**Organizations**

*References*

Themes

**Episode 9. Research and Terminology within Global Surgery**

**Guests: Dr. Kevin Sykes & Dr. Travis Tollefson**

**Question:** Why is research important in global surgery? What are some current hot topics and gaps?

**Dr. Tollefson**

* Paul Farmer describes global surgery as “*the neglected stepchild of global health*” (1) and to this end, I was interested in expanding my knowledge of both untreated surgical disease burden and effective strategies outside of the US. This was in the early 2000’s.
  + In this era, a major focus was understanding incidence, burden of disease, prevalence and the unmet need for surgical procedures.
* Research on this front laid the foundation to what is now the hottest topic–trying to address the differences of available resources, trained individuals, and safe surgical sites.
* One key difference between global surgery and medicine is that surgeons require more layers of infrastructure, and surgical safety measures. As we started to understand goals and needs at baseline, the focus has shifted to fostering relationships with local surgeons that we can support and learn alongside.

**Dr. Sykes**

* Since I began 15 years ago, interest in global surgery has grown tremendously and research has followed suit. These days, there’s an encouraging move toward reporting more outcomes.
* *2014 systematic review* on medical service trips reported that only 6% of nearly 1200 publications included any empirical results–the majority of which involved surgical interventions (2).
* More recently, there is more intentional data collection and analysis being reported. There is more qualitative research surrounding patient and community perspectives around these trips.
  + Giving a platform for the perspectives of our community partners may guide our continual improvement so we aren’t stuck in a colonialist or paternalist past that unfortunately historically plagues many such efforts.
* I concluded my review by saying that “*Future research…needs to focus on the development or implementation of materials or instruments capable of measuring the psychological, financial, and sociological benefits or costs of interventions in this setting”* (2).

**Question:** Can you both speak to the types of research you have engaged with partners abroad? Are there any ethical considerations that need to be addressed prior to undertaking these kinds of research endeavors?

**Dr. Tollefson**

* Regarding research- I started by collecting data wherever I was with surgical logbooks and input forms, trying to understand how patients were presenting, and identifying local surgeons and academicians that were interested in contributing to research. Creating trusting relationships is difficult, but crucial.
  + *We ultimately collected 10 years of cleft patient data, working with GIS software to locate where families in Zimbabwe were coming from to better understand travel barriers to centralized hospitals* (3).
  + Currently this research is 100% driven through local surgeons-existing as supporters of research efforts in LMIC is the way of global surgery research in the future.
* **Question:** As an aside, we generally have the word “trip” to describe these efforts, which connotes uprooting ourselves from one place, traveling to another place, and then leaving. Dr. Sykes, what do you think about this terminology?

**Dr. Sykes**

* Terminology is tough but important, as it may shape how we perceive our roles in these particular activities.
  + Over 40 terms have been described for the same type of effort. “Short term medical mission” is the most common term in literature, but we really have to be careful about language that may have a militaristic, colonial or evangelical connotations.
  + Additionally, how do we refer to people who receive these teams–recipient, host, partner? We need to establish mutually beneficial relationships that embody the shared effort. It is worth investigating the partner community perspective of our terminology choices.
* Regarding research–when we review outcomes, especially subjective outcomes, we have to be sensitive to the fact that power imbalance may cause outcomes to be reported in a particular way, i.e. only reporting desired outcomes and ignoring negative outcomes that may jeopardize future trips.
  + How can we create an environment that’s safe for patients to challenge the ideal outcome?
* It is also crucial to develop projects that meet community needs but sometimes need to empower communities to give us that information. For example the standards associated with IRBs can vary from country to country, and sometimes a native speaker is needed to navigate certain websites. It is country-dependent and important to be certain that there is appropriate ethical oversight.
  + A few examples–in Guatemala, we have made efforts to better understand patient experiences and motivations as to why they seek care in that environment versus going to a major hospital. We also have been working toward door to door health monitoring of patients in the Dominican Republic that have been diagnosed by a medical service team.

**Dr. Tollefson**

* **Question:** Dr. Sykes–what have you seen be effective in making sure that local partners stay engaged with you throughout the research process? Sometimes the many challenges of research take significant effort and unless there's a desire by local surgeons to advise their education at postgraduate level or do fellowship, it can be hard to motivate.

**Dr. Sykes**

* We feed back information from the work we do. Thanks to the voices of empowered and passionate people, we now understand that we cannot unilaterally benefit from the research we do, but that it is critical to use this research to give back.
  + As an example, I did remote teaching for residents in Ethiopia regarding how we can best help them to answer the research questions we know they have. It is important to avoid framing research as some ‘grand thing’ but rather a practical pursuit that they can drive the direction of on their own, based on their unique questions and interests.
  + Often we come in thinking we know what’s important to a particular community and we just miss completely.
    - A recent *qualitative review* interviews parents regarding the outcomes of cleft lip/palate surgery (4). Many parents were under the impression that voice would improve when only lip had been repaired. In this case, the right question wasn’t asked–even though aesthetic outcomes were adequate, it wasn’t what was most important to these parents.

**Dr. Tollefson**

* At first, we’d go into Ecuador, set up hospital sites, do 100+ cleft lip/palate procedures in 1-2 weeks at a breakneck pace, and try to measure our success by what the typical standard was at the time (sheer number of cases).
* We decided we had to do better– we write curriculums for teaching in low-resource settings using a modified Delphi technique, working backwards.
* We often start with a patient problem, and divide it to best understand the worst case if unaddressed vs. addressed. Oftentimes these conversations take place in a more informal setting than formal.
  + We need to minimize miscommunications regarding the outcomes of our intervention. This is hard in the US, but much harder in a foreign country with a foreign language. Trying to figure out how to contribute in a better way has a lot to do with slowing down, paying attention to unintended consequences of our good intentions.

