,512
<b>Pharmacy Practice</b>	<b>227</b>	<b>114,618</b>	<b>450</b>	<b>93,301</b>	<b>993</b>	<b>81,215</b>
Male	167	118,029	250	94,936	325	82,628
Female	60	105,122	220	91,256	668	80,528

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