“…observation is about stalking culture in the wild…[it] is a strategic method… [which] puts you where the action is and lets you collect data . . .”

- Bernard 2002

The power and importance of qualitative observations in research and quality improvement work

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Poll Questions

What is your experience with direct observation?

- Never heard of it
- I have heard about it or have read about it in articles/classes/trainings
- I have tried it as a method
- I have real familiarity with direct observation

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Poll Questions

I have conducted a research or quality improvement project that uses direct observation.

- No
- I am developing one
- I am currently working on one
- I have completed one (or more)

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Learning Objectives

- Understand the benefits of using direct observation in health services research and quality improvement
- Get a sense of what observation is and what it can add to research and quality improvement projects
- Develop awareness of the multiple components of human behavior
- Learn the basics on how to select an appropriate environment, activity, process or people to observe
- Learn some basic techniques for collecting observational data

Overview

- Case Study
- Introduction to Direct Observation
  - When to use
  - How to plan
  - What to consider
- Concluding Thoughts

Use of observation in a VA study

- Funding: Centers for Disease Control and Prevention, Prime contract no. 2002011-42039, Task Order 0007; Centers for Disease Control and Prevention, 1 U54 CK000456-01; also supported by VA Health Services Research & Development Service (RCS 11-222)
- Study Team: Laura Petersen, Lynn Gregory, Me, Lauren Weston. PI, Sarah Krein (strategically taking the photo). Not pictured: Research Assistants.

Evidence of non-adherence and breaches in use of personal protective equipment (PPE) are well documented.

- Use of PPE (i.e., gowns, gloves, facemasks) prevents the transmission of infectious agents in healthcare settings.
- However, previous research has shown that compliance with PPE use varies among health care providers (HCP).
- The donning and doffing process has also been found to be inconsistent (PPE not put on or removed in the correct order).
- These previous studies used structured, direct observation to collect their data.
  - Data were documented using checklists and standardized forms.
- Although results were important and demonstrated that non-adherence and breaches were occurring; understanding *why* it was happening was lacking.

Research objective and aim

- **Objective-** Enhance effective use of PPE and precaution practices.
- **Aim-** Understand the contextual (i.e., cognitive, environmental, behavioral etc.) factors that affect PPE use and practices from the HCP perspective.
  - In order to achieve the aim, we knew we had to be in the environment where practice occurs.

Developing a study protocol

- Study team trained in PPE.
- Experienced observers performed initial observations.
- Developed a "semi-structured" data collection template.
- Hired research assistants (pre-med and nursing students) who were also trained in PPE use and observation (didactic and experiential training).
- Trained observers were instructed to document, in the open field note, what they observed which included a physical description of the environment, the HCP they were observing, tasks being performed prior to, during and upon room exit.
  - Goal was to understand and not judge.

Sampling of results

325 individual room observations across 2 sites

Contextual Factors: Very much intertwined

- **Cognitive-** HCPs applied a "risk assessment" that factored in their decision to don PPE.

  Example- "Dash and Drop". HCPs dash into patient rooms without donning PPE to drop off things (medications or snacks.

- **Environmental-** Environment not conducive to use of PPE.

  Example- No signage in the room to act as a visual cue/reminder. Garbage cans placed outside patient rooms.

- **Behavioral-** Habitual movements often put HCPs at risk.

  Example- Numerous instances of HCPs touching their faces, pushing up glasses, pulling back their hair with gloved hands.

Our work was not done

- Shadowing- 14 sessions with various HCPs
- Focus groups- 8 across the 2 sites

Introduction to Direct Observation

Observations in research and quality improvement work

Why Observe?

- Interviews/focus groups
  - Capture perceptions or experiences
  - Insufficient in capturing behaviors or context

- What people do and what they say they do are not always the same
  - People are often unaware of aspects of their behavior
  - Self reports may lack precision, detail or be unconsciously biased

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What Can Observation Do?

