# CHRONIC ILLNESS AND EMOTIONAL DISTURBANCE

A Study to Establish Whether Chronic Illness, as a Stress, Causes Emotional Disturbance

A Thesis

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by

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# CHAPTER I

## INTRODUCTION

The research into chronic illness and emotional disturbance dealt with in this thesis is part of a joint project, undertaken by two second year students at the Maritime School of Social Work, and fulfills, in part, the requirements for the Master's Degree in Social Work.

Interest in this particular topic was generated by the writer's curiosity about the strong emotional impact which illness seems to have upon some individuals. As a result of working in a medical social service setting, certain questions arose in the writer's mind. Why does illness have a greater impact upon some individuals than it does upon others? Are the severity and the length of illness related to this impact? Does the age and sex of the individual influence one's reaction to illness? Do people who differ in personality also differ in the manner in which they react? Does illness itself interfere seriously enough with one's life goals to cause emotional disturbance?

From the body of theory described in Chapter II and the general propositions derived from these theories,

it was postulated that illness of a chronic nature might be the occasion of a considerable degree of emotional disturbance. Acute illness would provide a comparison. The hypothesis was deduced from the general propositions. In broad terms the study will investigate whether chronic illness causes a significant degree of emotional disturbance because of interference with one's life goals.

If chronic illness does show some relation to causing emotional disturbance in terms of interference with life goals, then this information will have some relevance to social work not only in the health field but also in other settings; for example, some of the problems concerned with family dysfunctioning may be the result of illness. It is well known to both doctors and laymen that there are many people who are suffering from illness who either are unable or unwilling to seek hospital treatment. Therefore, the knowledge which might be gained from a study of this nature could be helpful to all social workers dealing with the individuals and helping them solve their problems. In hospital settings social workers would be able to communicate this knowledge to other disciplines and to promote a more flexible and comprehensive analysis and treatment -- seeing the patient in his total context. Another possible outcome of this study is bringing into focus other related factors in illness and emotional disturbance.

This study is an important undertaking for the following reasons also. Firstly, it serves to develop beginning skills in research procedures. Secondly, it may help in a small way to amplify knowledge about the effect of illness upon the individual, and to point the way toward further and extensive research into this vital sector of the human condition.

On scanning the literature for information concerning or relating to chronic illness the writer found that very little research has been done in this area. However, one very extensive research project was carried out in the United States in the latter half of the 1950s on chronic illness. 1/ This survey has been very helpful in writing this thesis and frequent references will be made to it in later chapters.

It is only necessary to acknowledge the writer's awareness of the existence of limits and limitations in the present chapter since these are enumerated in Chapter III.

The Victoria General Hospital in Halifax, Nova Scotia, was chosen as the setting from which data would be obtained. This hospital is a provincial institution and is a diagnostic and treatment center. It has a

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1/ Commission on Chronic Illness, CHRONIC ILLNESS IN THE UNITED STATES, Volume I - IV; Harvard University, Cambridge, Massachusetts, 1957.

capacity of 500 to 600 patients who are admitted mainly from the Halifax and Dartmouth area, and also from other parts of the province of Nova Scotia. The Victoria General Hospital maintains a well developed Out-Patient Department and a relatively large and very well organized Social Service Department. This hospital is used as a teaching center by Dalhousie Medical School and also has made provision for a student unit from the Maritime School of Social Work.

The total number of admissions to the Victoria General Hospital during the calendar year 1965 exceeded 13,000. In order to obtain a workable sample, from this total number of admissions, a random selection was made among the records of a chosen service -- Surgery -- for four given months -- January, April, July and October. This selection was analyzed and the Chi squared ($x^2$) Test For Two Independent Samples was applied. The level of significance was arbitrarily selected at .05.

With the application of the test it was learned that the data did not support the hypothesis. Thus, the burden of the study became an exploration of limitations which might have caused the hypothesis to be rejected. These limitations were found in theory, in methodology and in the source of data. The nature of these limitations will be explained more fully in Chapter V.

## CHAPTER II

## STRESS

The theoretical formulation to give context to concept of stress will begin with Gordon Hearn's ideas on "general systems", by which the individual is seen as interrelated biological, psychological and sociological systems with goals which move the whole entity in essentially the same direction.

> General systems theorists believe that it is possible to represent all forms of animate and inanimate matter as systems; that all forms from atomic particles through atoms, molecules, crystals, viruses, cells, organs, individuals, groups, societies, planets, solar systems, even galaxies may be regarded as systems.
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> They contend that there are properties which are common to systems of every order, although manifest in different forms, and that there are universal laws which describe the structure of systems and their manner of function. 1/

According to Floyd H. Allport, "a system is something that is concerned with some kind of activity and preserves a kind of integration and unity; and a parti-

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1/ Gordon Hearn, THEORY BUILDING IN SOCIAL WORK; University of Toronto Press, Toronto, 1958; p. 38.

cular system can be recognized as distinct from other systems to which, however, it may be dynamically related." 1/

Systems, as they have been described, may vary in terms of the models used for symbolization and in terms of their closedness or openness. The major difference between open and closed systems is that closed systems are isolated from, whereas open systems are related to, and exchange matter with, the environment. However, neither open nor closed systems exist in pure form. No system exists completely isolated from its environment and likewise there are some living organisms that resemble closed systems.

Before proceeding to a consideration of specific kinds of systems it should be noted that there are some properties of systems in general. "Every order of system with the exception of the smallest has sub-systems, and all but the largest are a part of a supra-system consisting of the system in its environment." 2/

There are factors that affect both systems and

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1/ Floyd H. Allport, THEORIES OF PERCEPTION AND THE CONCEPT OF STRUCTURE; John Wiley and Sons, New York, 1955; p. 469.

2/ Hearn, op. cit., p. 41.

environment. The factors which affect the structure and function of the system are variables while parameters change the environment.

