IN THIS ISSUE

Our sixth edition of the P & O Scholar brings news and stories from around the world from both “home” and “international students of prosthetics and orthotics.

We also hear how a student from Northwestern University (shown right) has become involved in research and development in orthotics.

Finally, we have included a note on prescription protocols for orthotic knee joints developed by a team of prosthetists/orthotists and orthopaedic technologists working in Malawi.

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It was a great privilege to take the opportunity to meet up with a group of international students at the Tanzania Training Centre for Orthopaedic Technologists (TATCOT) who are sponsored for their fees or fees and living costs by ISPO's USAID funded developing country program.

I visited TATCOT as a participant on the FK Norway exchange program as I was based in Malawi for 10 months this year to support quality improvement in the 500 Miles Prosthetics and Orthotics Centre at Kamuzu Central Hospital. We also visited some other Tanzanian organisations providing services or employment for people with disabilities. In the Usa River Rehabilitation Centre I met one of our longest sponsored students, Martin Hakizamana, who was undertaking a three week field visit. Martin will be supported for a total of seven years by the USAID funded programme and he was firstly an ISPO Category II diploma student who then progressed to the ISPO Category I programme.

This group of students have a great love and passion for their home countries and are looking forward to returning home to contribute to services for people with disabilities. I am always impressed by our students who leave their families, friends and homes to study abroad. Now that I have experienced some time away from home I can appreciate what this means!

The students showed a real cohesion as a group. It was interesting to consider that most students have their own travel costs funded by their future employer/government sponsor as a cost share towards their studies while some are self-funded for travel.

Most students explained that they would be graduating to work in an established prosthetics and orthotics service. Some were concerned about ensuring they have access to professional and professional learning resources once they graduate. They also were concerned to have a correct basic tool kit to work with upon graduation.

Our current students include:

ISPO Category II Diploma students:
- Teko Armstrong, Cameroon
- Isaac Rukundo, Rwanda

ISPO Category I Degree students:
- Nitah Eshiloni, Zambia
- Chaumba Banda, Zambia
- Peter Chilewani, Malawi
- Yussef Abraham, Zanzibar
- Evaristo Phiri, Zambia

(Four of the fifteen students were not able to attend the meeting).

I trust that all the students will continue to dedicate themselves to their studies and look forward to meeting them as my professional colleagues and perhaps work beside them, hear them speak or read their future publications.

Sandra Sexton
ISPO Grant Manager
We would love to hear about clinical practice experiences from graduates of the spinal orthotic program at TATCOT. Of the 9 graduates in 2013, six were from Pakistan, two from Sudan, and one from the Ivory Coast.

Looking back, TATCOT concluded the 4th E-Learning spinal orthotic course, in June 2013. Financial support was provided by the Deutsche Gesellschaft für Internationale Zusammenarbeit “GIZ” and professional expertise and support by the University Don Bosco (UDB). An additional partner was a consulting company for eLearning and Blended Learning Programs in Vienna, Austria. to develop a Blended Learning Course in Spinal Orthotics.

The course was comprised of six modules delivered over ten months. Upon successful completion of the course, participants were awarded ISPO single discipline certificate in Spinal Orthotics.

TATCOT explains the advantages of blended learning as:
- Greater reach, offering services for participants from Africa, Asia and around the world
- On-the-Job training of P/O professionals becomes possible
- Less face-to-face training, enhancing cost efficiency

Join our society!

www.ispoint.org

ISPO is a global multidisciplinary organization aiming to improve the quality of life for persons who may benefit from prosthetic, orthotic, mobility and assistive devices. The Society now gathers about 3,300 members in over 100 countries.

VISION: ISPO contributes to a world where all persons have equal opportunity for full participation in society.

As a Member of ISPO, you:
- Receive a free subscription to Prosthetics and Orthotics International, one of the leading international scientific publications in the field of prosthetics and orthotics (6 times each year)
- Benefit from reduced registration fees at ISPO events: ISPO World Congress, national congresses, workshops, seminars and other professional activities
- Receive ISPO’s monthly eUpdates and gain access to ISPO members-only online services
- Join a worldwide network of professionals with the same patient-centric approach to care and dedication to excellence and enjoy exposure to the highest level of expertise and latest developments in the field
- Become eligible to serve on ISPO committees and taskforces
- Receive a membership certificate, reflecting your commitment to global exchange of knowledge and participation in the leading worldwide prosthetics and orthotics network.
Satria Ardianuari
JSPO Graduate

My name is Satria Ardianuari, I am from Indonesia. I would like to share my professional and personal insights into the world of prosthetics and orthotics.

To be honest, I never imagined being a Prosthetist/Orthotist. It wasn’t that I was not interested in it, or had any objection to it, it just never occurred to me that such a job existed, especially in my country.

This, I’m finding, is quite common. My journey to the world of prosthetics and orthotics began when I worked as a junior accountant. I saw an announcement for a scholarship to Tanzania for a university programme in prosthetics and orthotics.

