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Qualitative Case Studies

Watch a recording of the session here

Jessica Gaber, MSW, RSW

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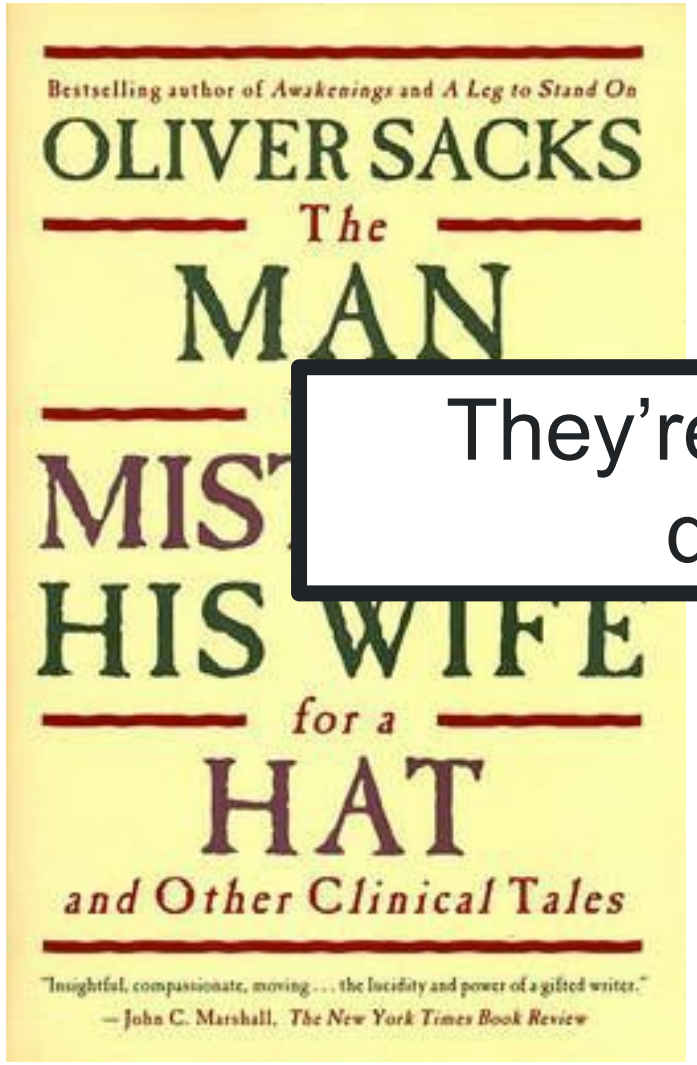
Michael G. DeGroote SCHOOL OF MEDICINE

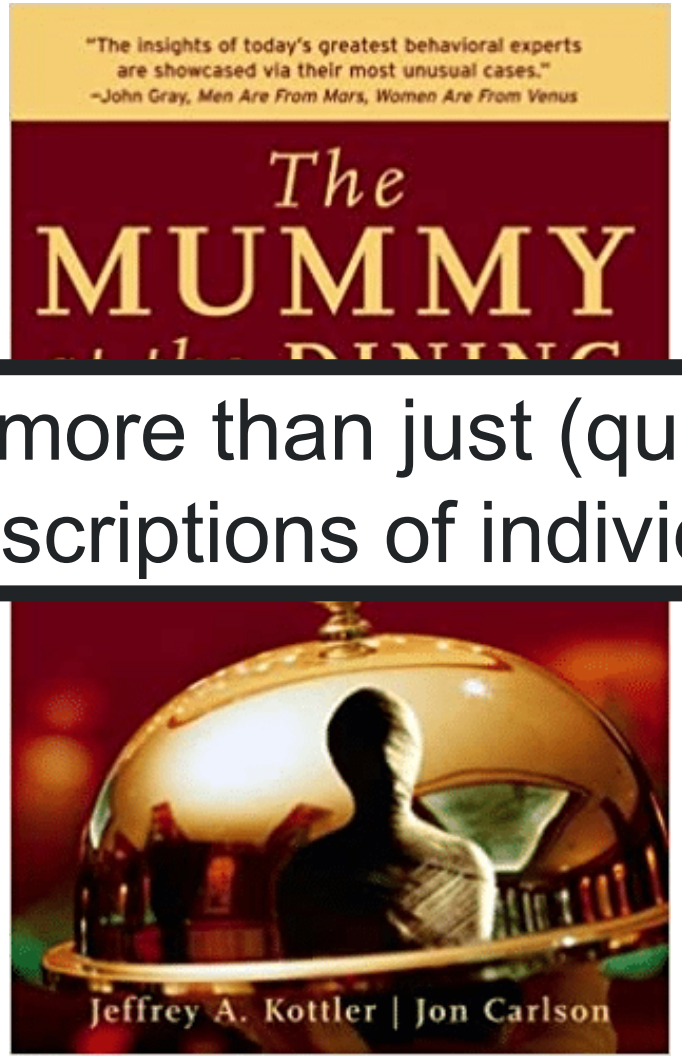
Learning Priorities

You should learn:

