NURSING PROBLEMS OF THE PARAPLEGIC PATIENT AS SEEN BY THE NURSE

by

MYRNA LINDSTROM

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Department of School of Nursing

The University of British Columbia
Vancouver 8, Canada

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Myrna Lindstrom

A body of nursing knowledge in rehabilitation cannot be attained until the specific problems nurses encounter in their work are identified. The purpose of this study was the identification of some of the specific nursing problems in relation to the paraplegic.

This study included interviews with seventeen nurses caring for paraplegics during the three stages of their rehabilitation, during the acute stage, during the time of intensive rehabilitation, and after returning to the community. A basically unstructured interview method was used, permitting the nurses a wide scope in identifying nursing problems they had encountered. The specific nursing problems were summarized within components of a typology developed during the study.

A total of sixty-eight different specific nursing problems were identified a total of 247 times. The greatest number of different specific nursing problems, fourteen, were within the component of the typology of psychological-emotional problems. The psychological-emotional problem identified most frequently, twelve times, was that of trying to help the paraplegic face the future as a disabled person. The largest per cent of the total number of nursing problems identified, 35.22 per cent, were within the component of the typology of physical problems. The three most frequently identified nursing problems were within this component. These were, maintaining the bowel and bladder function, thirty-one times, maintaining the integrity of the skin, twenty times, and being alert for complications, sixteen times.

The largest number of different nursing problems, thirty, and the greatest per cent of the total number of nursing problems, 63.56 per cent, concerned the paraplegic himself. Seventeen different nursing problems, 19.84 per cent of the total number of nursing problems identified, concerned the paraplegic's relationship to those outside of the health care system. There were sixteen different nursing problems, 12.96 per cent of the total number of nursing problems, concerned with the paraplegic's relationship to the health care system. The remaining 3.64 per cent of the total number of nursing problems, five different ones, concerned the paraplegic's inanimate surroundings.

Research should be done to discover the best way of solving the specific nursing problems identified in this study. Many of them are currently being dealt with by intuition or trial and error, others are being ignored. It also would be well to discover what paraplegics identify as their needs or problems as they move through the various stages of the rehabilitation program. Nursing which is aimed at helping the paraplegic accomplish his goals should be alert to what he regards as his problems and help him arrive at a satisfactory solution to them.

ACKNOWLEDGMENTS

Many different people have assisted in and contributed toward this study. I wish to acknowledge, with thanks, the guidance and helpful criticism given by each one of my committee members, Dr. Floris King, Miss Jessie McCarthy and Mrs. Helen Elfert.

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CONTENTS

CHAPTER PAGE

CHAPTER PAGE

LIST OF TABLES

TABLE PAGE

LIST OF FIGURES

LIST OF GRAPHS

CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Rehabilitation as a specific field within the health sciences is relatively new. Within medicine there are now physiatrists who have advanced medical knowledge in rehabilitation. Until recently, nurses interested in this field have had to find employment in a rehabilitation setting in order to gain a knowledge of the field. Courses in rehabilitation nursing are increasing and literature about nursing in this field is now appearing.

I. THE PROBLEM

Statement of the problem. Nursing literature in rehabilitation gives an indication of areas in which nurses must be prepared in order to make nursing decisions. However, it does little in identifying specific nursing problems. Rehabilitation nursing is a broad field and is highly significant because people with a large variety of illnesses and injuries can benefit from care based on the philosophy and ideals of rehabilitation. The purpose of this study is to begin a clarification of some of the problems which a nurse working in the field of rehabilitation encounters. More specifically, this study will identify specific nursing problems of the paraplegic patient as seen by nurses caring for him immediately following his injury, while he is

receiving intensive rehabilitation at a rehabilitation center, and after his return to the community.

Justification of the problem. Many articles and several books have been written on the subject of rehabilitation nursing. These usually take one of two approaches, either that of stating the role of the nurse or of defining nursing functions in a rehabilitation setting. Frequently they begin with the philosophy of rehabilitation and from there discuss briefly and in a general way nursing care for a wide variety of people who can benefit from nursing care based on the philosophy of rehabilitation. These discussions frequently cover only physical care. The actual nursing situation is vague in this literature and leaves the reader wondering just what specific problems nurses encounter in the rehabilitation setting.

Two authors who discuss the role of the nurse in rehabilitation are Knocke and Smith. After discussing the philosophy underlying rehabilitation nursing, Knocke writes:

> The role of the nurse in rehabilitation, then, might be said to include the application of those hygienic measures - the prevention of deformity or further disability, encouraging and teaching simple exercises within prescribed limits, and encouraging and teaching self-help measures - which will aid in attaining the objectives of the hospital and its personnel in physical rehabilitation, and which will make possible the next step in the rehabilitation plan without causing needless delay.[1]

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[1]Lazelle S. Knocke, "Rôle of the Nurse in Rehabilitation," American Journal of Nursing, XL (April, 1947), p. 24.

Smith outlines the functions of the nurse in the area of physical care, then enlarges the nurse's concern by stating: "An important part of the nurse's task is to alleviate the patient's fears and depression that often results from crippling illnesses." The nurse also has a place on the health team "... nurses are and should be the eyes and ears for other team members and can best interpret certain needs of the patient which others have not had the opportunity to observe."[2] Statements such as these give impressions of the nurse's responsibilities in rehabilitation but leave the reader wondering what specific knowledge must the nurse have in order to carry out her role in caring for paraplegics.

Authors specify nursing functions in rehabilitation in various ways. Mercita has identified three broad headings under which she outlines the functions of rehabilitation nursing. These headings are:

> 1. Leadership - influencing people to co-operate in working toward a goal which they have come to find desirable.
> 2. Co-ordination - unifying the whole process of rehabilitation.
> 3. Teaching - teaching the patient to do for himself.[3]

Schmitt provides an outline which defines five professional nursing functions pertaining to rehabilitation. Briefly,

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[2]Ruth P. Smith, "The Rehabilitation Nurse," The Canadian Nurse, LIX (March, 1963), p. 229.

[3]Sister Mary Mercita, "Rehabilitation - Bridge to a Useful and Happy Life," Nursing Outlook, X (September, 1962), p. 582.

these functions include: 1. Evaluating the health status of the patient; 2. Determining the most appropriate knowledgeable intervention; 3. Initiating and implementing changes through the use of self and significant others; 4. Initiating and implementing changes in the environment; 5. Reappraising the patient's condition.[4] The first outline of nursing functions with its leadership heading, puts the nurse in a prominent role in caring for the patient, much more so than she has traditionally had in other areas of nursing. The second outline of nursing functions would seem to apply as well to any setting where professional nursing care is given. Neither author helps in identifying specific knowledge a nurse would need in giving rehabilitation nursing care to paraplegics, or to any other particular group of patients.

In one of the first books on rehabilitation nursing, Morrissey states:

> Nursing in rehabilitation comprises all the fundamental techniques of general bedside nursing care. In addition, certain specialized rehabilitation techniques must be practiced and among these are: methods of preventing deformity, of teaching ambulatory techniques such as brace and crutch walking, of preventing and caring for decubitus ulcers, of teaching self-care

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[4]Edith Anna Schmitt, "A Study to Formulate Principles of Nursing Pertaining to Rehabilitation which Underlie Professional Nursing Practice: Formulation of Principles of Nursing Pertaining to Rehabilitation Essential to Professional Practice of Graduates of Baccalaureate Programs in Nursing in the United States" (unpublished Doctoral Dissertation, New York University, 1963), paraphrase, p. 67.

> activities, of controlling incontinency by the rehabilitation of bladder and bowel, and of assisting with speech therapy.[5]

Before the advent of the many specialists of today, this outline of rehabilitation nursing may have been appropriate. Today, however, recognition must be given to the fact that nurses work with other professionals in such areas as the teaching of ambulatory techniques.

One frequently cited book on the subject of rehabilitation nursing discusses the nursing care of hemiplegics, paraplegics and quadriplegics in fifteen pages, eight and one half of which discuss paraplegics and quadriplegics. Of these, only four and one half pages are actually devoted to nursing care and the nursing care discussed is entirely physical, skin care, the importance of preventing contractures, and bladder and bowel training.[6] Discussions of this nature give clues as to the knowledge a nurse caring for paraplegics must have, but certainly nurses must be concerned with more than physical care.

The author who provides an outstanding background for a nurse interested in rehabilitation nursing is Beland in her book, Clinical Nursing. The chapter on "Nursing in Rehabilitation" gives background in the physical and psycho-

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[5]Alice Morrissey, Rehabilitation Nursing (New York: G.P. Putnam's Sons, 1951), p. 59.

[6]Deborah Jensen (ed.), Principles and Techniques of Rehabilitation Nursing (St. Louis: The C.V. Mosby Company, 1961), 181-195.

social sciences as well as giving clinical nursing care information. Though the reader can obtain general nursing knowledge, as in the other literature, specific nursing problems are not identified. Because of this, the actual nursing situation remains vague.[7]

After reading these articles and books and others on the subject, one is still left with the question: What are the day to day problems nurses working in a rehabilitation setting encounter? This researcher elected to identify some of these problems in relation to paraplegics because these patients pose a variety of nursing problems. However, they usually return to society as a fully participating member with a varying degree of handicap caused by their inability to walk.

Nurses must gain a more exact knowledge in rehabilitation because the lives of a significant number of people will be affected by the nursing care they receive or fail to receive. Only estimates of the prevalence of disability can be given because there are no census facilities for observing or recording it. The Canadian Sickness Survey 1950-1951, estimated that seven out of every one hundred persons in Canada have a disability.[8] The Royal Commission on Health

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[7]Irene L. Beland, Clinical Nursing: Pathophysiological and Psychosocial Approaches (New York: The Macmillan Company, 1965), 1240-1274.

[8]Canada, The Department of National Health and Welfare and the Dominion Bureau of Statistics, Canada Sickness Survey 1950-1951. (Ottawa: The Queen's Printer and Controller of Stationery, 1960), p. 26

Services gives the figure of approximately 1.25 million people in Canada in 1961 with a permanent physical disability.[9] It is impossible to know for sure how many of these people are paraplegics. The Canadian Paraplegic Association undertook a study in 1967-1968 to learn the status of its members. According to this study, there are a total of 1,205 paraplegics due to spinal cord injuries in Canada, 188 of these are living in British Columbia.[10] No doubt the actual number is larger. Accidents resulting in spinal cord injuries are not likely to become less frequent in today's society. With improved medical knowledge more people are surviving injuries that only a few years ago would have caused their death. Nursing now must join with others on the health team to aid these people in eliminating or minimizing residual disability. These people must be given care which will assist them in returning to society as a contributing and participating member and able to fulfill their goals in life. By knowing what problems nurses encounter in caring for paraplegics, a basis will be laid to systematically explore how these problems can best be solved. This will lead to nursing care based more on knowledge and less

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[9]Canada, The Royal Commission on Health Services. (Ottawa: The Queen's Printer and Controller of Stationery, 1964), p. 204

[10]G.K. Langford, "Paraplegic Survey 1967-1968" (Toronto: The Canadian Paraplegic Association, 1968), p. 3. (Mimeographed.)

on intuition and make good nursing care of the paraplegic something that can be more easily taught.

II. DEFINITIONS OF TERMS USED

Nursing problem. A nursing problem is a situation resulting from a patient's injury, illness or inability to cope with his environment and recognized by the nurse as a point where nursing intervention is necessary to assist the patient in overcoming his difficulties.

Rehabilitation. Rehabilitation is the restoring of the handicapped to the greatest physical, mental, social, vocational, and economic usefulness of which they are capable.[11]

Paraplegic. As used in this study, paraplegic refers to a person who has the use of his upper extremities, but not his lower extremities due to a traumatic injury.

III. LIMITATIONS OF THIS STUDY

This study included only those nursing problems identified by the nurses interviewed using a relatively unstructured interview situation. None of the nurses was contacted before the interview and asked to prepare for it in any way; therefore, the problems which are identified are those which

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[11]Henry Redkey, Rehabilitation Centers Today (Washington D.C.: U.S. Government Printing Office, 1959), p. 6.

have come to mind as the nurse was being interviewed. Because of time limitations, only eighteen nurses were interviewed, six in each of the three settings, the acute care setting, the rehabilitation center, and the community. Only people who are functioning as paraplegics due to a spinal cord injury were considered in this study.

IV. PREVIEW OF THE REMAINDER OF THE STUDY

The next chapter includes a brief history of rehabilitation and a statement of the philosophy underlying it. Also included is a general background in rehabilitation nursing and a discussion of paraplegia. Chapter III, in addition to the plan of the study, includes a discussion of the basic comcepts of the typology developed during the study. The results of the study are analyzed and discussed in Chapter IV. This is followed by a summary of the study and suggestions for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Several books on the subject of rehabilitation relate its history and philosophy at some length. In addition, there are articles in the journals of the health professions which discuss the history or philosophy of rehabilitation or both in some detail. Only a summary of this literature will be given here.

I. LITERATURE ON THE HISTORICAL DEVELOPMENT OF REHABILITATION

Society's position vis-à-vis those who are ill or disabled has radically changed as man has moved from his days as a nomadic hunter to today where people are interdependent on each other's skills and knowledge. Mercita succinctly outlines these changes in society in the treatment of the disabled

> ... extinction by primitive societies, banishment from the tribe, permission by law to beg, care in the monasteries and charitable institutions, and re-education and rehabilitation.[1]

In writing a historical survey of rehabilitation from primitive to modern times, Morrissey states that history reveals that from the time of the Battle of Crecy in 1346 where

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[1]Mercita, op. cit., p. 581.

cannon shot was used for the first time "war has been a more potent force in the development of rehabilitation measures than any other single factor."[2] No doubt this is true. As the ill and injured have returned from fighting wars, people in medicine and the rest of society have been moved to allot resources to finding and applying ways of helping the disabled.

