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Using ethnographic field observations to explore ward team handoffs of overnight admissions

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Objectives

1. Discuss diagnostic errors among hospitalized adults and the emerging focus on teamwork in the diagnostic process

2. Share findings of our study of academic ward teams in diagnostic processes for hospitalized adults

3. Reflect on ethnographic approaches to studying medical ward teams

Disclaimer about me

I am not a ‘card-carrying’ qualitative researcher

MSc in Clinical & Translational Investigation

- Biostatistics
- Clinical epidemiology
- Qualitative research methods

Senior qualitative research mentors

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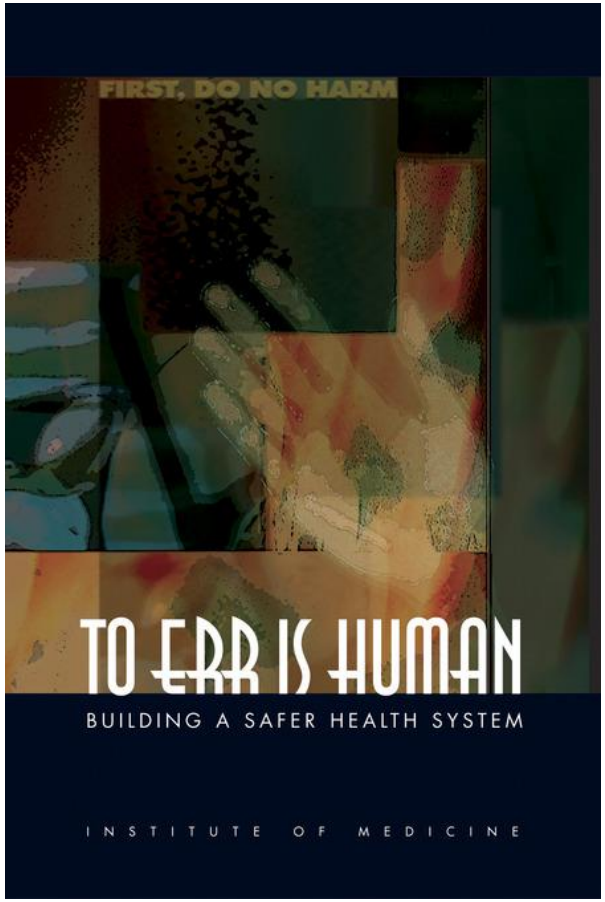
Context of the study



Medical errors contribute to an estimated 44,000 to 98,000 deaths per year in the U.S.

Institute of Medicine, 1999

JAMA®

Commentary

March 11, 2009

Diagnostic Errors—The Next Frontier for Patient Safety

David E. Newman-Toker, MD, PhD; Peter J. Pronovost, MD, PhD

"Compared to teamwork in other areas of health care, teamwork in the diagnostic process has not received nearly as much attention."

National Academies of Sciences, 2015

Goal #1: To facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families.

National Academies of Sciences, 2015

Handoff errors

Care transitions among teams are particularly prone to diagnostic errors, and handoff errors have been implicated in up to 80% of serious harms to patients.

An important but understudied care transition is the handoff of patients admitted overnight during ward rounds.

Beach et al. 2003
Arora et al. 2005
Horwitz et al. 2008
Lee et al. 2016
Williams et al. 2023