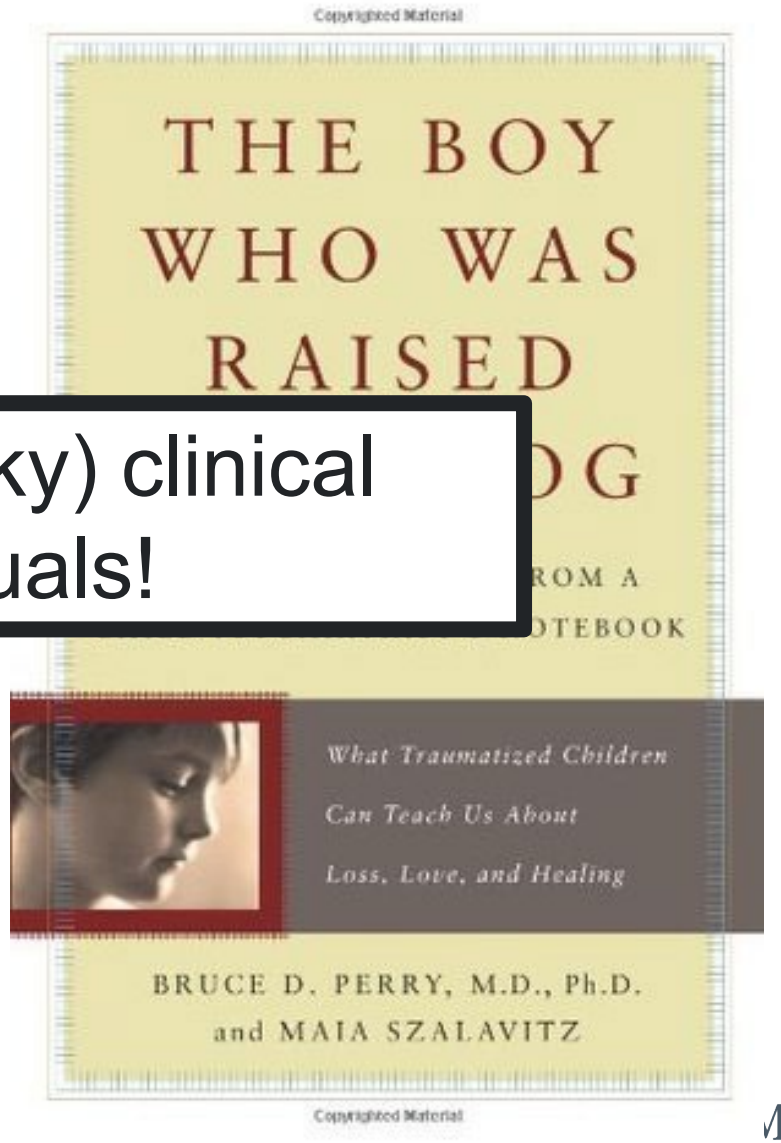
- The basics of qualitative case study design & methodology
- When to use this type of study
- Four key approaches to this design, from four different groups of qualitative methodologists
- How to put it into action

Case Studies?





They're more than just (quirky) clinical descriptions of individuals!



Why a Qualitative Case Study?

- You want to deeply understand and describe a **case** within its context
  - ***What's a case?*** Well, it depends. What defines a case depends on your theoretical underpinning and your understanding of case studies… it's certainly a "thing" of some sort!

- Picture…
  - A person, a group of people, a program, a piece of software, a site, a household, an institution, a partnership, an event, an organization, an activity, a decision*

**Though some theorists would disagree with some of these*

Or…. (VanWynsberghe & Khan, 2007)

- "A case study is a transparadigmatic and transdisciplinary heuristic that involves the careful delineation of the phenomena for which evidence is being collected (event, concept, program, process, etc.)"

- Features of a "Prototype" Case Study*:
  - Small N
  - Contextual detail
  - Natural settings
  - Boundedness
  - Working hypotheses and lessons learned
  - Multiple data sources
  - Extendability

**Though some theorists would disagree with some of these.*

Why NOT a Qualitative Case Study? *Flyvbjerg's 5 Myths*

1. Theoretical knowledge is more valuable than practical knowledge

Most of us should very well understand the value of real-world knowledge & applicability!