Rehabilitation as we know it began in the late 1920's. Krusen identifies four definite decades in the development of rehabilitation. He calls the decade 1928-1937 the decade of pioneers. During this decade there was a great deal of prejudice against physicians concerned with physical rehabilitation. The unethical and often improper use of physical agents by charlatans engendered great distrust of those who employed physical agents for treatment. During the second decade, 1938-1947, the Baruch Committee on Physical Medicine and Rehabilitation was founded. Its first report was published in April, 1944, and led to the final acceptance and understanding of the terms "physical medicine" and "rehabilitation". Krusen has called the third decade, 1948-1957, "... the decade of transition from empiricism to the rational and scientific application of physical medicine."[3]

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[2]Morrissey, op. cit., p. 8.

[3]Frank H. Krusen, "Historical Development in Physical Medicine and Rehabilitation During the Last Forty Years," Archives of Physical Medicine and Rehabilitation, L (January, 1969), p. 3.

The beginning of the decade from 1958 to 1967 saw physiatrists providing leadership in the development of new trends in medical practice in which it was recognized that the physician's responsibility was "not only to add years to life, but also, to add life to years."[4]

II. LITERATURE ON THE PHILOSOPHY OF REHABILITATION

It is apparent to many that a disability is, at least in part, determined by factors other than physical impairment. These "other factors", to name a few, are the person's mental state, training, ability, former employment, education, and family and community support.[5] This way of looking at disability lays the ground work for considering disability from an epidemiological point of view. Unlike the biological view that illness, or in this case disability, has a single cause, the epidemiological view is that the interaction of three factors cause disability, these factors are: host, agent, and environment. Host characteristics are age, sex, race, habits and customs, education, marital status, occupation, body constitution, heredity, immunity, and psychological factors. The agent characteristics can be classified roughly as biologic, genetic, chemical, nutrient,

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[4] Ibid., p. 4.

[5] Richard D. Burk, "The Nature of Disability," Journal of Rehabilitation, XXXIII (November-December, 1967), p. 12.

physical, and mechanical. Environmental characteristics include physical, biologic, and socioeconomic factors. A unique interaction of the characteristics of these three factors underlie the current status of any particular patient.[6] Clinically a disability may be "routine". However, because of host and environmental factors, which may vary considerably, no case is identical to another.[7] This points out very clearly the importance of rehabilitation being oriented toward the individual; his situation is unique.

A lengthy but excellent statement of the philosophy underlying rehabilitation was written by Hamilton. He writes of rehabilitation:

> 1. It is client-centered and deals with clients as individuals. It deals with their strengths and their weaknesses. It must deal with them comprehensively. The key words are: "Client-centered," "individual," and "comprehensively".
> 2. Its over-riding aim is to increase the client's residual capacities to cope with his own environment, which may mean to define his goals and move toward their achievements. The characterizing word here is "cope". (Not alleviation, not palliation, not maintenance.)
> 3. Professional services and activities involved within a rehabilitation philosophy may be differentiated from similar (or even identical) activities given outside the philosophy in that the former are not focused on diagnosis and process as ends within their own professional scope or origin. Professional services, when they are within the purview of a rehabilitation philosophy, are relevant to each other and are focused on

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[6]Masayosh Itah and Mathew H.M. Lee, "The Future Role of Rehabilitation Medicine in Community Health," Medical Clinics of North America, LIII (May, 1969), p. 721.

[7]Ibid., p. 725

> goals and outcomes related to the totality of the unique client, in order that he may cope and better achieve. The key point here is that "process" and "activity" are again oriented to client goals rather than to any professional mandate or desire.[8]

In summary, the philosophy of rehabilitation is that it is a client centered, comprehensive process which is directed toward helping the individual cope with his own environment.

Unlike convalescence which is a time in which the patient is left alone to rest while time and nature take their course, rehabilitation is a dynamic concept, an action program.[9] The goal of rehabilitation is to

> enable the individual to resume a place in society where he can see himself as being necessary - to someone, somewhere - not isolated and alone, but in harmony and union with those with whom he has contact in his home or at work.[10]

III. LITERATURE ON REHABILITATION NURSING

The philosophy and basic principles underlying modern rehabilitation and modern rehabilitation nursing have been present in nursing for many years. Evidence for this can be found in articles appearing in nursing journals from 1900.

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[8]Kenneth W. Hamilton, "Perspectives and Prospects in Rehabilitation," Journal of Rehabilitation, XXXIV (January-February, 1968), p. 20.

[9]Howard A. Rusk, Rehabilitation Medicine (St. Louis: The C.V. Mosby Co., 1958), p. 7.

[10]United States Department of Health, Education, and Welfare, Region III, Proceedings of Region III Conference on Nursing in Rehabilitation, May, 1961 (Charlottesville: University of Virginia, 1961), p. 14.

An article on private duty nursing in 1900 discusses the fact that the patient is a human being, not a stereotyped patient.[11] Another article appearing the same year points out that family members are interdependent and that the nurse must work with all of them.[12]

> [The patient's] wants, his weakness, his dangers, are absorbing, and when he feels the strength of the nurse's skill he shifts the responsibility even of living on her shoulders, and she must act for him till she can help him take up the burden for himself again.[13]

The last part of the statement, which appeared in 1905, helping the patient take up the threads of his life again, is the concern of modern rehabilitation nursing. An article which was written in 1930 on the care of neurological patients stresses that patients should be encouraged to help themselves and be given assistance only when they absolutely need it.[14] The ideas in modern rehabilitation nursing have grown out of seeds present in nursing years ago. Granted,

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[11]Josephine Hill, "Private Nursing, from a Nurse's Point of View," American Journal of Nursing, I (October, 1900), p. 129.

[12]Delia Knight, "The Nurse and the Psychic Factor," American Journal of Nursing, I (November, 1900), p. 112.

[13]Harriet M. Johnson, "The Relation of Visiting Nurses to Public Philanthropes," American Journal of Nursing, V (May, 1905), p. 493.

[14]Lelin Townsend, "A Discussion of Two Representative Cases from the Wards of a Neurological Hospital," American Journal of Nursing, XXX (January, 1930), p. 21.

the overwhelming majority of nursing care has been procedure and "do for" oriented, yet the current philosophy and principles of rehabilitation nursing were not entirely foreign to early nursing.

The philosophy undergirding rehabilitation nursing is consonant with Morrissey's statement of the philosophy of modern rehabilitation:

> ... rehabilitation is centered upon a process of wholesome adjustment to physical handicap by educating the patient to integrate all of his resources and to concentrate more on existing abilities than on the permanent disabilities with which he must live in peace. Thus the first step in rehabilitating the patient is to consider that all people are united entities with all of the facets of personality organization coordinated. Wholesomeness consists in meeting satisfactorily all the fundamental human needs.[15]

This philosophy has been translated into four basic principles of rehabilitation nursing care: 1. See the patient as a whole person; 2. Stress the patient's abilities; 3. Keep the patient active; 4. Start treatment early.[16] Seeing the patient as a whole person means understanding him as an individual, a family member and a part of the community. In so doing the nurse necessarily becomes involved with the family and the community. In rehabilitation nursing it is paramount to emphasize to the patient what he

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[15]Morrissey, op. cit., p. 37

[16]Colorado State Department of Public Health, Public Health Nursing Section, Elementary Rehabilitation Nursing Care (Washington D.C.: U.S. Department of Health, Education, and Welfare, 1966), 1-2.

can do and help him do as much for himself as is possible. Hippocrates said, "Exercise strengthens and inactivity wastes."[17] Activity strengthens the muscles and, in addition, uses the mind. A constant refrain in the literature on rehabilitation is: "The crucial period in rehabilitation is the time spent in the hospital." One writer has said, "Use that period to recreate not only the body but the mind and willpower and all shall come out right."[18]

IV. LITERATURE ON PARAPLEGIA

Care of paraplegics. Paraplegia is due to damage to the spinal cord by disease or traumatic injury. From the level of damage downward, motor and/or sensory function will be either temporarily or permanently disturbed. This means that the patient will probably fail to feel anything in that part of the body or to move any part of his body below the level of injury. In addition, he will have lost normal control of bladder, bowel, and sexual function.[19] Such an assault on the body has repercussions in every system.[20]

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[17]Mercita, op. cit., p. 581.

[18]Jensen, op. cit., p. 30.

[19]David Liddell, "The Care of Paraplegic and Quadriplegic Patients, 1. The Treatment Begins," Nursing Times, LXIV (March 1, 1968), p. 281.

[20]Irene L. Beland, Clinical Nursing: Pathophysiological and Psychosocial Approaches (New York: The Macmillan Co., 1965), p. 1240-1274.

Treatment begins with the immobilization of the vertebral column, usually on a Foster bed, for two to three months. Immobilizing a patient can cause physical and psychological problems apart from those caused by the spinal cord injury. Feldman states:

> The most significant superimposed disabilities result from the physiologic phenomena associated with disease and immobilization. The dynamic, functional status of an organism is related closely to the continual physiologic use of his organs and systems.[21]

Liddell vividly paints the psychological picture when he writes:

> What does this injury and disablement mean to the patient? It is a shattering experience. One day he is able to go about his work, social, and home life normally: the next, he is completely helpless. One day he is completely independent: the next, he has to depend on doctors and nurses for help and advice.[22]

The sudden alteration in the patient's physical situation means a radical restructuring of the self image. While trying to reorient himself to himself, he is also totally dependent on complete strangers for his care, and some of it very personal care, and must relate to them.

Mobilization begins gradually by helping the patient become accustomed to a sitting position or standing by means of a tiltboard. Exercises are begun to strengthen the upper part of the paraplegic's body and he is taught to transfer

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[21]Daniel J. Feldman, "Disuse and Immobilization," Modern Treatment, V (September, 1968), p. 906.

[22]Liddell, loc. cit.

from bed to wheelchair and wheelchair to toilet. Bowel and bladder training also assume increased importance in the rehabilitation program. Unnecessary dependence should have been discouraged from the time of the person's hospitalization. Now independency is actively pushed as he takes increasing responsibility for himself and his eventual rehabilitation.

Factors which influence the rehabilitation of the paraplegic. The status of a particular paraplegic is based upon the interaction of the three factors pictured in Figure 1, the host, agent, and environment. In paraplegia the injury to the spinal cord has occurred and, aside from preventing further injury, nothing can be done to improve the patient's situation by altering the agent factor. Those involved in a paraplegic's rehabilitation usually help the person improve his status by altering either his environment or characteristics within himself.

Much of the rehabilitation program is directed at the host factor, the paraplegic himself. Helping the person strengthen the upper part of his body so it is able to lift the weight of the entire body is an obvious part of the rehabilitation program. The situation of a person who has had little education can be improved by up-grading his education, thereby making it more possible for him to obtain a job which requires the use of his head instead of his body.

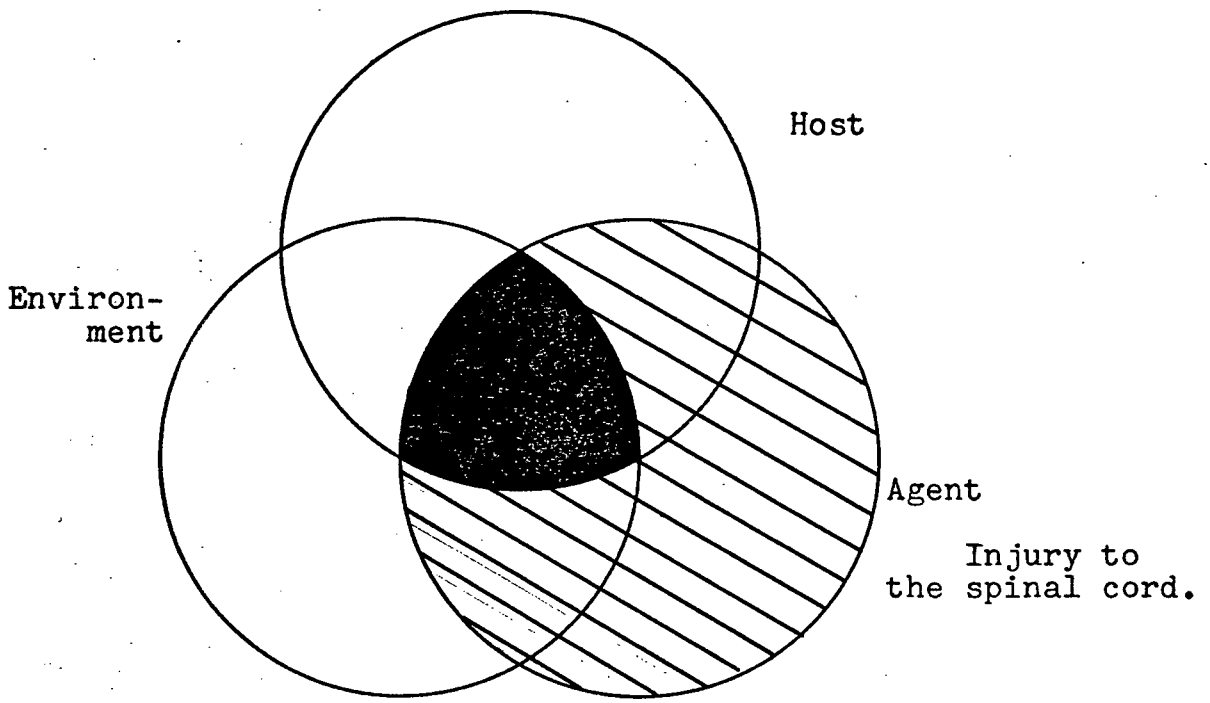

FIGURE 1

FACTORS WHICH INFLUENCE THE REHABILITATION

OF THE PARAPLEGIC

Also, helping the person regain characteristics which he had previous to his injury, such as bowel and bladder control, is important. In fact, many other aspects of the rehabilitation program depend upon his attaining this control because frequent accidents will cause the paraplegic great embarrassment and shame and those who have contact with him will tend to withdraw. Altering host factors is the most direct means of rehabilitation though not necessarily the easiest nor always possible.