- Understand
  - Processes, events, norms, values & social context
  - Human behavior that is largely unknown, hidden or complex
  - Conceptions & attitudes of study group & their points of view
- Complement other data
- Help formulate ideas in local "language"

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WHO Kikwawila Study Group 1994

Approaches to Observation

- Direct observation
- Automatic timestamps
- Behavioral evaluation & behavior sampling

Things to Consider…

- Observation may not be the most effective way to answer the question
- Time & financial costs
- Hawthorne Effect
- Observation does not replace interviewing
- Behavior observations are seldom an end in themselves

Design & Sampling

Observations in research and quality improvement work

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Research or Quality Improvement Aims

Main aims inform:

- Study design
- Data collection
- Data analysis

What Might You Observe?

Units of Observation

- Environment
- Verbal behavior & interactions
- Physical behavior & gestures
- Spatial arrangements
- Personal space
- Special gatherings
- Movement of people
- People who stand out

Sampling Strategies

- Continuous (motion picture)
  - Pros: detailed, with duration & sequence
  - Cons: time consuming, subject reactivity, small sample
- Instantaneous (snap-shot)
  - Pros: economical, large sample, less subject reactivity
  - Cons: unavailability of subjects & informant recall, observation window

Time-Motion Studies

- An observer captures data on the duration & movements required to accomplish specific tasks
- Generally coupled with analyses focused on improving efficiency of performing the tasks

[Lopetegui 2014, Finkler 1993]

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Time-Motion Studies

- Common applications in healthcare examine clinical workflow, e.g.:
  - What proportion of a clinician's workday is spent on patient-facing versus administrative tasks?
  - What changes to staff's work schedules and/or staff composition decreases the time between a patient's scheduled and actual start times of his/her clinical appointment?

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Behavior Sampling

- Used by animal behaviorists & psychologists
- Behavior recorded when it occurs or one identifies process steps or "thin slices of behavior"
  - Useful if you have only a short time/cannot do long or continuous observations

Nonverbal & Verbal Behavior

- Nonverbal behavior
  - Frequencies or counts of behavior
    - Smile, nod, gaze, gesture (patient-centered)
    - Self-touch (anxiety)
    - Interpersonal distance (liking)
    - Body orientation (closed vs. open)

- Verbal behavior
  - Established coding schemes
    - E.g., Roter Interaction Analysis System (RIAS)

How To Do Observations

Observations in research and quality improvement work

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Getting Started

Why

- What are you hoping to learn through your research or quality improvement project?

What

- Behaviors (e.g., workflow, interactions)Validated coding scheme

Where

- Setting (e.g., how many locations or clinical encounters)

Who

- Individuals (e.g., all team members, patients)

When

- Frequency/How often?
- Number of observations/site visits
- Particular days/times? (e.g., clinics=Tuesdays)
- Duration (e.g., all day, a few hours)

Pilot

- Develop draft observation tool & practice!

