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# **Evaluation of Inpatient Nursing Practice**

**Report on a Working Group**

Regensburg

18–21 October 1977

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REGIONAL OFFICE FOR EUROPE  
World Health Organization  
COPENHAGEN  
1979



ISBN 92 9020 143 6

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This publication is also issued in French and Russian.

PRINTED IN DENMARK

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# WHO WORKING GROUP ON EVALUATION OF INPATIENT NURSING PRACTICE

*Regensburg, 18–21 October 1977*

## 1. INTRODUCTION

As part of the activities related to the nursing process component of the WHO Regional Office for Europe's medium-term programme in nursing/midwifery in Europe (1976–1983), two technical advisory groups have been convened. The first was held in Nottingham, United Kingdom, in December 1976<sup>a</sup> and the second at the Regional Office, Copenhagen, in June 1977.<sup>b</sup> The first group considered the nursing process and process recording generally, while the second focused its attention on the development of study designs in and the documentation of the nursing process. It also discussed the assessment, planning and implementation phases of the programme and strongly supported the intention of the Regional Office to hold a working group on the evaluation of inpatient nursing practice as a first step in an ongoing study of evaluation of the nursing interventions component.

This Working Group, comprising both nurses and physicians and convened by the WHO Regional Office for Europe in collaboration with the Government of the Federal Republic of Germany, was attended by 15 temporary advisers from 12 countries of the Region and by 4 members of the Regional Office staff. (A list of participants is attached as Annex II.)

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<sup>a</sup> WHO Regional Office for Europe. *The nursing process. Report on a Technical Advisory Group.* Copenhagen, 1977 (ICP/HMD 034).

<sup>b</sup> WHO Regional Office for Europe. *The development of designs in and the documentation of the nursing process. Report on a Technical Advisory Group.* Copenhagen, 1978 (ICP/HMD 049(2)).

The objectives of the Working Group were as follows:

(1) to discuss the relationship of evaluation to the other elements of the nursing process as these are being studied in the WHO Regional Office for Europe's medium-term programme in nursing/midwifery in Europe;

(2) to examine current thinking and practice related to the evaluation of inpatient nursing care;

(3) to identify specific aspects of evaluation requiring special study; and

(4) to propose activities which would assist in solving major problems in evaluation and which would be suitable for carrying out as part of the medium-term programme and/or as national experiments.

Participants were welcomed by the Mayor of Regensburg, Mr Schlichtinger, and by Mr H.A. Zenk of the International Relations Section, Federal Ministry for Youth, Family Affairs and Health, Bonn. The Regional Director, Dr Leo A. Kaprio, was represented by Dr D.K. Sokolov, Chief, Strengthening of Health Services. Miss M.-L. Badouaille acted as Chairman, Miss A. Grauhan as Vice-Chairman and Miss N. Roper as Rapporteur.

In his opening address Dr Sokolov referred to the need for sound evaluation techniques to be developed and used in all areas of health services. The fact that evaluation of health interventions of any kind was not particularly easy did not excuse health workers from striving to achieve something really useful in that area. In the field of nursing, the task presented many problems, not least of which was the fact that nursing as a discipline had only recently begun to define and study whole nursing interventions in terms of predetermined measurable objectives related to patient outcomes. The meeting was therefore particularly timely and reflected a growing interest in the subject in many countries of the Region.

## 2. EVALUATION AS AN INTEGRAL PART OF THE NURSING PROCESS

The Working Group was introduced in some detail to the Regional Office's medium-term programme in nursing/midwifery in Europe. The participants noted that the first component of the programme dealt with the nursing process and that evaluation was seen as one of the four major steps in the process as well as a concurrent activity in each of the other steps. The close relationship between this Working Group and other meetings being convened as part of the medium-term programme was emphasized. Participants were urged to view the meeting as part of a continuity of action which would contribute to a structured whole.