Environmental characteristics which can be altered to improve the status of a particular paraplegic include such things as widening the doors in his home so a wheelchair can go through them or installing ramps for stairs. Assisting the paraplegic in finding a job which he can do from his chair or with crutch and brace walking and accessible to him can greatly improve his status. Sometimes economic needs are best served by another family member, such as the wife, assuming financial support. Educating the paraplegic's family and friends and society at large that the paraplegic is still a person and should be permitted to participate in society to his greatest abilities is also an environmental characteristic in which health team members must participate.

Rehabilitation of the paraplegic. Keeping in mind the three factors of host, agent and environment and the characteristics of each which impinge on the status of the

individual paraplegic, can assist health team members in deciding how best to help their patient. Some of the enormity of the task confronting the patient and the health team members in rehabilitation can be realized when one considers that there are an estimated ninety-nine activities of daily living a person must be able to perform independently in order to be independent.[23] Many of these activities of daily living people with no disability do without thinking. Because a paraplegic still has the use of the upper part of his body, not all the activities of daily living must be relearned, but many of them must now be done from a different position. All the activities of daily living have the same fundamental motions in common, such as, changing position, sitting balance, moving in the sitting position, reaching, grasping, standing, and walking. However, more is necessary than just adding motions together for the performance of an activity of daily living. Management of necessary furniture, equipment and possible adaptations must also be included.[24] Varied abilities are necessary to aid in rehabilitation from intricate surgery to friendly understanding and patience. Health team members must strive to help the individual with a disability preserve his ability to live happily and productively on the same level and with the same opportunities

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[23]Morrissey, op. cit., p. 61.

[24]Rusk, op. cit., 143-144.

as his neighbor.[25] Within the rehabilitation program the nurse has the unique responsibility of

> helping the patient achieve and maintain that degree of health which will permit other members of the health team to add their special skills to his total recovery.[26]

When health is defined as complete physical, mental, and social well-being and not merely the absence of disease, one can appreciate the importance of the nurse on the rehabilitation team.

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[25]Frank H. Krusen, Concepts in Rehabilitation of the Handicapped (Philadelphia: W.B. Saunders Company, 1964), p. 1.

[26]Helen Hartigan, "Nursing Responsibilities in Rehabilitation," Nursing Outlook, II (December, 1954), p. 650.

CHAPTER III

METHODOLOGY

Concomitant to developing the plan for the study, a typology was developed which would enable a grouping of the nursing problems under general headings to facilitate analysis of the data obtained. The typology is discussed below followed by the plan of the study as it was developed.

I. BASIC CONCEPTS: THE TYPOLOGY

From a review of the literature in rehabilitation, which has just been discussed, it was possible to construct a typology indicating areas in which nursing problems might appear. As the name indicates, a typology is a study of types, in this case, types of nursing problems that were anticipated. The actual typology, see Appendix A, was constructed using Schmitt's study[1] as a guide. Following the trial interview an eighth category, that of the feelings of the health team members, was added.

A person as an open system. An understanding of the typology will be aided by the concept of a person as an open system. A person is a system in that he is "a whole which functions as a whole by virtue of the interdependence of

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[1]Schmitt, op. cit., 43-66.

his parts ...."[2] He is an open system because his "boundaries are at least semi-permeable, permitting exchanges of matter-energy or information [with his environment] to occur."[3] There are three critical processes which are necessary for a system to survive, these are:

> 1. Adaptation to its environment.
> 2. Integration of its parts, i.e. roles and collectivities composed of roles.
> 3. Decision on the modes of carrying out and the resources to be allocated to the first and second processes.[4]

This concept of the person as an open system underlies the following discussion of the typology as it pertains to the healthy person and to the paraplegic.

Figures 2 and 3 have been drawn to assist in an understanding of the basic concepts of the typology and in visualizing the radical change in an individual's situation when he becomes a paraplegic. The individual living in society arrives at an integrated relationship with his environment. Injury radically alters the person's interaction with his environment by forcing him to relate to it through the health care system. In addition he must learn a new role, that of a patient.

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[2]Rose McKay, "Theories, Models and Systems for Nursing," Nursing Research, XVIII (September-October, 1969), p. 395.

[3]Shirley A. Smoyah, "Toward Understanding Nursing Situations: A Transaction Paradigm," Nursing Research, XVIII (September-October, 1969), p. 406.

[4]Ibid., p. 407.

The healthy adult. Figure 2 is an abstract model of the healthy adult functioning at his optimum level. For the purposes of this discussion, it is a model of the paraplegic prior to his injury. He has learned, as all people do, to interact with his environment in order to obtain matter-energy and information he needs to function adequately or at an optimum level in relation to his surroundings. He gives more or less thought and care to his body (1), anticipating its serving him well. Psychological and emotional needs (2) are expressed in ways through which supplies can be obtained to fill these needs. The individual conducts himself socially and has friends with whom he interacts (3) on the basis of roles he has gradually learned and adopts with little conscious thought. Prior to his injury, the paraplegic is a learner (4) to some extent, depending upon his inclination and the number of new situations he encounters. He may be a member of a family (5) and as such has assumed certain roles and had others assigned to him. Through growth, maturation, and learning he can cope with a variety of inanimate surroundings (6) from shifting sand on a surf washed beach to cramped bathroom facilities. As he goes about his daily life the individual works with and is served by a wide variety of people (7). Usually he can decide how friendly he wants to be with them and the kind of service they will give him. These "impersonal others" have reactions to the individual and his situation of which he may or may not be aware, but

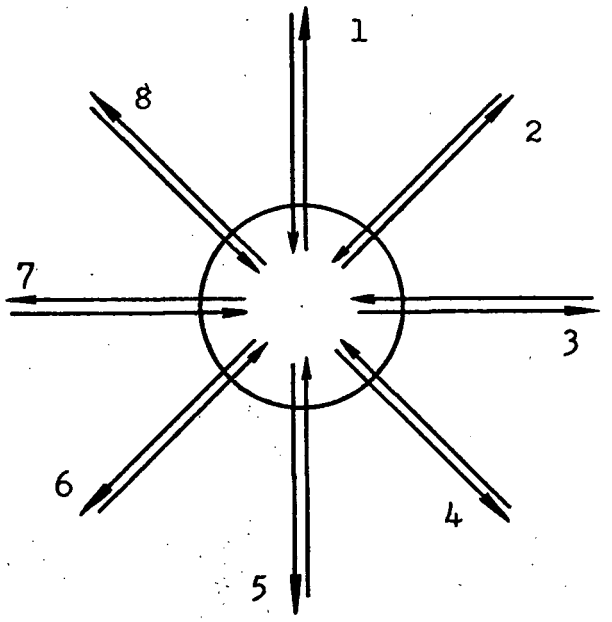

FIGURE 2

THE HEALTHY ADULT SEEKING AND RECEIVING MATTER-ENERGY AND INFORMATION FROM HIS SURROUNDINGS

1. Physical needs; 2. Psychological-emotional needs; 3. Social needs; 4. Learning needs; 5. Family member; 6. Inanimate surroundings; 7. Relations with "impersonal others"; 8. Feelings of "impersonal others".

are not vital to him.

All his interactions with his environment bring the person supplies, e.g. love, food, information, which assist him in continuously adjusting his relationship to his surroundings in order to meet his goals. At any particular time interactions between an individual and his environment may not be functioning at an optimum level at some point. However, usually other areas of interaction can be called upon to furnish the necessary supplies so the individual can adapt to his environment and integrate his roles allocating resources and using modes of doing so to his satisfaction.

The paraplegic. Following his injury the paraplegic's normal interactions with his environment are radically altered. This is pictured in Figure 3. Society has a set of expectations of the person who is ill, as described by Parsons.[5] This serves initially in helping the person adjust, but soon it becomes apparent that his injury will require an examination of all his former means of interacting with his surroundings and an altering of these means in many cases. He must now think about his body (1) and its care as he learns to care for it. Psychological and emotional needs (2) are also great as the individual learns to cope with his altered situation. Frequently the paraplegic's world becomes

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[5]Talcott Parsons, "On Becoming a Patient," A Sociological Framework for Patient Care, Jeannette R. Folta and Edith S. Deck, editors (New York: John Wiley and Sons, Inc., 1966), 246-252.

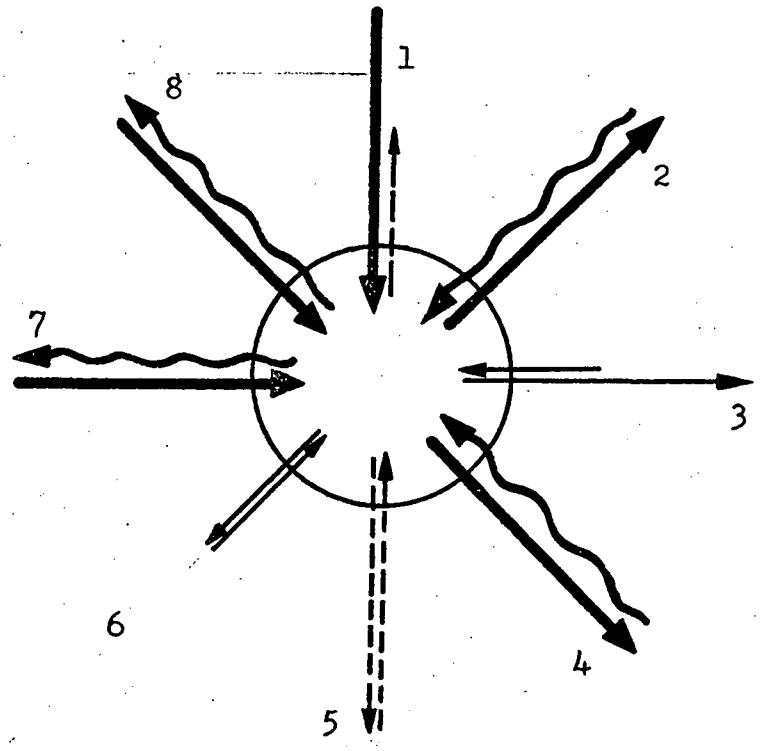

FIGURE 3

THE PARAPLEGIC IMMEDIATELY FOLLOWING INJURY

1. Physical needs; 2. Psychological-emotional needs; 3. Social needs; 4. Learning needs; 5. Family member; 6. Inanimate surroundings; 7. Relations with "impersonal others"; 7. Feelings of "impersonal others".

The individual tentatively seeks to deal with the increased demands of his body. Increased psychological emotional needs may or may not be met. While the need for social contact remains, the contacts are diminished. Learning needs which have increased may or may not be met. Relationships within the family are tentative. Contacts with the inanimate surroundings have decreased. Contact with and the feelings of the "impersonal others" in the paraplegic's surroundings have increased importance with which he may or may not know how to cope.

smaller as fewer and fewer friends (3) come to see him and his daily life is focused on his own care. Depending on his past experience, the many things he must learn (4) in order to survive will be more or less overwhelming. Family relationships (5) will be difficult, at least until role expectations and balances within the family are worked through. A strong, lasting relationship here can immeasurably aid the paraplegic in adapting to his new environment. As a patient and a disabled person, the individual becomes very conscious of the "impersonal others" within his environment because of the personal nature of the service he receives from them and because of his dependence upon them to assist him in returning to society as a participating member. The feelings and attitudes of these people toward him and his condition are important to the patient and he is acutely aware of them. The process of rehabilitation is to assist the patient in regaining an optimum, balanced relationship with his surroundings through which he can carry out the processes necessary to his survival. Conceivably, as the rehabilitation program progresses, the paraplegic's relationship with his environment could become better than it was prior to his injury.

It was anticipated by this researcher that the specific nursing problems indicated by the nurses in the various settings would fall within these eight areas.

II. THE GENERAL AIM AND SPECIFIC OBJECTIVES

The general aim. The general aim of this study was to identify the nursing problems of the paraplegic patient as seen by the nurse.

The specific objectives. There were three specific objectives for this study as stated below:

1. To identify the nursing problems of the paraplegic patient as seen by the nurse in the acute care setting.
2. To identify the nursing problems of the paraplegic patient as seen by the nurse in the rehabilitation center.
3. To identify the nursing problems of the paraplegic patient as seen by the nurse in the community.

III. PLAN OF THE STUDY

Settings. Nurses employed by three institutions in the city of Vancouver who were working with paraplegics were interviewed. These institutions were Vancouver General Hospital, G.F. Strong Rehabilitation Center, and the Victorian Order of Nurses, Vancouver Branch.

The Vancouver General Hospital, a 1,652 bed teaching hospital, was selected as the setting for identifying nursing problems of the paraplegic while he is in the acute stage. This care is provided in two areas within the hospital, a

neurological ward and on Fairview Pavilion Three, hereafter called the convalescent ward. There are twenty-three registered nurses plus other staff on the thirty-two bed neurological ward where paraplegics are cared for immediately following their injury. Paraplegics remain on this ward for varying periods of time, but seldom longer than six weeks. From there they are transferred to the convalescent ward, a thirty-one bed ward. There are nine registered nurses plus other staff on this ward. The length of time a paraplegic remains on the convalescent ward varies from one to five months depending upon his condition and the availability of beds at the rehabilitation center. Physiotherapy is increased on this ward and a more intense rehabilitation program is started. Long standing paraplegics are also present on this ward, coming here for treatment of urinary infections, decubiti or for periodic check-ups.

