BACKACHE AS A PSYCHOSOMATIC ILLNESS

A Study of Social Factors Contributing to the Development of Low Back Pain

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by

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A b s t r a c t:

A STUDY OF SOCIAL FACTORS CONTRIBUTING TO THE DEVELOPMENT OF LOW BACK PAIN

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This study investigates the influence of social conditions upon the development of the low back pain syndrome in a group of patients admitted to hospital with a diagnosis of "disc syndrome".

The records of 309 patients admitted to the Victoria General Hospital from January 1st to December 31st, 1963, were examined and group data was extracted on a common schedule. Data relevant to this individual thesis was then collected, and tabulated. The statistical difference of proportion test was applied to the described hypotheses.

It showed that a significantly high number of patients suffering from persistent low back syndrome exhibited as many of the psychosomatic factors known to be present in the histories of a random sample of patients who were treated for asthma during this period. It was also demonstrated that there was a significantly high number of social disorders present in the histories of the disc patients studied as compared with a random sample of patients treated for cancer during the same period. The influence of continued stress upon the development and exacerbation of low back pain was noted and several recommendations were offered toward preventive and rehabilitative measures.

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CHAPTER I

INTRODUCTION

The unity of all science is an impelling concept and one to which the theory of the total personality must, in principle, adhere. It has led to a growing awareness in the field of the social sciences of the interdependent relationships between the social, psychological and psysiological processes of the human organism. This, in turn, has led to a logical description of certain specific personality types, characterized by their peculiar response to various stimuli arising out of one or all of these three fields of activity.

For the profession of medical social work, the most important trend in recent years has been this movement toward a deeper understanding of illness in terms of dysfunction in any one of the three component systems operating within the individual.

Accepting the theory that the etiology of any illness includes both the physiological and psychological

dynamics of the human organizational processes interacting against the background of the cultural, environmental and social milieu of the individual, psychosomatic health may then be understood as the maintenance by the organism of homeostatic equilibrium within itself and within its environmental field.

This thesis concerns itself with an investigation analysis and understanding of some of the interdependent relationships between the social and physical sciences as they relate to the general practice of medicine and social casework. It seeks to apply some of the broader implications of each profession toward more efficient service to the patient in the hope that a greater appreciation of the role of each discipline may serve to enhance their joint functioning. Its focus shall be upon some of the social aspects inherent in or contributing toward the development of certain psychosomatic disorders with some implications, conclusions and recommendations for treatment goals.

This thesis is undertaken as partial fulfillment of the requirement for a Masters Degree in Social Work. It is based upon a group study of psychosomatic disorders of a group of 309 cases collected from files of the record department of the Victoria General Hospital in

Halifax, N. S., a teaching hospital of some 600 beds which serves the area of greater Nova Scotia.

Research was conducted by the ex post facto method through group data collected from the files and transferred to a prepared schedule for individual use. The schedules were revised and augmented at two individual group sessions in order to include the needs of every student and allow for mutual interpretation and understanding of the data required. The records for this group research project were selected by stratified random samples of some 309 cases, one-half of which had received social services through the hospital Social Service Department. The cases studied were active between the months of January to December 1963 and included patients who were treated for ulcers, heart disease, asthma, arthritis, disc syndrome and cancer. The data was collected in groups of two students per record in order to minimize bias in interpretation and decrease the percentage error. There are, of necessity, some limitations placed upon the study by virtue of the traditional demonstration nature of the research through the ex post facto method. Superimposed upon this is the limitation of time, availability of necessary data and the obvious absence of a control inherent in the "in vivo" research

study design. Therefore, a method of testing, concurrent with the classical research design and the available data, had to be devised for testing the hypotheses as satisfactorily and expediently as possible under the existing conditions.

For purposes of this thesis, the human organizational processes have been likened to the simple system in a state of equilibrium. Stress applied to anyone of its three component units, the psychological, sociological and physiological systems, can then be shown to generate a strain which results in dysfunction to the whole system; and restoration of equilibrium by removal of the stressful factor can be shown to reverse the process. It is then proposed to demonstrate how constant application and release of stress may leave a residual wall of defectiveness in the resultant area of strain and culminate in eventual breakdown in some specific organ symbolically chosen or predisposed to illness. This thesis proposes that psychological and somatic phenomena take place in the same organism and are two aspects of the same process. It will attempt to prove that there is a specific correlation between the nature of emotional and situational stress and its physical sequelae. This will be shown by examining the records

of a group of patients as contrasted with a second group, chosen through random sample, for certain specific indicators of stress and attempting to equate a significant relationship with the incidence of certain suspected psychosomatic disorders in the subjects studied.

Fundamental to the understanding of the psychosomatic disorder is an acceptance of the concept of the human organism as an inseparable whole, in which the total functioning of the "whole" can be understood as being aimed at maintaining conditions within the organism in a constant state of homeostasis. Where the adaptive response to disequilibrium is healthy and within the range of control of the organism, homeostasis is maintained without undue pressure. In those cases in which, adjustment to dysfunction results in a maladaptive response, it is expected to show that certain specific continued stresses may result in an unhealthy outcome, culminating in the development of a psychosomatic disorder.