### *Definition of terms*

The Working Group agreed to use, with certain alterations, the definition of the term "evaluation of health services" contained in a glossary relating to an organizational study on "Methods of promoting the development of basic health services" which was conducted by a working group appointed by the WHO Executive Board.<sup>a</sup> The revised definition reads as follows:

*"Evaluation of health services:* the systematic process of determining the extent to which an action or sets of actions were successful in the achievement of predetermined objectives. It involves measurements of adequacy, efficacy, effectiveness and efficiency of the service being evaluated. It renders possible the reallocation of priorities, changes in the assessment of needs, the planning and implementation of care and the management of resources."

Since it was considered essential to use a standardized terminology in connexion with the WHO medium-term programme in nursing/midwifery in Europe, the Group agreed to use existing definitions of the words "objective", "adequacy", "efficacy", "effectiveness" and "efficiency" (see glossary, Annex I).

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<sup>a</sup> WHO Official Records, No. 206, 1973, p. 114 (Clarification and working definition of health services functions and terminology. Appendix to Annex II).

### 3. THE PRESENT SITUATION

One participant from each of the countries represented at the meeting presented a brief review of the current status of evaluation of inpatient nursing practice in his or her country. It was agreed that evaluation of nursing interventions in both inpatient and community health care situations was inadequate. As was to be expected, evaluation of inpatient nursing practice was at varying stages of development in the different countries. However, in no country was it standardized, nor was there any widespread acceptance and use of methods designed to evaluate nursing in terms of patient outcomes.

The work of nurses in hospitals throughout the Region often consists largely of support for other disciplines, particularly medicine, coupled with day-to-day management of the unit to which nurses are assigned.

Interventions by nursing personnel are not therefore seen in most settings as a discrete, purposeful activity or series of activities. In hospital services where this situation prevails, nursing *per se* has never really been identified and such nursing as is done is often performed in a ritualistic and mechanical fashion. As a result, little or no emphasis has been placed on the need to define objectives and measure outcomes in terms of the patient's progress. Even in situations where nursing is recognized as a discrete discipline, evaluation of the outcomes of nursing interventions is rarely carried out in a planned and systematic manner.

The results of a small study conducted in one country (Finland) prior to the meeting were considered by the Group to be fairly indicative for all countries. This study, based on responses from 11 hospitals of varying sizes and types, shows that, as far as evaluation of inpatient nursing care is concerned, the following four types of hospital exist.

(1) Hospitals where the nursing process has been introduced and is being used to provide nursing care. Since evaluation is an integral part of the process method, it is being performed using designs based on such approaches as dependency, nursing audit, expert opinion, etc. Nurses are also experimenting with assessment tools and nursing care plans and are trying out alternative patterns for the staffing of nursing services.

(2) Hospitals undertaking medical (doctoring) assessment and evaluation only. In these settings evaluation of nursing care is seen as a component of overall medical intervention and no separate evaluation is attempted.

(3) Hospitals where evaluation of nursing practice, either as a separate entity or as part of medical practice, is unknown.

(4) Hospitals where the basic philosophical approach to nursing is such that staff think it neither necessary nor of interest to look for results of nursing interventions.

The fact that there is widespread confusion regarding the real nature of nursing and its role in health services has had an inhibiting effect on the development of nursing care of the requisite quality. "Nursing" is frequently confused with the various activities that workers called nurses are at present expected to carry out. Since in many countries of the Region the title "nurse" has been given to a wide range of workers, including second-level medical personnel who are employed as assistants to, or technologists in support of, physicians, it is not possible in these settings to study nursing as reflected in the work of the nurse. Where nurses are actually nursing, this can be done. Before a decision is made as to whether or not workers holding the title "nurse" are nursing, it is necessary to have a well-developed understanding of the nature of nursing, both as a fundamental human activity and an organized health discipline. Those seeking to develop this understanding should refer to the documents listed below. <sup>a,b,c,d,e</sup>

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<sup>a</sup> Goodrich, A.W. *A definition of nursing*. Report of the Biennial American Journal of Nursing (1946).

<sup>b</sup> Hendersen, V. *The nature of nursing: a definition and its implications for practice, research and education*. New York, MacMillan (1966).

<sup>c</sup> Freeman, R. *Community health nursing practice*. London, Saunders (1970).