2. One cannot generalize from a single case, therefore, the single-case study cannot contribute to scientific development

Case studies *don't* aspire to "universal generalizability" but *can* still generalize to some degree… and generalization can be overvalued.

3. The case study is most useful for generating hypotheses, whereas other methods are more suitable for hypotheses testing and theory building

Through their specificity, case studies can help test theories.

4. The case study contains a bias toward verification

Case choosing may have some confirmation bias, but case studies can have just as much rigour as any qualitative methodology.

5. It is often difficult to summarize specific case studies

The rich detail is a benefit, and like any qualitative, there is a way to summarize!

Comparing Key Qualitative Case Study Methodologies

Categories	Yin (2002)	Stake (1995)	Merriam (1998)	Bartlett & Vavrus (2017)
Theoretical Underpinning	Positivist/ post-positivist	Constructivist	Constructivist	Critical theory, Actor Network Theory
What is a Case?	A phenomenon in context	A bounded system; an object (not a process)	A single entity with boundaries	Something similar enough & separate enough; not bounded
Types of Data	Qualitative & quantitative	Qualitative	Qualitative	Qualitative, document review
Types of Research	Exploratory, Explanatory, or Descriptive	Intrinsic, Instrumental, or Collective	Descriptive; Interpretive; or Evaluative	Comparative Case Study
Design	Rigorous, includes five ordered components	Very flexible, little guidance	Flexible but has necessary elements	Three axes: horizonal, vertical, and transversal

Yin, R. K. (2002). *Case study research: Design and methods*.

- Positivist/post-positivist (focused on *objectivity, validity,* and *generalizability*)
- A case is: “a contemporary phenomenon within its real-life context, especially when the boundaries between a phenomenon and context are not clear and the researcher has little control over [them]” (p. 13).
- Types of research/objectives:
  - **Exploratory**: to define research questions or explore feasibility
  - **Explanatory**: to establish cause-and-effect relationships
  - **Descriptive**: illustrate/explain key features of a phenomenon in context

Yin (continued)

- Five design components
  - 1. A study's questions
  - 2. Its propositions, if any
  - 3. Its unit(s) of analysis
  - 4. The logic linking the data to the propositions
  - 5. The criteria for interpreting the findings
- Yin is very commonly used in case study research, yet the focus on an *objective truth* puts it at odds with most qualitative theory (but allows for inclusion of qual and quan)

Stake, R. E. (1995). *The art of case study research.*

- Constructivist *(i.e., knowledge is constructed rather than discovered, there is no objective truth outside human construction)*
- A case is: “A bounded system”; “an object rather than a process”…. “People and programs clearly are prospective cases. Events and processes fit the definition less well”
- Types of research/studies:
  - **Intrinsic** – the case is already given and we’re interested in it specifically
  - **Instrumental** – we have a research question or a need for understanding and we feel we may get insight on it by studying a particular case
  - **Collective** – choosing multiple individuals/cases

Stake (continued)

- Design:
  - Very flexible
  - Little guidance – structure? Any/none
  - No official start or end of data collection or analysis
- More stress on researchers' own impressions than the other methods have
- The focus on flexibility in methods, time, and sources also makes it distinct

Merriam, S. B. (1998). ***Qualitative research and case study applications in education.***

- Constructivist *("Reality is constructed by individuals interacting with their social worlds", p. 6)*
- What's a case? "a thing, a single entity, a unit around which there are boundaries" (p. 27).
- Unique attributes of case studies:
  - **Particularistic** (focuses on a particular situation, event, program, or phenomenon)
  - **Descriptive** (yields a rich, thick description of the phenomenon)
  - **Heuristic** (illuminates the reader's understanding of the phenomenon)

Merriam (continued)

- Purposes of research/studies: Descriptive, Interpretive, or Evaluative
- Design: flexible, but should include:
  - Conducting literature review
  - Constructing a theoretical framework
  - Identifying a research problem
  - Crafting and sharpening research questions
  - Selecting the sample (purposive sampling)
- Gives a step-by-step guide to doing case studies which distinguishes from others with similar underpinnings (like Stake)

Bartlett, L. & Vavrus, F. (2017). *Rethinking case study research: A comparative approach.*

- Theoretical underpinning: critical theory; "process-oriented"; also uses Actor Network Theory (their own)
- What's a case? "Might be defined as people, groups of people, sites, institutions, social movements, partnerships, etc."; "Both similar enough and separate enough to permit treating them as comparable instances of the same general phenomenon" (p. 1).
- Does not "bound" the case.
  - "The effort to "bound" a case relies on a problematic notion of culture, place, and community; it also, quite inappropriately, defines out of the realm of study factors that may well be very relevant, such as historical circumstances that date back decades or more."

