Non-Experimental Research Designs

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How to ...

Study the effect of widowhood on physical and psychological functioning

Experimental ???

Quasi-Experimental ???
How to ... ?

Widowhood Vs No-widowhood
Can be...
Manipulated???
Controlled ???
Randomized ???
Thus ... we would have to proceed by taking the two groups (widows and non-widows) as they naturally occur and comparing their psychological and physical well-being.
So... How to define...
Non-experimental research design

A design in which the researcher is a passive agent, who observes, measures, and describes a phenomenon as it occurs or exists.
Characteristics of non-experimental design

- No manipulation.
- No causality establishment.
- A question or hypothesis is proposed.
- A variable, two or more... different level of complexity.
- Gives an overall picture of a phenomenon rather than examining degree &/or type of this relation.
When to choose ???

- Independent variables are inherently not manipulated.
- Ethical constraints on manipulation.
- Practical constraints on manipulation.
Types of Non-Experimental Research Designs

- Pure descriptive design.
- Correlational descriptive design.
- Other types.
Types of Non-Experimental Research Designs

**Pure Descriptive**

**Correlational Descriptive**
- Retrospective
- Prospective

**Others:**
- Surveys.
- Needs Assessment
- Historical Research
- Case Studies.
I. Pure descriptive design

Aims to ...

Obtain information about a current existing phenomenon of interest in terms of frequency of occurrence rather than to describe a relationship between variables.

research proposition here is always a Question.
For example ...

"Saudi women's experience of menopause"

In this study, the experience of menopause among Saudi women needs to be described.
II. Correlational descriptive research design

Explores the interrelationship between variables of interest without any active intervention or manipulation of the independent variable by the researcher.
II. Correlational descriptive research design

- Describes only the existing relationship without fully understanding or explaining the complex causal pathway that exists.
- It is a relationship that is not causal in nature.
- It is an associative relationship.
Types of correlational descriptive research design

- **Retrospective** correlational descriptive research

- **Prospective** correlational descriptive research
### Retrospective Vs Prospective correlational descriptive research designs:

<table>
<thead>
<tr>
<th>Retrospective</th>
<th>Prospective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher <strong>starts with a presumed effect</strong> (D.V.) in the present and goes <strong>back</strong> in time to link it with a presumed cause in the <strong>past</strong> (I.V.).</td>
<td>Researcher <strong>starts with a presumed cause</strong> (I.V.) in the present and goes <strong>forward</strong> in time to link it with a presumed effect (D.V.) in the <strong>future</strong>.</td>
</tr>
<tr>
<td>Research direction is <strong>backward, in time</strong></td>
<td>Research direction is <strong>forward, in time</strong>.</td>
</tr>
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Retrospective Vs Prospective correlational descriptive research designs:

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<tr>
<td><strong>Easier</strong></td>
<td><strong>Difficult</strong></td>
</tr>
<tr>
<td>data collected in a limited time by investigation of records or asking subjects about some previous information, behavior, or instances.</td>
<td>data collection; takes time and energy, needs larger sample, esp. if D.V. is rare such as malformation.</td>
</tr>
<tr>
<td><strong>Weaker</strong></td>
<td><strong>Stronger</strong></td>
</tr>
</tbody>
</table>

III. Other non-experimental research designs:

a. Surveys:

“Studies in which information is obtained from a population or sample of individuals by means of *self-report*”.

*Self reporting* means that the subjects responses to a series of questions posed by the researcher.
In Surveys:
The content of survey researches is limited by the extent to which respondents are willing to report on a topic.

Most surveys secure data about demographic characteristics such as: age, sex, education, occupation, marital status, income....etc.
For example:

- "The sleeping patterns among X population .... ".
- "The compliance in taking medication among .... ".
- "Saudi's knowledge about X ..... ".
- "Saudi's attitudes about X ..... ".
Data collection methods for surveys:

- Personal interviews.
- Telephone interviews.
- Questionnaires.
Advantages of surveys

- Applied to a population or a real big sample.
- Focus on a wide range of topics, i.e., too many variables.
- Data collected by surveys can be used for many purposes.
- In most cases, a lot of information is gathered with a relatively short period of time.
Disadvantages of surveys

- Collected data are relatively superficial.
- **No control** over independent variables.
- It reveals no causal relationships.
- It needs a lot of time for analysis of data.
- Sometimes needs a lot of time and energy.
III. Other non-experimental research designs:

b) Needs assessment:

A study in which a researcher collects data for estimating the needs of a group, organization, or community.
III. Other non-experimental research designs:
   c. Historical research:

   Systematic collection and critical evaluation of data related to *past occurrences*.
III. Other non-experimental research designs:

c. Historical research:

- It answers *questions* or *hypothesis* regarding *trends, causes, or effects related to past events* that may shed light on present behaviors, practices or phenomenon.
III. Other non-experimental research designs:
c. Historical research:

Data for such researches are found in written materials whether books, periodicals, journals, reports, newspapers, letters, meetings minutes, photos, films, tapes...etc.
III. Other non-experimental research designs:

d) Case studies:

- An in-depth investigation of an individual, family, group, or any small social unit.

- It investigates a current phenomenon within its real life context, especially when the boundaries between the phenomena and its context are not clear.
III. Other non-experimental research designs:

d) Case studies:

Case studies address multiple variables that are measured at several points in time.
The *purpose* of case study may include:

- Explaining
- Describing
- Exploring

relationships between phenomena.
data collection methods

One or more of the following techniques used to collect data:

- Questionnaire.
- Statistical records.
- Observation devices.
- Physical measurement.
- Psychological measurement.
- Reporting.
- Interview.
- Rating
d) Case studies:

**Advantages:**
- Production of hypothesis to be tested in the future.

**Disadvantages:**
- Results can *never* be generalized.
- Have *no specific* research design.
Characteristics of a good research design:

1. Appropriateness to the research problem.
2. Lack of bias.
3. Control.
4. Precision.
5. Internal validity.
ANY QUESTIONS ???

DISCUSSIONS