



ESTABLISHING SALIENT MEDICAL EXPERTISE IN ADVANCED HEART FAILURE PROCEDURES

UCLA
Ed & IS

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INTRODUCTION

Fellowship programs are teaching spaces where Graduate Medical Education Advanced Heart Failure (AdHF) Fellows develop expertise in the presence of other medical professionals. Our study examined the practices of high-tech modern medicine, where AdHF Fellow doctors¹, AdHF Attending doctors², and Nurses³ work cooperatively to facilitate expertise. Our research focused on understanding how experienced AdHF Attendings and Nurses effectively teach novice Fellows the proper technical and personal skills required to conduct effective endomyocardial biopsy⁴ (EMB) procedures. These teachings were mainly achieved using three techniques: practitioner repairs, leadership roles, and frontstage and backstage communication.

¹ The role of the AdHF Fellow is to learn the technical skills of performing an endomyocardial biopsy (EMB).

² These technical skills are supervised by the AdHF Attending doctor, who teaches the AdHF Fellow how to conduct a proper EMB procedure.

³ The Nurse's role is to monitor the procedure, tending to the patient during the procedure.

⁴ Invasive clinical procedure used to monitor cardiac allograft rejection and evaluation of dilated and restrictive cardiomyopathies

THEORETICAL FRAMEWORK

Teaching structures were analyzed by employing two theoretical frameworks:

Dreyfus' model of skill acquisition, which begins with novice performers who are not fully accustomed to the task at hand, and ends with expert performers who have an intuitive understanding of the skills required to accomplish such tasks.

Dr. Raia and Dr. Deng's Relational Act Model demonstrates the importance of maintaining a patient's personhood in high tech modern medicine patient care, especially when undergoing an endomyocardial biopsy (EMB).