<sup>d</sup> Roper, N. A model for nursing and nursology. *Journal of Advanced Nursing*, 1: 219-227 (1976).

<sup>e</sup> Hall, D.C. *A position paper on nursing*. WHO Regional Office for Europe, Copenhagen (1975) (unpublished document EURO/NURS 75.1).

In the countries of the European Region it is apparent that there is a growing interest in and concern about the need for evaluation of nursing interventions. Among the more obvious reasons for this are the following.

(1) The growing cost of providing nursing services has focused attention on the need for better utilization of existing personnel and resources. Coupled with this is the interest recently shown in some countries in evaluating the outcomes of medical intervention and its relevance not only to the cost of services but to the quality of life and the absence of disease. Such interest has focused attention on evaluation *per se*, but has also been extended to take in other fields such as nursing.

(2) Rising costs, rising consumer expectations and a growing unrest among health workers regarding the relevance of current practices in hospital services have emphasized the need to improve services and to produce evidence that the patient/client benefits from the service provided, whether nursing or medicine.

(3) Nurse educators, members of related disciplines participating in nursing education and students of nursing are becoming increasingly aware of inadequacies in the educational systems by which nursing personnel are prepared. The nursing content of such programmes is currently under close scrutiny in an attempt to judge its relevance to the real needs of the people being nursed.

The relationship between nursing education and practice is of topical interest and concern. Much of the information needed to make effective decisions regarding changes in nursing education depends on the results of studies and the evaluation of nursing practice. The mode of thinking and action engendered by the use of the nursing process method is one useful means of improving both nursing education and practice.

(4) There is a growing understanding of the influence which nursing has on the work of other health disciplines. It is important to develop the discipline to the point where it can and does provide caring services of a high quality and at the same time has a positive effect on the work of related health disciplines such as medicine. Since nursing has a direct and unique contribution to make to the health of people and the work of related disciplines, its impact needs to be systematically studied and evaluated.

## 4. ASPECTS OF EVALUATION REQUIRING SPECIAL STUDY

The Working Group discussed the evaluation of nursing interventions at length and in detail under three major headings: patient outcomes, competence of the worker, and resource base.

### 4.1 Patient outcomes

In the immediate future emphasis needs to be placed on solving problems concerning the evaluation of patient outcomes in relation to nursing interventions. The development and use of assessment methods which provide accurate information about patient needs for nursing care and the subsequent establishment of objectives that are stated as observable and measurable patient outcomes is an obvious first step.

Patient outcomes may be sought in terms of the physical, social and psychological changes desired. These changes need to be related directly to patient/client needs for nursing care and to well defined objectives which are quantifiable.

Admittedly it may not be easy in many or even in most care situations in the hospital to relate changes in the health status of a patient directly to nursing intervention. However, in every health care intervention such variable factors as the patient's natural body defences, psychological state, family relationships, and his will to make progress, cannot be excluded from consideration. This is true for most medical interventions, yet it does not deter the physician from evaluating these interventions in terms of patient outcomes and from improving his ability to provide safe and effective doctoring using the findings from such evaluations.

Nurses have been dealing with these changes ever since systematized nursing services began, and they should be helped to make the application of this concept as uncomplicated as possible.

The acquisition of relevant knowledge about a patient's health or a constructive change in his attitude could, for example, be considered a desirable outcome. Some physical indices such as improved mobility, better bowel or bladder function, improved nutrition, less difficulty in breathing, desirable loss or gain of weight, are outcomes that are relatively easy to identify and

measure and the nursing practitioner might begin by considering these familiar items. In the social and psychological fields, a growing number of reliable methods for identifying and measuring desirable changes are available. It is now incumbent upon nurses to familiarize themselves with current concepts and practices in both nursing and related disciplines, to contribute to this growing body of knowledge and to help develop the skills necessary to put such knowledge to work.

Approaches such as Maslow's theory of coping (adaptability)<sup>a</sup> may be helpful in dealing with problems in conceptualizing nursing and in developing better ways of providing care.