Ward team handoff of overnight admissions

Patient presents to ER

Emergency team

Nightfloat resident

Day ward team members

Original Investigation

June 24, 2013

Attending Rounds in the Current Era
What Is and Is Not Happening

Chad Stickrath, MD; Melissa Noble, BS; Allan Prochazka, MD; et al

» Author Affiliations | Article Information

JAMA Intern Med. 2013;173(12):1084-1089. doi:10.1001/jamainternmed.2013.6041

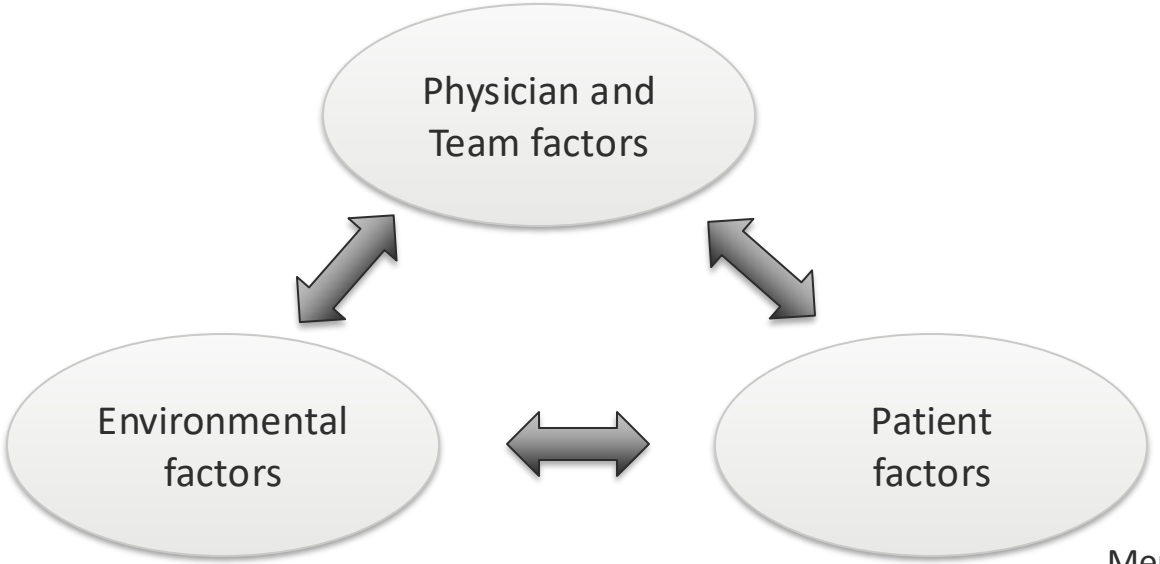
Study objective

To describe how ward teams operate in the handoff of patients admitted overnight during ward rounds, and to characterize the role of the bedside patient evaluation in the diagnostic process.

Situativity theory

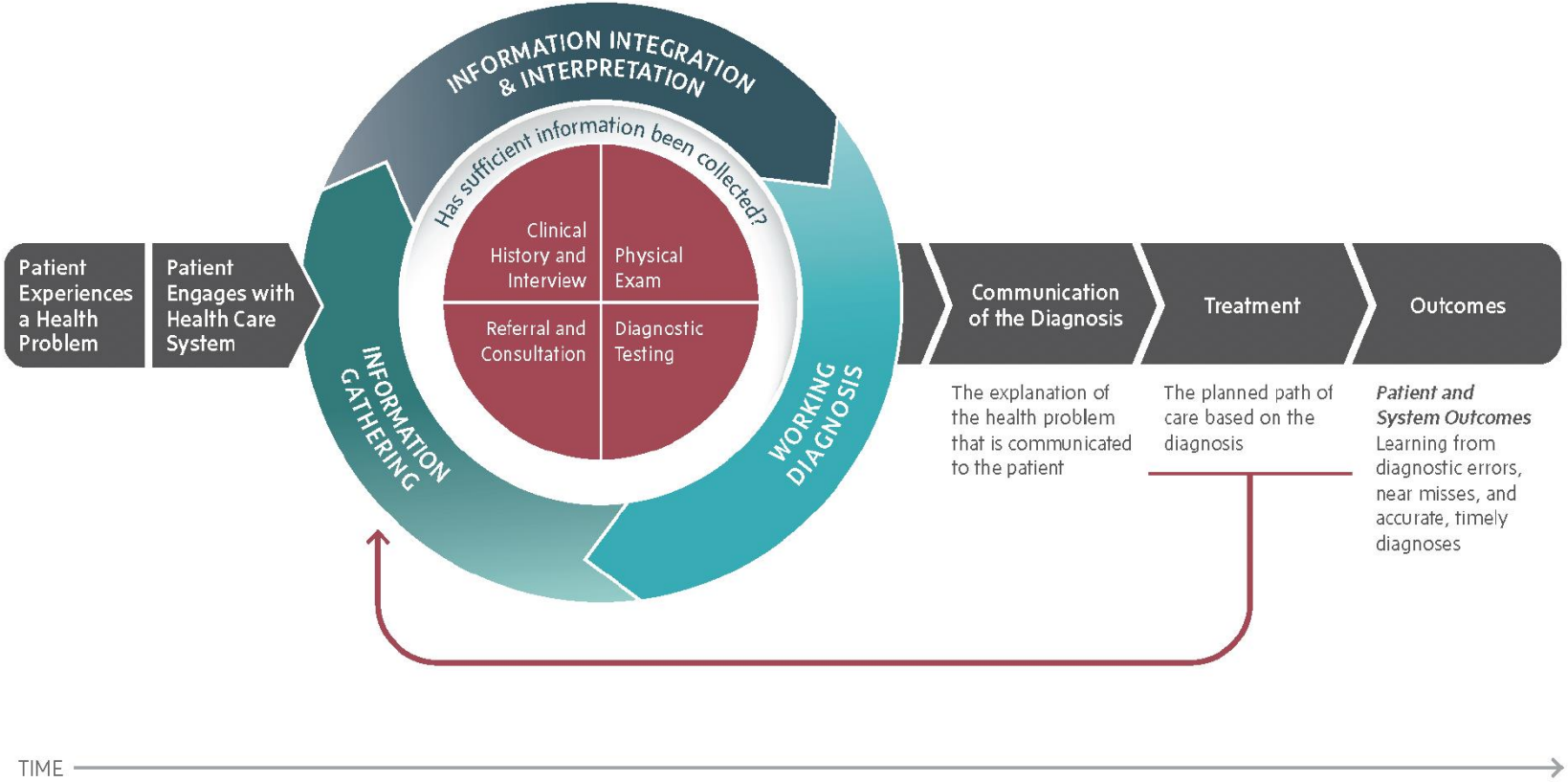
A family of social cognitive theories that has been used to study the diagnostic process

