

Introduction

Currently, no effective strategy has been developed to address the global disparity in the provision of speech-resonance-feeding evaluations and treatment for patients with cleft palate in developing countries with no or limited access to speech pathologists (SLPs). Video teleconferencing with training of local healthcare providers and annual onsite visits, is effective in improving speech and quality of life post cleft palate surgery.

Model Objectives

- To provide access to pre and post operative speech-resonance-feeding services in Nicaragua for patients with cleft palate
- To provide culturally and linguistically appropriate pre and post operative evaluation and treatment with goal of “normal” articulation and resonance for patients with cleft palate
- To train local healthcare staff in assessment and treatment procedures for patient care, documentation of key metrics to assess progress and to collect data
 - for future program improvement
 - to foster mutually beneficial goals of shared information, learning and cultural understanding between linguistically and culturally diverse areas



Stimulus word: gato, SLP in Balt. Teleconferencing with child in Managua

Methods

Surgical teams from Greater Baltimore Medical Center (GBMC) and Johns Hopkins Medical Institutions (JHMI) visited Managua, Nicaragua to perform primary and secondary cleft palate repairs. In May 2009, 2010, 2011 and 2012. They worked in conjunction with APROQUEN (Asociacion pro niños quemados de Nicaragua) Pre-operative speech samples were filmed using FLIP video cameras. Post-operative speech-resonance evaluations were performed by licensed certified SLPs via video teleconferencing between Baltimore, Maryland and Managua, Nicaragua. Key local healthcare providers were trained in individual intervention plans to enact between video conferences.

Follow up assessment of select patients and daily training sessions with key healthcare staff in Managua took place over 1 week in Feb, 2012, including nasometric assessment and treatment with donation of Nasometer II by KayPENTAX.



APROQUEN therapist with local outpatient during onsite training visit with Balt SLPs in Managua



APROQUEN therapist and trainees with local outpatient during onsite training visit using Nasometer II with Balt SLPs supervising

Results

Initial findings demonstrated significant improvement from pre to post surgical quality of life (including participation in social situations and perception of improvement in speech) and articulation measures (including total correct: whole words, initial consonants, total consonants). Additionally, the Managua team identified local audiology, otolaryngology, nutrition and social work services to refer to in working toward team care model.

Future Goals

- Continue to increase awareness and development of the multidisciplinary approach to cleft care specifically through:
- Ongoing training of key local healthcare staff in articulation and resonance assessment and treatment
- Expand training in feeding and swallowing needs of infants with cleft palate
- Pilot study using video teleconferencing to perceptually assess for hypernasality and re-evaluate progress and specific endpoints over first 2 years post-operatively.

References

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