

Experiential Education Abroad: The Doctor of Pharmacy Program in Germany

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	Comparing US and Germany	
1: 5500	Pharmacies per capita	1: 3800
Mostly chain pharmacies	Ownership of Pharmacies	Must be pharmacist-owned
119	Number of pharmacy schools	21
7-8 years post-secondary	Pharmacy Education	5 years post-secondary
Patient-focused	Focus of pharmacy curriculum	Chemistry-focused
Pharmaceutical care	Unique aspect of pharmacy curriculum	Pharmaceutical biology
16	% GDP spent on health care (2008 OECD data)	10.5
80	# Pharmacists per 100,000 population (2009 OECD data)	60
16 years of age with state certificate	Pharmacy technician requirements	3 years of educational training

Comparing Health Care Systems to Identify and Create Best Practice Models

Twenty-one pharmacy students from the University of Minnesota College of Pharmacy have participated in experiential education studying pharmacy in Germany since 2009. The fourth-year students spend their first five-week Advanced Pharmaceutical Practice Experience (APPE) in Velbert, Germany learning in a community pharmacy alongside two German university-graduated pharmacists who completed their Doctor of Pharmacy degrees in the United States.



Objectives

- discuss international and comparative perspectives of pharmacy and health care markets
- understand the role of pharmacists in the United States and Germany
- identify and examine best practices within the United States and Germany; brainstorm how these models would work in the other country to improve patient care
- interact with German health care professionals and pharmacy students to discuss pharmacy practice and the role of pharmaceutical care in the United States



Best Practice in the United States: Pharmaceutical Care

What is it?

Pharmacists meeting one-on-one with patients to ensure all of their medications are appropriate, safe, effective, and convenient.

What is the benefit?

Each year in the US, 100,000 lives are lost and about \$200 billion is spent on drug therapy problems. The provision Pharmaceutical Care (a.k.a. "Medication Therapy Management" or "MTM") has proved to not only improve patients' health, but also prevent the rising cost of health care. Patients are also empowered with knowledge that helps them manage their own health.

Best Practice in Germany: Health Care Access

What is it?

Germany follows the Bismarck model of health care, in which mostly private hospitals and clinics provide care. There is a government-mandated health insurance program (run by private non-profits) that provides coverage to virtually all German citizens.

What is the benefit?

German citizens have increased access to health insurance care. Cost of health care per capita is far lower than in the US despite universal access. About 15% of the population pays additional premiums for private health insurance, which provides additional benefits.

Overall Experience Results

- 92.9% (n=13) students very comfortable or comfortable upon entry into the German culture
- 42.6% (n=6) of students spoke another language other than English
- 64.3% (n=9) felt preceptors should be pharmacists
- 71.4% (n=10) easy or very easy to transition back into the United States upon return
- 100% (n=9) APPE students said they would participate again based on experience alone
- 80% (n=4) Elective students said they would not participate again based on experience alone
- 100% (n=14) would participate again based on cost alone
- 4/10 students thought preceptors should be Doctors of Pharmacy

Upper left) This is a photograph of the group of fourth year students in 2009 along with their preceptors.

(Bottom left) This is a picture of Adler Apotheke in Velbert, Germany, the community pharmacy where the students studied.

(Bottom right) This table presents results from the students' post-sojourn survey in 2009 (n=14).