Effectiveness and Validity of Subjective vs. Objective Post-Operative Pain Scoring on a Medical Mission to Guatemala

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BACKGROUND
Studies have shown a difference in pain burden amongst different races and ethnicities. 1 Language barriers and cultural differences can complicate accurately assessing postoperative pain scores. In a previous medical mission to Guatemala City, Guatemala, it was noted that many Guatemalan children often appeared stoic and there was concern for underreporting of pain. We performed a quality improvement project where we obtained both postoperative subjective and objective pain scores over the PACU course in order to provide adequate postoperative analgesia.

METHODS
A perioperative team from Duke Children’s Hospital took part in a medical mission to Guatemala City, Guatemala where 51 general and urologic surgeries were performed. After obtaining IRB approval, we performed a prospective, observational study, where we documented intraoperative pain management and measured objective (FLACC) pain scores and subjective (Wong-Baker Faces) pain scores in PACU (Figure 1). Medical interpreters assisted with communication. If either the subjective or objective score was ≥2, the patient was offered morphine IV. Given the hospital’s policy, only NSAIDs and acetaminophen were provided on the wards after discharge from the PACU.

RESULTS
51 patients, ages 4 months to 17 years, received general anesthesia for general and urologic procedures. Of these, 84.3% received a regional block (21 caudals, 17 ilioinguinal-iliohypogastric nerve blocks, 4 transversus abdominis plane blocks, and 1 scalp block) (Figure 2, Table 1). Intraoperative management consisted of ketorolac IV (90.2%), acetaminophen PO/IV (82.4%), and fentanyl IV titrated to effect. In PACU, 17/37(45.9%) of patients aged 3 - 17 years had subjective or objective signs of pain ≥2 (Figure 1). Results from matched cases in the US are currently being obtained to compare to Guatemalan patients.

DISCUSSION
The majority of our patient population had lower objective pain scores compared to subjective scores. Many objective scores did not meet the ≥4 threshold, where intervention with IV morphine was offered. Relying on only objective scores put the patient at risk for inadequate analgesia. This highlights the importance of adequate communication in assessment of patients. Additionally, regional anesthesia techniques can be a valuable tool in managing post-operative pain in developing countries, specifically when there are limited medication options.

CONCLUSIONS
It is important to attempt to communicate properly with patients with cultural differences since objective and subjective pain scores can be incongruent. When relying only on objective scoring systems with identical thresholds for treatment of pain, practitioners risk undertreating post-operative pain in the PACU.

REFERENCES