Moves beyond focus on individuals and also focuses on other participants in the encounter, environmental factors, and contextual factors



Merkebu et al. 2020.

The Diagnostic Process



Improving Diagnosis. NAM 2015.

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Methods

Study design: qualitative study using ethnographic methods

Nonparticipant field observations of ward team rounds and handoffs

Data collection: field notes, document review (electronic health record)

Setting and participants

NewYork-Presbyterian
Weill Cornell Medical Center

August to November 2022

Study approved by the Weill Cornell Medicine Institutional Review Board

Academic medical center and teaching hospital

Single-site

7 general medicine ward teams (2-4 wk together)

- 1 attending physician
- 1 senior resident
- 1 junior resident
- 2 interns
- 1-2 medical students
- 1 rotating nightfloat resident

Data analysis

Field notes and chart review data de-identified and entered into Word and Excel

Conducted thematic analysis using an inductive approach

- immersion in the data
- initial coding
- iterative rounds of re-coding, development of categories and themes
- further revisions to codes, categories, and themes
- all 3 authors independently read transcripts and generated codes
- frequent meetings to compare, reflect, achieve consensus
- data collected and final themes identified when data adequacy was reached

Also quantified characteristics of the handoff and certain aspects of the diagnostic process

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Results

General summary

Five ward teams were observed

- 29 day team members (5 attending physicians, 5 senior residents, 5 junior residents, 10 interns, 4 medical students) and
- 16 night float residents

Years of clinical experience of attending physicians were 3, 5, 8, 10, and 21 years

Observed 30 handoffs of patients admitted overnight to general medicine services

Amounted to 35 hours of field observations

Organization and Activities of Team Handoffs During Ward Rounds

Time spent (per patient)	Median (interquartile range)
Duration of oral presentations/discussions (*n* = 30)	12.5 minutes (9–16)
Duration of bedside evaluation (*n* = 20)	8.0 minutes (0–14)
Duration of physical examination (*n* = 18)	2.0 minutes (0–4)

All oral patient presentations and team discussions were conducted in conference rooms, separate from their bedside evaluations of patients

Organization and Activities of Team Handoffs During Ward Rounds

During bedside evaluations, day teams performed minimal or partial verification of symptoms and physical examination findings that were reported during new patient presentations

On average, one of every three primary symptoms reported during patient presentations was verified by the ward team at the bedside with the patient

Even fewer physical examination findings were verified by the day team

Organization and Activities of Team Handoffs During Ward Rounds

Diagnostic reasoning received less attention during team discussions than other aspects of patient care (e.g., management reasoning).

A differential diagnosis for the main presenting problem was discussed in 18 (60%) patient presentations.

Among the 20 bedside encounters during ward rounds, the team communicated the working diagnosis to the patient on eight (40%) occasions, and shared their differential diagnosis with the patient on three (15%) occasions.

Immediately following the bedside encounter, ward teams revised their differential diagnosis on four (20%) occasions.