CHAPTER 11

THE UNIVERSAL SYSTEM

The human physiological system may be likened to the simple mechanical system which is in a state of static equilibrium. This state of equilibrium is maintained when the span of control of the system is sufficient to mediate the demands made upon it in the course of its normal performance. If, however, in the course of operation, pressures are applied directly to the system, there is a resulting adaptive response which is expressed in terms of accommodation to pressure. Pressure, or force acting upon a system, is called stress, while the resultant accommodation to pressure is termed strain. A system, then, may be said to be in a state of equilibrium when its range of controls or adjustive capacity, or tendency to withstand strain, is as great as the underlying area of demands, or the applied stress.

The nature of the system is such that it contains an inherent alarm reaction in response to stress and will respond to such stimuli by developing a new set of operational conditions to mediate the forces acting upon it

and maintain balance. This new set of operational conditions, if practised over a long period of time, becomes incorporated into the system and becomes an integral part of it. If this alternate mode of operation persists over a long period of time, and if stress persists beyond the adjustive capacity of the system to cope with it, there is a resultant state of disequilibrium which is expressed in terms of malfunction, or deviance of performance from the expected norm.

In applying the principle of the simple system to the human physiological processes, there are certain parallels which might be made. The human organizational processes may be viewed in terms of a three part structure of social, physiological and psychological units, each with a specific function of its own, yet contributing to the collective performance of the entire organism.

The biological unit of the human organism concerns itself with healthy maintenance of body growth and function. In order to achieve this, the body's need for energy must be satisfied. This energy is obtained through an adequate supply of food, liquids and maintenance of body temperature, all of which are basic to survival. Failure to achieve any of these needs to the minimal satisfaction of the body will result in the adoption

of some compensatory mechanism which, if continued over a prolonged period of time, will result in eventual disruption of the physiological processes. This disruption is expressed in terms of a disturbance in the physical function of the body and is further expressed in terms of a specific disease. If disruption, or failure to fulfill the needs basic to survival is continued to a point where the process becomes irreversible, the ultimate result will be the death of the organism.

Because of the essential nature of these needs, the organism is impelled to respond to certain cues or drives to satisfy them. Freud[1/] has labelled these the instinctual biological drives, and he has defined them to be the prime motivators of human behavior.

Behavior may then be understood in terms of seeking satisfaction and avoiding frustration through failure to achieve these needs.

The development of the psychological system is a maturation process, concurrent with the biological one, which seeks to enhance the satisfaction of the body's basic needs and serves to reduce stress when this is

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1/ A. A. Brill, THE BASIC WRITINGS OF SIGMUND FREUD; Random House, New York, 1938.

not achieved. This reduction of stress is effected through a series of well developed compensatory mechanisms to which the psychological system has recourse. The way in which the organism selects, from this series of mechanisms, the most suitable method of dealing with stress, is termed its mode of adaptation.

Piaget 1/ likened the mode of adaptation of the equilibrium model to the psychological system, showing that certain responses appear more probable than others for a given complex of subject-object interaction. He demonstrated that these probabilities change in predictable ways as interaction continues over a period of time. Similarly, Menninger 2/ described a hierarchy of psychological regulatory devices being employed by the individual to discharge stress, satisfy need, and maintain homeostasis. This he postulated as a ranking of adaptive devices, graded to deal with stress, each grade successively more drastic than its failing predecessor. This capacity of the psychological system to deal with stress is called the defense mechanism.

1/ J. Piaget, LANGUAGE AND THOUGHT OF THE CHILD; Harcourt Brace and Co., New York, 1926.

2/ W. C. Menninger, PSYCHIATRY IN A TROUBLED WORLD; The MacMillan Co., New York, 1948.

Defense mechanisms are generally employed to some extent in the healthy organism in the maintenance of homeostasis, and a moderate use of them is normal in any given situation. Where the defense mechanism fails to achieve its purpose, however, a more drastic one may be utilized. As each successive device fails to alleviate stress, becomes extreme in its use, or is used to the exclusion of all others, disequilibrium in the functioning of the psychological system results and is expressed through the development of psychotic or neurotic behavior.

The third dynamic inherent in the human physiological process is the fact and nature of environmental influence upon the organism. The social custom or mores of the society of the individual become incorporated into its behavioral system and become needs through constant usage. Failure to meet these needs because of environmental pressures or deficiencies may also contribute to dysfunction of the organism. This is expressed in terms of inadequate social functioning.

Thus failure of the organism to achieve satisfactory adjustment in terms of meeting basic needs and maintaining equilibrium in any of its three component (psychological, sociological and physiological) units

will result in stress to the entire system.