METHOD

THE RELATIONAL ACT MODEL

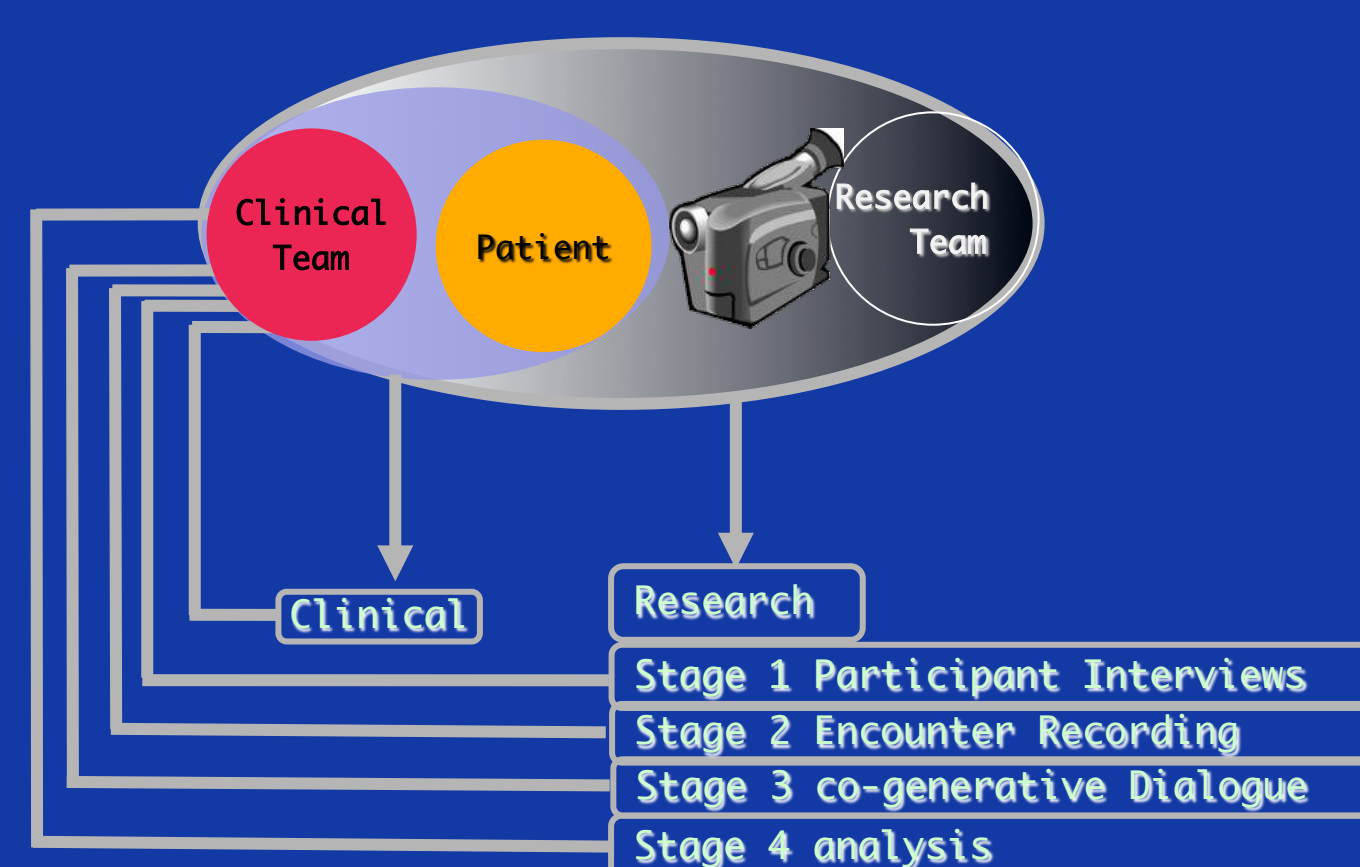


Fig. 1

We use the RelationalAct iterative model to collect and analyze data. The model is comprised of three stages:

1. Video Recording of heart biopsy procedures.
2. Co-Generative dialogue (Co-Gen) sessions.
3. Cardiologist(s) member of the medical team and whose interactions were recorded in stage 1, participate in weekly 2-hour video recording viewing sessions as a co-researcher with the research team.

RESEARCH QUESTION

What are some of the most effective teaching techniques used by Attending doctors and Nurses in order to create a supportive environment for Fellow doctors to conduct efficient endomyocardial biopsy (EMB), while establishing a supportive relationship their patients?

