

Psychology of Dysfunctional Behaviour



RESEARCH METHODS

The history of abnormal psychology shows that theories and treatment procedures may seem effective in some cases but prove useless and even harmful in others. Only through research can the dangers be discovered and the benefits proved. Researchers are faced with the challenge of figuring out meaningful yet ethical ways to measure concepts such as unconscious motives, private thoughts, mood change and human potential. Three methods are primarily used: case study, correlational method and the experimental method. (You already know the strengths and weaknesses of these methods so make sure you reread your PS2 notes to supplement the information given below.)

A. Case study

A case study is a detailed account of one person's life and psychological problems. Although it focuses on a single person, the case study can serve as a source of ideas about behaviour in others. It may provide tentative support for a theory, or may challenge theoretical assumptions. It may serve as a source of ideas for new therapeutic techniques. A case study may also offer an opportunity to study an unusual problem that does not occur often enough to permit more general observations and comparisons.

Limitations:

- * observer may be biased and therefore may be selective about what is included in the report.
- * low internal validity because it is difficult to establish that the problems being reported were actually related to the specific variables that the researcher discussed, and not to any of the countless other variables that play a part in every person's life.
- * low external validity - it may be a mistake to apply what is learned from a case study to people whose problems appear to be similar.

Famous case studies that you know and love: Little Hans, Anna O.

B. The Correlational Method

This is a procedure for systematically observing the extent to which events or characteristics vary together. It allows researchers to draw broad conclusions about abnormality in the population at large because they

- a) make many observations of numerous individuals
- b) uniformly apply carefully prescribed procedures so that the studies can be replicated
- c) analyse the results by statistical methods.

(These points also apply to the experimental method)

As you remember, a correlation is the degree to which variables change in accordance with one another. To determine whether a correlation does exist the variables must be measured in a large number of individual cases. A statistical analysis is then carried out to see if a correlation is truly a characteristic of the larger population (i.e. is significant)

Limitations

- allows researchers to describe only the relationship between the variables - does not explain causality

There are two special forms of correlational research:

1. **Epidemiological studies** are investigations that determine the *incidence* and *prevalence* of a disorder in a given population. *Incidence* is the number of new cases of a disorder that emerge in the population within a particular time interval; *prevalence* is the number of cases of a disorder in the population at any given time.

Over the past 15 years clinical researchers across the USA, sponsored by the National Institutes of Mental Health, have worked on the most comprehensive epidemiological study ever conducted. More than 20,000 people have been interviewed to determine the prevalence of mental disorder, and availability of treatment programmes. The data from this study has been compared to that from other countries, and collectively various trends have emerged e.g. women have a higher prevalence rate of anxiety disorders and depression than men; men have a higher rate of alcoholism; elderly people have a higher suicide rate than young people. Findings like this can help identify groups at risk to particular disorders.

- 2) **Longitudinal studies** (or high-risk or developmental studies) are investigations in which the characteristics or behaviour of the same subject are observed on many occasions over a long period of time. For example, investigators observed the progress of normal children who had a schizophrenic mother or father (Parnas 1988, Griffith et al, 1980). The researchers found that the children of the most severe schizophrenics were more likely to develop a psychological disorder and to commit crimes at later points in their development. However, causation cannot be inferred - were the problems due to genetics, or by the parents' inadequate coping behaviours, or by other factors? For these answers the experimental method is appropriate.

C. Experimental method

An experiment is a research procedure in which a situation is manipulated and the effect of the manipulation is observed. However, for ethical and practical reasons it is difficult to formulate and carry out an ideal experiment in human study. If you wanted to find out the effects of child abuse on development, you wouldn't get some children, randomly assign them to two groups, abuse the experimental group, and then compare to the control group! Therefore experimenters must often settle for imperfect variations of the optimal experimental design, such as:

Quasi-experimental design - investigators do not randomly assign subjects to control and experimental groups, but instead make use of groups that already exist e.g. compare children who already have a history of abuse with children who do not. However, since these children have not been randomly assigned to conditions, there is a number of confounding variables e.g. differences may be due to family size or wealth. Experimenters may try to eliminate confounding variables by using matched control groups (children in both groups matched for background, family size etc.) but again, the experimenters may overlook an important confound which will still invalidate the findings.

Analogue experiment - laboratory subjects are induced to behave in ways that are analogous to real-life abnormal behaviour. Experiments are then conducted on this analogous form of abnormality in hope of shedding light on the real-life counterparts. Animals are often used as subjects, as they present fewer ethical problems. Seligman (1975) has used analogue studies with great success to investigate depression. He attempted to change the subjects' perceptions of control and then measure change in mood. In this case he subjected dogs to electrical shocks (over which they had no control) and found the dogs showed symptoms similar to depression. This was called **learned helplessness** and is believed to be an analogue of depression. Although such studies enable scientists to control and manipulate variables more easily,

researchers can never be certain that the phenomena they see in the lab are the same as the psychological disorders they are investigating.

Single subject experiment - Experiments are usually done on groups of subjects, but sometimes a disorder may be so rare that there are few individuals available. In this case, a single subject is observed and measured before the manipulation of an independent variable. Baseline data (data gathered during the observation) establish a standard with which later changes may be observed. The experimenter then introduces the IV, and observes the behaviour once again. The most commonly used single subject designs are the **ABAB** where the IV is repeatedly introduced and removed, and the **multiple baseline design** the effect of the IV is observed on two or more behaviours of the subject. Single-subject experiments are obviously similar to case studies, but as the IV is systematically manipulated in the former, the investigator can conclude with some confidence whether the IV is affecting behaviour. The single-subject experiment therefore has *greater internal validity* than the case study. S-S designs do suffer from low external validity - if only one subject is studied the experimenter cannot easily generalise the findings.

All experimental designs are subject to confounding variables other than the IV that are also acting on the DV. To minimise the possible effects, **control groups, random assignment and blind designs** can be used.

Control groups - a group of subjects who are not exposed to the IV under investigation, but whose experience is otherwise similar to that of the experimental group. By comparing the two groups the effect of the IV can be determined.

Random assignment - any selection procedure that ensures every subject in the experiment is as likely to be placed in one group as the other e.g. by tossing a coin.

Blind design - *Subject bias* can be eliminated by giving the control group a *placebo* (the subjects don't know whether they are taking the real pill or not). If the subjects don't know if they are in the experimental group or not, this is a blind design. Experimenters can eliminate the potential effects of their own bias by being blind themselves (not knowing which is the experimental group). If both subjects and experimenter are blind, this is known as a **double-blind design**.

General Limitations of Clinical Investigation

- Clinical subjects have needs and rights that investigators are obliged to respect.
- The origins of human functioning are very complex
- Human beings are changeable
- Human self awareness may influence the results of clinical investigations
- Clinical investigators have a special link to their subjects