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Data Collection Tools

- Fieldnotes
- Templates
- Recording sheets & check lists

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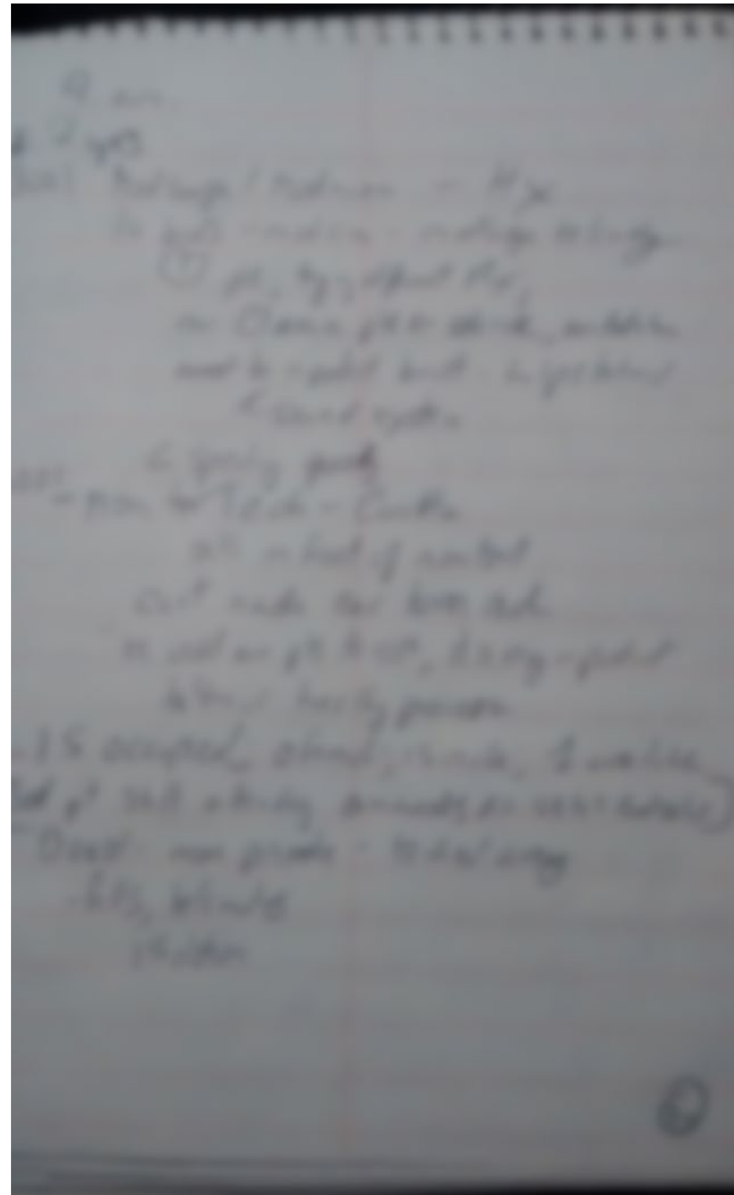
Fieldnotes

- Least standardized
- Open-ended, narrative
- Does not include preset questions or responses

- A note about "memoing"



Fieldnote, written by GM Fix 2014

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Templates

- A priori fields to capture interactions, processes or behaviors
- Space for narrative descriptions
- Allows for emergent data

EPCC Center for Evaluating Patient Centered Care in VA

Site Visit: PHP Interactions Observation Tool

Team Member: GF/ RB **PHP Status:** ______ **ID #** ____
Provider: ______ **Role:** RN ☐ HC ☐ MD ☐ LVN/LPN ☐ Other ____

Elements of PCC Observed:

☐ PCC Greeting	☐ Collaborative Decision-Making	☐ Display Empathy
☐ Communicate Purpose	☐ Inclusion of Life Realm	☐ Attend to Emotions
☐ Seek Permission	☐ Clear Communication	☐ Show Respect
☐ Elicit Pt Perspective/Preferences	☐ Listen to Patient	☐ Attend to Family

PHP Elements Observed		**Other Relevant Elements**
☐ Introduction / Framing	☐ Develop a Plan to meet goals	☐ Set Visit Agenda
☐ PHI/PHP Assessment Questions	☐ Initiate Referrals	☐ Whole Health Orientation
☐ Elicit Pt Priorities	☐ Discuss a plan for follow-up	☐ Pt Driven ☐ Provider Driven
☐ Selecting PHP Goals	☐ Follow-up on Existing Plan	☐ Goals Congruent / Aligned
☐ PHP Addresses Life Context	☐ Establish New Goals	☐ Documentation ______

Visit Agenda: ______
Pt Info: Ethnicity: ____ Age: ____ Male ☐ Female ☐ **Provider Info:** Male ☐ Female ☐ Age: ____

Observation template developed by GM Fix & RE Bolton (VA PEC 13-001; Bokhour) See Bolton et al JGIM 2020

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Recording Sheets and Check Lists

- Standardized
- A priori questions & responses
- Allows for counting phenomena

Patient Centered Observation Form- Clinician version

Trainee name__________________ Observer_______________Obsrvn#____Date__________

Directions; Track behaviors in left column. Then, mark one box per row: a, b or c. Competent skill use is in one of the right two right side columns. Record important provider / patient comments and verbal / non-verbal cues in the notes. Use form to enhance your learning, vocabulary, and self-awareness. Ratings can be for individual interviews or to summarize several interactions. If requested, use this form to guide verbal feedback to someone you observe.