Since studies will initially have to be conducted on a relatively modest scale, hospital-based nurses wishing to experiment with the use of the nursing process method should first begin to use the method in carefully selected patient care situations. Nursing and medical staff should be thoroughly introduced to new concepts and practices and should lend their full support to the activities proposed. The accuracy and validity of the methods used should be tested over a period of time. There is, however, a need to guard against over-enthusiasm in the application of nursing process concepts before these have been translated into safe and effective methods of providing nursing care.

Furthermore, there is an urgent need for nurses to identify the epidemiological data base from which information can be drawn to evaluate the impact of nursing interventions on whole populations. This applies to populations in hospital as well as to those in community health care situations. Nurses need to use the concepts and tools of epidemiology to identify, collect and use information about whole populations, both to plan for and to evaluate nursing care.

While useful in some instances, mortality and morbidity statistics are not as valuable in nursing as in some other disciplines. The overall health status of a population and the major reasons why a group displays certain characteristics within a predetermined health scale are much more useful in determining nursing needs. (For references to literature concerning assessment/evaluation tools, please see the bibliography provided in the Workbook on the Nursing Process (document EURO/NURS 76/1).)

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<sup>a</sup> Maslow, A.H. *Motivation and personality*, 2nd ed. New York, Harper & Row (1970).

## 4.2 Evaluation of the competence of the worker

Hitherto such evaluation as has been performed with regard to nursing has largely concentrated on assessing what is called the competence of the nurse or auxiliary in nursing. If the activities carried out by the individual worker are seen to be safe and efficient, then it is assumed that the nursing provided must be satisfactory and the worker is judged to be competent.

The fact that, in many settings, the methods used to assess competence are related largely to the ability to perform routine hospital and patient care procedures, to knowing and being able to act in accordance with hospital rules, to knowing what the physicians working in the ward "like", and generally to being "thought well of" by nursing and medical supervisors, raises serious questions about the validity of the methods employed. Further, the pattern observed in many hospitals of having the competence of nursing personnel to practise nursing judged by a physician largely negates the value of the exercise. The need for professional competence to be judged by a panel of peers from the same discipline cannot be over-emphasized. The only other group competent to contribute to this aspect of evaluation are the patients who have been the recipients of nursing. Other health and related workers, including physicians, can usefully contribute to some aspects of competence evaluation, such as those connected with the ability of a nurse to function well in a team setting, her communication skills when working with other health personnel and her general administrative abilities.

Better methods for evaluating actual competence in the provision of both direct and indirect nursing require to be developed. Licensing to practise on the basis of measurement of competence is, in most countries of the Region, a one-time procedure and makes no provision for the retention or extension of professional abilities over a period of time. Experiments with methods of evaluating competence over time, such as that currently being carried out by the College of Nurses, Ontario, Canada,<sup>a</sup> are being

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<sup>a</sup> College of Nurses of Ontario, 600 Eglinton Avenue East, Toronto, Ontario, Canada. *Policies related to issuance of certificate of competence*, *College Communiqué*, Vol. 3, No. 1, January 1978.

watched with great interest and should provide valuable information for other countries seeking to develop parallel types of registration.

Nursing services need to be guided by sets of standards of performance which have been determined by competent groups of nurses. Individual workers can then be evaluated using these standards as criteria. Standards of performance would need to be established for each level and category of nursing personnel. Moreover, qualified professional nurses have a responsibility to evaluate the competence of students of nursing.

The existence of a positive correlation between the competence of the practitioner and patient outcomes is acknowledged; such a correlation must also exist between resources and patient outcomes.

The relationship between supervision and evaluation presents a number of problems. The type of supervision that has been developed in most hospital nursing services may be both supported and condemned. Where supervisors exercise controlling, enabling and supporting functions which help others to develop to their fullest capacity and to make and follow up sound independent judgments, the supervisory role is a constructive one. On the other hand, where supervisors dominate decision-making and "tell" nursing personnel what to do in providing nursing care, the result may be considered to be detrimental. The practice of functional assignment which is common in most hospitals is to be condemned as one of the major causes of poor quality in nursing and a contributing factor in the high turnover and wastage of nursing staff in hospitals.

