

## **Education and Technical Support of Prosthetics and Orthotics Education in Latin America and the United States**

### **Abstract**

#### **Objective**

There exists a strong demand for orthotics and prosthetics (O & P) in Latin America, with approximately 2.5 million people in need of this type of care. IPRO 309 was started in the spring of 2006 with the goal of helping to make this type of care more readily available. This semester's group specific goal was to promote orthotic and prosthetic education in Colombia with a central fabrication unit that makes custom, made-to-measure orthotics. This unit would first, create a work study program at Centro Don Bosco University, then move on to the rest of Bogotá, Colombia.

#### **Basic Organization and Tasks**

IPRO 309 was split into three subgroups: business, technical, and impact. Each subgroup had a specific objective to work toward throughout the semester. The business objective was to develop a plan for implementation of Central Fabrication program at Centro Don Bosco. This program will cover organization, management, work study program, marketing, etc. The technical objective was to develop feasible method for creation of temporary orthoses. The group will also develop product line for business plan and understand all other technical aspects of Central Fabrication. Finally, the objective of the Impact subgroup was to focus on promoting Telemedicine in Colombia with local clinics. The group will also research methods of promoting O&P care and careers in Latin America.

#### **Accomplishments**

The IPRO subgroups tracked progress according to each of their specific goals outlined at the beginning of the project. Research was conducted to discover what resources were available (technology, financial resources), and the use of comparative effectiveness research was also utilized. The technical group focused on becoming familiar with the process of design and measurement of orthotic devices. Using this knowledge they successfully implemented two sample orthotic devices. The business group focused on developing a model of a work study program for students at Centro Don Bosco. The impact group worked toward Telemedicine promotion with local Colombian clinics.

#### **Critical Barriers and Obstacles**

Early on, the group had the challenge of specifying the immediate goal of the semester. Once that was clearly outlined, however, efficiency quickly improved within the subgroups. One tangible obstacle that the group dealt with often was attendance during meetings. Often this problem got in the way of deadlines being met. However, when members were present, communication within and between subgroups was efficient and effective. The technical group had some budget constraints that prevented them from pursuing alternative material choices to their desired level. However, through proper use of resources at BioConcepts and Professor Meade, those obstacles were reasonably overcome.

## **Conclusion**

A solid plan for Central fabrication was developed by this semester's group, and continued to promote Colombian Orthotic and Prosthetic Education. The H.O.P.E. program made solid progress and built on the success of the program's history.