

Optometric Student Gender Trends and The Importance of Diversity: The Impact Of Women in a Male-Dominated Profession

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Abstract

This paper discusses the gender trends of optometry students in the United States. The optometric profession began as a white male-dominated profession and has transformed into a diverse profession of women and men with varied ethnicities. This transformation can be seen specifically over the past 36 years. How will this demographic shift change the optometric profession? Although the answer to this question is unknown, our profession needs to be ready for the possibility of changes.

Key Words: *Trends, optometric education, optometric demographics, gender, diversity*

Introduction

Concepts of diversity in educational experiences can involve three types of diversity experiences: structural, classroom, and instructional.¹ Classroom and instructional diversity are defined as curriculum-related activities and social activities for educational purposes.¹ Hu and Kuh define structural diversity as the demographic composition of the student body, which may be institution-specific.¹ Structural diversity enhances student learning and moral development by enhancing general knowledge, discipline-specific knowledge, and writing skills.² Specifically, students had self-reported gains in writing skills, general knowledge, and knowledge within their discipline.²

Diversity experiences have been shown to influence a student's development of principled moral reasoning, which is based on the application of universal moral principles instead of societal authority.³ Principled moral reasoning assists in a student's identity development and traverses into behavior, judgments, and actions, thereby indirectly influencing student life and professionalism.³ It enhances a student's ability to make ethical decisions that may affect his or her life or the lives of others in society through decision-making in relation to academic dishonesty or medical ethics, which has become an increased concern for institutions and professions alike.

Diversity experiences have the potential of being instrumental to educational institutions because all students can be involved in diversity experiences, regardless of demographic characteristics.² It is unknown if diversity experiences alter the gender gap experienced by students because there were no comparative data to establish change over time.⁴ Data show, however, that men are more affected by curricular and co-curricular diversity experiences, including women's studies classes and racial and ethnic classes.⁴

Diversity experiences can have positive and negative influences on students and can cause discomfort to some, depending on their level of readiness and previous exposure.⁵ Diversity experiences also lead to heightened cultural awareness, which can challenge students to transition into higher orders of consciousness,

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as defined by Kegan.⁵ This transition into higher orders of consciousness leads to subsequent identity development, which is an overarching goal of the college experience and adult development. Therefore, diversity experiences are an important means to promote students' development during their college experience.

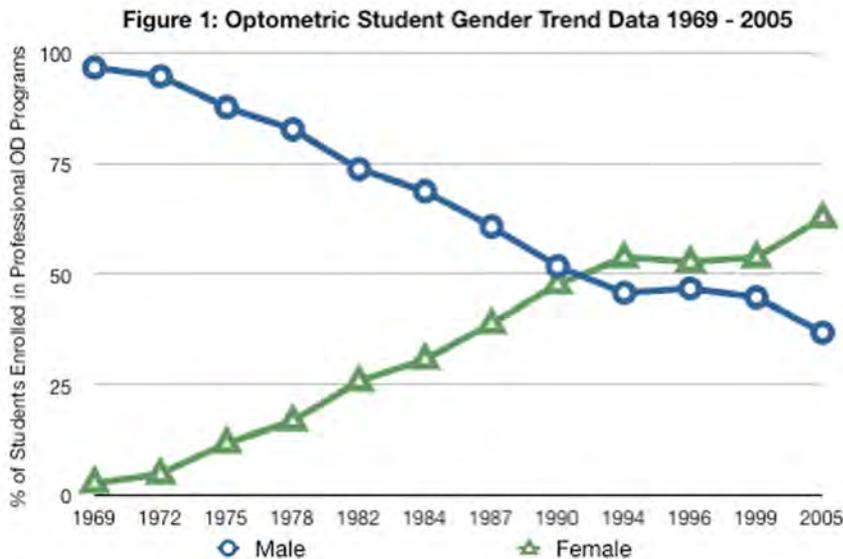
To better understand how optometry students are being affected by diversity, we must first analyze our educational demographics. It is also important to understand the changes that have occurred over the years with respect to diversity, specifically gender, to determine their effect on the profession's future. The purpose of this paper is to heighten awareness of diversity and raise questions about the future of the optometric profession. As educators, we have an untapped opportunity to assist and support students through their identity development during their college experience in optometry schools.¹

Discussion

In the 1950s and early 1960s, there was a wide disparity in career choices between genders, but this gap began to narrow because of federal legislation, such as Title IX.⁴ Furthermore, a student's choice of major was not always directly related to his or her career choice.⁴ In the early 1970s, Title IX was passed by the federal government with the intention of ending gender discrimination in education.^{4,6} Title IX mandated that schools could not deny students the opportunity to participate in any educational activity based on gender.⁶ This allowed women to enroll in vocational education, in which they were historically restricted.⁶ Although legislation was passed, this alone did not effect immediate change. As expected, there was a delay in the impact of this legislation on enrollment numbers, as supported by the data reflecting enrollment in optometric institutions.

The optometric profession began primarily as a white male-dominated profession⁷; however, recent analysis shows a dramatic shift in gender over the past 36 years. The population data were collected from archived and current Association of Schools and Colleges of Optometry (ASCO) survey results representing U.S. schools and colleges

Figure 1



of optometry.^{8,9} ASCO conducts annual surveys of its member schools to gather applicant, enrollment, graduate, and financial data. These surveys represent self-reported data from individual ASCO member schools.

