The Effect of COVID-19 on Pediatric Orthopaedic Trauma Volume at a Level 1 Pediatric Trauma Center in the Midwestern United States

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INTRODUCTION
- Cancellation of school and extra-curricular activities, playground closures in KC on 3/17/20.
- Early reports of trauma in adults and children indicate decrease volume during pandemic.
- First pediatric orthopaedic trauma report in Midwest during first 5 months of the pandemic.

METHOD
- Prospective data collected on pelvis and extremity pediatric trauma requiring surgery (Registry of Orthopaedic Trauma in Children, Major Extremity Trauma Research Consortium)
- Data analyzed from April to August, 2020 compared to 2016 - 2019.
- Student t-test, Mann-Whitney test.

RESULTS
- No significant difference in average peds ortho trauma cases per month between COVID-19 and pre-pandemic time periods.
- Significant increase in ATV, dirt bike, bicycle and “other” mechanisms of injury.

DISCUSSION
- No decrease in peds ortho trauma during pandemic months, in contrast to early COVID-19 literature.
- Increased higher energy mechanisms (ATV, dirt bike).
- Decreased lower energy (sports, monkey bars).
- Change in nature of injuries suggests children will find creative and possibly more dangerous outlets for their energy without structured activity despite pandemic.

Graph 2: Mechanism of Injury for Pediatric Orthopedic Trauma During COVID-19 (2020) Versus Pre-Pandemic (2016-2019)

- Significant Increase
  - ATV (2 vs 5)
  - Bicycle (2.5 vs 4.4)
  - Dirt bike (1 vs 3)
  - Other (16.1 vs 26.8)
- Significant Decrease
  - Sports (8.7 vs 4.6)
  - Monkey bar (6.3 vs 2.4)