The supervision of nurses by physicians in the sphere of nursing usually has detrimental effects. When physicians supervise nurses, they do so within the context of a doctoring, rather than a nursing, frame of reference, thereby often diminishing both the quality and the quantity of the nursing reaching the patient. The time has come for nurses to be made legally accountable for all decisions and actions which they take in the practice of nursing. A system whereby nurses have access to consultative services provided by other nurses who are experts in specific areas of nursing care requires to be developed.

### **4.3 Evaluation of resources**

The evaluation of resources, human and material, related to the provision of nursing is clearly an integral part of the nursing process. Once an assessment of patient needs for nursing has been made and the overall objectives of that nursing have been established, an estimation of the availability of the resources needed to meet these needs must be made. Depending on the outcome of this, objectives might require to be changed. In situations where the shortfall between overall objectives and resources is marked, the nurse has a clear and well justified case for requesting changes in resource availability. Studies of resource availability related to the meeting of objectives for a patient population over a significant period of time would provide accurate information for both staffing and material resource allocation.

Nurses need to develop methods and skills in evaluating resources at the level of the individual patient, the ward and the hospital. By tradition, nurses often unquestioningly accept both the human and the material environment in which they are asked to practise nursing. They should learn to relate resources to the outcomes of nursing in terms of the patient, of their own health and of working efficiency. They should ensure that they are well represented during the planning for resource allocation. They should also ensure that they or their colleagues at the auxiliary level are not practising in a situation in which the degree of availability of either trained nursing staff or material resources endangers the patient or lowers the quality of nursing care beyond an acceptable minimum level.

### **4.4 Recording and classification systems**

There is a growing awareness among nurses that in the past they have not systematically or accurately recorded either what was done in nursing practice, why it was done, or what the patient outcomes were. The medical practitioner has from early times carefully documented each patient's condition, the treatment given and the outcome of medical interventions, at least in terms of the disease. This has eventually resulted in a classification system which facilitated the study and improvement of medical care.

Since nurses have not systematically documented their practice of nursing, there is little evidence to show why a particular nursing activity has been selected in a given situation, or what resulted when the activity was carried out. Consequently, much of the knowledge and experience about nursing practice is simply handed down from one generation of nurses to another. Failure to develop an adequate reporting system makes the use of techniques such as the audit method, currently employed in the evaluation of medical interventions, largely ineffective when used to evaluate nursing care.

Many of today's nurses are no longer satisfied with this state of affairs. They now realize that the objectives of nursing, as far as the care of the sick is concerned, are to achieve specific patient outcomes related to specific patient problems. Only in this way can they monitor the services which they provide, discard nursing interventions which fail to achieve the expected results for the patient, devise and test new types of interventions and thus continually develop nursing's body of knowledge and the technology which puts this knowledge into practice.

Within the discipline of nursing there is a noticeable lack of an accepted method for classifying information, and the relationship between assessment of patient/client needs for nursing care and a system of classification was recognized. Several of the approaches now being discussed in the professional literature are of interest: the "daily living activity" approach advocated by Roper and others in the discussions was considered by the Working Group to be one of the most useful. The classification system being developed within this approach presents possibilities for the better organization and management of data. However, as yet no standard classification system has emerged and one of the major tasks to be carried out within the medium-term programme is to identify and then field-test the use of a standard system which would provide for the better management of information and would be a useful tool in carrying out comparative studies.

## 5. IMPLICATIONS FOR THE EDUCATION OF NURSING PERSONNEL

The last three decades have seen great changes in the thinking related to nursing. There has been a growth of knowledge in the discipline, which unfortunately has not been incorporated in the majority of education programmes either at the basic or the postbasic level, nor has it greatly affected continuing education. Many practising nurses have tended to isolate themselves from the intellectual and conceptual developments in the discipline and have clung to traditional ways of thinking and acting. Where the traditional way continues to meet the needs of the patient/client for nursing services this can be fully justified, but, in cases where it does not, the nurse does herself, the discipline and society generally a great disservice by clinging to traditional methods.