According to ASCO, graduates of the professional optometric program from 2006-2007 were 62.8% women and 37.2% men.¹⁰ From 1969-1970 graduates were 3% women and 97% men.⁷ The trend data in Figure 1 show a dramatic shift in gender representation over the past 36 years, with 1992-1993 representing the pivotal academic year of the majority/minority shift.⁷

The gender trend data show a positive slope of 2.04 from 1969 to 1994 for women and then a stabilization, represented by a zero slope, from 1994 to 1999. The positive slope in the gender trend data can be due to economic, social, and political factors. After 1999, there is an increase of 1.5 in the slope; however, the data spans only 6 years, which is not sufficient to forecast future gender trends. The trend may continue to diverge, stabilize, or converge. Each of these possibilities would impact the optometric profession's demographics and culture.

These data reveal a pivotal shift in the demographics of optometry students

in the early 1990s. The majority of students in optometry school in the mid to early 1990s were born between 1967 and 1971, representing Generation X.¹¹ Generation X students frame their college experience and subsequent identity development around contributing factors they experienced, such as the emergence of AIDS, the fall of the Berlin Wall, the Challenger space shuttle explosion, and the crash of the U.S. stock market.¹¹ Furthermore, these students have been shown to delay enrollment, to work full-time, to be responsible for care of dependents, and to value financial independence.¹¹ This generation's emphasis on financial independence helps support the development of female independence that frames Generation X-ers' career and education choices. Both male and female Generation X-ers view technology, customer service, and degree attainment from radically different points of view as compared to other students.¹¹ Their educational and consumer values can also affect student identity development and principled moral reasoning.

Nationwide, women have begun dominating college campuses, comprising approximately 60% of the student body in 2008.⁴ Furthermore, data analyzing financial concerns and goals from the early 1960s until 2006 show that wom-

en were more concerned about finances and, therefore, a higher percentage of women were setting goals to ensure financial security.¹² Data also show that women have achieved higher GPAs as compared to men, which has affected overall academic success, including graduate or professional school admission, scholarships, and awards.⁴ These data help to support the influx of women in health professional schools, specifically optometry, due to the financial benefits, competitive programs, and career stability that optometry offers.

Today, there are more women pursuing graduate and professional degrees leading to an equalization of college representation between genders.⁴ Data show a convergence in degree aspirations between men and women, although the specific academic and career choices may differ between genders.^{4,13} Gender equality within professions has been shown to positively enhance and expand a profession's status.¹⁴ Other studies have shown that feminization of professions can lead to a reduction in overall pay for the profession.¹⁵ The contradictory data may be attributed to different professional practices and settings.

Adams studied the dental profession in Canada and found minimal differences in men's and women's practice characteristics; however, there was a difference in practice type and income.¹⁵ The Canadian dental profession has seen an influx of women into its dental schools, which has significantly shifted their professional demographics.¹⁵ It is forecasted that in several years, more than half of the graduates in law school, dental school, and medical school in Canada will be women.¹⁵

Analysis of U.S. students' career aspirations reveals other professions, such as law and medicine, have shown a trend similar to that in optometry.¹² Both professions experienced a gender shift around the early 1990s when more women than men were interested in careers in law and medicine.¹² It is unknown if this shift has affected students' choices and interests in specialties within law and medicine. In addition to professional demographic and practice changes, students serve as the foundation for future faculty, which has a direct impact on educational institutions.

Current optometric faculty demographics must first be analyzed and compared with past trends to understand the full extent of changes in the optometric profession. According to the most recent ASCO Faculty Survey from 2009-2010, approximately 55% of faculty members are men, and 44% are women, with an annual increase of 0.3% in male faculty and 29% in female faculty.¹⁶ These data support a faster increase in women represented in optometric faculty.

A closer look at the gender distribution in academic institutions shows another interesting dynamic. There is a higher percentage of men than women in the more experienced ranks, such as professor (77%) and associate professor (61%), compared with less experienced ranks, such as assistant professor (44%) and instructor (27%) in U.S. optometry schools.¹⁶ If the faculty with current ranks of assistant professor and instructor continue to progress in their careers and normal attrition of current faculty occurs, it is plausible that there may be equalization of men and women distributed throughout all ranks over the next decade. A similar trend is seen when analyzing clinical faculty data at academic optometric institutions.¹⁶

There is also evidence that the number of women who are leaders across professions has increased. For example, one can look at the demographics of the Consultation Group on Interprofessional Professionalism (CIPP). The CIPP was established in 2006 through the efforts of the American Physical Therapy Association (APTA) to support collaboration between professions. The group consists of representatives from more than 20 professions, including but not limited to optometry, dentistry, medicine, veterinary medicine, and pharmacy.¹⁷ The leadership within the CIPP consists of 31% men and 69% women. This movement is further demonstrated in optometry when reviewing recent statistics that show the percentage of men (81%) versus women (19%) who are administrators at ASCO member schools in dean/president positions, as well as chief academic officer positions.^{16,18} If the gender shift in health care students continues, it is plausible that the faculty and leadership

demographics also may change to reflect a similar breakdown, which is closer to the current student demographics.

Conclusion

Faculty will ultimately define and shape the future of the profession and optometric education through implementation of different teaching and learning styles. Teaching and learning styles differ between gender, cultural background, socioeconomic status and many other factors.⁴ There is insufficient research to determine the reasons for the shift in gender in optometry students; however, the following factors may be considered: benefits and flexibility within the optometric profession, change in goals and aspirations of men and women, changing roles of parents, and changes in access to higher education for men and women.¹⁹

Unfortunately, the future cannot be predicted; however, the optometric profession needs to be ready to manage the unexpected, specifically with regard to the gender shift. This information may also help to analyze how students are exposed to diversity experiences during their optometric education. Student affairs professionals must be aware of these possible consequences to provide necessary support to students as institutions strive to fulfill ASCO's diversity programming goals, such as "promoting diversity and encouraging member institutions to embrace diversity in their policies and programs, thereby reflecting and serving a multicultural society."²⁰

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