The distinction between the environment and every system is the boundary.

James G. Miller describes the boundary of a system as, "that region where greater energy is required for transmission across it than for transmission immediately outside the region or immediately inside it." 1/

The environment of a system is usually described as everything that is external to its boundary. In relation to systems, the environment may be proximal and/or distal. That part of the environment which the system is aware of is known as the proximal environment while the part of the environment that affects the behavior but is beyond the consciousness of the system is considered the distal environment.

This thesis is concerned with the human system -- with the individual who is experiencing stress in the form of illness.

The following is a summary as presented by Gordon Hearn of the general system theory as it relates

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1/ James G. Miller, TOWARDS A GENERAL THEORY FOR THE BEHAVIORAL SCIENCES; American Psychologists, 1955; p. 516 - 517; as quoted in THEORY BUILDING IN SOCIAL WORK, Gordon Hearn; University of Toronto Press, Toronto, 1958; p. 42.

to human beings.

1. Humans exchange material with their environment, material in the form of both energy and information.
2. This energy may arise either from within the system or from the environment of the system.
3. Human behavior is purposive.
4. When considered both as individuals and as species, humans have a characteristic state towards which they move.
5. Humans may achieve their same characteristic state from different initial conditions and from varying inputs of energy and information.
6. In the human individual as well as in human aggregations such as groups and communities, there is a dynamic interplay among their essential functional processes enabling them to maintain a steady state.
7. There is a tendency in human systems toward progressive mechanization; that is, in the course of human development, certain human processes tend to operate more and more as fixed arrangements.
8. Human systems show a resistance to any disruption of their steady state.
9. They are capable, within limits, of adjusting to external and internal changes.
10. They can regenerate damaged parts.
11. They can reproduce their own kind. 1/

In realizing these goals any of the systems may experience difficulty with the environment at the system boundaries. The less effective the adaptative mechanisms which can be mobilized by this or the related systems, the greater the dysfunctioning and

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1/ Hearn, op. cit., p. 43.

consequent maladaptation. This dysfunction in one system may in turn set up dysfunctioning in one or more of the related systems.

The system theory described above, when applied to biological organization, is usually referred to as "organismic theory". A leading exponent of organismic theory today is Kurt Goldstein, a distinguished neuropsychiatrist. Goldstein's conclusions were reached after studying brain-injured soldiers during World War I, and also in earlier studies of speech disturbances. He concluded that any particular symptom displayed by a patient could not be construed solely as the product of an organic lesion or disease but had to be considered as a demonstration of the total organism. The organism always acts as a unified whole and not as a series of differentiated parts -- mind and body are a single entity. The laws of the whole govern the functioning of the differentiated parts of the whole.

Some principal features of the organismic theory as they pertain to the psychology of the person are:

1. Organismic theory emphasizes the unity, integration, consistency, and coherence of the normal personality. Organization is the natural state of the organism; disorganization is pathological and is usually brought about by the impact of an oppressive or threatening environment, or, to a lesser degree by intraorganic anomalies.

2. Organismic theory starts with the organism as an organized system and proceeds to analyze it by differentiating the whole into its constituent members. ....
3. Organismic theory assumes that the individual is motivated by one sovereign drive rather than by a plurality of drives. Goldstein's name for this sovereign motive is self-actualization or self-realization which means that man strives continuously to realize his inherent potentialities by whatever avenues are open to him. This singleness of purpose gives direction and unity to one's life.
4. Although organismic theory does not regard the individual as a closed system, it tends to minimize the primary and directive influence of the external environment on normal development and to stress the inherent potentialities of the organism for growth.... If the organism cannot control the environment it will try to adapt itself to it. In general, organismic theory feels that the potentialities of the organism, if allowed to unfold in an orderly way by an appropriate environment, will produce a healthy, integrated personality, although malignant environmental forces may at any time destroy or cripple the person. There is nothing inherently "bad" in the organism; it is made "bad" by an inadequate environment. 1/

Karl Menninger in THE VITAL BALANCE, describes the organismic theory in the same manner as Goldstein, Hall and Lindzey. However, he places special emphasis

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1/ Calvin S. Hall, Gardner Lindzey, THEORIES OF PERSONALITY; John Wiley and Sons, Inc., New York, 1957; p. 298 - 299.

on the ability of the organism to maintain an equilibrium or alter its operation to a new and more effective level.

According to Menninger, "in every organism, despite constant irritations which provoke local or general reactions, a flexible balance is maintained internally with respect to the relationship of the parts. At the same time, a flexible balance is maintained externally with the environment." 1/

In other words, the organism must maintain its own uniqueness, despite constant disturbances whether these are internal or external or both. If a balance or equilibrium cannot be maintained the organism must be flexible enough to alter its level of operation and acquire a new level of operation. This is the process which Menninger calls "the vital balance".

For the purpose of this study, it is postulated that illness is an environmental force which disorganizes the functioning of the human organism. The suffering may be in the afflicted person (or in those around him or both) but a disturbance has occurred in the total economics of personality. It is this totality, including the actual injury, which makes up the

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1/ Karl Menninger, THE VITAL BALANCE; The Viking Press, New York, 1963; p. 80.

picture of illness. "It is an imbalance, or organismic disequilibration, and re-equilibration at a lower level of effectiveness and well-being, and if the imbalance is not corrected it tends to impair the comfort or even threatens the biological survival of the individual." 1/

This disorganization which has occurred within the organism will impose a burden upon that organism. Inevitably, certain adaptative mechanisms will come into use. In other words, to maintain its equilibrium, the organism must deal with what we call "stress".

