

Introduction to Qualitative Research Methods for Veterinary Epidemiology – a contradiction in terms?

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Introduction to Qualitative Research Methods in Veterinary Epidemiology – a contradiction in terms?

- Why?
- Aims of this workshop
 - Difference between qualitative and quantitative research
 - Understanding of analysis

Quantitative research

- Conception of scientific method modelled on the natural sciences, in particular physics
- Reality is out there to be studied, captured and understood
- Objective, value-free accounts of the world can be given
- Quantitative, often involving large samples calculated on the basis of known variables
- Logic of the experiment – hypothesis testing
- Scientific theories can be tested, and confirmed/falsified

What is Qualitative Research?

- A field of inquiry in its own right – crosscuts disciplines, fields and subject matter

Generic definition

- Researchers study phenomena in natural setting
- Researchers attempt to make sense of or interpret phenomena in terms of the meanings that people bring to them
- Focused use and collection of empirical materials – case study, personal experience, life story, interview, observational, historical, interactional and visual texts

Qualitative research

No single theory or paradigm

Approaches, methods and techniques

- Ethnomethodology
- Phenomenology
- Hermeneutics
- Feminism
- Deconstructionism
- Ethnographies
- Discourse analysis
- Psychoanalysis
- Cultural studies
- Survey research
- Participant observation etc

What is Qualitative Research?

- Grounded in a philosophical position which is broadly interpretivist
- Based on methods of data generation which are flexible and sensitive to the social context in which data are produced
- Based on methods of analysis and explanation building which involve understandings of complexity, detail and context

- An emphasis on processes and meanings that are not rigorously examined or measured in terms of quantity, amount, intensity, or frequency
- Socially constructed nature of reality and the the relationship between the researcher and the researched are central
- Seek answers to questions that emphasise how social experience is created and given meaning

- Emphasises the negotiation and construction of meanings in social interactions – basic premise that there is no single truth
- Understanding and interpretation linked to theory generation

What it is not

- The opposite of quantitative
- Techniques for collecting data
- Way of letting people speak for themselves
- The absence of measurement
- Small scale
- Non-generalisable

Criticisms of Qualitative Research

- Unscientific
- Personal
- Biased
- Atheoretical

Qualitative studies in veterinary science

- A cross case analysis of owners perceptions of health and performance of pony club horses; Buckley, P., Dunn, T. & More, S.J. (2004) Owners' perceptions of the health and performance of Pony Club horses in Australia *Preventive Veterinary Medicine* 63 121-133.
- An ethnographic study of management and training of race horses; Cassidy, R. (2002) *The Sport of Kings: Kinship, Class and Thoroughbred Breeding in Newmarket*, Cambridge University Press, New York.
- A narrative analysis of owners descriptions of care of horses on livery yards; Birke, L., Hockenull, J. & Creighton, E. (2010) The Horse's Tale: Narratives of caring for / about horses *Society and Animals* 18 331-347
- A mixed method approach to understanding the use of horses in tourism; Helgadottir, G. & Sigurdardottir, I. (2008) Horse-based tourism: Community, Quality and Disinterest in Economic value, *Scandinavian Journal of Hospitality and Tourism*, 8 (2) 105-121
- A thematic analysis of lay perceptions of causes of crib-biting / wind sucking behaviour; Litva, A., Robinson, C.S. & Archer, D.C. (2010) Exploring lay perceptions of the causes of crib-biting / windsucking behaviour in horses *Equine Veterinary Journal* 43 (4) 288-293.
- An ethnographic study of small-animal veterinary practices, Blue Juice explores the emotional and ethical conflicts involved in providing a "good death" for companion animals; Morris, P.(2012) *Blue Juice: Euthanasia in Veterinary Medicine* Temple University Press,U.S.

Qualitative research should be

- Systematically and rigorously conducted
- Strategically conducted and yet flexible and contextual
- Reflexive or involve critical self-scrutiny

Qualitative research should produce

- Social explanations to intellectual puzzles
- Explanations which have a wider resonance

Qualitative and Quantitative overview

- For each research area construct a research project title – one using qualitative methods and one using quantitative methods

Areas of study

- The effect of pets on children
- An examination of pet feeding styles in the UK
- Obesity in dogs
- Vaccination of cattle for bovine TB
- Cow-level risk factors for the development of winter dysentery in dairy cattle
- Lameness in horses



Analysis

Analysis

Like any set of skills, the learning involves hard work, persistence, and some, not always entirely, pleasurable experiences
(Strauss 1987: xiii)

- Different approaches to analysis of qualitative data

For example

- Interpretive
- Thematic
- Narrative analysis
- Conversation analysis

What is conventionally referred to as analysis should pervade all stages of the research process

Common features

- All data are mediated by our own reasoning as well as that of the participants.
- Affixing codes to a set of field notes.
 - To the data
 - Arising from the data

- Sorting or sifting through materials to identify similar phrases, relationships between variables, patterns, themes, distinct differences between subgroups and common sequences

- Isolating these patterns or processes and taking them out into the field in the next wave of data collection
- Gradually elaborating a small set of patterns that cover the consistencies and explain the inconsistencies

Purpose of coding

Coding represents the operations by which data are broken down, conceptualised and put back together in new ways. It is the central process by which theories are built from data.