**Dr. Sykes**

* In other words, it’s important to prioritize outcomes over output. The historical perspective of the sheer volume we do is just not good enough anymore. In understanding the impact of our role, “cultural brokers” play a vital role in a way that’s only possible if you spend a great deal of time in a single setting.

**Question**: On a smaller scale, how can you fit quality improvement into global surgery work in a cyclical, PDSA (Plan Do Study Act)-type fashion that we learn about here in the United States? Are there standard evaluation tools that can help with this?

**Dr. Sykes**

* We cannot check our quality improvement (QI) mindset at the door with our luggage. Good intentions are not enough anymore. There’s a *2008 paper* that includes a comprehensive self-evaluation tool (5).
* Past few years there have been calls for standards within these trips. **Advocacy for Global Health Partnerships** is a coalition of representatives from different areas that have developed a declaration they call the *Brocher Declaration* that includes six key elements, the last of which is accountability for actions. This is where the QI component comes into play, and needs to be measured as often as possible.

1) Mutual partnership with bidirectional input and learning

2) Empowered host country and community define needs and activities

3) Sustainable programs and capacity building

4) Compliance with applicable laws, ethical standards, and code of conduct

5) Humility, cultural sensitivity, and respect for all involved

6) Accountability for actions

**Dr. Tollefson**

* For me, an example of how QI has come into play for me is in my role as chair of **AO CMF North America**. I have been involved in the **AO Alliance** **Foundation** which is dedicated to improving outcomes in facial trauma.
* There is a new mentorship program called **AO Access** which empowers mentorships across other countries with different norms.
  + As an example, I was connected to an orthopedic trauma surgeon in western India who needed to create a QI project to better follow patient outcomes who came in from rural settings. I was able to link this mentee with resources to create a database and develop a way to monitor his patients in order to make changes to the follow-up process.
  + Facilitating QI projects through this simple mentorship model makes it so easy to advocate for connection and sharing of resources that we’ve been fortunate to have in our resource/technology-enriched environment.

**Dr. Sykes**

* **Question:** Do you think people are less intimidated by that language than they are by more traditional ‘research-type’ language?

**Dr. Tollefson**

* Research–the mind goes to “using patients for experimentation” vs. ‘lets collect information about patients that come in needing help in order to improve the outcomes they have’.

**Dr. Sykes**

* So often we intimidate people with big research terms. We need to slow down and explain that what we’re trying to do is improve outcomes together, and that this starts with knowing what outcomes are.

**Dr. Tollefson**

* To quote Goethe– “knowing is not enough; we must apply”.
* Identify a patient problem, find out how you can help, create a simple measurable outcome, and create simple improvements that can have huge effects in a patient's lives.
* Sometimes this isn’t just quantitative but qualitative. Often, addressing these issues is not just about a suture, anesthetic, or knife.
  + It’s about a big picture commitment to being frustrated with geopolitical/financial issues and leadership changes within countries. All these frustrations that try to set you up to erupt, and the only thing you can do wrong is to take it personally.

**Dr. Sykes**

* We can’t underestimate how often solutions will come from those who know the problem the best, those who have lived with it and see it day to day. Sometimes it’s a matter of helping them articulate that solution in a way that can ultimately be articulated and measured. Sometimes it’s just sitting with them and saying – tell me about these patients, why do we need to be there, and what resources can we bring?

**Organizations**

**Advocacy for Global Health Partnerships**

<https://www.ghpartnerships.org/>

**AO CMF North America Division**

<https://www.aofoundation.org/cmf>

**AO Alliance Foundation**

<https://ao-alliance.org/>

**AO Access**

<https://www.aofoundation.org/Who-we-are/about-ao/AO-Access-diversity-inclusion-and-mentorship>

**References**

1. Farmer PE, Kim JY. Surgery and global health: a view from beyond the OR. World J Surg. 2008 Apr;32(4):533-6. doi: 10.1007/s00268-008-9525-9. PMID: 18311574; PMCID: PMC2267857.

2. Sykes KJ. Short-term medical service trips: a systematic review of the evidence. Am J Public Health. 2014 Jul;104(7):e38-48. doi: 10.2105/AJPH.2014.301983. Epub 2014 May 15. PMID: 24832401; PMCID: PMC4056244.

3. Tollefson TT, Shaye D, Durbin-Johnson B, Mehdezadeh O, Mahomva L, Chidzonga M. Cleft lip-cleft palate in Zimbabwe: estimating the distribution of the surgical burden of disease using geographic information systems. Laryngoscope. 2015 Feb;125 Suppl 1:S1-14. doi: 10.1002/lary.24747. Epub 2014 May 27. Erratum in: Laryngoscope. 2015 Jul;125(7):1748. PMID: 24867649.

4. Wong Riff KWY, Tsangaris E, Goodacre TEE, Forrest CR, Lawson J, Pusic AL, Klassen AF. What Matters to Patients With Cleft Lip and/or Palate: An International Qualitative Study Informing the Development of the CLEFT-Q. Cleft Palate Craniofac J. 2018 Mar;55(3):442-450. doi: 10.1177/1055665617732854. Epub 2017 Dec 14. PMID: 29437508.

5. Maki J, Qualls M, White B, Kleefield S, Crone R. Health impact assessment and short-term medical missions: a methods study to evaluate quality of care. BMC Health Serv Res. 2008 Jun 2;8:121. doi: 10.1186/1472-6963-8-121. PMID: 18518997; PMCID: PMC2464597.

6. The Brocher Declaration. https://www.ghpartnerships.org/brocher