



Tips for adding qualitative data collection to yoga research

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Yoga for Weight Loss



10-week, biweekly Kripalu yoga & Ayurveda-based Program

Statistically significant improvements pre-post program were observed in **BMI** ($p < .001$), **mindful eating** ($p < .001$), **self-compassion** ($p < .002$), **weight self-efficacy** ($p < .003$), and **body image dysphoria** ($p < .001$).

At 3-month follow-up, **mindful eating** ($p < .001$), **self-compassion** ($p < .001$), and **weight self-efficacy** ($p < .001$) further improved, while reductions in body **dysphoria persisted** ($p < .001$).

Braun T, Park C, Conboy L. (2012).



Yoga for Weight Loss



*I've been at war with my body for over 40 years ...
One night [during program] I had a cease fire
with my body, experienc[ing] peace and self-
love within. Through this program the peace is
now what I crave and the war seems unnatural.
It's nothing short of a divine blessing.
Last time I checked, Jenny Craig and Weight
watchers weren't handing out divine blessings.
(subj 218).*

Braun & Conboy, 2012

Benefits of qualitative

- Good way capture
 - Information about a new area of scientific study
 - Theory, concepts, relationships
 - Hypothesis generation
 - Using narratives-motivations, opinions, processes
 - Meanings

Benefit of Describing Meanings

Healing and human experience processes relegated to the control group in most Biomedical science.

- subjective states/experience
- areas called placebo



Benefit of Describing Meanings

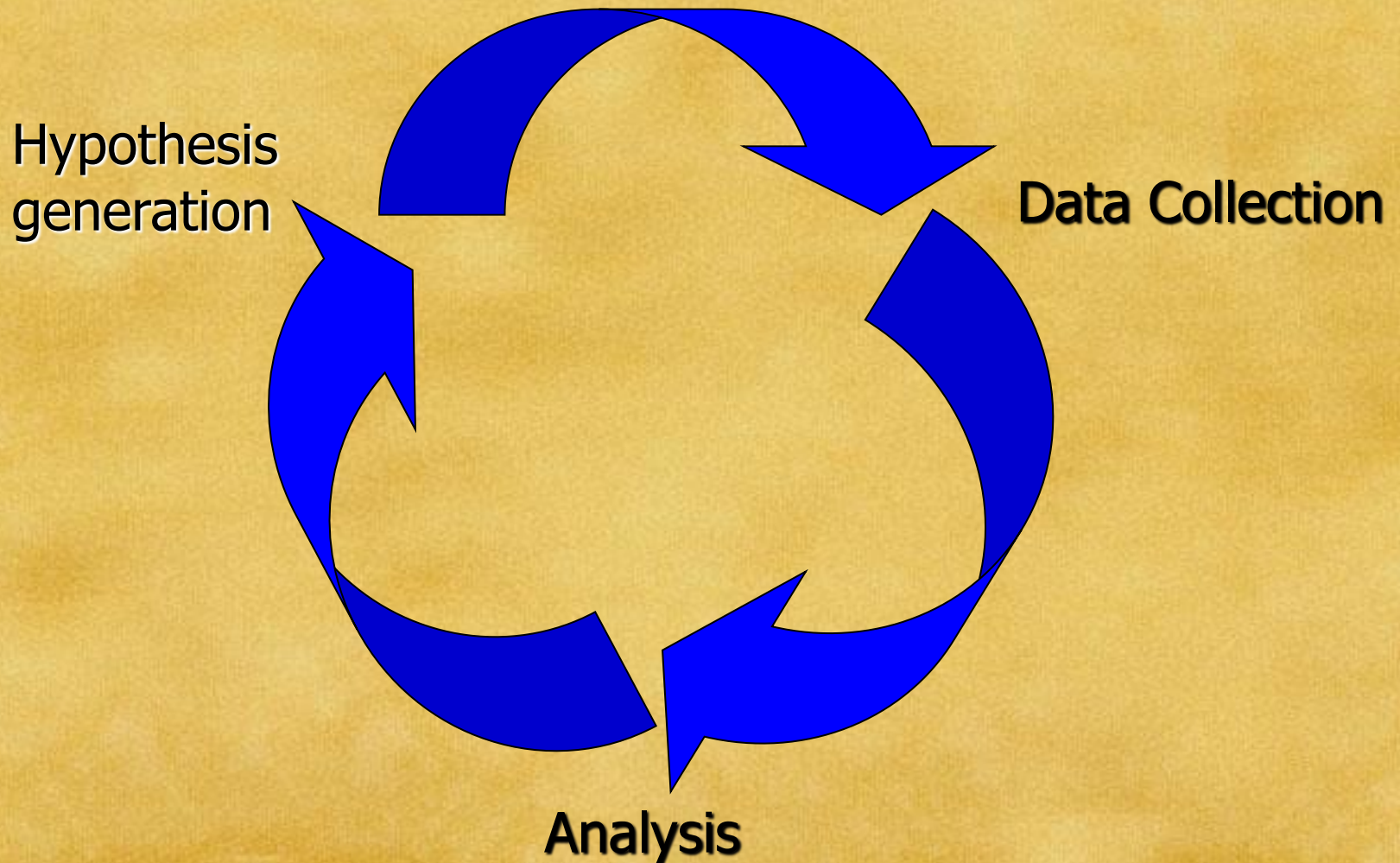
What is in “placebo group” or nonspecific effects