Six nurses along with other staff are employed at G.F. Strong Rehabilitation Center, hereafter also called the rehabilitation center. Here intensive rehabilitation is given. The fifty-four in-patient beds are divided into twenty nursing care beds and thirty-four resident beds where patients are moved as soon as they are able to assume responsibility for their own care. The average length of time that paraplegics stay at the rehabilitation center is six to nine months as compared to the three to four months of other patients. While at the rehabilitation center, patients are permitted to go out evenings and to spend week

ends at home as they desire and are able. This is beneficial to their readjustment in the community. Patients can be readmitted after being discharged if this should be necessary.

The majority of paraplegics are independent of nursing help following their discharge from the rehabilitation center. However, some of them are seen by a nurse in the community on a regular basis for assistance with changing a catheter or for help with bathing or because of other needs. Others are seen periodically.

Method. The interview method was used to collect the data for this study. Three nurses were interviewed in each of the two areas of the acute care setting. At the rehabilitation center, four nurses were interviewed. Seven nurses were interviewed who were working in the community setting. These nurses were selected by their supervisor on the basis of the information she thought they could give the researcher and writer concerning the nursing problems encountered in caring for a paraplegic. The nurses were asked by their supervisor to participate and did not see the interviewer until the time of the interview.

An interview guide was drawn up using the typology discussed above.[6] The questionnaire was pretested and changes made accordingly. An initial open ended question

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[6]See Appendix B.

permitted the interviewee to answer spontaneously. The interview guide was used to prompt the interviewee in areas that she or he had not mentioned. Open ended questions which were more focused than the initial question were asked at the discretion of the interviewer so all components of the typology were discussed.

All of the interviews were conducted during a two week period by the researcher and writer. Nurses were interviewed during their working hours in the setting in which they were working. The interviews ranged from thirty to sixty minutes in length as determined by the interviewee. All of the interviews were taped and notes taken from the tapes at a later time.

Data analysis. Data obtained from the nurses were analyzed using descriptive statistics. Specific nursing problems identified in each setting and the differences in nursing problems encountered were revealed.

CHAPTER IV

FINDINGS AND DISCUSSION

The data obtained from the nurses in each setting are presented separately. Within each setting, specific nursing problems have been identified within the components of the typology. The differences in the nursing problems encountered by nurses in the different settings of the study has been noted with a discussion of the results of the study following.

I. THE ACUTE CARE SETTING

In the acute care setting, forty different specific nursing problems were identified a total of ninety times by the six nurses who were interviewed.

Physical problems. Of the nursing problems identified, 28.89 per cent of them were within the component of the typology of physical problems. Five different specific nursing problems were identified with nurses mentioning various aspects of them.

1. Encouraging the paraplegic to drink sufficient fluids.

2. Maintaining bowel and bladder functioning.
    a. Watching the balance between intake and output.
    b. Properly irrigating catheter and bladder.
    c. Increasing bladder capacity by properly clamping the catheter.

d. Taping catheter up and over the iliac crest or abdomen so there is no pull on the penis.
e. Applying condom drainage correctly.
f. Watching for urinary infection.
g. Watching for kidney stones.
h. Determining the right laxative and correct amount of it for the individual.
i. Determining bowel schedule which is suitable for the individual.

3. Maintaining the integrity of the skin.
   a. Watching for ridges and wrinkles in bed.
   b. Watching so paraplegic is not lying on his catheter.
   c. Being careful not to drag paraplegic across the sheets.
   d. Turning frequently.

4. Maintaining mobility of the joints.
   a. Doing passive range of motion exercises.
   b. Substituting for physiotherapist when she is off duty.

5. Being alert for complications.
   a. Vascular
      Thrombophlebities
      Emboli
   b. Loss of consciousness if gotten up too quickly.
   c. Respiratory complications.
   d. Decalcification of bones.
   e. Edema of lower extremities.
   f. Burns on lower extremities from radiators and hot pipes.

Psychological-emotional problems. Of the nursing problems identified, 18.89 per cent of them were within the psychological-emotional problems component. Ten different nursing problems were identified with nurses mentioning various aspects of them.

1. Trying to assist the paraplegic in adjusting to his situation.
   a. Trying to assist him in working through his bitter and hostile feelings.

b. Trying to assist him to face the future. (Many paraplegics are young people.)
c. The realization of disability comes slowly to a person.

2. Trying to motivate the paraplegic to do things for himself.

3. The difficulty in answering the paraplegic's questions.

4. Being asked questions concerning the paraplegic's sexual functioning.

5. Trying to assist the paraplegic in coping with the fact that many repercussions occur in the genito-urinary system which is regarded as being private.

6. Trying to assist the patient in coping with having to wear what he may define as feminine clothing, e.g. elastic stockings.

7. Trying to assist the paraplegic to feel secure on the Foster bed.

8. Trying to assist the paraplegic in facing the possibility of dying.

9. Trying to assist the patient in resolving his reluctance to leave the hospital.

10. Learning to appreciate their particular fears.

The nursing problems encountered in trying to assist the paraplegic in working through his bitter and hostile feelings can be appreciated from the following two examples from interviews:

> They can be very, very difficult patients. But you almost like to see them react this way because it seems to be the normal reaction; they are fighting. They complain; they curse and swear; they may throw things. They often show a lot of temper. Usually they are very difficult patients to manage, especially in the early stages. Although it makes it more difficult for nursing, you like to see this. The ones who are very quiet seem to become more withdrawn and are more abnormal psychologically than the ones who react violently. The

> violent reaction passes and as they start working toward the future they can be very nice patients.

Another nurse said it this way:

> Patients frequently have a lot of hostility and it is good for them to have an outlet for it. Often they will be very bitter toward nurses or a particular nurse. They have to be mad at somebody.

Trying to assist the paraplegic in adjusting to the reality of his situation and in picking up the threads of his life was discussed by one nurse as follows:

> One can see a great change in the paraplegic from the time he is being nursed on the Foster bed and still hoping to the time that complete realization comes that he is never going to walk again. Usually they adopt a belligerent attitude toward life, toward living, and toward the rest of the world.
>
> It is difficult to help them accept the fact that they are still part of society and still have to act the same way anyone else would. The fact that they are paralyzed will not make them outcasts from society, but their own personality can.

The difficulty in answering the questions these patients ask was identified in different ways. Paraplegics ask many questions and the same questions many times. The nurses saw this as a nursing problem because they believed the patient should be given an honest answer, yet the nature of the situation is such that it takes two or three months to know the answer to many of their questions. Nurses felt they did not want to give the patient too much hope, yet they did not want to be too pessimistic either.

Paraplegics do ask nurses questions concerning sex.

> Young paraplegics, especially if they do not have control of their bowels or micturition, ask us if their sexual organs are affected because of the paraplegia.

> They wonder if they will be able to get married and have children.

Paraplegics have fears of which people who are not paralyzed may not be aware. Nursing problems can result as a nurse points out in this situation:

> The wheelchair becomes their mode of transportation. They feel secure with the wheelchair beside their bed; it is their legs. On Thursday nights all the wheelchairs on this ward are cleaned. Occasionally patients have become upset when their chair has been taken away. "What would I do if something happened?"

Teaching problems. The nursing problems identified within the component of teaching problems were 13.34 per cent of the total number of nursing problems. There were four different specific nursing problems identified with nurses mentioning various aspects of them.

1. Necessary to encourage paraplegic to use what he has learned.
    a. Frequently there is a period of time when the paraplegic is very rebellious and does not want to do anything.
    b. Paraplegics frequently get discouraged because they cannot go back to their former jobs.
2. The person may accept and understand intellectually what is being taught but not emotionally and therefore, not follow through on it.
3. Paraplegic may get impatient with trying to do things for himself.
4. There are so many things that a paraplegic must learn in order to care for himself.

Social problems. In the acute care setting, 4.44 per cent of the nursing problems identified were within the

component of social problems. Three different nursing problems were identified.

1. Providing for diversion and socialization during long hours on the Foster bed.

2. Encouraging paraplegic to up-grade his general education.

3. Having to restrict visitors.

Paraplegics often had large numbers of visitors, especially soon after their injury. Visitors had to be restricted because physical facilities could not accommodate very many at one time. Nurses did not like to do this because they believed that visitors provide a necessary source of support for the patient.

Problems with family members. Nursing problems within the component of problems with family members were 7.78 per cent of the total number of nursing problems. There were three different nursing problems identified with the interviewees mentioning various aspects of them.

1. Trying to assist the family in coping with injury to a family member.
   a. May be hostile.
   b. May be defensive.
   c. May be protective.
   d. May have unrealistic expectations.

2. Lack of family or rejection by family.

3. Teaching family to give care.

Families may create nursing problems by being defensive and very protective of the patient. The nurses saw themselves as the ones who must point out to the family the

fact that they should not wait on the paraplegic.

> We have to help the family realize that the patient is not physically sick, but that he has a disability which he will have to learn to live with. We have to make them see what the patient can do for himself and help them refrain from waiting on him.

Unrealistic expectations of the family were also cited as a nursing problem. Families frequently expect the paraplegic to progress more rapidly in his rehabilitation than is possible.

> Some families keep looking for that movement that is just never going to come back.

One nurse said there were nursing problems in teaching the family to care for the paraplegic, but could not be any more explicit.

Problems with people working with the paraplegic. Of the total number of nursing problems identified, 12.22 per cent were within the component of problems with people working with the paraplegic. Five different nursing problems were identified with nurses mentioning various aspects of them.

1. Trying to maintain a consistency in approach to the paraplegic.
    a. Deciding on the appropriate approach.
    b. Getting all health team members to use the same approach.

2. Co-operating with and co-ordinating work with other health team members.
    a. Working with the physiotherapist.
        Reinforcing her teaching.
        Substituting for her when she is off duty.

b. Working with school teacher who comes in.
Planning schedule so teacher and patient are not interrupted.
Helping patient with his homework.
c. Frequently will not accept instructions from the nurses' aids.

3. Co-ordinating work with that of other treatment settings.
a. Providing for continuity of care.

4. Patients may manipulate staff.

5. Remembering to treat them as non-disabled persons.

Consistency is the word, in approach and in teaching. This can be difficult when so many different people and different professions are involved in caring for the paraplegic. One nurse stated the problem this way:

> If one nurse expects that the patient will transfer himself while another says, "It's so much faster if I put him into bed myself," the patient gets the idea that it is more trouble to learn to do things for himself than it is to get someone to do things for him.

One nurse said that frequently paraplegics will not accept restrictions from the nurses' aids.

> It is necessary to restrict a patient's movements while he is on the Foster bed so that no further damage is done. Some patients find this very difficult to accept. The nurse is the one who has to lay down the law to the patient in this respect because the nurses' aids do not have the authority in the eyes of the patient to do this. This can make the nurse unpopular with the patient.

In relating the following experience, one interviewee illustrated the nursing problem of remembering to treat the paraplegic as a non-disabled person.

> One day I was standing talking to a man who was sitting in a wheelchair and, unconsciously, was pushing

> it back and forth. All of a sudden he said to me, "You are shoving me around." I asked him what he meant. He replied, "If I were standing up beside you talking, would you be pushing me back and forth?" I have since seen many people standing beside a wheelchair pushing it back and forth, back and forth.

Problems with the feelings of the nurses. Of the total number of nursing problems, 10 per cent were within the component of problems with the feelings of the nurses. There were six different nursing problems identified.

1. Coping with the expressed hostility of the paraplegic.

2. Coping with depression that may occur.

3. Maintaining a proper perspective of the paraplegic's future.

4. Question if they could cope with becoming a paraplegic while trying to provide support for the patient.

5. Becoming attached to the paraplegic.

6. Inability to provide the reassurance they would like to because the outcome is unknown.

Maintaining a proper or true perspective of the new paraplegic's future can pose a nursing problem. Nurses have more contact with the paraplegics who have multiple problems because the well adjusted paraplegic with few problems seldom is hospitalized.

As mentioned above, these patients seem to forget, or not take in, almost everything they are told about their condition and repeatedly ask the same questions. Families also posed the same problem. Nurses found it very difficult to know how much to reassure them because the patient's con-

dition is so unpredictable. One nurse put it this way:

> It takes about three months before you can really tell if the patient will walk again or not. In the meantime the family asks every day, "Will he walk?" You cannot say and it is really hard on you.

Problems with inanimate surroundings. In the acute care setting, 4.44 per cent of the nursing problems identified were within the component of problems with inanimate surroundings. Four different nursing problems were identified.

1. Working with the Foster bed.
2. Working with cone tongs and weights.
3. Securing a proper wheelchair for the person.
4. Applying braces correctly.

Table I shows the priority of each component of the typology as indicated from the per cent of the total number of nursing problems identified which were within it. The highest percentage of nursing problems, 28.89 per cent, were within the component physical problems. Nursing problems within the component psychological-emotional problems made up 18.89 per cent of the total number of nursing problems to place that component second in priority. Within the component psychological-emotional problems, ten different specific nursing problems were identified, which was the highest number within any component.

The two areas within the acute care setting. Within

TABLE I

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE TOTAL NUMBER AND PERCENTAGE OF NURSING PROBLEMS IDENTIFIED IN THE ACUTE CARE SETTING DIVIDED ACCORDING TO THE COMPONENTS OF THE TYPOLOGY, JANUARY 1970

Component of the Typology	No. of Different Problems	No. of Times Identified	Percent of the Total No. of Problems
Physical problems	5	26	28.89
Psychological problems	10	17	18.89
Teaching problems	4	12	13.34
Social problems	3	4	4.44
Family members	3	7	7.78
Other people	5	11	12.22
Nurses' feelings	6	9	10.00
Surroundings	4	4	4.44
Total	40	90	100.00

the acute care setting there were two separate areas where care was provided for paraplegics, the neurological ward and the convalescent ward. Table II and Graph I show that the priority of each component of the typology, as indicated from the per cent of nursing problems which were within it, is somewhat different in each area. The component physical problems is of top priority in both settings. However, on the convalescent ward teaching problems are of equal concern with physical problems, each making up 22.73 per cent of the total number of nursing problems identified. By contrast, teaching problems were only 4.35 per cent of the total specific nursing problems identified on the neurological ward. Another striking difference in the two areas is in the component of problems with the feelings of the nurses. On the neurological ward 15.22 per cent of the nursing problems identified were within this component placing it third from the top in priority. Problems with the feelings of the nurses were only 4.54 per cent of the total number of nursing problems identified on the convalescent ward placing it well down from the top in priority.