RESULTS

Example 1: Repair

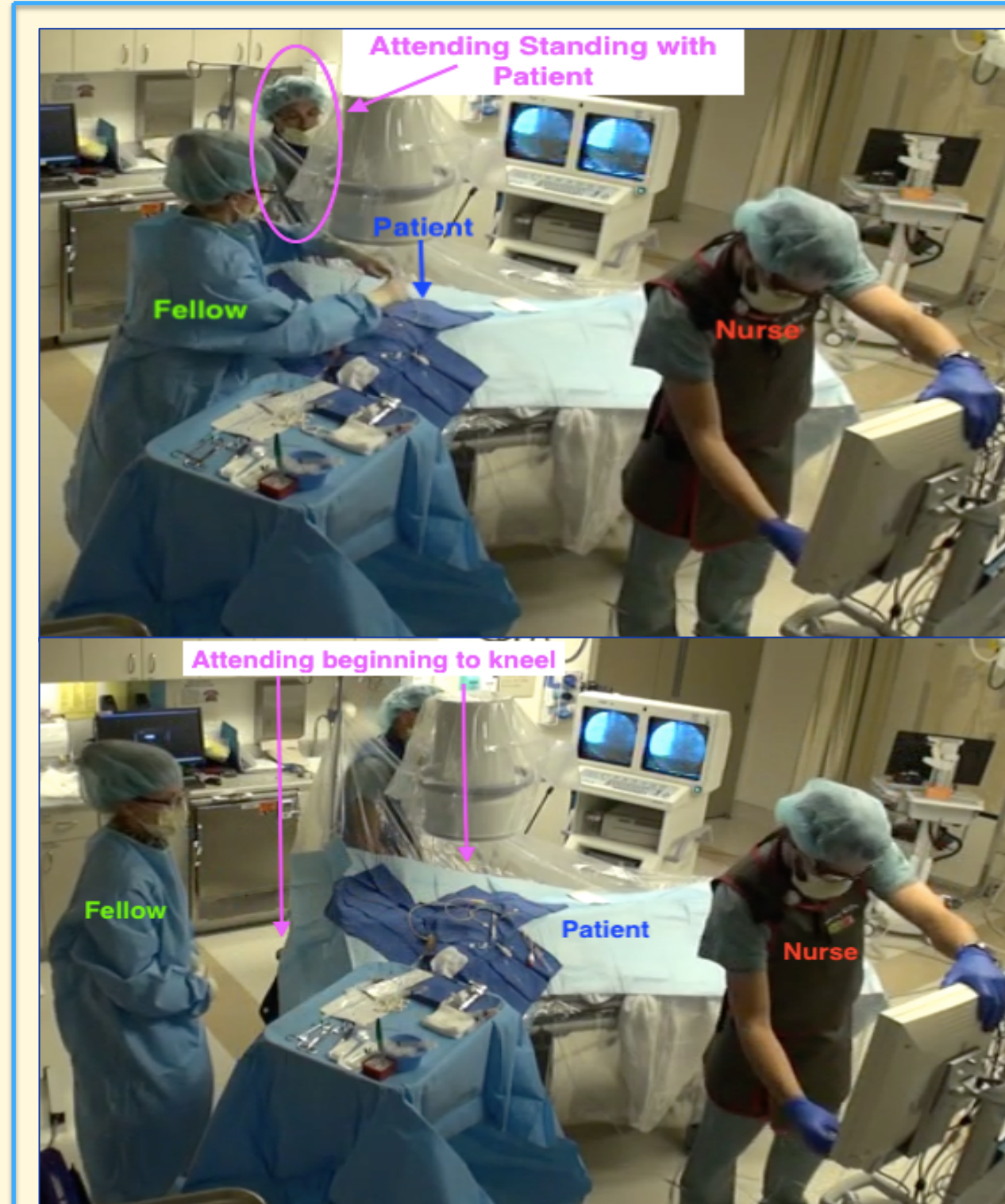


Example 2: Leadership



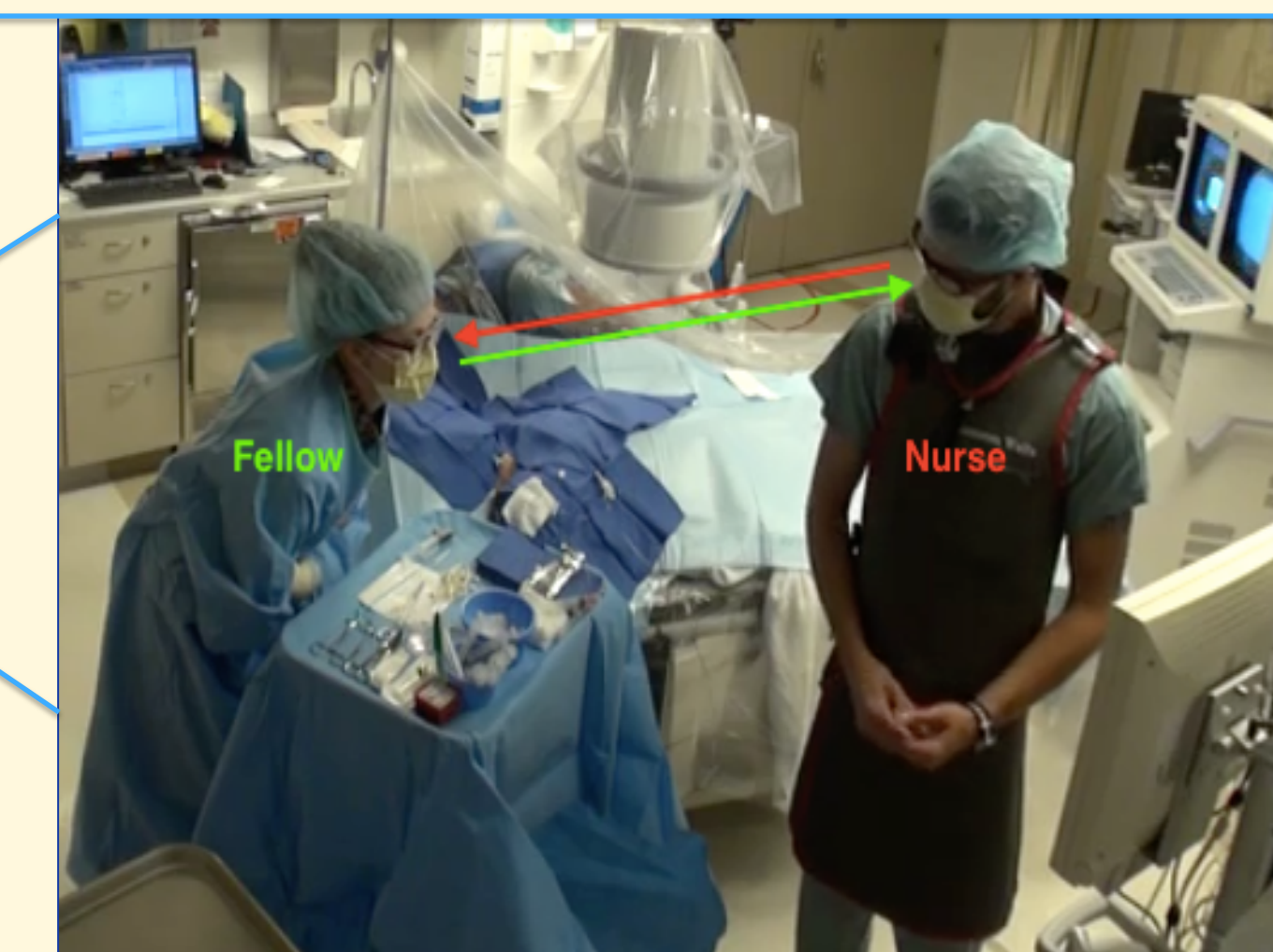
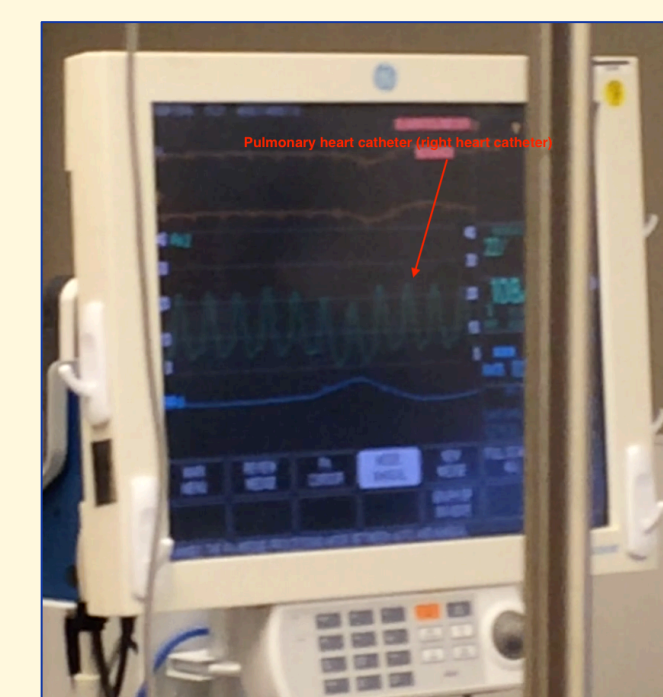
- 1 Fellow: Can we put the Trendelenburg
2 ((position)) a little bit?
3 Nurse: Sure
4 Fellow: Please
5 Fellow: Sorry...So we are just gonna put
6 your head down a little bit, okay?
7 Patient: Mm-hmm
8 Nurse: And then I'm gonna pump you up
9 and put it down again, okay?
10 Patient: Mm-hmm
11 Attending: We just want to see the...vessel,
12 the vein, you know?]
13 Fellow: [A bit better. We are making it a
14 bit bigger.