Main Themes

Theme 1: Priority of Bedside Evaluations

Theme 2: Team Coordination and Communication in Bedside Evaluations

Theme 3: Team Debriefings for Teaching and Performance

Theme 1: Priority of Bedside Evaluations

We observed that bedside evaluations received lower priority than other clinical tasks

- Performed as a team less frequently than other clinical tasks
- Performed at the end of ward rounds (sometimes running out of time)

Major diagnostic process elements of the bedside evaluation, namely the history and physical examination, during patient presentations received less engagement from other ward team members

- During case discussions, team members appeared distracted (by their phones/computers) or disinterested in history and exam findings (facing away from the presenter)
- Explicit instruction from senior resident or attending to “jump to the assessment” (i.e., skip over the history and exam portions of the presentation

Theme 2: Team Coordination and Communication in Bedside Evaluations

We observed ward teams performing key coordinated efforts during physical examinations

- Preparing the patient and the room for the physical examination
- Performing certain examination maneuvers effectively and safely
- Communicating feedback to each other during physical examinations

Theme 3: Team Debriefings for Teaching and Performance

Team debriefings held in hallways following bedside encounters focused more attention on bedside teaching and clinical reasoning in patient evaluations

Led to a significant revision of the differential diagnosis for 1 of every 5 patients

> After the team leaves the emergency department bay, they huddle in a circle to debrief their bedside evaluation. Several members participate in a discussion about the physical examination. They remark on hearing "fine, Velcro crackles," which raise their suspicion for interstitial lung disease, and thus, "have even lower suspicion for pneumonia."
> (field notes, Team 3)

Theme 3: Team Debriefings for Teaching and Performance

Team debriefings also informed the team's assessment of the severity or urgency of the clinical problem

> The team huddles outside the room after leaving the bedside encounter. The attending physician asks the team for their thoughts on the physical examination. The intern says that she "thinks it is consistent with cellulitis" and that "she did not appreciate any crepitus." The attending physician adds that she "was impressed by the extent of the cellulitis, and she would "want to see marked improvement before planning discharge."
> (field notes, Team 5)

Theme 3: Team Debriefings for Teaching and Performance

Team debriefings after bedside encounters offered opportunities for reflection, updates in clinical reasoning, revisions in clinical decision-making, and feedback for adapting and improving future performance.

However, not every ward team performed debriefings routinely.

Lessons learned and recommendations for ward teams in the handoff of overnight admissions

1. Prioritize bedside evaluations

2. Engage all team members throughout the diagnostic process, including the history/exam components

3. Perform team debriefings

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Reflection on methods

Ethnography in name only?

What is ethnography?

Ethnography originates from anthropology, involving the in-depth study of people and cultures in their natural environment.

Traditionally requires immersion and long-term observation to understand meanings, behaviors, and cultural dynamics.

Ethnography as a **methodology** refers to the entire philosophical framework or approach guiding the research (e.g., theoretical grounding, epistemological assumptions, thick descriptions).

Ethnography as a **method** refers to the specific techniques or tools used for data collection—such as participant observation, interviews, or field notes—within a broader research design.

Ethnography as Methodology	Ethnography as Method
Philosophical Approach: Guides the research design, theoretical frameworks, and interpretation of data.	**Data Collection Technique**: A practical tool for gathering observations or interviews in the field.
In-Depth Interpretation: Seeks to understand cultural meaning and social patterns in depth.	**Descriptive**: Focuses on capturing observable behaviors or interactions.
Theoretical Engagement: Incorporates theories from anthropology, sociology, or other disciplines to explain the findings.	**Non-Theoretical**: Can be used as a standalone method without deeper theoretical implications.
Researcher's Role: The researcher's positionality and reflexivity are key components.	**Neutral Observer**: Often involves the researcher acting as a passive or active observer without emphasis on positionality.

Rise of Ethnographic Methods in Healthcare

SYSTEMATIC REVIEW

Quick and dirty? A systematic review of the use of rapid ethnographies in healthcare organisation and delivery

Cecilia Vindrola-Padros,[1] Bruno Vindrola-Padros[2]

BMJ Qual Saf. 2018.

Publicly Available Published by De Gruyter April 17, 2020

Focused ethnography: a new tool to study diagnostic errors?

Vineet Chopra

From the journal Diagnosis
https://doi-org.ezproxy.med.cornell.edu/10.1515/dx-2020-0009

The Debate: What Constitutes 'Ethnography'?

“Purists” argue that some studies labeled as ethnographic are better described as **structured observations** or **descriptive studies**.

“Pragmatists” assert that healthcare demands faster results, and **ethnographic methods** can be adapted to meet these needs without losing value

Does it matter?

Can mislabeling observational studies as ethnography can undermine trust in the findings?

Does misrepresentation of methods lead to oversimplified interpretations of complex healthcare processes?

There is probably a continuum: the art is in matching the appropriate methodology/method to the research question and goals

Recap

1. Discussed the problem of diagnostic errors among hospitalized adults and the emerging focus on teamwork in the diagnostic process

2. Shared findings of our study of ward team handoffs in diagnostic processes for hospitalized adults

3. Reflection on ethnographic approaches to studying complex phenomena in healthcare in the real clinical environment

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Thank you!

Questions? Comments? Feedback?