II. REHABILITATION SETTING

The four nurses who were interviewed in the rehabilitation setting identified thirty-two different nursing problems a total of sixty-five times.

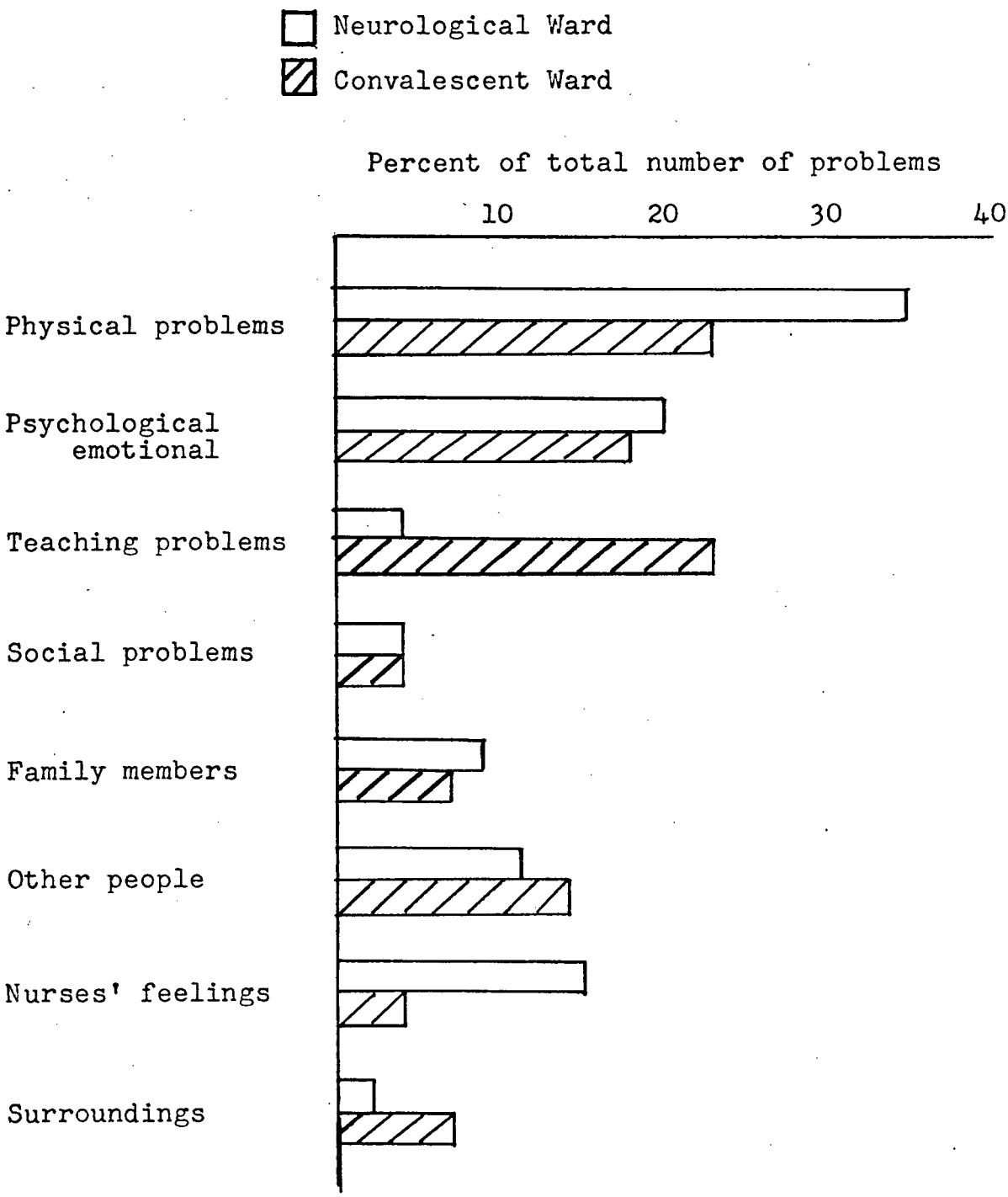
TABLE II

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE TOTAL NUMBER AND PERCENTAGE OF NURSING PROBLEMS IDENTIFIED IN EACH AREA OF THE ACUTE CARE SETTING DIVIDED ACCORDING TO THE COMPONENTS OF THE TYPOLOGY, JANUARY, 1970

Component of the Typology	Neurological Ward			Convalescent Ward		
	# of Diff. Problems	# of Times Identified	% of Problems	# of Diff. Problems	# of Times Identified	% of Problems
Physical problems	5	16	34.78	5	10	22.73
Psychological emotional	6	9	19.56	6	8	18.18
Teaching problems	2	2	4.35	3	10	22.73
Social problems	2	2	4.35	2	2	4.54
Family members	2	4	8.69	3	3	6.82
Other people	3	5	10.87	4	6	13.64
Nurses' feelings	4	7	15.22	2	2	4.54
Surroundings	1	1	2.18	3	3	6.82
Total	25	46	100.00	28	44	100.00

GRAPH I

THE PERCENT OF NURSING PROBLEMS WITHIN EACH COMPONENT OF THE TYPOLOGY IN EACH AREA OF THE ACUTE CARE SETTING, JANUARY, 1970



Physical problems. Physical problems were 29.23 per cent of the total number of nursing problems identified. Five different nursing problems were identified with nurses mentioning various aspects of them.

1. Encouraging the paraplegic to drink sufficient fluids.

2. Maintaining bowel and bladder functioning.
   a. Watching the balance between intake and output.
   b. Increasing the bladder capacity by properly clamping the catheter.
   c. Determining the right laxative and the correct amount for the individual.
   d. Determining a bowel schedule which is suitable for the individual.
   e. Watching for urinary infection.
   f. Adjusting fluid intake when the paraplegic is going out to prevent incontinence.
   g. Determining a suitable schedule for the paraplegic to empty his bladder.

3. Maintaining the integrity of the skin.
   a. Preventing skin break down at the base of the spine from bumping it while transferring.

4. Preventing complications due to lack of feeling in lower extremities.
   a. Keeping toenails trimmed.
   b. Shoes must fit properly.
   c. Sometimes paraplegics do not realize when incontinence has occurred.
   d. Bath water must not be too hot.

5. Encouraging consumption of a proper diet.

Psychological-emotional problems. Of the total number of nursing problems identified, 16.92 per cent were within the component of psychological-emotional problems. There were five different nursing problems identified with nurses mentioning various aspects of them.

1. Trying to assist the paraplegic in adjusting to his situation.
    a. Trying to help the patient realize he is permanently disabled.
    b. Trying to help the paraplegic realize there could be more to life than sitting in a wheelchair staring out of the window.
    c. Not letting them feel sorry for themselves.

2. Trying to motivate the paraplegic to do things for himself.
    a. Expect the nurse to do things for them.
    b. Trying to assist the person in taking increasing responsibility for his own rehabilitation.
    c. Trying to assist the paraplegic in gaining self confidence.

3. Trying to assist the paraplegic in coping with his loss of sexual function.

4. Trying to build a relationship of trust and rapport with the person.

5. Unresolved psychological-emotional problems can prevent the paraplegic's rehabilitation.

Paraplegics frequently express their concerns about sex indirectly by little remarks and sarcasm. One nurse began the interview by stating:

> Their greatest emotional problem, especially for the men, is their impotency. They feel they are not a man any more. They do not care about anything; they do not want to work. They are difficult with their families, either not wanting to have anything to do with them or becoming very dependent. There are quite a few divorces among paraplegics.

The enormity of the adjustment for some of these patients is shown in this situation:

> One paraplegic, whose wife has not been heard from since the day she learned he was paralyzed, thinks of suicide. He was a miner. The only things he knew, probably, were sex and work. Both of them are cut out completely. He cannot go back to the type of work he was doing and he does not particularly care to study and learn another type of job.

The difficulty in helping paraplegics adjust to their loss of sexual function was also expressed as follows:

> Men sometimes have bizarre erections. They wonder why, if this can happen sometimes, it cannot happen when they want it to. Married men wonder, "Can I keep my wife happy?"

Teaching problems. Of the total number of nursing problems identified, 15.39 per cent were within the component of teaching problems. Six different nursing problems were identified with nurses mentioning various aspects of them.

1. Necessary to constantly encourage the paraplegic to use the skills he has learned and learn new ones.

2. Necessary to constantly reinforce what the paraplegic is being taught.

3. Necessary for the paraplegic to know why he must learn to care for himself and accept the task.
    a. Paraplegics should be told as soon as it is known that they will be paralyzed.
    b. A person who has never given any thought to his body may have difficulty comprehending and accepting the need for concern for it.

4. Trying to help the person make his own decisions about his rehabilitation.

5. Lack of knowledge about the anatomy and physiology of the body by the average person.

6. Trying to answer the paraplegic's questions.

All teaching must be constantly reinforced. This was illustrated by one interviewee as follows:

> One very intelligent lady went home for the week end. She was having a bath and while in the tub decided the water was not warm enough so turned on the hot water. Unfortunately, her foot was directly under the running water and she received a severe burn on her foot and leg.

A paraplegic should know why he must learn to care for himself and then must accept this task. One nurse cited a situation where patients were not told for some time that their disability would probably be permanent. Therefore, patients did not understand why they should be concerned with skin care and the functioning of their bowels and bladder. Nurses also encountered problems with single men who have lived in bunkhouses of logging or mining camps. They become very tired of hospital life and do not seem to understand the need for learning to care for themselves.

Helping the person make his own decisions about his rehabilitation is part of nursing care. Bladder training for the female paraplegic is difficult, sometimes impossible. Nurses sought to help the paraplegic decide for herself whether or not she wanted to try to do without a catheter. If she decided to use a catheter she was taught to change her own, if she were capable of doing so. Another nursing problem would often occur at this time. Nurses found that women are frequently unfamiliar with the anatomy of the pelvis.

> It was suggested to one patient, who had a catheter in, that she use a tampax during her menstrual period. She questioned where the tampax would go. Another patient asked why she still menstruated when she had a catheter in.

Patients will ask nurses questions that they are embarrassed to ask the doctor or they think the doctor is too busy to answer. Following are questions one paraplegic

asked a nurse:

> If I go home on week-end leave, can my husband and I have intercourse? I have not menstruated since my accident six months ago, what will happen? Can I get pregnant? Can I be on the pill?

Social problems. Social problems made up 10.77 per cent of the total number of nursing problems identified. Five different nursing problems were identified with nurses mentioning various aspects of them.

1. Much encouragement is frequently necessary for the person to resume his formal education.

2. Visitors.
   a. Initially they flock in to see the patient, but come less frequently as rehabilitation continues.
   b. Visitors may not understand the importance of the paraplegic helping himself as much as possible.

3. Lack of understanding and acceptance by the general public.
   a. Trying to help the paraplegic deal with unfortunate reactions of the general public to his disability.
   b. People are afraid to do things for a person who is disabled.

4. Difficult for paraplegics, especially young ones, to find a place to live when they are ready to leave the rehabilitation center.
   a. Discouraging for the person.

5. Government regulations.

Government regulations concerning assistance to disabled people can be harsh when applied in the individual situation. Nurses are called upon to lend a listening ear to some difficult situations such as that told by one of the nurses:

> A young couple had just purchased a small home that was quite suitable for a paraplegic. They did not want to lose it and yet the means test was such that they could not receive any help as long as they owned it.

Problems with family members. Of the total number of nursing problems identified, 10.77 per cent were within the component of problems with family members. Three different nursing problems were identified with nurses mentioning various aspects of them.

1. Trying to help the family accept changes that were necessary within the family structure.
    a. Trying to help the family gain a realistic understanding of the problems of having a disabled member.
    b. Paraplegic may become depressed as he realizes that he will not be able to carry on his family life as he formerly did.
    c. Trying to help the family accept the fact that roles within the family may have to be reversed.
    d. Breaking up of families is frequent.
2. Families may immediately purchase equipment that subsequently proves useless.
3. Families may be without income for a time if the breadwinner is injured.

Problems with people working with the paraplegic. Of the total number of nursing problems identified, 7.69 per cent of them were within the component of problems with people working with the paraplegic. Three different nursing problems were identified with nurses mentioning various aspects of them.

1. Co-operation among various health workers.
    a. Important to have good communication.

b. Reinforce the teaching of the physiotherapists.

2. Informing health professionals not constantly working with paraplegics of some of the basics of their care.

3. Gaining acceptance of the philosophy and ideals of rehabilitation by nurses.

Nurses encountered problems because people in the health professions who are not directly working with paraplegics are not very well informed about their care. Upon discharge from the rehabilitation center, the paraplegic is returned to the care of his family doctor.

> A former patient called the rehabilitation center one day and said that he was going to have an intravenous pyelogram (IVP) the next day. The nurse in the doctor's office had handed him, without any explanation, a sheet of instructions for preparing for an IVP. The instructions, which were obviously standard ones, called for two ounces of castor oil. Lacking normal bowel control, he was reluctant to take the castor oil. A suitable modification of the standard instructions within his bowel routine was suggested to him.