In the reading done for this study, "stress" has been variously defined by many theorists. As quoted in LIFE STRESS AND MENTAL HEALTH, Dr. George Engels describes stress as "any influence, whether it arises from the internal environment or the external environment, which interferes with the satisfaction of basic needs or which disturbs or threatens to disturb the stable equilibrium." 2/

Stress within this conceptual framework is also described by Thomas S. Langner and Stanley T.

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1/ Menninger, op. cit., p. 78.

2/ Thomas S. Langner, Stanley T. Michael, LIFE STRESS AND MENTAL HEALTH; The Free Press of Glencoe, Collier-Macmillan Ltd., London, 1963; p. 9.

Michael themselves in LIFE STRESS AND MENTAL HEALTH. They accept the definition of Dr. Engels for stress but expand their statement to describe the resultant of stress as strain. Strain is "an adaptation or maladaptation to stress." 1/ It is, then, the reaction to stress. The personality, the sum of a person's reliable ways of acting and reacting can become deformed because of stress. "The cumulative physical, emotional and social experience, combined with endowment result in the formation of a personality; a usual way of behaving and reacting. It is the personality then, that in the end mediates between stress and strain, for personality encompasses the total experience of the individual." 2/

Within this context of stress and strain Engels emphasizes the "relativity of stress" which depends upon the strength of the organism, or its capacity to deal with a particular force at a particular time. The individual's endowment (constitutional factors, hereditary predisposition, physical, mental and neurological potential) must be considered along with the individual's previous patterns of dealing with stress. When there are certain factors, which

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1/ Ibid., p. 400.

2/ Ibid., p. 9.

when grouped together broadly mean personality, that mediate between stress and strain, stress is spoken of as being "relative".

It should be noted that the concept "stress" does not have the exact meaning to all who use it. Dr. Engels, who has already been mentioned, views stress as internal and external pressures, strain as the resulting malformation. In contrast Hans Selye 1/ considers stress as the reaction to the external environment, to stimuli which he terms stressors. Selye came to this conclusion when he investigated the "alarm reaction" of the body and examined bodily responses under prolonged stress of various types.

According to Selye, nobody can live without experiencing some degree of stress all the time. It may be thought that only serious disease, or physical or mental handicap are the only causes of stress. This is not so. Crossing the street at a busy intersection, exposure to a draft or too much sun or even sheer pleasure are enough to activate the body's stress-mechanism to some extent. Stress need not be considered abnormally damaging; it can be considered part of "the spice of life", for any emotion, any activity

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1/ Hans Selye, THE STRESS OF LIFE; McGraw-Hill Book Co. Ltd., New York, 1956.

causes stress. However, each human system must be prepared to receive it. The same stress which makes one person sick may be an invigorating experience for another.

Therefore, Selye's viewpoint about stress is ".... the whole of the wear and tear - not wear and tear in any one part." 1/

Nancy Gross has a very similar view of stress. She emphasizes its general and universal nature.

> All of us must experience some stress, but to some extent, at least, we can determine for ourselves, by our own choice of a pattern of life, how much and what kind of stress we will endure. Whatever, our choice, we must make it in the knowledge that stress is a fundamental fact of life. It is the common denominator of all pressure experiences. It is the body's basic pattern of response to all demanding situations. It is the state of being in which all of us live. Whether we find it pleasant or unpleasant, whether we have sought it out or have had it thrust upon us, whether we like it or not, stress is a necessary condition of life. 2/

When people are under stress there may be one or many precipitating factors. The stress factor may be physiological, psychological and sociological.

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1/ Ibid., p. 111

2/ Nancy E. Gross, LIVING WITH STRESS; McGraw-Hill Book Co. Inc., New York, 1958; p. 21.

Physiological stress may be considered a pressure or stress on living organisms in such areas as infection, disease, ageing or maturation. Psychological stress may be considered to exist in man when he is exposed to a set of experiences or conditions which are likely to produce fear, disillusionment, doubt, insecurity, frustration and conflict. Sociological stress may be considered as certain socio-cultural conditions which place great strains on the individual. These pressures may arise from within the family, the job, the peer group and the community. Environmental factors such as marital disharmony, parental problems, unemployment, poor interpersonal relationships and poor housing may be the cause of stress to an individual. Also, problems causing sociological stress may result if a person is having difficulty in living up to the expectations of his family and friends, or is finding it difficult to accept or function in his various roles.

In a situation where medical problems are dominent, stress can be aroused by such factors as the sudden impact of illness, threatening medical procedures, hospitalization, separation from family security or a long and serious illness. These problems are stressful to both the patient and to those who are close to the patient, his family.

Selye, after a great deal of research discovered that stress causes certain changes in the structure and chemical composition of the body which could be accurately appraised. From his experiments he deduced a local adaptation syndrome and a general adaptation syndrome, which are interdependent.

The local adaptation syndrome (L.A.S.) appears when tissues are directly affected by a specific stress. The L.A.S. develops in three phases, characterized mainly by inflammation, degeneration and death of the cell groups in the directly affected part. Selye found that selective local stimulation of any part of the body could produce demonstrable manifestations of local stress; but specific local stimulation of certain parts could produce general stress. Therefore, "there can be no doubt that the specific stimulation of organs is inseparably interwoven withnon-specific, local and general, manifestations of stress." 1/

The totality of the changes caused by stress is called the general adaptation syndrome (G.A.S.). It progresses also in three stages - the alarm reaction, the stage of resistance and the stage of exhaustion. During the alarm reaction the cells of the adrenal medulla discharge adrenalin directly into the blood

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1/ Selye, op. cit., p. 220.

stream. The adrenalin produces results like speeded breathing and heartbeat and serves to increase and prolong the energy brought about by the sympathetic nervous system. After the adrenalin is depleted, the body appears to be in the normal state (stage of resistance). After periods of tension, exhaustion and depression finally set in (stage of exhaustion).

In general, Selye views stress as the wear and tear of life; specifically it is the state which disrupts homeostasis and is made manifest by the adaptation syndrome.