Repair and leadership simultaneously demonstrated within same situation and procedure.



Example 3: Frontstage Communication

- 1 Fellow: Okay [patient] I'm going to take this out now. I'm going to need you to
2 do a favor, okay. I'm going to need you to take a breath in and out
3 okay. Do that for me. Take a breath in and out
4 Fellow ((asks Attending)): Can you ask him to convolute it
6 Attending: Ready to breath. Mmm...mmm. We are taking a deep breath
8 Fellow: Okay Take a breath and do that again
9 Attending: Take in a deep breath, and , deep breath then ((attending 10 exhales))
11 Fellow: Okay all done



Example 3: Backstage Communication

- 1 Fellow: Let's see um...it's...V Wave of...A
2 Wave around 15, V Wave around 15A
3 Nurse: Kay
4 Fellow: Do you agree Dr. D? With a prominent
5 wide ascend.
6 Attending: yyyyyyyeah
7 Fellow: You can make it a little lower,
8 say 14?
9 say 14 Cam.
10 Nurse: 14 Good
11 Attending: V, V 14? What did you say?
12 Fellow: Well I think the A is also at 14.
13 They look relatively...
14 do you think it's a bit lower?
15 You think it's more like at 12?
16 Attending: Eh hh yeah yeah
17 Nurse: 12?
18 Attending: Yeah
19 Nurse: Okay A of 12, V of 14 prominent
20 ascend

DISCUSSION/CONCLUSION

Example 1: Repair

Repair is medical professionals improving the situation amongst themselves, physically or verbally (Schegloff, Jefferson, & Sacks, 1977).

- The Fellow starts this action and explanation of head motion to the patient (Lines 1-2), and the Nurse and Attending join in (Lines 3, 8-9, 11-12).
- Each medical professional adds detail, elaboration, and improvement in the explanation.
- The end result of repair is a more thorough and accurate explanation of the situation to the patient.

Example 2: Leadership

Leadership involves a sense of monitoring and management in a given scenario. This involves having a professional vision, a concept referred to as "hold each other accountable for-and contest-the proper perception" (p. 628). Goodwin, C. (1994).

- The Fellow presents leadership by effective guidance of the patient in this moment of the procedure.
- After the Attending and Nurse speak, the Fellow concludes this conversation by stating her own form of explanation of the movement and procedure step (Lines 13-14).
- Each medical professional demonstrates a professional vision, which creates in a supportive environment for the patient during the procedure

Example 3: Communication (backstage and frontstage)

Backstage communication is hidden or isolated conversation amongst medical professionals without inviting the patient. Frontstage communication is open and direct conversation amongst medical professionals including and inviting the patient

- The Attending and patient interact in frontstage conversation during encounter (see Example 3 images).
- The Fellow and Nurse carry out backstage conversation on the side regarding pressure measurements (Lines 1-3, 7-10).
- The Attending's actions and movements set up two different yet parallel spaces during the procedure—one with the patient, one with the Fellow and Nurse.

ACQUIRING EXPERTISE

We were able to identify significant and observable teaching techniques to help establish a good baseline for experienced practitioners to effectively educate inexperienced Fellows how to successfully conduct and relationally communicate to patients undergoing EMB procedures.

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