Nurses sometimes have difficulty in comprehending or accepting the idea of rehabilitation. One interviewee cited a situation where the rehabilitation setting was part of the neurological ward. Nurses were rotated through three areas of the ward, the intensive care area, a convalescent area and the rehabilitation area. Rotating into the rehabilitation area was initially resisted by some of the nurses because they thought the work would be very heavy and there would be too much to do.

Problems with the feelings of the nurses. In the

rehabilitation setting, 7.69 per cent of the total number of nursing problems were within the component of problems with the feelings of the nurses. There were four different nursing problems identified.

1. Feeling sorry for the paraplegic.
2. Resisting the habit of "doing for" the patient.
3. Feeling a lack of knowledge.
4. Resisting the urge to try to make everyone the ideal paraplegic.

There are many little things nurses do automatically, e.g. handing a patient a glass of water or releasing the brake on a wheelchair, which patients could, and in this case should, do for themselves. Nurses spoke of the difficulty of breaking this habit. Another aspect of this nursing problem was resisting the urge to help the paraplegic do something which he could, with patience, do for himself.

One nurse identified the need to resist the urge to try to make everyone the ideal paraplegic. She had to remind herself to appraise realistically what the paraplegic was accustomed to and returning to and set her goals for him accordingly.

Problems with inanimate surroundings. Of the total number of nursing problems identified, 1.54 per cent were within the component of problems with inanimate surroundings. One nursing problem was identified within this component with various aspects of it mentioned by the interviewee.

1. Securing a proper wheelchair.
   a. Some wheelchairs have fixed arms which hamper transferring.
   b. Some wheelchairs have four small wheels and therefore, are unsuitable for the paraplegic to push himself about.

Table III shows the priority of each component of the typology as indicated from the percentage of the total number of nursing problems identified which were within it. The highest percentage of nursing problems were within the component of physical problems, 29.23 per cent. Psychological-emotional problems made up 16.92 per cent of the total number of nursing problems placing it in second priority. Within the component of teaching problems, six different specific nursing problems were identified, which was the highest number of specific nursing problems within any component.

III. COMMUNITY SETTING

There were twenty-five different specific nursing problems identified in the community setting. These specific nursing problems were identified a total of ninety-two times by the seven nurses who were interviewed.

Physical problems. Physical problems were 45.65 per cent of the total number of nursing problems identified. There were six different nursing problems identified with nurses mentioning various aspects of them.

1. Encouraging the paraplegic to drink sufficient fluids.

TABLE III

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE TOTAL NUMBER AND PERCENTAGE OF NURSING PROBLEMS IDENTIFIED IN THE REHABILITATION SETTING DIVIDED ACCORDING TO THE COMPONENTS OF THE TYPOLOGY, JANUARY, 1970

Component of the Typology	No. of Different Problems	No. of Times Identified	Percent of the Total No. of Problems
Physical problems	5	19	29.23
Psychological-emotional	5	11	16.92
Teaching problems	6	10	15.39
Social problems	5	7	10.77
Family members	3	7	10.77
Other people	3	5	7.69
Nurses' feelings	4	5	7.69
Surroundings	1	1	1.54
Total	32	65	100.00

a. The paraplegic must remember to maintain a sufficient supply of fluids on hand.

2. Maintaining bowel and bladder functioning.
   a. Bladder spasms can prevent reinsertion of a catheter.
   b. Maintaining bowel schedule when patient is unreliable in remembering when defecation last occurred.
   c. Bladder infection.
   d. Bladder stones.
   e. Odors.

3. Maintaining the integrity of the skin.
   a. Lack of cleanliness.
   b. Giving assistance with bathing.
   c. Staphylococci infection in decubiti.
   d. Excoriation in groin.

4. Maintaining strength and mobility.
   a. Must be as mobile as possible all the time.

5. Being alert for complications.
   a. Prone to vaginal infections.
   b. Large amounts of vaginal discharge.
   c. Loss of consciousness if gotten up too quickly.
   d. Muscle spasms, legs and elsewhere.
   e. Edema of lower extremities.
   f. Burns in lower extremities from radiators and hot pipes.

6. Physical problems in addition to paraplegia.
   a. Broken leg.
   b. Amputation.
   c. Skin cancer.
   d. Obesity.
   e. Heart failure.
   f. Orchitis.

Psychological-emotional problems. Of the total number of nursing problems identified, 18.48 per cent were within the component of psychological-emotional problems. Five different nursing problems were identified with nurses mentioning various aspects of them.

1. Trying to assist the paraplegic in adjusting to his situation.
    a. May be a depressed person.
    b. May be overly concerned with himself.
    c. May over indulge in alcohol and/or drugs.

2. Trying to motivate the paraplegic to do things for himself.
    a. Trying to encourage the paraplegic to do as much for himself as possible so he does not lose his abilities.

3. Trying to build a relationship of trust and rapport with the person.
    a. May need a lot of attention from the nurse.

4. Reluctant to associate with people outside of immediate family because the paraplegic is unsure of his reception.

5. Adding the adjustment of being a paraplegic to those of being a teenager.

Teaching problems. Teaching problems made up 3.26 per cent of the total number of nursing problems identified. Two different nursing problems were identified.

1. Necessity of constantly encouraging paraplegic to use the skills he has.

2. Helping the paraplegic adjust what he knows to his present situation.

Social problems. Of the total number of nursing problems identified, 20.65 per cent were within the component of social problems. Six different nursing problems were identified with nurses mentioning various aspects of them.

1. Lack of understanding and acceptance by the general public.

2. Limited social contacts.
    a. Having a driver's license and a car can greatly increase the paraplegic's independence.

b. Age may greatly diminish social contacts.

3. Difficult for paraplegics to find a suitable place to live.
   a. May be unable to care for himself because facilities, e.g. bathroom, are inconvenient.
   b. Roommate-attendant arrangement may prove unsatisfactory.
   c. May become a burden on a foster family.
   d. Young people frequently must live surrounded by elderly people.

4. Limited income.
   a. Pension is small but more sure than trying to hold a job.
      Frequent hospitalization may be necessary.
   b. Frequently can obtain only jobs with low pay.
   c. Have extra expenses.
      Must buy: gloves, catheters, medications, incontinent pads.

5. Safety in traffic as the paraplegic travels about in his wheelchair.

6. Arrest of mental development at the time of injury.

Problems with family members. Problems with family members made up 5.43 per cent of the total number of nursing problems identified. There were three different nursing problems identified.

1. Rejection by family.

2. No family.

3. Ill health of other family member(s) may make it impossible for the paraplegic to live at home.

Problems with people working with the paraplegic. Within the component of problems with people working with the paraplegic, there were 1.09 per cent of the nursing

problems. One nursing problem was identified.

1. Informing health professionals not constantly working with paraplegics of some of the basics of their care.

This nursing problem was illustrated by one nurse as follows:

> One lady fell and broke her leg which necessitated her hospitalization. Following hospitalization, she was put into a nursing home where the doctor and those caring for her did not know that she should be kept as mobile as possible to keep her strength in her arms. They took her wheelchair away and would not let her out of bed. Her arms got weak and she was frantic because she realized what would happen to her. It was arranged that she leave the nursing home and after a short stay with relatives had to be readmitted to the rehabilitation center.

Problems with the feelings of the nurses. Of the total number of nursing problems identified, 1.09 per cent were within the component of problems with the feelings of the nurses. One specific nursing problem was identified.

1. Maintaining equanimity when the paraplegic was demanding or took a long time to care for.

Problems with inanimate surroundings. Of the total number of nursing problems identified, 4.35 per cent were within the component of problems with inanimate surroundings. One specific nursing problem was identified with nurses mentioning various aspects of it.

1. Inconvenient housing.
    a. Bathroom inconvenient for bathing.
    b. Must be carried up and down a flight of stairs.
    c. Carpets on the floors make it difficult for the paraplegic to get around.
    d. Narrow doors.

Table IV shows the priority of each component of the typology as indicated from the per cent of the total number of nursing problems identified which were within it. Physical problems accounted for 45.65 per cent of the total number of nursing problems identified placing it in highest priority. Of second priority, 20.65 per cent of the total number of nursing problems identified, was the component of social problems. Six different nursing problems were identified in each of these two components.

IV. COMPARISON OF SETTINGS

Using figures from Tables I, II, and IV, the differences in priority of the components of the typology are shown in Graphs II and III. In all three settings, the largest percentage of nursing problems identified, 28.89 per cent, 29.23 per cent, and 45.65 per cent, were within the component of physical problems. The other components varied in priority among the three settings.

There were a total of ninety-seven specific nursing problems identified in the three settings. Not all ninety-seven nursing problems are different from each other because nurses in the three settings frequently identified the same nursing problems as those in another setting. Table V[1] shows the actual number of different specific nursing

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[1]See also Appendix C.

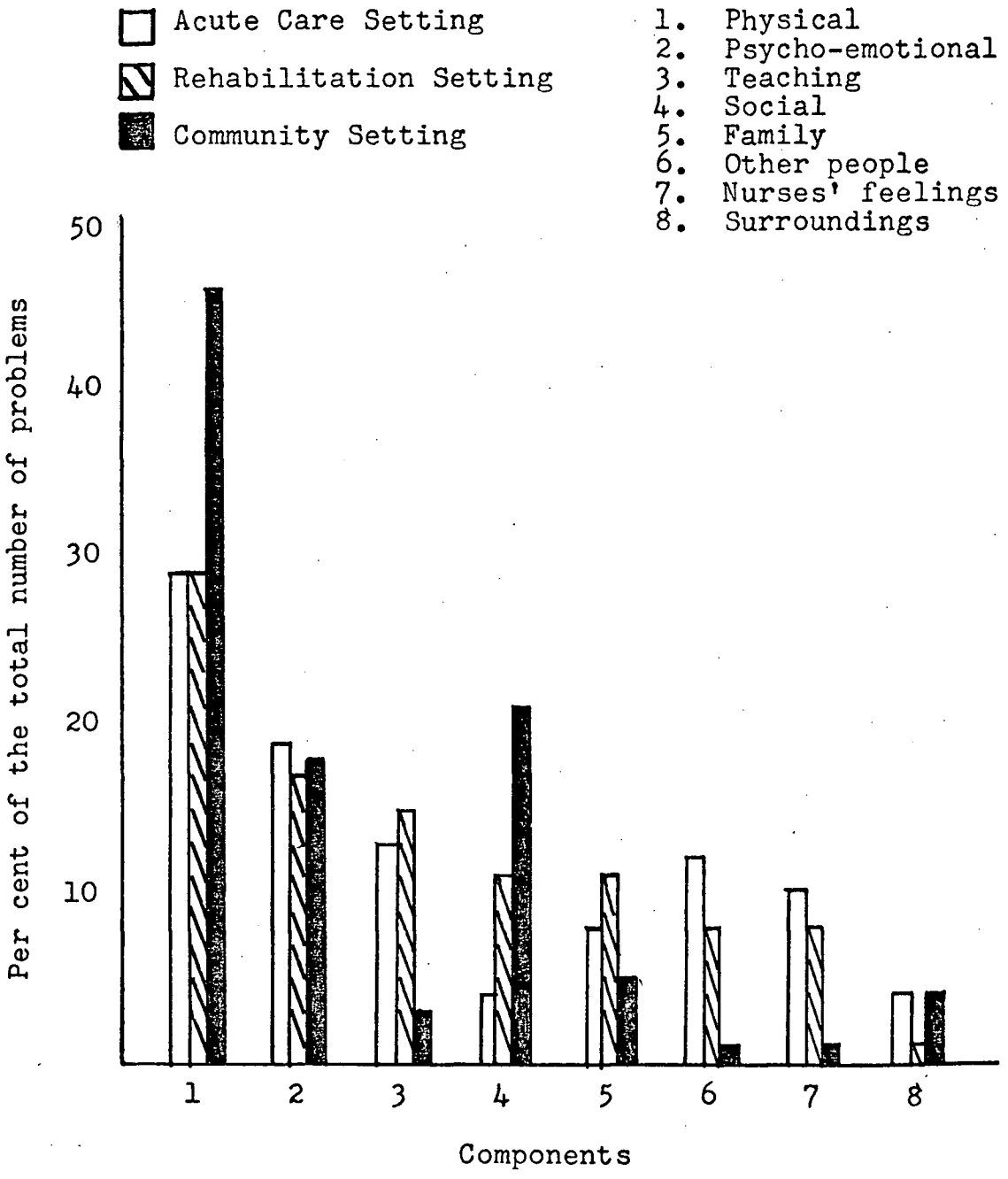
TABLE IV

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE TOTAL NUMBER AND PERCENTAGE OF NURSING PROBLEMS IDENTIFIED IN THE COMMUNITY SETTING DIVIDED ACCORDING TO THE COMPONENTS OF THE TYPOLOGY, JANUARY, 1970

Component of the Typology	No. of Different Problems	No. of Times Identified	Percent of the Total No. of Problems
Physical problems	6	42	45.65
Psychological-emotional	5	17	18.48
Teaching problems	2	3	3.26
Social problems	6	19	20.65
Family members	3	5	5.43
Other people	1	1	1.09
Nurses' feelings	1	1	1.09
Surroundings	1	4	4.35
Total	25	92	100.00

GRAPH II

THE PER CENT OF NURSING PROBLEMS WITHIN EACH COMPONENT OF THE TYPOLOGY IN THE ACUTE CARE SETTING, THE REHABILITATION SETTING, AND THE COMMUNITY SETTING, JANUARY, 1970



GRAPH III

THE CHANGING PRIORITY OF THE COMPONENTS OF THE TYPOLOGY IN THE ACUTE CARE SETTING, THE REHABILITATION SETTING, AND THE COMMUNITY SETTING ACCORDING TO THE PER CENT OF THE TOTAL NUMBER OF NURSING PROBLEMS WITHIN EACH COMPONENT, JANUARY, 1970