Bartlett & Vavrus's CCS (continued)

- Uses qualitative data and document review through multiple sources
- Design: includes three axes of comparison:
  - **Horizontal** – between cases
  - **Vertical** – up & down hierarchical structures (e.g., policy, government)
  - **Transversal** (temporal) – over time, can include longitudinal research, archival research, etc.
- Comparison of cases make this method unique; the others only touch on comparison
- The focus on the *entire* context with a lack of bounding, plus the basis in critical theory, also make this method distinct

Bonus Combined Method

- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Med Res Methodol, 11*, 100. doi:10.1186/1471-2288-11-100
- The crucial stages are:
  - 1. Defining the case
  - 2. Selecting the case(s)
  - 3. Collecting and analyzing the data
  - 4. Interpreting data
  - 5. Reporting the findings

Putting it Into Action – Example 1 (Stake)

Lessons Learned Through Two Phases of Developing and Implementing a Technology Supporting Integrated Care: Case Study

Stephanie Di Pelino [1]; Larkin Lamarche [1]; Tracey Carr [1]; Julie Datta [1]; Jessica Gaber [1]; Doug Oliver [1]; Jay Gallagher [1]; Steven Dragos [1]; David Price [1]; Dee Mangin [1]

Design

The case under study is the TAP-App itself, and the units of analysis are the perspectives of end users and stakeholders [14]. We used the Stake understanding of case studies [15], including a focus on qualitative results, involvement of researchers' impressions as key sources of data, detail provided to assist in naturalistic generalization, and lack of a specific start or end time of data collection and analysis. Although our case was partly bounded by the start and end dates of the randomized controlled trial that was conducted (described elsewhere), the TAP-App went beyond these temporal boundaries; hence, we describe development and vision both before and after. The settings that bound our case were numerous and are described in the *Setting* section below.

https://formative.jmir.org/2022/4/e34899

Understanding how context and culture in six communities can shape implementation of a complex intervention: a comparative case study

Jessica Gaber, Julie Datta, Rebecca Clark, Larkin Lamarche, Fiona Parascandalo, Stephanie Di Pelino, Pamela Forsyth, Doug Oliver, Dee Mangin & David Price

Design and definitions

This qualitative case study takes inspiration in its design from Bartlett and Vavrus's comparative case study (CCS) methodology. CCS describes culture and context more broadly than in many case study methodologies and we will use those definitions in this paper. According to CCS, culture can be defined as *the development of sense-making processes* rather than a single static 'culture'; context can be understood beyond geographical boundaries or a strictly bounded case and defined more fully as *interconnectedness with surroundings and hierarchies* [24]. Specifically in our project, when we talk about culture we are talking about the personal, relationship-based, and organizational culture of the individuals involved in implementing Health TAPESTRY and context as interconnectedness between these people, their organizations, and beyond.

We compared our six cases (the six Ontario communities implementing Health TAPESTRY) using a process-oriented approach to make sense of implementation [24]. When we talk about implementation in this paper, we mean how communities managed to carry out (i.e., implement) the Health TAPESTRY intervention. To understand this concept, we focused on perspectives of our multiple stakeholder groups on what is working well (i.e., facilitators of implementation) and what is not working well (i.e., barriers to implementation). We also incorporated considerations of power structures and relations, horizontal comparisons between communities, and vertical and longitudinal feedback about hierarchy and context where available [24]. In this paper, we chose to focus on aspects of the cases that had distinctions between communities, rather than those that were common between them.

Putting it into Action – Example 2 (Bartlett & Vavrus)

https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-022-07615-0

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Think up a Case…

- Picture…
  - A person, a group of people, a program, a piece of software, a site, a household, an institution, a partnership, an event, an organization, an activity, a decision
  - Work related or not!

- ***What methodology would you pick and why?***

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Other References Used

Boblin, S. L., Ireland, S., Kirkpatrick, H., & Robertson, K. (2013). Using Stake's qualitative case study approach to explore implementation of evidence-based practice. *Qual Health Res, 23*(9), 1267-1275. doi:10.1177/1049732313502128

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Department of Family Medicine
Michael G. DeGroote School of Medicine
Faculty of Health Sciences

fammedmcmaster.ca
@McMasterFamMed