I was very enthusiastic about this combined opportunity for travel and education and so I got in touch with the contact person and asked for further details. Unfortunately the deadline for applications was already closed. It was disappointing but the person suggested a similar course in Jakarta, Indonesia. From here, it is all about the real world of prosthetics and orthotics!

JSPO is one of the only two education institutions, providing training for prosthetics and orthotics in Indonesia. It is currently the only course recognized at Category II level by the International Society for Prosthetics and Orthotics (ISPO).

I spent 3 years studying prosthetics and orthotics, of which the final year is a clinical placement. Since then, I have seen the necessity for prosthetics and orthotics care, from newborns to geriatric patients.

My hard work paid off as I achieved the Best Graduate Award in August 2012. After my graduation, I started work with an international non-government organization and educational institution with the primary goal of meeting the needs of persons with disabilities in developing countries. ‘Exceed’, formerly ‘The Cambodia Trust’, is focused on ensuring equal rights and equal opportunities for the most disadvantaged members of society.

As one of the interns employed, I follow an internship program. I have to fulfill all employment obligations whilst still continuing my training. My responsibilities include: participating in patient care under appropriate supervision; prioritizing patient safety at all times; keeping a log of all devices; following ISPO ethical guidelines and participating in at least one community outreach project per semester to increase awareness of the profession.

One year ago, I was involved in a community outreach program in a local village. We worked with another organization to spread the word about prosthetics and orthotics services in the area. We shared information and knowledge on diabetes, the neuropathic foot and educated them about general health issues. I could see so many positive responses that it strengthened my goal to move forward and expand the spectrum of prosthetics and orthotics.

My priority is to persons with disabilities who are routinely marginalized and excluded from society and who therefore do not have sufficient access to prosthetic and orthotic services. In fact, they do not receive enough information about disabilities. The reality in my country is even worse and the number of people with disabilities is rising.

Consequently, there is an increasing need for practitioners. My dream is to be able to support people with disabilities to do their daily activities, to be independent and where possible self-sufficient.

I hope that by transferring my knowledge and skills to other Prosthetic/Orthotic students, we can multiply the chance of realizing the dream. I look forward to gaining further knowledge and skills which I can then pass on to the people of Indonesia.
Deepening Professional Understanding through Volunteering

Four of my classmates from Northwestern University Prosthetics-Orthotics Center (NUPOC), (Chicago, IL) and I recently volunteered in Hickory Hills at Advanced O&P Solutions with the Range of Motion Project (ROMP). We sorted, catalogued, and packaged approximately 900 donated components for shipment to the ROMP clinic in Guatemala. ROMP aims to provide high-quality Orthotic and Prosthetic care to those who need it, regardless of their socioeconomic situation, and to do so in a way that communities can sustain the effort without external aid. A mere five hours of our time, combined with our desire to enable patient care abroad, has made ROMP’s vision a little closer to reality. (Author’s note: For more information about ROMP, visit www.rompglobal.org)

As we sorted through the mountain of components, I realized that we were not just sifting through a pile of devices and liners, but that these items would surely effect change in others’ lives. The feet we sized and cataloged will help bear the weight of patients returning to their jobs, allowing them to once again support their families. The knees we tested and organized will allow patients to ambulate, helping them be more active in their communities. The liners we sized and inventoried will increase the comfort of wearing prostheses, facilitating the transition from not using a device to wearing a prosthesis full-time.

Being exposed to this spectrum of components was beneficial to my understanding of the enormous variety that exists in our field. Components may differ by only small, simple features, but these may be the details that encourage a patient to use a device. While in school, students are exposed to only a fraction of the available component options. Immersing yourself in a veritable “mash-up” of componentry during such a volunteer experience can increase a practitioner’s versatility. Knowing how ten varieties of knees operate versus three varieties of knees gives you the ability to select the most appropriate component more accurately. Stepping outside of the classroom and sifting through a pile of components gave me the chance to do just that: expand my knowledge to become a better future practitioner. Ours is a complex profession, shaped and formed by an increasing number of factors. Economics, politics, and technological advancements change the way we practice and administer care. Confining yourself to the environments of the classroom and the clinic does not present a complete picture. Not only did we contribute to ROMP’s efforts, but we also caught a glimpse of the sheer amount of components that are left unused in the United States. Countless donated items were almost brand new, but could not be used by another patient due to ethical and legal issues. If not for the donation effort, these parts would be wasted. Considering how difficult it can be to acquire insurance coverage in the first place, it was eye-opening to witness the dead-weight loss of our current system. Volunteering helped me realize that to solve the problems in our industry we must push ourselves into new environments to fully understand the intricacies of our profession. Simply shadowing or observing would never have challenged my knowledge of the profession as volunteering did.

Volunteer experiences like this remind students of why we chose this career path: to help others achieve their goals and lead better lives. We should not forget what lies ahead as we make our way to graduation.