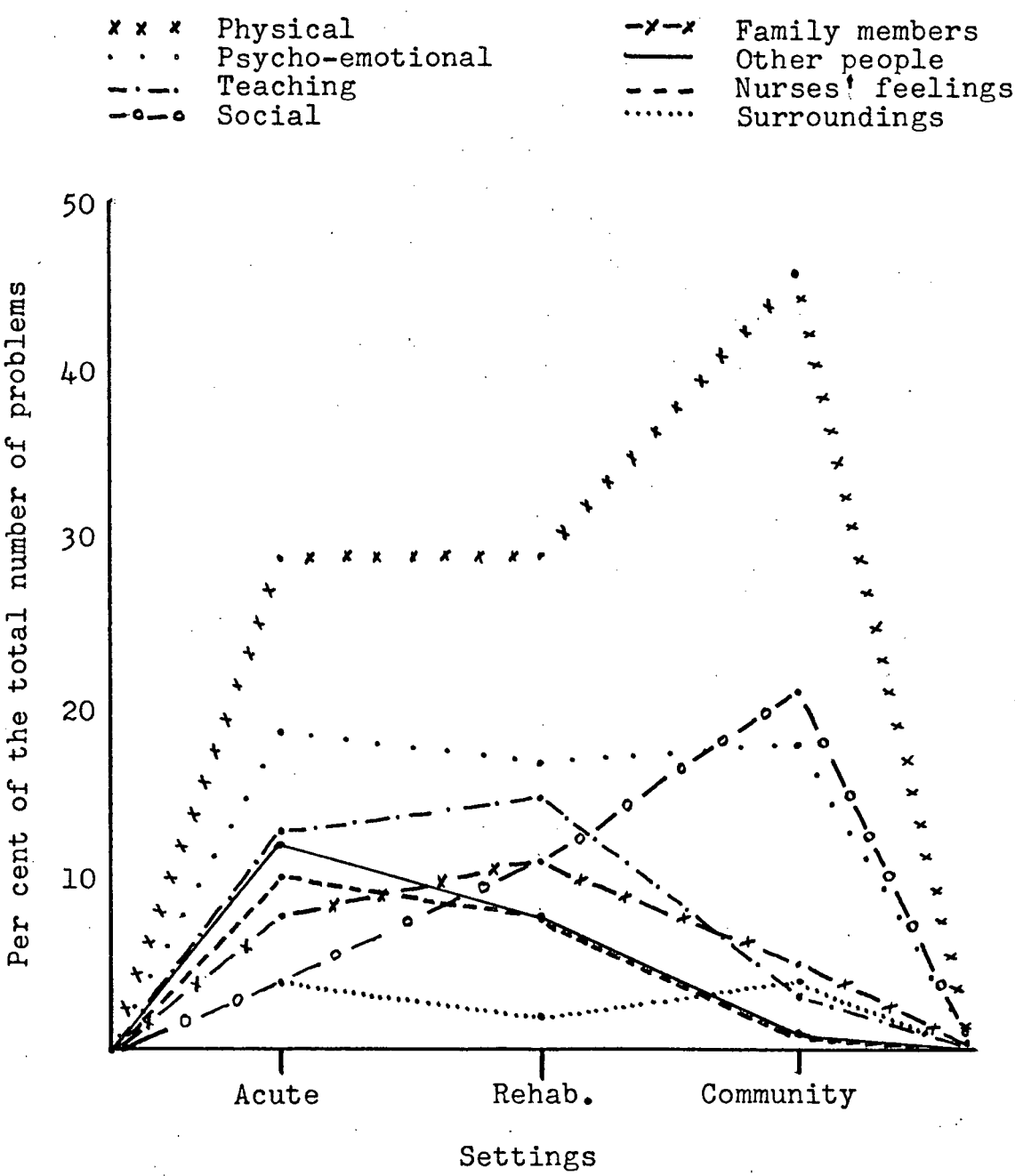


TABLE V

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE PERCENTAGE OF NURSING PROBLEMS IDENTIFIED WITHIN EACH COMPONENT OF THE TYPOLOGY BY ALL NURSES INTERVIEWED IN THE ACUTE CARE SETTING, THE REHABILITATION SETTING, AND THE COMMUNITY SETTING, JANUARY, 1970

Component of the Typology	No. of Different Problems	No. of Times Identified	Percent of the Total No. of Problems
Physical problems	7	87	35.22
Psychological-emotional	14	45	18.22
Teaching problems	9	25	10.12
Social problems	9	30	12.16
Family members	8	19	7.69
Other people	7	17	6.88
Nurses' feelings	9	15	6.07
Surroundings	5	9	3.64
Total	68	247	100.00

problems identified when the results from the three settings are combined. The greatest number of different specific nursing problems, fourteen, were identified within the component of psychological-emotional problems. The three most frequently identified specific nursing problems were within the component of physical problems. The most frequently identified specific nursing problem, identified a total of thirty-one times, was maintaining bowel and bladder function. The second most frequently identified nursing problem, identified a total of twenty times, was maintaining the integrity of the skin. Being alert for complications was the third most frequently identified nursing problem, identified a total of sixteen times. The fourth most frequently identified nursing problem was within the component of psychological-emotional problems. Trying to assist the person in facing the future as a disabled person was identified a total of twelve times.

Table VI shows the number of different nursing problems identified and the number of times each was identified within four general areas of the typology. Physical problems, psychological-emotional problems and teaching problems made up 63.56 per cent of the total number of nursing problems identified. These three components concern the paraplegic himself. Social problems, and problems with family members were 19.84 per cent of the total number of nursing problems. These two components are concerned with the

TABLE VI

THE NUMBER OF DIFFERENT NURSING PROBLEMS IDENTIFIED AND THE TOTAL NUMBER AND PERCENTAGE OF NURSING PROBLEMS IDENTIFIED WITHIN THE FOUR GENERAL AREAS OF THE TYPOLOGY BY ALL THE NURSES INTERVIEWED IN THE ACUTE CARE SETTING, THE REHABILITATION SETTING, AND THE COMMUNITY SETTING, JANUARY, 1970

The General Area of the Typology The Components of the Typology with it.	# of Different Problems	# of Times Identified	% of Total Problems
The Paraplegic Himself			
Physical problems	7	87	
Psychological-emotional problems	14	45	
Teaching problems	9	25	
Totals	30	157	63.56
The Paraplegic's Relationship to those outside the Health Care System			
Social problems	9	30	
Family members	8	19	
Totals	17	49	19.84
The Paraplegic's Relationship to the Health Care System			
Other people	7	17	
Nurses' feelings	9	15	
Totals	16	32	12.96
Inanimate Surroundings			
Surroundings	5	9	
Totals	5	9	3.64
			100.00

paraplegic's relationship to those outside of the health care system. Problems with other people working with the paraplegic and problems with the feelings of the nurses accounted for 12.96 per cent of the total number of nursing problems. These two components are concerned with the paraplegic's relationship to those outside of the health care system. The remaining 3.64 per cent of the nursing problems identified concerned the paraplegic's inanimate surroundings.

The nurses who were interviewed had worked in their present position from thirteen years to ten months. In the opinion of the researcher there was no significant difference in the kind of information given which could be related to the length of time the nurse had been employed in her present position. Younger nurses were more apt to begin the interview by discussing psychological-emotional problems and place more emphasis on this aspect of nursing care than older nurses. This was only a tendency and not always true.

Nurses in the three settings approached the interview differently. Those in the acute care setting and those at the rehabilitation center talked about various nursing problems encountered at various times with a variety of patients. Nurses working in the community setting usually approached the identification of nursing problems in terms of the particular patient or patients she or he was working with at the time.

More nursing problems could possibly have been identified by content analysis of the nurses' notes. However, this was not possible because patients' charts are filed according to the patient's name with no cross reference to his illness or injury. In order to obtain charts of paraplegic patients, it is necessary for someone to recall their name. Eight charts of paraplegics were examined and found to be incomplete and the information of little value in relation to this study.

V. DISCUSSION

The paraplegic himself. Thirty different specific nursing problems which were identified, 63.56 per cent of the total number of nursing problems, concerned the paraplegic himself. Physical problems alone accounted for 55.41 per cent of the nursing problems within this general area. It is not surprising that all of the nurses were very alert for nursing problems having to do with physical care since nurses have long seen their role as that of meeting the physical needs of the ill.

Interestingly, nurses caring for paraplegics in the two areas of the acute care setting and at the rehabilitation center talked about the need to provide emotional support for the paraplegic as he was just becoming aware of his disability. This would indicate that realization of what it means to be disabled is something which occurs

gradually, happening in different ways and over varying periods of time.

Only five of the seventeen nurses interviewed discussed problems that were due to the paraplegic's loss of sexual function. If the interviewee did not of her own accord bring up the paraplegic's loss of sexual function, she did not have anything to say when asked about it directly. One nurse stated that questions concerning sex were more apt to come up with patients who were married than with single people. Yet, single people may be just as concerned about questions concerning sex as married people, maybe more so, but too shy to say anything.[2]

This unawareness of problems a paraplegic may be experiencing due to the loss of his sexual function, or inability to discuss this aspect of his care, is not too surprising. Books and articles rarely mention this aspect of care. For example, Beland while providing an excellent background in other aspects of the paraplegic's care does not even mention the loss of sexual function. Frankel states that very little preparation is given to rehabilitation

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[2]Sedgwick Mean, "Spinal Cord Injuries," Modern Treatment, V(September, 1968), p. 957, states that a female with a spinal cord injury will remain fertile after injury if she were so previous to it. She may enjoy intercourse in-spite-of having insensitive genitals, but these people rarely experience orgasm. Males, with very rare exceptions, are permanently impotent and sterile.

workers in this aspect of care.[3] If this be true, nurses are likely not the only health professionals who leave sexual problems to the patient to work through alone. This is unfortunate, a gap in the rehabilitation program. As Frankel points out, sex is so interwoven with our interpersonal life, particularly in middle class American culture, that for a person with a spinal cord injury, his very psychosocial existence is threatened. The author goes on to point out that there is nothing which prohibits any member of the rehabilitation team from helping the paraplegic work through his sexual problems.[4] Nurses should learn all they can which would help paraplegics find answers to their questions and work through their problems. This is particularly so in relation to the female patient. If a person has overcome his or her reluctance to discuss sex enough to broach the subject to a nurse, the nurse should not make the person go through the additional effort of having to bring this up to someone else by referring him to the doctor. Granted, a nurse probably will not be able to answer all the questions she is asked, but surely she need not be as ready to refer the paraplegic to the doctor for everything as was indicated by the nurses who were interviewed.

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[3]Alan Frankel, "Sexual Problems in Rehabilitation," Journal of Rehabilitation, XXXIII (September-October, 1967), p. 19.

[4]Ibid.

The paraplegic's relationship to those outside the health care system. Few of the nurses who were interviewed mentioned the family without being asked. All of them said they had little contact with the families of these patients except the head nurse on the convalescent ward and a nurse at the rehabilitation center who had counseled with families in a former position. Interestingly, all of the nurses stated that the family was important to the paraplegic's final adjustment and rehabilitation.

The family is part of the rehabilitation team and as such should be included in the patient's care and should receive instruction for continuing to assist and support the paraplegic after he returns home. The data from this study indicated that family members are not very involved in the rehabilitation program, all effort is focused on the paraplegic himself. This is similar to the situation which is reported in an article by Stillar, where the rehabilitation team in a hospital found they were spending a great deal of time teaching and training the paraplegic, but not nearly enough in teaching the family member who was going to take responsibility for maintaining the gains.[5]

The lack of family participation in the rehabilitation program is a grave omission in light of a study done

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[5]Edith M. Stillar, "Continuity of Care," Nursing Outlook, X (September, 1962), p. 585.

in 1968, which found that families are usually willing to assume the responsibility for caring for a disabled member, but their aptitude for it may be low. Satisfactory performance of the tasks related to the patient's care was not assured by instructions given prior to discharge because inexperienced lay people frequently found it difficult to transpose what was shown briefly in the hospital situation to the home.[6] More ingenuity must be shown by nurses in involving the family in the rehabilitation program and helping them transpose what they learn in the institutional setting to their home so the paraplegic can maintain his capability.

The social problems component of the typology moved up as a concern of the nurse as the interview setting moved from the neurological ward to the community. In the community, the most frequently identified problems were the difficulty in finding suitable housing and jobs for these people.

None of the nurses said she had any contact with friends of the paraplegic, except to control the numbers of visitors, if necessary. None indicated any nursing problems in helping the paraplegic adjust to an altered relationship with his friends. This indicated support for

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[6]Franz U. Steinberg et. al., "Management at Home of Patients Severely Disabled by Spinal-Cord Lesions," Archives of Physical Medicine and Rehabilitation, XLIX (October, 1968), 594-595.

a statement by Cogswell that none of the health professionals assumes the responsibility for assisting paraplegics to learn the social skills necessary to relate successfully with non-disabled people in the community. Therefore, the patient must teach himself these skills. Cogswell points out that usually there is a gap between the time the paraplegic leaves the hospital or rehabilitation center and the time he assumes a productive role in society. According to Cogswell, it is during this time that he learns how to cope with the social situation.[7] Figuratively speaking, a patient's room is his home while he is in the hospital or rehabilitation setting. From there he goes out to meet his friends and returns to it after being out. At other times friends visit with him in his room. The nurse, if alert, would have ample opportunity to discuss with the paraplegic his re-entry into society. Cogswell points out that medical personnel in the hospital list for the paraplegic the sequence of events necessary to achieve physical independence. This practice makes accomplishments, which are meaningless from the perspective of a normal person, indicators of progress. She suggests a similar framework for ordering social learning and outlines a possible sequence.[8]

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[7]Betty E. Cogswell, "Self-Socialization Readjustment of Paraplegics in the Community," Journal of Rehabilitation, XXXIV (May-June, 1968), 11-12.

