

INTERNATIONAL SERVICE-LEARNING TO IMPROVE PRE-SERVICE TRAINING FOR PROFESSIONALS SERVING INDIVIDUALS WITH HEARING LOSS

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ABSTRACT

Results of faculty led service-learning trips to Nicaragua are presented. These trips provided students in Communication Sciences and Disorders (CSD) the opportunity to assess patients for hearing loss, provide them with hearing aids when appropriate, assist them in developing speech and communication skills. This paper evaluates the impact the trips had on the pre-service professional development of the 20 students who participated and proposes future improvements to this service-learning teaching strategy to improve its effectiveness.

SERVICE LEARNING

Missouri State University (MSU) utilizes service-learning, an educational practice that combines academics and community experience, to enhance student learning, with the goal to provide “real-world” experiences which supplement traditional classroom instruction. (Goldberg, McCormick-Richburg & Wood, 2006; Kaf and Strong, 2011; Kent-Walsh and Schwartz, 2006; Kent-Walsh, 2011; Peters, 2011; Scherz, 2008). Many methods have been used to evaluate the effectiveness of service learning (Bringle, Phillips and Hudson, 2004). Reflection through journaling is a common and essential evaluative tool (Goldberg, 2007; Goldberg et al., 2006; Kent-Walsh, 2011). Reflections should be guided (Goldberg et al., 2006), provide focus questions (Goldberg, 2007), and involve instructor feedback (Carlin, 2005). They may provide insight into the-important “aha” moments that students experience (Kent-Walsh, 2011).

In Communication Sciences and Disorders (CSD) programs, service-learning has been used to increase students’ knowledge and skills in content areas associated with populations that students may not otherwise gain experience with (Bailey and Angell; 2005, Kaf and Strong, 2011; Kent-Walsh, 2011; O’Dell, 2012; Pakulski, 2011; Reed and Proctor, 2010; Scherz, 2008; Stevens, 2008). Content areas include pediatric audiology (Kaf and Strong, 2011) and American Sign Language (Reading and Padgett, 2011). Populations include the deaf and hard of hearing (Goldberg et al., 2006; Kaf and Strong, 2011) and children with

hearing loss (Pukulski, 2011). Service-learning has facilitated interdisciplinary experiences across specializations in CSD (Kaf, Barboa, Fisher, and Snavely, 2011). Another unique use of service learning has been to introduce students to diverse populations (Goldberg, 2007), including international experiences which prepare students to work with bilingual and bicultural populations (Crowley and Baigorri, 2012).

At MSU, the CSD department has embarked on 5 trips to Nicaragua, providing students an international experience to prepare them to work with diverse populations with speech, language and hearing needs. In the fall of 2012, a doctoral student and two faculty members from MSU's CSD program developed a service-oriented study away course that aimed to provide hearing aids to individuals living in Nicaragua. In March, 2012, the first Nicaragua Study Away trip occurred. There have been four follow-up trips (January 2013, January 2014, May 2014, and October 2014). The primary focus of the January trips was hearing screenings, providing amplification, and follow-up services. The May and October trips focused on follow-up and expansion of services to schools serving children with severe disabilities, including children who are deaf and hard of hearing. Workshops related to understanding hearing loss were delivered to special school staff in October. More than 40 students have participated in the Nicaragua Study Away program, providing services to more than 200 individuals.

HEARING SERVICES IN NICARAGUA

Support for the deaf in Nicaragua is provided by Asociación Nacional de Sordos de Nicaragua (ANSNIC), founded in 1986 (Senghas, 2003) and Los Pipitos. Los Pipitos, a nation-wide initiative, was founded in 1987 by parents of children with disabilities. The organization has a large center in Managua that offers specialized medical services to children up to age 18 (Asociación de Padres de Familia con Hijos disCapacitados, 2007). Despite these organizations, there continues to be a chronic shortage of audiology and speech pathology services in Nicaragua.

The Mayflower Medical Outreach (MMO) is a U.S. based organization that provides services in Jinotoga, Nicaragua. Audiological service provision began in 1999. More recently, MMO initiated efforts to train Nicaraguan physicians as well as other service providers in Nicaragua, including audiology technicians. In 2008, they opened a boarding home in Jinotoga to serve children from rural regions. Children living in the home attend a special school where two teachers are provided by MMO. Per MMO, a deaf education curriculum does not currently exist in Nicaraguan schools (<http://mmonicaragua.org>).