Skill Set and elements Check only what you see or hear. Avoid giving the benefit of the doubt.	Provider Centered Biomedical Focus ←		→ Patient Centered Biopsychosocial Focus
Establishes Rapport ☐ Introduces self ☐ Warm greeting ☐ Acknowledges all in the room by name ☐ Uses eye contact ☐ Humor or non medical interaction	☐ 1a. Uses 0-2 elements	☐ 1b.Uses 3 elements.	☐ 1c.Uses ≥ 4 elements
	Notes:		
Maintains Relationship Throughout the Visit ☐ Uses verbal or non-verbal empathy during discussions or during the exam ☐ Uses continuer phrases ("um hmm") ☐ Repeats important verbal content ☐ Demonstrates mindfulness through presence, curiosity, intent focus, not seeming "rushed" or acknowledging distractions	☐ 2a. Uses 0-1 elements	☐ 2b. Uses 2 elements	☐ 2c. Uses 3 or more elements
Notes:			
Collaborative upfront agenda setting ☐ Additional elicitation- "something else?" * X______ * each elicitation counts as a new element ☐ Acknowledges agenda items from other team member (eg MA) or from EMR. ☐ Asks or confirms what is most important to patient.	☐ 3a. Uses 0-1 elements	☐ 3b. Uses 2 elements	☐ 3c. Uses ≥ 3 elements
Note patient concerns here:			
Maintains Efficiency using transparent (out loud) thinking and respectful interruption: ☐ Talks about visit time use / visit organization ☐ Talks about problem priorities ☐ Talks about problem solving strategies ☐ Respectful interruption/redirection using EEE: Excuse your self, Empathize/validate issue being interrupted, Explain the reason for interruption (eg, for Topic tracking)	☐ 4a. Uses 0 elements	☐ 4b. Uses 1 element	☐ 4c. Uses 2 or more elements
Notes:			
Gathering Information ☐ Uses open-ended question X____ ☐ Uses reflecting statement X ☐ Uses summary/clarifying statement X Count each time the skill is used as one element	☐ 5a. Uses 0-1 elements	☐ 5b. Uses 2 elements	☐ 5c. Uses 3 or more elements
Notes:			

Keen, M. et al. (2015). "Using the patient centered observation form: Evaluation of an online training program." Patient Education & Counseling.

COVID Caveats

- Observations may be limited or not feasible
- Switch to virtual
- Other complementary data
- Cyber Seminar in development
  - April 14th; addresses the virtual pivot in qualitative research.
  - Presenters include Karen Albright, Jessica Young, Lynette Kelley, Cristina Ortiz, Jennifer Van Tiem, Ana-Monica Racilia & Jane Moeckli.

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Concluding Thoughts

Observation can be a useful method that offers new insights & can complement other methods

Approach to collecting & analyzing observation data is driven by the project's research question and/or quality improvement goal

Covid raises new considerations

Questions?

Learn More

Weston LE, Krein SL, Harrod M. (2022) Using observation to better understand the healthcare context. Qualitative Research in Medicine & Healthcare, Vol. 5(1).

Fix GM, Kim B, Ruben M, McCullough MB (revise/resubmit) Direct Observation Methods: a Practical Guide for Health Researchers. PEC-Innovations.

The Qualitative Methods Learning Collaborative is open to everyone. If you are interested in joining, please email IRG@VA.gov

The QMLC mission is to:

- Advance qualitative methods
- Build a community of (VA & non-VA) researchers
- Learn and teach qualitative methods
- Develop strategies for others interested in building their qualitative communities and expertise
- Share best practices

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VA QUERI Center for Evaluation and Implementation Resources

VA's resource center for implementation and improvement science

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