

Case Studies

H.O.P.E. created three fictional case studies covering real life injuries and diseases leading to above and below knee prosthetic treatment and how the overall patient care progresses throughout treatment process. The three case studies involved a topic concerning real concerns that need to be improved upon for the pediatric, adult, and geriatric in each profession.

Pediatric Team



Miguel Alejandro Torres -
7yrs old
Congenital transfemoral
amputation

Members: Mrigank Bhatia, Manuel Castro, Pallavi Gupta, Todd Maddamma, Amber Purcell

Adult Team

Leslie Johnson (Lt. In the Army) –
30 yrs of age
IED caused a transfemoral
amputation of the left leg and a
transtibial of the right.



Members: Wen Chan, Stephanie Fisher, Mark Reibel, Mathew Cosenza, Stephanie Lucas

Geriatric Team



Gertrude –
75 yr old Polish descendent from
Germany
Diabetes caused a transtibial
amputation of her left leg.

Members: Xuan Kang, Gregory Quandt, Ryan Ruidera, Carlos Sardi

Patient Treatment Team

“Scope of Practice” for various professions defines the procedures, actions, and processes that are permitted for the licensed individual.
“Activities of Daily Living” pertain to what a person does on a day to day basis. (ADL)
“Quality of Life” exemplifies how a person considers their overall living conditions. (QOL)

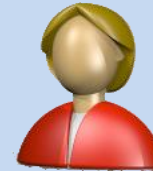
Doctor

- Diagnose patient physical condition and determination of necessity of prosthetic.
- Prescribe type of prosthetic device.
- Have general knowledge for which profession to refer a patient at designated stages during treatment.



Orthotic & Prosthetic Technician

- Assess which prosthetic devices are necessary for the patient's condition.
- Fabrication of various types of comfortable prosthetic limbs to human interfaces.
- Fits and adjusts the prosthetic device to patient's needs.



Physical Therapist

- Help patient perform their daily activities through the most suitable therapeutic exercises.
- Assess their muscle strength for the O&P Tech recommendations.



Finances

- Help find organizations to support patient's prosthetic needs.
- Inform them of how their insurance will affect the overall outcome of their treatment.



Patient

- Asking as many questions to be well informed of what treatment helps ADL & QOL
- Understanding what each profession is authorized to answer.

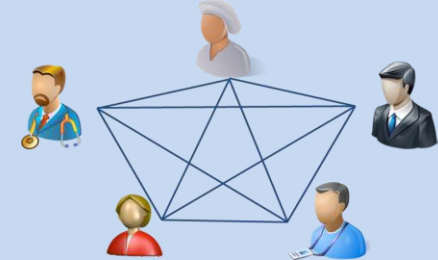


Treatment Goals

- Improve ADL
- Improve QOL
- Communicate clearly between each profession to provide best possible treatment

Challenges

Communication between the treatment team
Fully understanding how much treatment can be given before stepping out of one's “Scope of Practice”
Knowledge of prosthetics in the market and their implementation
Patient understanding what they need to ask or know when seeing each professional



Impacts

Reveal the necessity for increased number of certified members of each profession around the world helping amputees
Overall patient treatment and outcome improve with the knowledge of what each profession can do for a patient
More efficient treatment for expected long term treatment goals
Help train certified limited number of orthotists and prosthetists to work in United States and Latin America
Help O&P students understand the different roles, and ultimately improve the patient treatment process
Developed new training material and topics for future professionals in the industry

Objective

Interprofessional Project 309 Human Orthotics and Prosthetics Education, H.O.P.E. is continuing venture spanning seven semesters at Illinois Institute of Technology working constantly toward the goal of developing and supporting the first Category III Orthotics and Prosthetics educational program in Latin America to be accredited by the International Society of Prosthetics and Orthotics (ISPO) and Joliet Junior College (JJC) Orthotics and Prosthetics Technology program.

IPRO Goals

1. Develop education modules related to lower-limb prosthetic issues concerning the general population distribution in Latin America.
2. Carefully follow ISPO requirements to ensure accreditation.
3. Translate all materials to Spanish.
4. Enhance the collaboration with other institutions forming a strong patient treatment team
5. Develop education materials regarding conditions affecting pediatric, adult, and geriatric populations to be presented at a four day conference in Bogotá, Colombia

What is an Orthosis?



A device applied to a human limb to control or enhance movement or to prevent bone movement or deformity, for example, a splint or an arch support.

What is a Prosthesis?

A device that may be an internal replacement such as an artificial joint or an external replacement such as an artificial limb.



Why Should You Care?

Global Issues

- Latin America has over 500 million people
- Over 2.5 million people need Orthotic & Prosthetic (O&P) treatment
- Only 50 International Society for Prosthetics & Orthotics (ISPO) certified & 1500 uncertified practitioners
- Limited educational opportunities in O&P
- Severe shortage of certified fabricators for O&P's leading to lack of support for many amputees
- Developing teamwork education modules for Centro Don Bosco and Joliet Junior College technician programs
- Improved communication between clinicians can lead to appropriate and effective patient care

Special Thanks To...



IPRO 309

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

H.O.P.E.

Human Orthotic and Prosthetic Education



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