

Title: Implementing APRN Telehealth Appointments to Improve Post-Surgical Follow-up Rates in the Postsurgical Pediatric Population

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PROBLEM STATEMENT

- In the United States alone, an estimated 30% of pediatric general surgery follow-up appointments at ambulatory offices results in no-shows (Fischer, Hogan, Jager, & von Allmen, 2015).
- Current research suggests that video/telephone follow-up is an adequate use of telehealth that promotes patient satisfaction and decreases the number of missed appointments due to social determinants of health or other factors (Eisenberg, Hwa, & Wren, 2015; Fischer, Hogan, Jager, & von Allmen, 2015).
- Researchers have found that 80% of patients who did not attend their scheduled appointment had some sort of public insurance, such as Medicaid or Medicare, or other social determinants of health (Samuels et al., 2015)

PROJECT PURPOSE

- To examine telehealth as an evidence-based intervention used to decrease no-show/missed follow-up appointments in post-surgical pediatric patients who have undergone an uncomplicated general surgery.
- To identify how social determinants of health impact a caregiver's desire for video telehealth follow-up
- To determine if a permanent APRN led telehealth intervention should be adopted by the pediatric outpatient surgery practice.

MODEL/NURSING THEORY

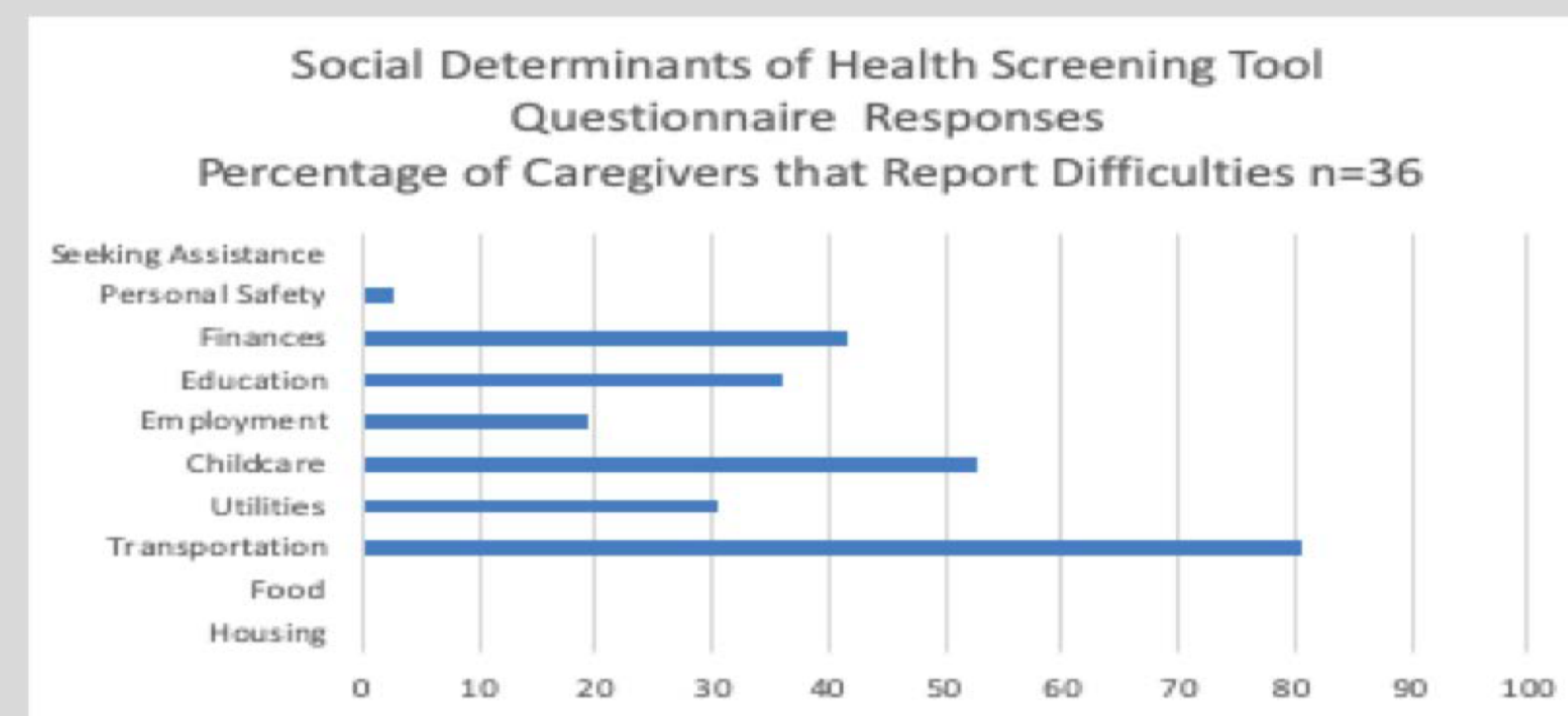
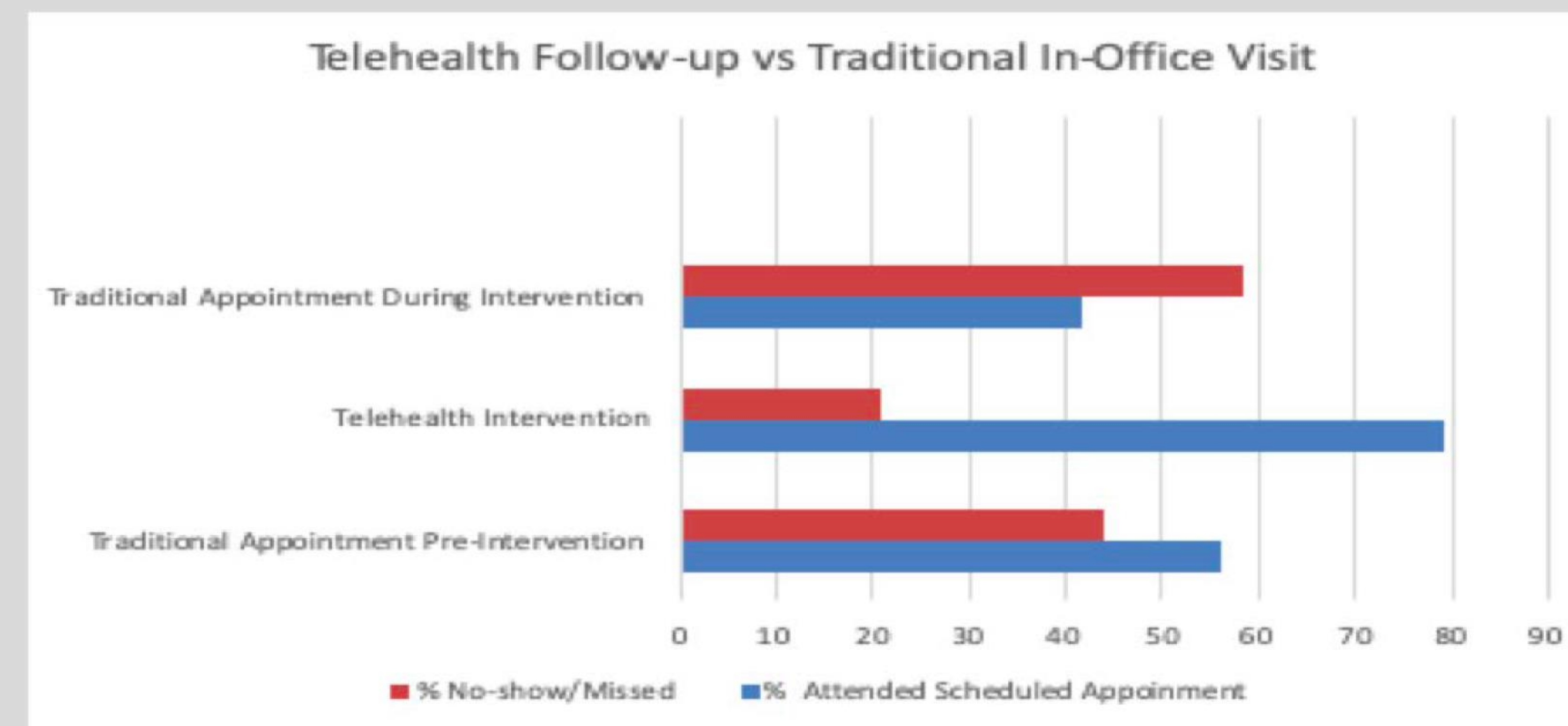
- The quality improvement model that will be used to guide this project is the Plan-Do-Study-Act (PDSA) Model
- Roger's Change Theory was used to guide the development of the telehealth intervention to improve follow-up appointment compliance by employing the theory's five phases of planned change