Nina Bondre is a Master’s degree student at NUPOC. She is the president of the O&P student society there and has volunteered abroad with ROMP during her undergraduate career.

Dilatancy-Based Orthosis Impression and Fabrication System

Brodie Rice

It is estimated that over 29 million people are in need of orthotic and prosthetic devices and services in resource limited countries. Within these countries there is an enormous shortage of resources and skills needed to meet the demand of needs. In addition, the traditional plaster-based technology is inefficient to meet the demands in the developing world. Obtaining plaster in many low-income countries is costly and time consuming. Another concern is that the plaster models cannot be recycled and often times end up in lakes where they contaminate the drinking water and pollute the surrounding area.

For over 15 years Dr. Yeongchi Wu has been developing a cheaper, faster and greener way of impression techniques and fabrication of prostheses and orthoses. The development of the dilatancy casting technique is influencing the prosthetic services in Thailand and with continued efforts it is benefiting more and more lives. As a student of Northwestern University Masters in Prosthetics and Orthotics I have had the opportunity to be a test subject for the NIDRR funded Field-Initiated project on “Development of low-cost dilatancy-based system for orthotic fabrication.“ Including impression and fabrication of a knee ankle foot orthosis (KAFO), foot orthosis (FO), spinal orthosis TLSO, and I am currently being trained how to take impressions for Foot Orthoses and Ankle Foot Orthoses.

Like my peers at the NUPOC, I have had a desire to help improve the lives of individuals with disabilities, especially those living in developing countries. For my research capstone project I plan to investigate the best approaches for knowledge translation and technology transfer of the emerging dilatancy-based orthosis impression and fabrication system. I first began by participating as a test subject earlier this year and I am currently learning the proper techniques and skills in order to begin teaching my peers. The end goal is to research how this technique can be transferred to future clinicians (classmates in the NU P&O Master Program) as well as service providers in developing countries to improve the quality of care to the populations in need.
My name is Posenai Patu, male of 26 years of age. I come from Samoa which is the heart or the pearl of the Polynesian Islanders. I graduated school in 2008 and applied right away for an opportunity to work as a sailor. A few months later I fell down from a coconut tree and broke my back. In 2011 I started working as a Disability Co-worker.

I visited clients to help them do their dressings, shared with them some techniques on the use of a wheelchair and empowered them to be independent just like me. I didn’t earn anything from it but I enjoyed offering my time and sharing some skills about Spinal Cord Injury. In 2013 I decided to go back to school and extend my understanding about disability, so I went to the Australian Pacific Technical College (APTC) and studied for a Disability Certificate. I then applied for a chance to enter CSPO here in Cambodia and got it!

Being here is a once in a life time blessing for me. Living independently here without relying on anyone is the biggest challenge for me. My goal in the future is to graduate from CSPO, go home and work for my people in my country - and earn a living.

I am Ram Bahadur Thapa, 31 years old, from a remote area in western Nepal. I am a person with disability (a severe shortening of the left leg) and also married to a person with disability who has a trans-tibial amputation. I am a third year student at CSPO. I worked for National Disabled Fund in a physical rehabilitation center before attending CSPO in 2011. I am really interested in prosthetics and orthotics as I used to work in this field as a workshop as a technician for five years. I enjoy studying at CSPO. Being far from the family to study at the CSPO is not easy and takes a lot of effort and concentration. I found it quite difficult in the beginning. I am thankful to the entire team at CSPO for being so passionate about the profession and helpful to the students.

Studying was not easy as I had communication barriers and faced many challenges. I learned not only prosthetics and orthotics but also to become an effective and efficient professional in our field. I promise you I will work very hard and eventually give something back to others, both as teacher and possibly a scholarship to future students like myself.

My name is Pech khom Saolin, 23 years old and I am a third year student at the Cambodian School of Prosthetics and Orthotics (CSPO).

I am from Kampong Chanang province, Cambodia. I am the oldest child among 5 other siblings and my family lives off farming. It is very hard to feed all of us every day.

I finished high school in 2010 in Kampong Chhnang province. After high school, my parents could not afford to send me to the university. In 2011, I learned about the scholarship at CSPO and I was interested in the profession because I could help people with disabilities by producing and fitting prostheses and orthoses.

I am very happy to study at CSPO because there are good teachers, friends from many countries, available technology, decent living conditions and a safe place to live. Furthermore, students, staff and lecturers of CSPO are always helpful and maintain good relationships with one another and I always get support from them during studying.

I always try my best to study. Another thing is about the practical work at the workshop. I am a tiny woman, so carrying big prosthetic and orthotic molds is very difficult for me. However I do believe that my courage is my best weapon to succeed and I am looking forward to reaching my graduation.

I am going to stand for myself to overcome every obstacle and in the future I hope to become a good prosthetist and orthotist among others. I am ready to use my skills and knowledge to serve people with disabilities, to help them perform their daily activities and live happy lives in society.