PURPOSE

The purpose of this study was to determine if a short-term study away program was effective in developing clinical skills, cultural awareness, and community engagement in graduate and undergraduate students of CSD.

METHOD

This research was approved by the MSU's Institutional Review Board. Twenty student journals were collected and analyzed from participants in the January 2014 and May 2014 trips. All students were CSD majors and attended class meetings prior to the trip. One journal entry was due prior to trip departure. Students were prompted to describe what they were looking forward to on the trip, their goals for the trip, and how they believed the trip would impact their professional development. During the trip, students responded to guided reflection prompts based on the MSU Study Away reflection journals. After the trip, students completed a final reflection paper and an individualized paper about a related topic of their choice. Pre-trip journals were read by both course instructors (one audiologist, one speech language pathologist) prior to departure. Daily reflections were read by at least one of the instructors during the trip and feedback was provided within 24 hours. Final reflections and papers were collected approximately two weeks after the conclusion of the trip.

To identify themes, both instructors re-read all journals and reflections from the January trip. Each instructor independently listed the most frequent topics from journal entries. The instructors then met and discussed these topics and through these discussions, themes and subtopics for pre-trip journals and daily journal/final journals were developed. Journals from the May trip were re-read by each instructor after the trip to determine if any different themes emerged, compared to the January trip.

RESULTS

Pre-trip Journal

Culture – Students expressed excitement at the prospect of experiencing a new culture and its novel opportunities. Some expressed interest in practicing Spanish and learning about Nicaraguan schools and hospitals as well as the country itself.

Helping Others – Many listed a goal to help others, make a difference, or have the experience of seeing someone receive a hearing aid.

Developing Relationships – Students were looking forward cross disciplinary and cross level (graduate and undergraduate) collaboration. The desire to interact with Nicaraguan patients was also common.

Applying Skills – Students were excited to have “hands-on” experiences and to apply skills learned in the classroom.

Daily Journal

Language Experiences – Several students reflected on the opportunities to practice Spanish as well as learning about Nicaraguan Sign Language. Students discussed communication challenges and the rewards of overcoming communication barriers including positive experiences working with interpreters.

Joy of Helping – Students reflected on the joy and inspiration felt when providing assistance to those who otherwise might not receive help. The different ways students helped (e.g. hearing screening/testing) were discussed, but the feelings of joy seemed to be most associated with hearing aid fittings. Additionally, several students created materials for hearing aid recipients (e.g. literacy and aural rehab activities for children) and commented on how rewarding it was to see to see the practical application of the materials.

Learning through interdisciplinary experiences – Speech language pathology students commented on their confidence, knowledge and skills in the area of audiology. Appreciation of speech services and assessments available for the hearing aid recipients the option of referring patients without hearing loss for speech services when appropriate was a sentiment expressed from an audiology student's perspective. Graduate students enjoyed teaching undergraduate students who in turn appreciated the support provided by the upper classmen. Students commented on the "hands-on" experience they gained. Overall, students enjoyed bonding and working as a team with students from other disciplines and developed more respect for each other's professions.

Appreciation of Nicaraguan Culture – Although there were many comments regarding similarities and differences between Nicaragua and the United States, students frequently reflected on their admiration of Nicaraguan culture. The values most commented on were the importance of family, the simplicity of lifestyle, and the gracious and appreciative nature of the Nicaraguan people.

Differences in Medical and Educational Systems – (May trip was more focused on educational differences). During the January visit students commented on the difference between the medical facilities they saw in Nicaragua compared to those in the United States. Students made similar comments on the May trip, however, these students also visited schools and commented on the differences in resources they observed.

Sadness/Frustration – Sadness and frustration was expressed at the inability to provide enough help.

Fatigue – Students often commented on the long, hectic days of service, wishing for more time to relax and enjoy the country. However, there was a sentiment that all of the hard work was worth it to help others.

Post Trip Journal

Learning About New Culture – Students felt they learned about cultural differences, which would help them when working with diverse populations in their future careers.

Relationships – A frequent theme in final journals concerned the relationships

that were built, including those with fellow students, faculty, hosts in Nicaragua, interpreters, and the adults and children with hearing loss and their families.

Poverty and Sadness – The poverty that students encountered and the sadness they felt was something they continued to comment on in their final journals.