Stress can be an occasion of either positive or negative behavior. However, for the purpose of this research study, the negative aspects of stress in the form of illness will be emphasized.

The reaction to illness is conditioned by the same factors which affect reaction to any other stress. A patient's endowment, his concept of himself, his feelings of adequacy and security, also the psychological mechanisms which he has been accustomed to use in dealing with stressful situations, will be used in his response to illness.

In order to understand a person's reaction to illness one must understand the meaning of illness.

> People react differently to illness and disability, finding in the experience varying degrees of frustra-

> tion and pleasure. In general, however, physical disability may be considered a negative, frustrating, and anxiety-provoking event. It represents an attack upon the person by a hostile, malign and often unknown force. At least temporarily it usurps control of certain activities which the individual normally has under his own command. It affects family economics by entailing additional costs, by loss of income, and often by creating burdensome indebtedness. It frequently imposes inconveniences and hardships on others. It sometimes means separation from home and family. It often necessitates accepting living through a set of bewildering and frightening medical procedures at the hands of unknown and impersonal experts. The whole experience of illness and care may stir up repressed fears of inadequacy, mutilation, and annihilation. 1/

There are certain generalizations that can be made about the way people react to illness. Although these generalizations may not be implied of necessity to every ill person, there is reason to believe that in today's society with its value orientation and its social and cultural forces health is highly valued.

"Our society believes health is the right of everyone." 2/ A considerable responsibility is placed

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1/ Francis Upham, A DYNAMIC APPROACH TO ILLNESS; Family Service Association of America, New York, 1949; p. 15.

2/ William W. Schottstraedt, PSYCHOPHYSIOLOGIC APPROACH IN MEDICAL PRACTICE; The Year Book Publisher Inc., Chicago, 1960; p. 161.

on parents to maintain their children's health. Health is also encouraged as an ideal for the public through television, magazines, newspapers and radio. People are continuously told of the benefits of frequent medical check-ups.

According to Schottstraedt there are many social and cultural attitudes that affect individuals' contact with doctors and thus their responses to illness. To many people robust health is the sign of masculinity and femininity. A person with this attitude may have many symptoms of a particular disease which will be denied and neglected until the disease has progressed to the degree where it is inoperable or too late to treat with any hope of cure.

Another attitude which prevails and affects a person's reaction to illness is the cultural goal of independence. Men in our society are principally responsible for economic independence for themselves and their families. Many times illness necessitates unemployment and results in a depletion of the family's savings to pay medical expenses.

Closely allied to this concept of independence are the social concepts concerning work, career, and vocational choice. It is considered proper for every adult to engage in some kind of activity. This is

especially true in a capitalistic society where there is still the influence of the Protestant Ethic -- "hard work" giving dignity to the economic productivity of the individual.

Over and above the social pressure of independence and its related reactions, are the fears a patient is likely to have concerning such things as a dreaded surgical experience; an uncertain future and even the possibility of death. "Generally, illness is a deviation from health which decreases one's energy level and his ability to cope with his environment and interferes with his ability to be productive and independent." 1/

A person who is ambitious and successful will find that the state of being ill is frustrating and a barrier between himself and his goals.

The reaction of a patient and his family is conditioned by the role which the ill member has played in the family, and often there is the fear that illness will alter the roles within the family. It makes a considerable difference whether the ill person is a child, a mother, father or some elderly person in the family. When there is only one male in the home, it is important that he remain on the job and bring home

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1/ Ibid., p. 164.

his wages. Illness of the mother may require some other person to take care of the house and children.

> People therefore react to illness in terms of attitudes toward health and illness in general, goals in terms of work and independence, feelings about the acceptability of a particular type of illness, the role within the family, feelings about this role, and what the outcome of illness means in terms of the future. Illness may seem to represent a weakness or inferiority, an inadequacy for meeting the needs of living. A patient may react with anger, guilt, with anxiety or depression. His reaction depends on his concept of how his illness affects his goals and standards. 1/

1/ Ibid., p. 173.

# CHAPTER III

## METHODOLOGY

In the previous chapter various theories related to stress and the human organism were discussed and several propositions may be drawn from these theoretical formulations. The human system is a unified whole -- mind and body are a single entity. The human system consists not only of physical organs but also psychological, emotional and social components which react to each other and to the outside environment. When stress interferes with the functioning of the organism its stable equilibrium is threatened. When this disturbance occurs in one sphere such as the physical, it produces pressures in at least one of the other spheres of the individual's personality.

Illness is a disturbance to the human organism and resulting from this, stresses can be produced in the social, psychological and emotional counterparts. Illness can disrupt the life of the individual for a short period of time or it can be an ongoing, continuous disturbance.

All individuals have some goals they are striving

to achieve, and illness may interrupt this process. Therefore, the longer the illness continues the longer the interference with goals may persist. Thus, the greater the impact may become upon the individual. It would appear that if physical illness results in stresses in the other areas of the individual, then it should follow that the greater the illness, the greater the repercussions would be in the psychological, social and emotional areas of the individual.

The purpose of this research study is to determine whether the more serious, long term illnesses (chronic) cause greater disturbance to the individual than do short term illnesses (acute).

Chronic illness was chosen as the illness which may have more impact on most individuals, because of its very nature. As follows, it is defined by the Commission on Chronic Illness as constituting "all impairments or deviations from normal which have one or more of the following characteristics; are permanent; leave residual disability; are caused by non-reversible pathological alteration; require special training for rehabilitation; may be expected to require a long period of supervision, observation, or care." 1/

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1/ Commission on Chronic Illness, PREVENTION OF CHRONIC ILLNESS, Volume 1, of Chronic Illness in the United States; Harvard University Press, Massachusetts, 1957; p. 4.

