Barriers to reconstructive surgical care among surgical humanitarian aid recipients in Cartagena, Colombia

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UMMS Capstone for Impact
Branch: Procedures Based Care
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Project Summary

(please also contact Dr. Robert Gilman at gilmanr@med.umich.edu, who is my primary research mentor for this project, although Dr. Waljee is my designated Branches mentor)

During a ten day humanitarian mission to Cartagena, Colombia in February 2017 and 2018 through the Healing the Children organization, the ability to access appropriate native country reconstructive surgical care for children with congenital and acquired craniofacial abnormalities was assessed by the administration of a written ten question survey used by Healing the Children. The survey was composed in the native language (Spanish) as inspired by a validated barriers to care questionnaire, and was be administered to the accompanying responsible adult in paper form during preoperative assessment. This measure was composed of Likert scale and multiple choice questions addressing topics such as access to care, understanding of healthcare infrastructure, and reasons for pursuing humanitarian care. Clinical data was also obtained by Healing the Children including demographic data, cleft type, surgery undergone, race, gender, age, family structure. The outcomes of this data will be used to guide a known validated barriers to care follow-up survey (PMID: 15264959) administered to both the recipients of humanitarian aid as well as native patients receiving care through native healthcare infrastructure. Statistical analyses will be performed to understand the difference between these two groups and the factors motivating families to seek humanitarian care as opposed to native healthcare, as well as understanding barriers to care that are unique to this population.

Action Items/Outcome

Action items:

1. Partner with 1) native physician teams, and 2) another preselected humanitarian group performing craniofacial surgeries in Colombia (Dr. Jacono) to bolster dataset numbers and broaden applicability of results preparatory to publication in the journal, Plastic and Reconstructive Surgery;

2. Perform statistical analysis (Mann Whitney U tests, primarily) on the larger, validated barriers to care questionnaire. Analysis is complete on the smaller barriers to care questionnaire, results to follow;
3. Compose and submit abstract to the 2018 American Society of Plastic Surgeons (ASPS) resident presentation meeting.

Outcomes (to date):
1. out of 40 possible BTC assessed, the BTC experienced with greatest frequency by our patients was "having to wait too many days for an appointment, and the most frequently encountered BTC by subscale "constructs" was pragmatics (followed closely by skills);
2. 33% of the patients we treated endorsed having other opportunities for surgical care (whether sub-optimal or not), and a Mann Whitney U test demonstrated no detectable difference in BTC between those who did and did not have other opportunities;
3. only 11% of patients listed "cost" as their primary motivation for seeking care through our group, whereas 59% indicated "preference" as their primary motivator;
4. among the 59% indicating "preference" as a primary motivator, the Mann Whitney U test showed that trust in local surgeons was no different than patients with other primary motivators,
5. 43% of our patients had a level of education of not graduating high school or less (a surrogate marker for socioeconomic status), and when compared to the other 57% who were high school graduates or higher (with Mann Whitney U test), the only statistically significant difference in BTC was transportation;
6. the patients who were recruited to our group via advertising (radio, newspaper, etc.) showed no significant difference in BTC compared to those who were recruited through word of mouth, family or friends, or referral.

Conclusion/Reflection
1. Statistics aside, patient anecdotes as well as consultation with local surgeons clarified that despite universal insurance coverage, the capacity of the healthcare system to care for cleft lip and palate pathology is small, and patients sometimes must wait years to be treated. This seems to be a primary motivator of our patients that is consistent with our analysis—simply that care through our program is much more accessible and timely. Given the expediency of cleft lip and palate surgery in infancy and early childhood, this otherwise long delay in care reinforces the importance of the presence of humanitarian groups in Cartagena, Colombia to supplement efforts of the local healthcare system;
2. Patients recruited through advertising efforts do not have distinct barriers to care from those recruited in other means, implying that advertisement by these methods is

an effective way to recruit patients and is not selective for patients of higher or lower burden of barriers to care.