- **Therapeutic relationship** (yoga training)
- **Context** (Lifestyle changes)
- **Ritual** (the practice)
- **Subjective Outcomes** (social support)
 - Mediate or Moderate Health Changes

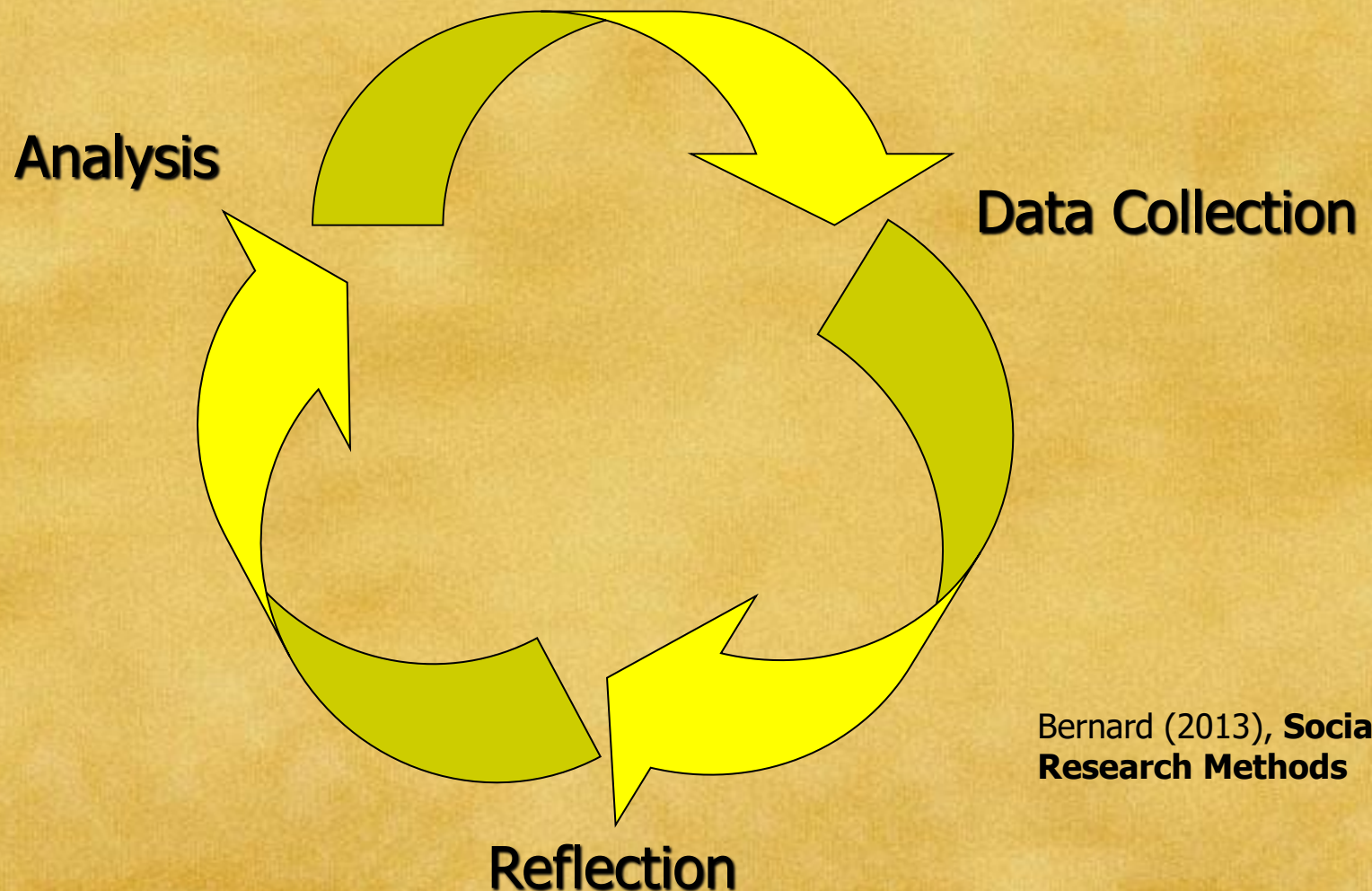
Benefits of qualitative

- Can be cheaper.
- Good first step.
- Partner with students who are yogis-good for coding-experienced.

Process of Quantitative Research



The Iterative Process of Qualitative Research: A Model



Bernard (2013), **Social Research Methods**



Assumptions Quantitative vs. Qualitative

- **Quantitative** study designs aim to gather information about a sample to make inferences or generalizations about a larger populations.

Assumptions

Qualitative designs aim to gather information for interpretation.

- Describe the lifeworld or perspective of the subject (emic perspective)
- Remain aware of the assumptions and viewpoint of the researcher (etic perspective)



Assumptions have implications

- Sampling process
- Sample size
- Research Questions
- Choosing principles to guide analysis

Sampling

- In quantitative designs we want a sample that will represent a larger population
 - Obtain a random or representative sample
 - Rely on probability theory, Central Limit Theorem
- Sampling for qualitative data depends on goal of study
 - Purposive sampling: sample elements until you see repetition of the variation in the sample (termed saturation)
 - Theoretical sampling: you have an idea of your area of interest, here sample elements to represent all types of a phenomena of interest

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Implications for Handling Threats to Validity and Reliability

- In quantitative research, threats to validity are addressed a priori
 - Study design features, randomization, controls

Implications for Handling Threats to Validity and Reliability

- Qualitative research inductive, emergent hypothesis generating
- Want a rich description of a particular rather than an outcome generalizable to all instances
- The idea of validity then is, “did the researcher perform data collection and analysis in a transparent manner that other researchers can understand?”.
- Are conclusions true to the subjects?

Validity Checks

- Triangulation
- Negative examples as expected
- Recall your own biases (etic perspective)
- External Validity-
 - Repeat analysis in similar circumstances/sites
 - Logically do your results apply in other instances?

