



Subject: Scientific Research

Topic: Additional information lecture 3

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Additional information-lecture 3

CHAPTER 7

7.1 Types of study approaches

-Many research projects use variations of one of these approaches, and in others a hybrid of two approaches might be suitable.

-The design selected must be appropriate for the goals of the study. For example:

- If the goal is to see whether an intervention is effective, an experimental design or is likely to be the suitable one.
- If the goal is to understand populations, to describe patterns, or to ask research questions that are not focused on causality, the best design may be an observational one, such as a cross-sectional or cohort study.

-Often, the best study approach is the analysis of existing quantitative data rather than the collection of new data from individual participants.

Sometimes the best approach is a systemic review or meta-analysis.

Sometimes several different study approaches can be appropriate for exploring the relationship between an exposure and a disease. In these situations, it is helpful to consider other factors during decision-making, including **the expected duration** and **cost of the study**, **the populations available** for inclusion in the study, and **the possible availability for existing data**.

7.3 Study Duration

-The timeline for a secondary study might be very short if an entire data file and the relevant supporting documentation (such as copies of the questionnaire and codebook) can be downloaded from a website. Or secondary data collection might become labor intensive if old hospital charts have to be retrieved, read (often after deciphering somewhat illegible and faded handwriting), coded, and entered into a database. The duration of tertiary studies is highly dependent on library access and on the number of publications that need to be acquired, read and summarized.

7.4 Primary Focus: Exposure, Disease, or Population ?

-Researchers who have relatively easy access to a group of individuals with a particular exposure or disease or to a unique population group often choose a study approach based on the design's appropriateness for the available participants.

CHAPTER 8

8.1 Overview

-This study approach (case series) can be useful for:

- Describing the characteristics of and similarities among a group of individuals with the same signs and/or symptoms of disease.
- Identifying new syndromes and refining case definitions.
- Clarifying typical disease progression.
- Describing atypical presentations of a disease or unusual complications from a treatment.
- Developing hypothesis for future research.

8.2 Case Definition

-Case definitions are also essential for any outbreak investigation, no matter which study approach is used to investigate the epidemic.

8.3 Special Considerations

-A data extraction tool should include space to indicate the absence of a desired piece of information in the record. During the analysis and interpretation stage of the research project, the researcher should carefully consider the amount and type of missing information.

-Researchers must pay close attention to protecting the identities of participants. This is especially important when **the disease or procedure is relatively rare** and/or when **the place and time characteristics are so narrow** that individuals familiar with the source community might be able to recognize the participants. In most situations, all potentially identifiable information must be removed prior to publication.

-When photographs will be used as part of a published article or public presentation, the researcher usually must acquire informed consent to share the patient's Image. Many journals require written proof or consent from patients before images with potentially identifiable features are published. Documentation of consent way may be required even when there are no identifying marks in the image that could reveal the participant's identity.