METHODS

- Subjects (Participants)**
 - Pediatric surgery patients ages 1yr to 18 yrs scheduled for an initial follow-up appointment after an uncomplicated surgery
- Setting**
 - Pediatric Surgery office in Orlando, FL
- Instruments/Tools**
 - To analyze the effect of the APRN led video telehealth intervention, a comparison of the follow-up rates one month prior to the intervention and the follow-up rates during the intervention were conducted.
 - To identify how social determinants of health impact follow-up, the DNP student recorded the caregiver's responses to the American Academy of Family Physicians social determinants of health screening tool during the intervention period.
- Intervention and Data Collection**
 - Legal guardians had the option to voluntarily schedule a telehealth video appointment during the pre-op visit.
 - Minor assent and the legal guardian's consent and permission to participate in the video telehealth project was obtained during the patient's pre-op appointment.
 - Legal guardians who opted to participate in the telehealth intervention completed the Social Determinants of Health Screening Tool during checkout at their pre-op appointment.
 - The telehealth video follow-up appointments were conducted using a secured Apple iPad using FaceTime or Skype from February 24, 2020 to March 17, 2020,
 - All data collected during the telehealth follow-up visit was recorded in the patient's electronic health record and reviewed and signed by the surgeon.
 - Demographic data, type of surgery, questionnaire responses, number of no-shows/missed follow-up appointments pre- and post-intervention were recorded, and tables and charts were created using Microsoft Excel.

RESULTS

| Patient Demographic Data | |
|----------------------------|-------------------|
| | Data |
| # of patients | 36 |
| Average age of patients | 6.94 (1 – 18 yrs) |
| Gender (male/female) | 31/5 |
| Insurance (public/private) | 28/8 |
| Race: | |
| White (non-Hispanic) | 13 |
| Black or African American | 12 |
| Hispanic | 8 |
| Other | 3 |



DISCUSSION

- Outcomes of the project confirm that an APRN led telehealth intervention is effective in improving follow-up adherence in pediatric general surgery patients scheduled for a post-surgical follow-up appointment.
- There was a significant decrease in missed follow-up appointments between pre-intervention 44% and post-intervention 26%.
- However, 58.3% who chose to schedule the traditional appointment during the intervention missed their scheduled follow-up appointments.
- During the intervention, only one complication (4.17%) was recorded. This complication was quickly identified and did not result in any delay of care.
- Social determinants of health play a critical role in missed follow-up appointments. 29 caregivers (80.6%) reported that they neglect going to the doctor because of distance or lack of transportation and 19 caregivers (52.8%) responded that problems securing childcare make it difficult to work or study.

IMPLICATIONS FOR ADVANCE PRACTICE NURSING

- This project supports the need and benefit of expanding APRN roles in different specialties throughout the healthcare system.

SUSTAINABILITY

- The use of telehealth will remain sustainable when its use is routine and can be found to be a necessity in the management of patient care.

REFERENCES

- Eisenberg, D., Hwa, K., & Wren, S. M. (2015). Telephone follow-up by a midlevel provider after laparoscopic inguinal hernia repair instead of face-to-face clinic visit. *Journal of the Society of Laparoendoscopic Surgeons*, 19(1), e2014.00205. doi:10.4293/JLS.2014.00205
- Fischer, K., Hogan, V., Jager, A., & von Allmen, D. (2015). Efficacy and utility of phone call follow-up after pediatric general surgery versus traditional clinic follow-up. *The Permanente Journal*, 19(1), 11–14.
- Samuels, R., Ward, V., Melvin, P., Macht-Greenberg, M., Wenren, P., Yi, J., ... Cox, J. (2015). Missed appointments: Factors contributing to high no-show rates in an urban pediatric primary care clinic. *Clinical Pediatrics*, 54(10), 976-982.

Employing telehealth can effectively decrease no shows and missed follow-up appointments in pediatric surgical patients.