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Differing Perceptions of Mobile Health Technology for Outcome Measurement in Elective Surgery: A Qualitative Study of North American Surgeons

BWH

¹Ariadne Labs

Background

- Mobile health technologies (mHealth) is growing in popularity; use for outcome measurement after surgery remains limited
- Little is known about how surgeons among different subspecialties may engage with mHealth
- **Objective**: evaluate differences in perceptions of mHealth for outcome measurement between surgeons performing operations aimed at functional improvements (e.g., restoration of movement for activities of daily living) as compared with surgeons performing operations for other indications

Cohorts by Specialty





Surgeons operating for **other indications**: Cardiothoracic, General, Gynecologic, & Pediatric Surgery





Interviewee Selection



Exploratory qualitative study following COREQ criteria

Analysis



De-identified audio transcripts inductively analyzed to identify emergent themes; frequency of thematic mention was compared by surgical subspecialty of nterviewee

Methods

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Surgeons operating for **functional improvement**:

Neurosurgery, Orthopedic, Plastic/Burn, & Vascular Surgery

Data Collection

Non-probability, purposive sampling based on North American region, surgical specialty, demography

Semi-structured interviews (Zoom, Sep-Nov 2020) using Consolidated Framework for Implementation Research (CFIR)

- subspecialties

Results



• Surgeons perceive mHealth as valuable for recovery monitoring, especially for **enhancing communication** between patients and providers and establishing meaningful measures of post-operative progress

• Perceptions differ among surgical subspecialty in terms of **ideal patient population** for implementation, **utility** for mHealth-enabled recovery metrics, and **length of monitoring**

Integration of mHealth for purposes outcome measurement must consider the differential design and implementation across surgical



Contact information