Reliability

- Reliability or repeatability is similar to quantitative-would a different research team, who followed your process in your sample come to the same conclusions?
- Document well so that your process can be repeated (or at least critiqued)
- In analysis, code and analyze in teams

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How to start: Interviews

Interviews

- **Qualitative Interview Development**

- Decide what you want to explore while letting subjects report on context
- Get help from experts, people in community of interest
- Decide how structured the interview will process be
- Add probes to help subject tell stories

Interviews

- Develop interview agenda
- Practice
- Learn possible emic and etic perspectives
- Sample with consideration
- Informed Consent
- Perform interviews
- Audiotape with permission
- Always debrief and ask subject about the research experience/program evaluation

Analysis



Analysis Principles

- Reflexive-know your biases and viewpoint
- Iterative-allow learning to happen
 - Your assumptions may change over the course of the analysis
- Try to merge/respect etic and emic

Analysis-Narrative Coding

- Open Coding
 - read text for themes
 - emergent or a priori
- Axial Coding
 - How do themes relate to one another
 - Interactions, processes
- Selective Coding
 - Back to the data again for good examples of the relationships you found



summary

Qualitative explorations:

- Can give ideas for new directions for further qualitative and quantitative explorations
- Qualitative analysis can help validate traditional evidence
- Researchers are encouraged to use an illness model. How does yoga help with disease?
- More data published that yoga helps with human development, resiliency, wellness, spirituality.
- Other constructs to explore?

Yoga in Schools

Parent RCT, Kripalu program 1 semester, local

Qualitative-Directed and Open questions about
program usability
subjects' experiences

Conboy LA, Noggle JJ, Frey JL, Kudesia
RS, Khalsa SB.(2013).

Yoga in Schools

9th and 10th grade

Most students reported
enjoying the classes and felt benefits
stress reduction related to participation in the class
reported using breath work outside of class
more optimism and ability to manage negative
emotions

Most males felt peer pressure against yoga, yet most
would like to see program continue

Conboy LA, Noggle JJ, Frey JL, Kudesia
RS, Khalsa SB.(2013).

Yoga in Schools

9th and 10th grade

Greater kinesthetic awareness:

I learned to pay attention to how my body feels

(female grade 9)

*...yoga gave me a new perspective on my body and I
have more control than I thought I did.*

(male grade 10)

Yoga may improve health behaviors although change is not
prescribed

Conboy LA, Noggle JJ, Frey JL, Kudesia
RS, Khalsa SB.(2013).

Yoga in Schools

9th and 10th grade

I have been eating healthier, more fruits and vegetables and not a lot of junk food; [for example] ice cream and candy...

Female, Grade 9

I have been a lot happier lately...I feel like a better person, making better choices, and staying out of trouble.

Male, Grade 9

Conboy LA, Noggle JJ, Frey JL, Kudesia RS, Khalsa SB.(2013).

Yoga in Schools

9th and 10th grade

Yoga may improve health behaviors although change is not prescribed

Supports observations from the yoga community

Hard to study with a short-term RCT

Evidence to support classical observations can be gathered qualitatively

Conboy LA, Noggle JJ, Frey JL, Kudesia RS, Khalsa SB.(2013).

References

- Conboy LA, Noggle JJ, Frey JL, Kudesia RS, Khalsa SB.(2013). Qualitative evaluation of a high school yoga program: feasibility and perceived benefits. Explore (NY).;9(3):171-80.
- Braun, T, Conboy L. Improvements in women's psychological well-being following participation in a residential Kripalu yoga-based weight loss program. Society for Yoga Research, International Association of Yoga Therapists research meeting. Honesdale, PA, 2010.
- Braun T, Park C, Conboy L. (2012). Psychological well-being, health behaviors, and weight loss among participants in a residential, yoga-based weight loss program. International Journal of Yoga Therapy. Int J Yoga Therap.;(22):9-22.

notes

- ❧ Unit of analysis-
 - ❧ In CAM are we interested in subjects, practitioners, clinics
- ❧ Gamut of validity by qual quant
- ❧ # qual grants at NCCAM over time. Look on RePorter
 - ❧ Talk about funding options. PCORI. NCCAM WANTS MORE QUAL
- ❧ EXAMPLE

Hierarchy of Evidence