However, not all persons suffering from chronic disease are long-term patients receiving active treatment. The Commission felt that the time element should be considered in deciding whether the disease is chronic or acute. Long-term illness will mean a continuous period of care for at least 30 days in a general hospital, or care for a continuous period of 3 months in another institution or at home. 1/

In contrast to acute illness, which is characterized by rapid change, chronic illness may progress or subside so slowly that change can be measured only over a long period of time -- weeks, months or years. Yet, as changes occur, be they exacerbations or remissions, care and treatment must be changed accordingly.

The impact on the patient differs with regard to the particular illness that occurs.

> In acute illness where the onset is sudden and the course of illness usually brief, the patient and the family often have sufficient resources - financial and emotional - to cope with the situation. However, in chronic disease the onset is insidious and by definition the course of illness is long. Families are drained emotionally and economically, and associated with all serious chronic illness are im-

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1/ Commission on Chronic Illness, CARE OF THE LONG-TERM PATIENT, Volume II, of Chronic Illness In The United States; Harvard University Press, Massachusetts, 1956.

> portant dislocations in relationships between the patient and his family and with society. In treating acute illness it is possible for the doctor to provide virtually all the care, with some assistance in the more severe cases from the nurses. In chronic disease, much more is needed than the doctor's and nurse's skill. 1/

It can be very difficult to categorize disease as acute or chronic in many instances. A broken leg resulting from a car accident may heal very well and a person can return to work in several months. The reverse can also happen and the injury may leave permanent impairment and it may be necessary for the person to find new ways of satisfying his old interests, new ways in which to be useful. A stroke may be compared to a broken leg in terms of the length of disability and the residual effect. Cancer can be considered in some cases acute and in some cases chronic. If, for example, a female patient has been diagnosed as having breast cancer or cancer of the uterus she may have a successful operation with no recurrence. Thus, the difficulty in defining the terms "chronic" and "acute" can be seen.

For the purpose of this study the means which were devised to delineate the two were to consider

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1/ Ibid., p. 11.

the diagnosis, the definition which the Commission on Chronic Illness devised, the time limit of the illness and the prognosis of the disease.

The impact of continuous medical services and expense, prolonged physiotherapy, orthopedic appliance or long-term nursing care, or restricted type of living are accentuated in chronic illness. The chronically ill often appear to be affected with more pervasive anxiety than do those people suffering from acute illness. "Mental health is likely to be poor among chronically ill patients because of the stresses - emotional, economic and social - that prolonged illness places not only on the afflicted individual, but on his family as well." 1/

Anxiety over illness may be displayed differently by different people depending on their personalities. In hospital these emotional disturbances may be noted by the medical staff because of a behavior problem in a ward, response to the staff, to other patients and especially response to treatment. When negative reactions take place, the doctor who is aware that the patient is an individual, whole person, will realize that this particular person is suffering from some

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1/ Commission on Chronic Illness, Volume I, of Chronic Illness in the United States, op. cit., p. 243.

disturbance caused by his illness. He may refer him to other services made available within the hospital, for example, social service and/or psychiatry.

These services within the hospital emphasize the importance placed on viewing the patient in his total context.

The hypothesis which the writer will test states: If chronic illness causes more emotional disturbance to the individual than acute illness in terms of his life goals being interrupted, then there will be a significantly greater proportion of referrals to psychiatry and social service among the chronically ill than among the acutely ill patients.

Data for this study were obtained from the Medical Records of the Victoria General Hospital. Since the admissions to this hospital during a year are so great, some method had to be devised to obtain a workable number of records. The Surgery Service was chosen because it was felt that on this service there would be a sufficient number of both chronically ill and acutely ill patients to test for statistical comparison.

In the Surgery Service for the Calendar Year of 1965 there were over 2,000 admissions. The months of January, April, July, and October were chosen as

appropriate months for selection of records; these months should provide a cross section of the year's admissions without giving a biased picture of any season's usual fatalities.

Once the four months were chosen there were still approximately 800 records so a further selection was necessary. From these records a random selection of these records was obtained by choosing every fifth admission.

Data were collected on a schedule as found in Appendix A 1/ which was drawn up by the two students undertaking the study. Each record was examined in terms of age, marital status, occupation, diagnosis, prognosis, referrals to Social Service and Psychiatry, the reasons for referrals and basis for continuing service.

The data will be analyzed and the hypothesis tested by the test Chi Square ($x^2$) For Two Independent Samples as described in the following chapter.

In a study of this nature there are limitations inherent in the study and certain self-imposed limits. Time was an important factor which limited this study.

There were also limitations placed on this study regarding the records which were used for data collec-

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1/ Appendix A.

tion. The Medical Records at the Victoria General Hospital are not compiled primarily for research purposes. The population was limited since the ages of patients admitted to Surgery Service at the Victoria General Hospital are 15½ and up, so younger children were excluded from the study. The files which were used were the records of patients in public wards and forces the writer to conclude that this is one of the factors biasing the study.

The following chapter will describe the method used to test the hypothesis, and describe the results.

## CHAPTER IV

## FINDINGS

As was mentioned in the previous chapter, the data for this study were obtained from Medical Records of the Victoria General Hospital. Of the patients admitted to the Surgery Service of the hospital in the chosen months of 1965, the random sample totalled 178.

However, only 144 of this total could be used since 34 records were unavailable. This was due to several reasons; some files were being used for other research purposes, some were in use because the patients had been readmitted to hospital, and others, because they were private patients' records to which the writer could not be granted automatic access, according to hospital policy.

The total sample population of 144 was examined and listed by the type of illness, either chronic or acute. Of this total, there were 59 acutely ill patients and 85 chronically ill patients.

The purpose of this study was to test the following hypothesis. If chronic illness causes more emotional disturbance to the individual, than acute illness, in terms of his life goals being interrupted,

then there will be a significantly greater proportion of referrals to psychiatry and social service among the chronically ill than among the acutely ill.