Strauss and Corbin (1990: 57)

Analysis

3 concurrent flows of activity

- Data reduction or coding
- Data display
- Conclusion drawing/verification

Data reduction

- The process of selecting, focusing, simplifying, abstracting and transforming the data that appear in written up field notes or transcriptions.
- Happens throughout all stages of the research process

Data display

- An organised, compressed assembly of information which permits conclusion drawing and action
- Includes matrices, graphs charts, networks diagrams

Conclusion drawing and verification

- Qualitative analyst starts from the beginning to decide what things mean – noting regularities, patterns explanations, possible configurations, causal flows and propositions
- Holds these conclusions lightly
- Meanings which emerge have to be tested for their plausibility and validity

Grounded Theory

The background features a white upper section and a lower section divided into two colors: a vibrant teal on the left and a light, pastel green on the right. The teal and light green sections meet at a diagonal line that slopes upwards from left to right.

Introduction

- Grounded Theory is the generation of theory from data
- Developed by Glaser and Strauss during their study of dying

Key Principles of Grounded Theory

- Capture the complexity of reality
- Complex interpretations and data collection are guided by evolving interpretations
- Conceptually dense
- Based on detailed microscopic analysis of the data
- Induction, deduction and verification (CCA)

Open Coding

- The process of analysing the data, by breaking it down
- Naming/categorising of a phenomenon
- Unit of analysis is the concept
- Conceptual labels are placed on discrete events etc

Open Coding

- Making comparisons
- Asking questions
- Level of words, sentences, paragraphs and/or observation

Open Coding - techniques

- Scan a transcript and return to any words, phrases or sentences that strike you as being significant, important or of interest
- List all meanings from the probable to the less likely
- Introduce other subject data for comparison
- Explore the dimensions of each code using questions

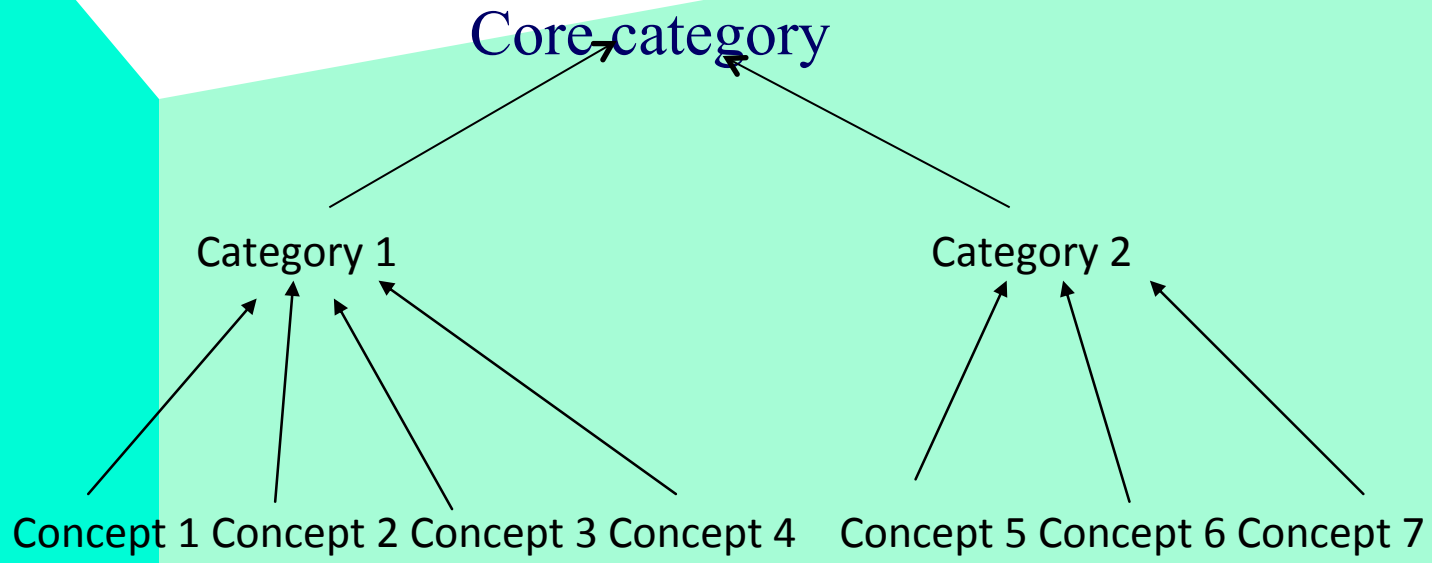
Open Coding

- Never make assumptions about shared meanings

Development of categories

- Categories
 - A classification of concepts. Developed when concepts are compared one against another and appear to pertain to a similar phenomenon. Concepts are grouped together under a higher order, more abstract called a category.

- A set of procedures whereby data are put back together in new ways after open coding, by making connections between categories.



Core category

- Core category -The central phenomenon around which all other categories are integrated
- The process of selecting the core category, systematically relating it to other categories, validating those relationships, and filling in categories that need further refinement and development

This aspect making it all come together – is one of the most difficult things of all ... Quite apart from achieving it, it is hard to inject the right mix of a) faith that it can and will be achieved; b) recognition that it has to be worked at, and isn't based on romantic inspiration; c) that it isn't like a solution to a mathematical problem, but has to be created; d) that you can't always pack everything into one version and that any one project could yield several different ways of bringing it together,
Hammersley and Atkinson, 1983