

# Does Video-Assisted self-evaluation improve patient-physician interaction?



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## Abstract

In this study we will evaluate the effect that self-observation has on the quality and effectiveness of providers' teaching. 6 Pediatric Endocrine Fellows that are seeing patients in the outpatient setting will be recorded and that video will be shown to them later on as a means of feedback.

The study will span 12 patient visits: there will be 6 topics repeated twice. The first 6 patient sessions will be recorded, each on a different 'bread and butter' topic for each Fellow. They will be shown to and reviewed by the Fellow right before the same patient visit topic for the 7<sup>th</sup>-12<sup>th</sup> patient visit. Fellows will be asked to score themselves in verbal and non-verbal communication, interpersonal interaction and professionalism.

In parallel, patients and their families will score the visit experience too with regards to the teaching provided by their doctor: This assessment will occur after each visit.

## Study Protocol

July 2019 – September 2019

Fellow recruitment\*

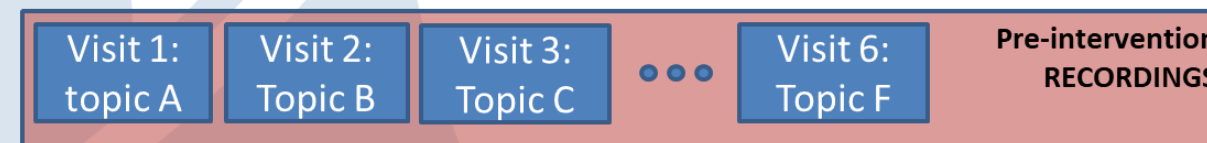


Patient identification and scheduling \*\*

\* Informed consent to participate in study obtained

\*\* Patient and/or guardian informed of recording and its purpose and sign CHOA-approved consent form to video session. Given option to opt out of consent before the day of the visit, upon front desk registration or during the visit.

September 2019 – June 2020



Reviewing of patient scoring and self-evaluation of each visit will be done within 72 hours of each repeat visit by enrolled providers (i.e. review visit 1 just before visit 7, etc)



-AV equipment will be kept locked in the clinic office.  
-Video permanently deleted as soon as it is reviewed by Trainee and PI

## Subject recruitment

- Location: Pediatric Endocrinology at CAP, 3rd floor
- Population to be studied: Physician Fellows and patients' families of our clinic (see below)

- Specific inclusion criteria:  
Physicians (n=6):  
PGY4, PGY5, PGY6 Pediatric Endocrinology Fellows enrolling after July 1st 2019

NEW endocrinology patients' parents (n= 72) in the above clinic with the following referral reasons:

- 1) virilization (i.e. body odor, pubic hair, armpit hair)
- 2) early puberty
- 3) acquired low thyroid function
- 4) high thyroid function
- 5) short stature
- 6) late puberty

- Specific exclusion criteria: parents of patients that do not have English as not their first language

## Background & Purpose

Medical school curriculums are universally expected to provide long hours of vigorous training on all aspects physician functions, apart from one of the most commonly used tools in everyday patient-physician interaction: body language and non-verbal communication. Furthermore, the higher one gets in the training ladder, these skills are assumed rather than taught, and, past residency, one stops receiving feedback on their non-verbal interactions with patients unless something egregious has happened.

Non-verbal communication is essential for effective, empathetic interpersonal communication, as is expected between patients and physicians, and it comprises a large portion of forming a positive or a negative opinion. To-date studies have shown that non verbal communication correlates with patient satisfaction and physician trustworthiness, but there has not been much literature to show how it can be used to improve one's performance in the medical field. Such literature does exist in other professions. Albeit equally important for physicians too, it is not part of routine training and assessment past the very early stages of medical school. With this study we aim to acquire data from physicians in latter stages of their training (PGY4 and above) that can be applied to graduate medical education settings of all levels.

**Aim: Assess the effect of video-based self-evaluation of non-verbal communication has on patient-to-physician interactions in the outpatient pediatric endocrinology office**

## Assessment tools

### By parents right after each visit

**Communication Assessment Questionnaire**

Communication with patient is a very important part of quality medical care. We would like to know how you feel about the way your doctor communicated with you. Your answers are completely confidential, so please be as open and honest as you can. Thank you very much.

Please use the following provided scales to rate the doctor's non verbal communication with you. Circle your answer for each item below.

1. My child's doctor had the following facial expressivity:  
1 2 3 4 5 6 7  
Unexpressive neutral very expressive

2. My child's doctor smiled:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

3. My child's doctor made eye contact with me:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

4. My child's doctor nodded while listening:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

5. My child's doctor most of the time appeared to be sitting/standing:  
1 2 3 4 5 6 7  
backwards neutral forwards

6. My child's doctor's body was sitting/standing in such a way it made me feel they were:  
1 2 3 4 5 6 7  
closed up neutral open towards us

7. My child's doctor's voice was:  
1 2 3 4 5 6 7  
monotone neutral very expressive

1 2 3 4 5  
Poor fair good very good excellent

### By physician before repeat visit

**Self-assessment Communication Questionnaire**

Non verbal communication with patient/family is a very important part of quality medical care. We would like to know how you feel about the way you see yourself interacting with the patient and their family. Your answers are not part of any formative training assessment; they are for self-reflection and self-directed learning. Thank you very much.

Please use the following provided scales to rate your non verbal communication with the patient and family. Circle your answer for each item below.

1. I had the following facial expressivity:  
1 2 3 4 5 6 7  
Unexpressive neutral very expressive

2. I smiled:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

3. I made eye contact with me:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

4. I nodded while listening:  
1 2 3 4 5 6 7  
Infrequently neutral very Frequently

5. I mostly appeared to be sitting/standing:  
1 2 3 4 5 6 7  
backwards neutral forwards

6. My body was sitting/standing in such a way it appeared:  
1 2 3 4 5 6 7  
closed up neutral open towards us

7. My voice was:  
1 2 3 4 5 6 7  
monotone neutral very expressive

### By PI after each visit

NAAS Behavior	Description	Code Calculation
<b>Paraverbal</b>		
Talk Time	The proportion of each minute that the physician or patient talks for.	Duration of talk (secs)/60 (secs)
Pause	The proportion of each minute that the physician or patient pauses for.	Duration of pause (secs)/60 (secs)
Simultaneous Speech	Any instance where the first speaker is still speaking when the second speaker begins to speak, but the second speaker does not take the floor from the first speaker. This includes both back channels and unsuccessful interruptions. Proportion per minute calculated for each conversational party.	Duration of simultaneous speech (secs)/60 (secs)
Speech Rate	The pace of speech produced by the physician or patient.	Number of syllables per minute/Duration of talk (secs)
Interruption	Defined as a situation in which the first speaker is still speaking when the second speaker begins to speak, and the second speaker continues speaking while the first speaker stops.	Number of interruptions/Conversational partner's duration of talk (secs)
<b>Non-Verbal</b>		
Smiling	A relaxation of the facial features, with lips parted or closed, and with the corners of the lips turned upward.	Number of smiles/60 (secs)
Laughing	Vocalization, smiling, and movements of face and body that express amusement, exaltation, or scorn.	Number of laughs/60 (secs)
Gesturing	Movements of the forearm and hand, where a continuous movement is counted as one movement.	Number of gestures/Duration of talk (secs)
Nodding	Instance of listener feedback, displayed through cyclical or continuous, up/downward or forward/backward motions of the vertical or sagittal plane.	Number of nods/Conversational partner's duration of talk (secs)
Eye Contact	The duration of each minute that the conversational party focuses gaze on their partner's eyes or face.	Duration of eye contact/60 (secs)