Because it is impossible to prove the validity of a casual hypothesis in social science, it is necessary to state a null hypothesis. The null hypothesis is one of "no difference"; thus there would be no difference in emotional disturbance caused by chronic or by acute illness in terms of life goals being interrupted. There would therefore be negligible difference in the number of referrals to social service and/or psychiatry in the chronic and acutely ill. The statistical null hypothesis must be rejected at a certain level of significance. The level of significance was arbitrarily selected at .05, which means that 1 out of 20 times the difference between the two samples is due to chance.

The statistical method that was used to test the null hypothesis was the Chi-square ($x^2$) Test For Two Independent Samples. This technique was suggested by Sidney Siegel.

> When the data of research consist of frequencies in discrete categories, the $x^2$ test may be used to determine the significance of differences between two independent groups.... The hypothesis under test is usually that the two groups differ with re-

spect to some characteristic and therefore with respect to the relative frequency with which group members fall into several categories. 1/

2 x 2 Contingency Table 2/

| A | B | |
|---|---|---|
| 56 | 76 | A+B |
| C | D | |
| 3 | 9 | C+D |
| A+C | B+D | N |

The value of $x^2$ for these data is: 3/

$$x^2 = \frac{N(|AD - BC| - \frac{N}{2})^2}{(A+B)(C+D)(A+C)(B+D)} \qquad df=1$$

$$x^2 = .74$$

The summary of procedure for obtaining the level of significance is outlined very clearly by Sidney Siegel. 4/

In the table showing the values of Chi-square ($x^2$) at the .05 level of significance for 1 degree of freedom, the level of confidence is 3.84. The obtained value of $x^2$ was .74 which is between .50 and .30 and is not within

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1/ Sidney Siegel, NON PARAMETRIC STATISTICS FOR THE BEHAVIORAL SCIENCE; McGraw-Hill Book Company, Inc., New York, 1956; p. 104.

2/ See Table I

3/ Siegel, op. cit., p. 107.

4/ Ibid., p. 109 - 110.

TABLE I

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, BY ILLNESS AND NUMBER OF REFERRALS TO PSYCHIATRY AND SOCIAL SERVICE FOR EMOTIONAL REASONS

| Referrals | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| Not Referred | 56 | 76 |
| Referred | 3 | 9 |

CSM/pab

the level of significance of .05. Since it is a one-tailed test showing direction, the level of significance is halved. Therefore, the level of confidence of $x^2$ is between .25 and .15. Thus, the null hypothesis must be accepted; there would be no difference in emotional disturbance caused by chronic or by acute illness in terms of life goals being interrupted.

The variables in the data were also examined to see if and how they differ in the chronic and acute groups. The following tables illustrate the results of this investigation.

In Table II, the sex of the patients was considered. There was no real difference between the number of males and females in the total sample population.

Table III included the ages of the patients in the sample. There appeared to be a high incidence of acute illness in adolescents and adults between the ages of 15 - 35. In the chronically ill patients the highest incidence appeared to be in the age groups 55 years and older.

Tables IV and V show the total number of referrals to psychiatry and social service for emotional problems, and also for other reasons not considered emotional.

Table VI shows those patients who were referred

TABLE II

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, BY TYPE OF ILLNESS AND SEX

| Sex | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| Male | 32 | 40 |
| Female | 27 | 45 |

CSM/pab

TABLE III

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, BY ILLNESS AND AGE

| Age | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| 15-24 | 24 | 8 |
| 25-34 | 10 | 7 |
| 35-44 | 4 | 9 |
| 45-54 | 11 | 10 |
| 55-64 | 7 | 26 |
| 65-74 | 3 | 11 |
| 75-up | - | 14 |

CSM/pab

TABLE IV

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, BY ILLNESS AND NUMBER OF REFERRALS TO SOCIAL SERVICE

| Referrals | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| Referred | 3 | 11 |
| Not Referred | 56 | 74 |

CSM/pab

TABLE V

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, BY ILLNESS AND NUMBER OF REFERRALS TO PSYCHIATRY

| Referrals | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| Referred | 1 | 3 |
| Not Referred | 58 | 82 |

CSM/pab

TABLE VI

DISTRIBUTION OF 144 PATIENTS FROM VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA, ON THE SURGERY SERVICE IN THE CALENDAR YEAR 1965, by ILLNESS AND BASIS FOR CONTINUATION OF REFERRALS TO PSYCHIATRY AND SOCIAL SERVICE

| Referrals | Type of Illness | |
|---|---|---|
| Total | Acute | Chronic |
| 144 | 59 | 85 |
| Referrals for Emotional Disturbance | 3 | 9 |
| Continuation | - | - |

CSM/pab

to social service and psychiatry for emotional reasons. When "basis for continuation" was considered for those patients referred, it was found that no service was continued in any of the referrals.

From the results of the test, it can be seen that the writer's hypothesis is not supported by the data. The fifth and final chapter of this thesis will examine what this means by presenting conclusions and recommendations. Special consideration will be given to the implications for the field of social work.

# CHAPTER V

## CONCLUSIONS AND RECOMMENDATIONS

This has been a study of 144 patients treated at the Victoria General Hospital, Halifax, Nova Scotia, in the calendar year of 1965, during the months of January, April, July and October only. The two groups of patients studied were the chronically ill and the acutely ill with special emphasis on the former group.

The purpose of this undertaking was to determine if chronic illness is more likely to cause emotional disturbance in terms of life goals being interrupted than acute illness. The indicators were the number of referrals to Social Service and Psychiatry.

When the hypothesis was tested by the Chi-square ($x^2$) Test For The Significance of Two Independent Samples the null hypothesis could not be rejected and thus the hypothesis could not be accepted.

Since the data did not support the hypothesis the writer will now attempt to explore the undertaking more fully and, at the same time, make recommendations in the interest of future studies in this area.