Helping others – Students continued to express satisfaction at having the opportunity to help others and to make a difference.

Learning about self – Students continued to reflect on how the trip helped them learn about themselves and influence their daily lives. They commented on adapting some Nicaraguan values, solidifying their career choice, and the desire to help others. One student commented, “Nicaragua was the best experience I ever had”.

Individual Paper Topics

Individual paper topics included: access to education for those with disabilities, the educational system of Nicaragua, higher education in Nicaragua, Health Care in Nicaragua, Los Pipitos, Nicaraguan sign language, speech language services in Nicaragua, International speech and language services, hearing services in Nicaragua and services for individuals with disabilities (Café De las Sonrisas), the diagnosis of autism in Nicaragua and International Advocacy. Other topics were less focused on CSD issues and included: the library system, dance in Nicaragua, purchasing real estate, the Bridges to Prosperity charity, building the Nicaraguan Canal, and adoption in Nicaragua.

Follow-up Activities

An October trip was planned based on student feedback. Goals were to gain a cross cultural perspective of teacher’s views on literacy instruction as related to the development of the deaf and hard of hearing, assessment of literacy skills of children with hearing loss, and development and presentation of a workshop for teachers. To gain perspective on these goals, an interview protocol consisting of ten questions was developed to guide dialogue between the student investigator and three educators both in the United States and in Nicaragua. Questions covered information about the educator’s background and teaching experiences, as well as asking the interviewee to share views on the topic of literacy and hearing loss in their country. The interview results revealed similar concerns between teachers in the US and Nicaragua as well as highlighted differences in perspectives between the two groups. An assessment protocol was developed to aid in the collection of information about literacy skills of Nicaraguan students with hearing loss that were seen for follow-up services on the trip. The initial part of the assessment focused on phonological awareness and was derived from the Test of Phonological Awareness in Spanish (TPAS) (Riccio, Imhoff, Hasbrouck, & Davis, 2004). It targeted skills relating to beginning and ending sound-to-letter correspondence and rhyming. Next followed a hierarchy of tasks that assessed reading skills, including letter identification, word identification, sentence

completion and sentence comprehension. The assessment concluded with an evaluation of writing skills. Tasks required participants to write their name, dictate single words, sentences and a short story in response to a topic prompt. At the end of the assessment, five optional questions were included for parents and/or teachers to gain additional information about the child's literacy skills. Results showed a range of skills and provided MSU students with additional information regarding literacy development of children who are deaf and hard of hearing.

A workshop was developed to increase collaboration between MSU students/faculty and teachers from partnership schools. Information included in the presentation targeted specific areas of interest for those working with children who are deaf or hard of hearing, including an explanation of degrees of hearing loss, benefits of hearing aids, speech development for children with hearing loss, classroom modifications, hearing aid checks, care and maintenance, feelings and self-advocacy and literacy. Three handouts were created (and translated into Spanish) to supplement the workshop presentations. The first document, "Mantenimiento de los Audífonos," provided a list of tips to help with hearing aid care and maintenance. Information included stressed the importance of wearing hearing aids consistently and gave instructions for cleaning, changing batteries and storing aids when not in use. The second handout, "Una lista para el salon de clases," provided a checklist of eight ways to help teachers accommodate children with hearing loss in their classroom. The third document, "Leer con los niños," was created for both teachers and parents of children with hearing impairments. All handouts were given to workshop attendees along with a bag of classroom supplies.

DISCUSSION

This study sought to explore the benefits of a short-term study away program in developing clinical skills, community engagement, and cultural awareness in CSD students. Student journals indicated that through the study away experience they developed an appreciation for both linguistic and cultural differences and that they believed the experience would help them better serve diverse clients in their future careers. The findings also suggest that students developed an enhanced appreciation for the importance of civic engagement and helping others. However, many students enrolled in the program already had this perspective and probably enrolled in the program because of it. Students also gained valuable experience through preparation of materials including handouts and by working in interdisciplinary teams.

Future trips will focus on development of student appreciation of cultural differences and utilizing experiences in Nicaragua to improve students' skills in working with diverse populations in the United States. Additionally, future trips will emphasize the importance of teaming when providing services to the deaf. Finally, the program will examine how to assist pre-service students in developing the knowledge and skills needed to assist the speech, language, and

literacy development of t children who are deaf and hard of hearing while simultaneously providing a service to the program's partners in Nicaragua.

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