[8]Ibid., p. 13.

The paraplegic's relationship to the health care system. A number of the nurses interviewed discussed the need for communication and co-operation among all health professionals. These nurses revealed an awareness of the fact that rehabilitation is a team effort. The component of the typology which included nursing problems with people working with the paraplegic is most frequently identified by nurses working on the convalescent ward. This may be due to the fact that this ward was an in-between step for the paraplegic necessitating coordinating care with the neurological ward and the rehabilitation center. Working with others was of so little concern to nurses in the rehabilitation center possibly because of the fact there were few nurses in the rehabilitation center and the entire center is small so all members of the health team are close together. Team effort is important in rehabilitation. For example, the nurse is in a good position to reinforce the teaching of physical and occupational therapists. While the paraplegic is on the ward, he can practice, in meaningful situations, what these health professionals have taught him as he moves about in bed, gets out of bed, dresses, and manages his personal hygiene. Because of this the nurse should know what the paraplegic can do and how he has been taught to do it.

Nursing problems with the feelings of the nurses themselves was of great concern to nurses on the neurological

ward, dropping dramatically thereafter. This may have been because the situation of the paraplegic on the neurological ward lying immobilized on the Foster bed is so suddenly and drastically altered from that of a normal person. As the rehabilitation program progresses and the paraplegic becomes more capable of coping with his feelings and his physical situation, the nurses become less emotionally involved.

Nurses interviewed on the neurological ward expressed anxiety in caring for paraplegics. Nolan in an article discussing her experience as a student caring for a paraplegic, identified as sources of her anxiety a lack of knowledge about the patient's condition and her inability to accept the permanence of it.[9] The nurses in the study identified as a source of their anxiety, the long period of waiting before knowing the status of the patient. Also they questioned their ability to cope with becoming a paraplegic and felt this interfered with their giving paraplegics emotional support. Wright gives four possible reasons for the non-disabled to question and fear an inability to cope with a disability:

> 1. We tend to see the disability by putting ourselves in it as we are;
> 2. We perceive the disability as an insurmountable barrier to the achievement of many goals;
> 3. Whatever failures and frustrations the person with a disability may experience tend to be seen as disability connected;

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[9]Jeanette Nolan, "Who's Afraid?" American Journal of Nursing, LX (August, 1968), 1730-1731.

4. We expect to find frustration and therefore find it.[10]

Nurses also experienced a desire to make everyone the ideal paraplegic. Nursing care is given to people in order to help them achieve or maintain health, which is defined as physical, mental, and social well-being. In rehabilitation nursing, possibly it would be particularly well for nurses to remember that nursing has its roots in fundamental human needs which are satisfied by infinitely varied patterns of living. Nurses can only assist a patient to that state which means "health" to him or recovery from disease or disability to him.[11] Though members of the rehabilitation team must be careful not to expect too little from a patient, they must work with him toward his goals.

Nurses who are working with paraplegics or plan to do so could benefit from the following statement made during the interview with a nurse who has worked in rehabilitation nursing for a long time.

> It is important in rehabilitation nursing for the nurse to have confidence in her knowledge of how capable these people can be. She should know what the average person with this disability can do and then adjust her expectations to fit the individual situation. A paraplegic can do almost anything but climb five steps.

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[10]Beatrice A. Wright, Physical Disability: A Psychological Approach (New York: Harper and Row, Publishers, 1960), 95-96.

[11]Virginia Henderson, ICN Basic Principles of Nursing Care (For the Nursing Service Committee of the ICN, 1960-1961), 5-6.

This same nurse said:

> If the nurse does not have access to a physical therapist, she should write to the rehabilitation center where the paraplegic came from and find out exactly what level he was at when he left and then take into account the intervening circumstances. The nurse must make sure she does not do any harm by giving more care than is necessary. She has to have confidence in her knowledge of how much one can expect from these people. Somebody with confidence who knows exactly what they should be able to accomplish and is willing to take the time to make sure they do accomplish this, can do a great deal for the disabled person.

Nurses caring for paraplegics must be steeped in the philosophy of rehabilitation. They also must have a body of nursing knowledge which includes ways of solving or working with the nursing problems identified in this study. In addition to seeking knowledge concerning the solution of these nursing problems, nurses would do well to explore ways of assisting the paraplegic beyond that which they are doing so gaps in the rehabilitation program are filled. Lastly, nurses must have confidence that paraplegics can return to society as happy, capable, and productive people, able to work toward their goals in life.

CHAPTER V

CONCLUSION

The history and philosophy of rehabilitation have been well documented in many writings. The health professions of today are able to save the lives of many who not too long ago would have died. Now the challenge facing these professions is that of working together to build a body of knowledge and a team spirit which will enable them to assist the injured not only to live but to be happy, participating members of society.

This study included interviews with seventeen nurses caring for paraplegics during the three stages of their rehabilitation, during the acute stage, during the time of intensive rehabilitation, and after returning to the community. A total of sixty-eight different specific nursing problems were identified a total of 247 times. The greatest number of different specific nursing problems, fourteen, were within the component of the typology of psychological-emotional problems. The psychological-emotional problem identified most frequently, twelve times, was that of trying to assist the person in facing the future as a disabled person. The largest per cent of the total number of nursing problems identified, 35.22 per cent, were within the component of the typology of physical problems. The three most frequently identified nursing problems were within this

component. These were, maintaining the bowel and bladder function, thirty-one times, maintaining the integrity of the skin, twenty times, and being alert for complications, sixteen times.

The largest number of different nursing problems, thirty, and the greatest per cent of the total number of nursing problems, 63.56 per cent, concerned the paraplegic himself. Seventeen different nursing problems, 19.84 per cent of the total number of nursing problems identified, concerned the paraplegic's relationship to those outside of the health care system. There were sixteen different nursing problems, 12.96 per cent of the total number of nursing problems, concerned with the paraplegic's relationship to the health care system. The remaining 3.64 per cent of the nursing problems, five different ones, concerned the paraplegic's inanimate surroundings. Gaps in their identification of nursing problems offer a challenge for nurses to discover if the patient is receiving help in these areas and if not, to find ways of assisting him so rehabilitation is a complete program.

I. SUGGESTIONS FOR FURTHER STUDY

Research should be done to discover the best way of solving the specific nursing problems identified in this study. Many of them are currently being dealt with by intuition or trial and error, others are being ignored. It

also would be well to discover what paraplegics identify as their needs or problems as they move through the various stages of the rehabilitation program. Nursing which is aimed at helping the paraplegic accomplish his goals should be alert to what he regards as his problems and help him arrive at a satisfactory solution to them.

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APPENDICES

APPENDIX A

THE TYPOLOGY

THE TYPOLOGY

1. Patient as a physical being

   Problems relate to

   physical integrity of the body

   functioning of the body and its members

2. Patient as a psycho-emotional being

   Problems relate to behavior and conversation which reveal:

   feelings and attitudes about himself

   feelings and attitudes toward his situation

   indications that he would like to talk with someone

   awareness of his assets and limitations

   feelings and attitudes about the need for using special devices

3. Patient as a learner

   Problems relate to:

   time needed for patient to do things

   abilities in self care including exercises

   general intelligence

   knowledge of his condition

   abilities in care and use of equipment and devices and knowledge about them

4. Patient as a social being

   Problems relate to:

general appearance

friends

interests and abilities, culturally, recreationally, and vocationally

opportunities for diversion and vocational interests

his goals in life

5. Patient's family

Problems relate to the family's knowledge about and

attitudes toward patient as a person in the treatment situation

attitudes toward the patient's disability

attitudes toward the patient becoming a person in the home situation

plans for use of community resources

understanding of appropriate literature

6. Inanimate surroundings

Problems relate to:

physical facilities of the home or institution

equipment and its function including that of special devices

7. People working with the patient

Problems relate to:

work of professional health team members including nurses

work of nonprofessional staff

work of community volunteer workers

need for inner and inter agency work and cooperation

8. Feelings of the health team members

Problems relate to:

coping with feelings about the patient's situation

coping with feelings created in interacting with the patient

APPENDIX B

THE INTERVIEW GUIDE

INTERVIEW GUIDE

Nursing literature in rehabilitation gives some indication of general areas in which nurses may encounter nursing problems in caring for a paraplegic, but does little in identifying specific nursing problems.

When I say nursing problem I mean a situation you as a nurse have been faced with because of what the patient is experiencing as a result of his injury.

Having cared for paraplegics perhaps you can give some examples of specific problems you have encountered.

What is a common nursing problem in caring for paraplegics?

Could you give an example of what you mean?
Can you describe a specific situation?

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1. Are there some nursing problems in relation to the physical facilities of the (institution, home)?
2. Do nursing problems come up in the social area? (The area of interpersonal relationships.)
3. Are there nursing problems in relation to the families of these patients?
4. Are there any problems in teaching paraplegics?
5. Have you found there are emotional problems in adjusting to this disability?

6. Have you found there are problems that are purely physical?

7. Have nursing problems arisen because of the patient's loss of his sexual function?

8. Have you experienced any nursing problems in relation to the patient due to non-professional people working with him?

APPENDIX C

SUMMARY OF THE SPECIFIC NURSING PROBLEMS OF THE PARAPLEGIC PATIENT AS SEEN BY THE NURSE

SUMMARY OF THE SPECIFIC NURSING PROBLEMS

OF THE PARAPLEGIC PATIENT

AS SEEN BY THE NURSE

	No. of Times Identified
Physical Problems	
1. Maintaining bowel and bladder function	31
2. Maintaining the integrity of the skin	20
3. Being alert for complications	16
4. Encouraging the paraplegic to drink sufficient fluids	9
5. Additional, unrelated physical problems	6
6. Maintaining strength and mobility	4
7. Encouraging the paraplegic to eat a proper diet	1
	87
Psychological-emotional Problems	
1. Trying to assist the person in facing the future as a disabled person	12
2. Trying to motivate the paraplegic to assume responsibility for his own care and have confidence in himself	8
3. Being asked questions concerning sex	5
4. Over indulgence in alcohol and/or drugs	5
5. Trying to provide psychological and emotional support	3

		No. of Times Identified
6.	Trying to build a relationship of trust and rapport	3
7.	Reluctancy to leave sheltered environment	2
8.	Many complications occur in the genito-urinary system	1
9.	Trying to help the paraplegic feel secure on the Foster bed	1
10.	Trying to help the paraplegic face the possibility of death	1
11.	Importance and difficulty of answering paraplegics' questions honestly	1
12.	Males may have to wear what they define as feminine clothing	1
13.	Realization of disability comes slowly	1
14.	Adding adjustment of becoming a paraplegic to those of being a teenager	1
		45

Teaching Problems

1.	Trying to encourage the paraplegic to practice the skills in self care he has learned.	8
2.	Paraplegic must learn many things in order to properly care for himself	7
3.	The paraplegic must appreciate the importance of learning the various aspects of self care	4
4.	Lack of knowledge about the anatomy and physiology of the pelvis	1

		No. of Times Identified
5.	Paraplegics tend to get impatient with trying to do things for themselves	1
6.	May accept teaching intellectually but not emotionally	1
7.	Trying to assist the paraplegic in making his own decisions as to goals in rehabilitation	1
8.	Explaining and interpreting what the doctor has told the paraplegic	1
9.	Adjusting what the paraplegic has learned to his present situation . . .	1
		25

Social Problems

1.	Lack of suitable housing	8
2.	Lack of social contacts after returning to the community	5
3.	Limited income	5
4.	Visitors, too many or too few	3
5.	Lack of acceptance and understanding of disabled people by the general public	3
6.	Resuming general education	2
7.	Providing diversion while hospitalized	2
8.	Arrest of mental development at the time of injury	1
9.	Safety travelling about in a wheelchair	1
		30

	No. of Times Identified
Problems with Family Members	
1. Trying to assist families to adjust to having a disabled member	5
2. Lack of family support	4
3. Trying to cope with the reactions of the family	4
4. Unrealistic expectations of the family	2
5. No family	1
6. Family may be left without an income when breadwinner is injured	1
7. Ill health of other family member(s)	1
8. Teaching family to give care	1
	19
Problems with Other People	
1. Co-operating with other members of the health team such as the physiotherapist and tutor	6
2. Deciding on and carrying out a consistent approach to the paraplegic by all health team members	4
3. Co-ordinating work and providing continuity of care between and among the various places the paraplegic receives care	2
4. Informing health professionals not constantly working with paraplegics of some of the basics of their care.	2
5. Gaining acceptance of the philosophy and ideals of rehabilitation by all health professionals	1

	No. of Times Identified
6. Remembering to treat them as a non-disabled person as much as possible	1
7. Patients may manipulate staff	1
	17

Problems with the Feelings of the Nurses

1. Trying to maintain a correct perspective of the new paraplegic's future	3
2. Coping with expressed hostility . . .	3
3. Resisting the habit of "doing for" the paraplegic	2
4. Cannot provide the reassurance they would like to because the outcome is unknown	2
5. Setting unrealistic goals for the paraplegic	1
6. Question if they could cope with becoming a paraplegic while trying to provide support for the patient	1
7. Maintaining equanimity when the patient is demanding	1
8. Becoming attached to the paraplegic, a long-term patient	1
9. Felt a lack of knowledge	1
	15

Problems with Inanimate Surroundings

1. Facilities within the home make it difficult for the paraplegic to care for himself and be independent. .	4
2. Securing a proper wheelchair	2

	No. of Times Identified
3. Working with the Foster bed	1
4. Working with cone tongs and weights	1
5. Applying braces correctly	1
	9