Time was a realistic limitation. The thesis

attempts to educate the student to better evaluate continuing social research, and to refine skills in anticipation of limited participation in research projects following graduation. Nonetheless, it is written concurrently with academic classes and field instruction in the first semester of the second year. One-half day a week is allotted for this research project. If more time was available for any undertaking of this type, perhaps more extensive studies could be done.

Owing to the necessary limits which had to be placed on this research, the individual's previous patterns of dealing with stress were not taken into consideration. This emphasis was on the individual - after hospital admission. However, it would be interesting to see if people react to or cope with illness the same way that they have managed previous stressful situations in their lives.

The theories in this study emphasized the negative aspects of illness. It should be remembered that illness can be both a positive or negative experience to the individual. In future studies, perhaps, more consideration could be given to this dual aspect.

In the methodology, the indicators of emotional disturbance were the number of referrals to Psychiatry and Social Service Departments. This im-

plies that the medical staff at the hospital would make the proper referrals if it was noticed that a patient was disturbed. The doctors on the surgery service have been used to the responsibility of patients' lives, and dealing with patients' anxieties before surgery. This may result in reluctance to refer patients to other services, especially if a doctor has had a continuous contact over a period of time.

The writer also discovered that the medical records of the Victoria General Hospital are not written primarily for research purposes, and sometimes vary in amount of detail given. This resulted in not being able to obtain the necessary information at times from the records. Also, all the records which were used were obtained from the public wards. This sample was not a cross section of the hospital population. A possible solution in the future could be the personal interview technique which would take a considerably longer period of time but also might well yield the information necessary to undertake a more comprehensive study.

One difficulty which the writer found in preparing this study design was a clear cut distinction between chronic and acute illnesses. The method of solving this problem was to consider the prognosis of

the patient. However, this prognosis was not always given and the writer had to resort to the doctor's summary. On these occasions when the decision of whether the illness was chronic or acute was left up to the writer some subjective bias may have entered the study. In attempting to eliminate this problem in the future perhaps one could evolve a simple yet correct means of distinguishing the two illnesses. The writer recommends that perhaps the "time" concept could be considered - acute illness less than 3 month duration and chronic over a 3 month period.

As the result of this study the writer feels that many new areas have been opened for further research. It would be interesting to discover whether people suffering from emotional disturbance because of illness causing serious upset in their lives are referred in the same proportion as they fall into categories of acute and chronic illness. Are patients suffering from certain specific illnesses commonly referred to social service and/or psychiatry? Are different personality types more commonly referred? Are particular socio-economic groups more commonly referred? What is the common time of referral - after admission, after an operation or before discharge?

The area in which research can be done by the social worker is very extensive. Dora Goldstine, in discussing the program of the medical social service emphasizes the important contribution of the social work profession by "carrying on medical social research - exploring the area where medical and social factors meet, and affect each other..." 1/

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1/ Dora Goldstine, READINGS IN THE THEORY AND PRACTICE OF MEDICAL SOCIAL WORK; The University of Chicago Press, Chicago, 1954; p. 46.

# APPENDIX A

Maritime School of Social Work

Research Project 1966 - 1967

Schedule for Reading the Records from the Victoria General Hospital.

Read by Number

Age

Sex

Marital Status

Occupation

Diagnosis

Prognosis

| Referrals | Reason | Basis for Continuation |
|---|---|---|
| Social Service | | |
| Psychiatry | | |

# APPENDIX B

N.S.H.I.C. COPY

# NOVA SCOTIA HOSPITAL INSURANCE COMMISSION

## ADMISSION — SEPARATION RECORD

- 48 -

NAME OF HOSPITAL | ADMISSION NUMBER YEAR 4-10

NAME OF PATIENT | SOCIAL INSURANCE NUMBER

SURNAME 75-80 | 78 GIVEN NAMES

THIS SPACE FOR ADDRESSOGRAPH PLATE USE ONLY

ITS MAIDEN NAME | PATIENT'S PRESENT ADDRESS | MUNICIPALITY 11 12

RACE | RELIGION | NUMBER AND DATE OF LAST ADMISSION | ACCIDENT CASE YES ☐ NO ☐ IF THIRD PARTY INVOLVED COMPLETE AND FORWARD FORM 10 13 14 15

AND ADDRESS OF HEAD OF FAMILY OR NEXT OF KIN, OR FRIEND | PHONE | RELATIONSHIP

### ADMISSION HISTORY

ROOM NO. | HOUR OF ADMISSION: HOUR, A.M., P.M. | DATE OF ADMISSION: DAY, MONTH, YEAR

SEX 24: F-2, N.B.M.3, N.B.F.-4 | MARITAL STATUS 25: S-1, M-2, W.D.S.3 | DATE OF BIRTH: DAY 26-27, MONTH 28-29, YEAR 30-31 | AGE 32-33

ED BY | ATTENDED BY DR. 35 36 37

### SEPARATION HISTORY

HOUR OF SEPARATION: HOUR, A.M., P.M. | DATE OF SEPARATION: DAY 16-17, MONTH 18-19, YEAR 20 | TOTAL DAYS 21-23

DISCHARGE CONDITION 34: WELL 1, IMPROVED 2, UNIMP. 3 | DIED IN 48 HOURS: AUTOPSY YES ☐ 4 NO ☐ 5 | DIED AFTER 48 HOURS: AUTOPSY YES ☐ 6 NO ☐ 7

NAME OF SURGEON DR. 38 39 40 | PATIENT DISCHARGED HOME ☐ OTHER SPECIFY ☐

### RESIDENCE AND EMPLOYMENT

T AND PREVIOUS ADDRESSES OF PATIENT FOR PAST YEAR. ENT IS A NEWBORN GIVE INFORMATION ON MOTHER.

