

Introduction to Research

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THERE IS AT the present time, at all levels of the nursing profession, an awareness of the need for nursing research and this awareness can be fostered in a number of ways.

That the results of many research studies are used inappropriately, either to prove a need or to support a point of view in circumstances to which the results were not applicable, may be due to research reports appearing in abridged versions, or to persons who are not competent to analyse research findings suggesting that the results be applied to situations to which they are not relevant, or to a lack of appreciation of the principles involved in research design.

If the various stages in the design of a research proposal were known in detail many pitfalls could be avoided. The primary need, therefore, is to have an awareness of what research entails, so that its benefits may be used by the profession.

Planning

One important aspect of planning a research proposal is to discuss a proposed project with experienced researchers before each stage of planning. The following plan is one method of approach to designing a research proposal.

The Concise Oxford Dictionary (1964) defines research as careful search or inquiry; endeavour to discover new facts by scientific study of a subject; course of critical investigation.

For the present purpose research may be considered as a course of critical investigation. To obtain a general concept of what is entailed the following stages are considered a suitable approach.

(Marquis¹).

1. Selection of subject for investigation; problem formulation.
2. Review published knowledge of the problem area.
3. Formulate hypothesis.
4. Verification; or main study.

The first step in the process of preparing a research proposal is an awareness that a problem exists and then the process of defining that problem. In the present context the word 'problem' is defined as an area of interest which the researcher wishes to investigate.

Selecting an area of study should involve an element of personal choice. Research is an arduous and a demanding occupation and calls for a high degree of self discipline. When selecting an area for study aspirations must be curtailed and no effort should be made to over-extend oneself by selecting for study an area which is beyond the available resources in time, money or one's capabilities; conversely, avoid selecting for study an area which does not warrant time and effort. Both extremes can be avoided by discussing the proposal with experienced researchers.

The next step is clearly to state the objectives. These must be stated precisely and be free from ambiguity. Time spent on this, the initial stage of the proposal, should avoid the disappointment of an abortive study later.

The third step is to explore the literature to find out if any work relevant to the area of the proposed study has been carried out.

If the area selected has already been investigated the information which one gathers may necessitate a different approach to the area of study.

Following perusal of the literature, data collecting instruments, interviews and questionnaires, which may have been considered suitable instruments for the proposed study may be found unsuitable. Research reports, books and periodicals are also ideal sources of reference material.

It is also important to discuss the proposed study with others who have an interest in the same area and through others one learns of on-going research which may be relevant to the proposed study.

The next step is to relate and integrate the proposed study to existing knowledge. If the problem area is concerned with feeding patients in hospital, reference to nutritional theories might indicate the most appropriate approach to the area of study.

The information gathered when exploring the literature and from other sources should ensure that the project is placed on a theoretical basis. Moreover, the use of a particular theory assists the researcher in formulating hypotheses.

The three previous stages can be looked upon as providing the background for the study. The design of the study begins with the formulation of hypotheses.

Formulation of Hypotheses

Hypotheses may be defined as theoretical statements concerning the interrelation of certain factors or phenomena, commonly referred to as variable; or, statements of relationships between two or more variables; or, a prediction of the outcome of the study. Thus, variables are the guidelines which are used by the researcher to select the method of collecting and analysing data.

Hypotheses are based on assumptions which can be stated or implied in the research proposal, but it is important that the assumptions upon which the hypotheses are founded, are abundantly clear to oneself and to others.

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