Theories of nursing and fundamentals of nursing care, including the use of the nursing process method, should form part of the content of all levels and types of nursing education. In programmes at the professional level, epidemiology, statistics and research appreciation should be taught. Continuing and in-service education should be provided for all nursing personnel and should offer content directed at developing knowledge about and understanding of the nursing process, responsibilities leading to the advancement of the discipline, action to promote change and the collection, interpretation and use of data to improve nursing.

Students of nursing should spend the bulk of their time studying both the theory and the practice of nursing. Related subjects from the fields of medicine, the sciences or the humanities should be taught as supportive, not major, subjects in the curriculum. Postbasic and graduate courses for nurses should focus on advanced content in nursing and not on subjects such as education, administration or one of the medical technologies (i.e. radiology, anaesthesiology, laboratory work). An in-depth knowledge of other disciplines doubtless enhances the ability of the individual nurse to adapt and apply their content to nursing and broaden her personal horizon, but it cannot be considered a suitable substitute for advanced studies in her own field.

Nursing should be taught by competent nurse practitioners who are familiar with current thought and practice in the discipline and specially prepared in the field of education.

## 6. CONCLUSIONS AND RECOMMENDATIONS

1. There appears to be inadequate evaluation of inpatient nursing practice in most situations.
2. Evaluation of nursing practice is not only a concluding activity, to be carried out on the discharge of a patient/client from the health care system; it is also an integral part of each step of the nursing process. Evaluation of patient outcomes should be made upon completion of each planned intervention and the results should be used to improve all steps in the process.
3. Evaluation is at present considered to be most effective when objectives can be stated as observable or measurable patient outcomes. In nursing, however, some objectives and outcomes are not readily quantifiable and methods for evaluating the efficacy of these require to be developed.
4. Health service information systems urgently require a nursing information subsystem incorporating epidemiologically based data. Such data can only be collected by using a nursing frame of reference for accurate documentation of the nursing process.
5. There is an urgent need for nomenclature that adequately describes nursing phenomena and has the same meaning throughout the world. All phases of the nursing process, including evaluation, depend on this.
6. The nursing process concept and techniques for all steps in the process need, after suitable testing, to be introduced into nursing practice and into curricula for the preparation of nursing personnel of all levels and types.
7. Efforts need to be made to establish systems which will effectively activate and support nursing personnel during the process of change.
8. Effective methods need to be developed in the immediate future for informing other health professionals, particularly physicians, of changes in nursing. Similar methods need to be developed for informing the public at large.

9. Effective methods need to be developed for a continuous exchange of information between the WHO Regional Office for Europe and relevant persons working with the nursing process in national settings, on the progress of the medium-term programme in nursing/midwifery in Europe and of activities being conducted on a country and bilateral basis.

## Annex I

### GLOSSARY

#### Definitions of terms used during the meeting of the Working Group

- Objective:*<sup>a</sup> a measurable state that is expected to exist at a predetermined place and time as a result of the application of procedures and resources.
- Adequacy:*<sup>a</sup> the allocation of activities and resources in manner and quantity sufficient to permit the achievement of desired objectives.
- Efficacy:*<sup>b</sup> the benefit or utility to the individual of the services, treatment regimen, drug, preventive or control measure advocated or applied.
- Effectiveness:*<sup>a</sup> the ratio between the achievement of the programme activity and the desired level which, during the planning process, the planners had proposed would result from the programme activity.
- Efficiency:*<sup>a</sup> the ratio between the result that might be achieved through the expenditure of a specified amount of resources and the result that might be achieved through a minimum of expenditure.

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<sup>a</sup> WHO Official Records, No. 206, 1973 (Organizational study on methods of promoting the development of basic health services).

<sup>b</sup> WHO Technical Report Series, No. 472, 1971 (*Statistical indicators for the planning and evaluation of public health programmes*: Fourteenth report of the WHO Expert Committee on Health Statistics).

## Annex II

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<sup>a</sup> Participation expenses not paid by WHO.

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<sup>a</sup> Participation expenses not paid by WHO.