| FROM MO. | FROM YR. | TO MO. | TO YR. |
|---|---|---|---|
| | | | |

PRESENT AND PREVIOUS EMPLOYERS FOR PAST YEAR OF PATIENT ☐ HEAD OF FAMILY ☐

| FROM MO. | FROM YR. | TO MO. | TO YR. |
|---|---|---|---|
| | | | |

AILS OF TWO RELIABLE PERSONS WHO CAN CONFIRM THE ABOVE STATEMENTS OF RESIDENCE

PRESENT OCCUPATION OF PATIENT ☐ HEAD OF FAMILY ☐

RACE 41: WHITE 1 | NEGRO 2 | INDIAN 3 | OTHER 4

| FULL NAME | ADDRESS | OCCUPATION |
|---|---|---|
| | | |

NATURE OF ALL OPERATIONS AND OR EXAMINATIONS | DATES | CHEST X-RAY 42: YES | NO

DAYS TO OP 43 44 | 45 46

| SIBLE OR ARD RD | NSHIC | D.V.A. | W.C.B. | SELF | OTHER | SPECIFY | 66 67 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

OSIS ON ADMISSION

RY DIAGNOSIS ON SEPARATION 47 48 49 50

ARY DIAGNOSIS ON SEPARATION 51 52 53 54

### SPECIAL SERVICES PROVIDED OR FACILITIES USED

| | | | |
|---|---|---|---|
| X-RAY R.M. UNITS | | E.C.T. | |
| X-RAY THERAPY TREATMENTS | | | |
| LABORATORY UNITS | | | |
| E.K.G. | | | |
| E.E.G. | | | |
| BLOOD OR PLASMA | | | |
| PHYSIOTHERAPY TREATMENTS | | | |

| | R.M. | X-THY | LAB. | | | E.K.G. | E.E.G. | BLOOD | PHYS. | E.C.T. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |

CATION FOR BENEFITS: I HEREBY (1) MAKE APPLICATION FOR BENEFITS UNDER THE ITAL INSURANCE ACT ON BEHALF OF MYSELF OR THE ABOVE MENTIONED PATIENT, GREE TO ASSUME RESPONSIBILITY FOR CHARGES NOT COVERED BY THE HOSPITAL RANCE ACT, OR ANY OTHER AGENCY, (3) CERTIFY THAT I HAVE READ THE STATEMENTS IS FORM, OR HAVE HAD THEM READ TO ME, AND THAT SAME ARE TRUE AND CORRECT.

| WARD | |
|---|---|
| SEMI PRIVATE | |
| PRIVATE | |

| DATE | SIGNATURE OF HOSPITAL WITNESS | SIGNATURE OF PATIENT OR APPLICANT |
|---|---|---|
| | | |

| NT MOS. LIVED R.S. | RELATIONSHIP TO PATIENT | ADDRESS OF APPLICANT (IF OTHER THAN PATIENT) |
|---|---|---|
| | | |

### ACCOUNTING RECORD

| ACCOMODATION | DAYS | RATE | AMOUNT | |
|---|---|---|---|---|
| ARD WARD | | | | |
| TE OR SEMI PRIVATE | | | | |
| RY | | | | |
| CHARGES | | | | |
| ND TOTAL | | | | |

I HEREBY CERTIFY: (1) A PHYSICIAN HAS CERTIFIED THAT THIS PATIENT REQUIRED ACTIVE IN-PATIENT CARE: (2) THE PATIENT RECEIVED THE HOSPITAL CARE AND SERVICES INDICATED ABOVE: (3) THIS HOSPITAL IS SATISFIED BEYOND A REASONABLE DOUBT THAT THE STATEMENTS SHOWN HEREON REGARDING RESIDENCE ARE TRUE.

SIGNATURE OF HOSPITAL ADMINISTRATOR OR AUTHORIZED EMPLOYEE

### APPROVAL

| MEDICAL | | ACCOUNTING | |
|---|---|---|---|
| N.S.H.I.C. | NON-N.S.H.I.C. | N.S.H.I.C. | NON-N.S.H.I.C. |
| | | | |

# Victoria General Hospital

HALIFAX, NOVA SCOTIA



## CONSULTATION AND SPECIAL EXAMINATION

DOCTOR Psychiatry DATE

Findings:

M.D.

Dr. Date

Findings and Advice:

M.D.

# Victoria General Hospital

HALIFAX, NOVA SCOTIA



## CONSULTATION TO SOCIAL SERVICE

Patient's Name_____ Date:_____

OPD Clinic_____ DIAGNOSIS _____

Unit # _____

REASON FOR CONSULT:

| | ✓ | | ✓ |
|---|---|---|---|
| 1. Social Assessment | | 7. Financial Assistance | |
| 2. Family Problem | | 8. Transportation | |
| 3. Social or Emotional Problem Affecting Illness | | 9. Discharge Plan | |
| 4. Rehabilitation Plan | | 10. Follow-Up | |
| 5. Appliance | | 11. Other | |
| 6. Medication | | | |

SUMMARY OF CLINICAL FINDINGS:

_____ M.D.

Victoria General Hospital
**DISCHARGE REPORT**



Name _____ Address _____

Ward _____ Service _____ Interne _____

Admitted _____ Discharged _____ Return Date _____

Report to be sent to Dr. _____ Address _____

Referred by Dr. _____ Address _____

Transferred to _____ Date _____

Diagnosis _____

Secondary Diagnosis _____

Consultations sent to _____ Recovered _____

Operation _____ Date _____ Improved _____

_____ Date _____ Unchanged _____

Complications _____ Worse _____

Cause of Death _____ Autopsy—Yes ☐ No ☐

Duration of Symptoms _____

Investigation, Treatment & Recommendations:- _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SIGNED _____ M.D.

(over)

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BIBLIOGRAPHY

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