> A stress may be 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. 1/

There are many factors which contribute to the organism's capacity for stress tolerance. These have been described as the inherited pattern of physiological dysfunction, the anatomical structure of the organism, the modification of the physiological processes through maturation, conditioning and environmental influences, and the physiological state of the system at the time of development of the stress. 2/

The way in which the organism responds to these stresses will depend upon the physical capacity of the system, the meaning of the stress in terms of emotions and life experiences and the adjustive capacity of its collective resources for maintenance of homeostasis.

1/ Thomas S. Langer & Stanley T. Michael, LIFE STRESS AND MENTAL HEALTH; Free Press of Glencoe, Collier MacMillan Ltd., London, 1948.

2/ L. W. Sontag, "Determinants of Predisposition to Psychosomatic Dysfunction and Disease," in SYNOPSIS OF PSYCHOSOMATIC DIAGNOSIS AND TREATMENT; Flanders Dunbar (ed); C. V. Mosley Co., St. Louis, 1960; p. 38.

Homeostasis, then, may be viewed as the tendency of a living system to restore and maintain itself in a condition of equilibrium. Any state of disequilibrium becomes a need which has to be met for restoration of satisfactory function. The most direct method of meeting this need is gratification. When gratification is not immediately practical or available to the organism, a compensatory device must be adopted to relieve stress. If this device is resorted to for prolonged periods it becomes an established pattern. Adoption of this pattern of behavior may place an intolerable burden upon the system. Difficulties ultimately ensue when the usual behavior patterns upon which the individual depends for maintenance of equilibrium prove ineffective.

Where these adaptive mechanisms become strained or ineffectual in discharging stress, and where there is a morbid condition or predisposition to illness or physical inferiority of a specific system, continuous stress applied to that system might conceivably cause a rupture in functioning, through a breakdown in some specific organ of that system.

Selye 1/ has postulated the theory that psycho-

1/ H. Selye, "The Two-Edged Sword of Stress," in CANADA'S HEALTH AND WELFARE; v 19, no 5, May 1964.

-somatic illness is caused by persistent repetition or prolongation of a series of non-specific stresses so that they become "diseases of adaptation". Dunbar 1/ projected this theme by suggesting that the individual who develops a psychosomatic illness may be expressing a conditioned response, or habit learned in childhood through certain physiological channels. This is effected by a learning process similar to conditioning where the stress first developed at an age when that particular system was most unstable and is "remembered" by the organism and recalled to use in discharge of adult anxiety.

The writings of Cameron 2/, Selye 3/, Dunbar 4/, and others favor the view that different individuals respond to stress and discharge tension through different bodily patterns. One group will show for example, a definite increase in smooth muscle tension, while another will respond with increased tension of the muscular skeletal system.

1/ Flanders Dunbar, SYNOPSIS OF PSYCHOSOMATIC DIAGNOSIS AND TREATMENT; C. V. Mosby Co., St. Louis, 1948.

2/ N. & Margaret A. Cameron, BEHAVIOR PATHOLOGY; Houghton - Mifflin, Boston, 1951.

3/ Selye, op. cit.

4/ Dunbar, op. cit.

This study shall be concerned with the latter group, and with the bio-psycho-socio radiants which contribute to the development of certain dysfunctions of the skeletal musculature.

It will begin by attempting to describe a denominator of factors common to the histories of a group of patients showing a "disc syndrome" diagnosis and a group who show a clearly established pattern of recognized psychosomatic disorder and comparing these results for significant similarities.

CHAPTER 111

SYSTEMS UNDER STRESS

The reactions of an adult human being to stressful life situations consist of certain attitudes which are frequently verbally expressed in such terms as, "something gives me a pain in the neck", "I can't stomach that", "I'll break my back with work". The ways in which the individual views stress may ultimately accompany body changes. Emotion is one attitude that is associated with these physiological changes.

> A psychosomatic disorder is a kind of compromise in that the emotions move from the mind to the body, thus gaining outlet, but in the disguise of ill-health. Through alleged bodily disease, not only are the pent-up emotions released but they gain a certain measure of respectability when they mimic a physical disease. 1/

Disease may be understood as an attempt of man

1/ Leland E. Hinsie, THE PERSON IN THE BODY; W. W. Norton Co. Inc., New York, 1945; p. 252.

to adjust to the hostile elements of his environment. In seeking to achieve this, the individual develops a variety of dynamic interactions which are related to his mode of adaptation or personality structure. The personality of an individual then, may be described as the sum of the integrated reactions of the total organism to its environment.

In an attempt to define the psychosomatic personality, Langner 1/, has described a common denominator of factors which appear to influence the development of psychosomatic response in certain individuals, stating that each stress, or combination of stresses, appear to favor a particular adaptive response in keeping with the individual's peculiar patterns of functioning. The author has defined the probable psychosomatic type of personality to be significantly associated with certain particular childhood stresses. Notable among these stresses are early broken homes, either through death or separation, poor physical health of parents, and economic deprivation.

It may be postulated that loss of a parent in childhood and poor physical health of parents could conceivably contribute to the child's inadequate

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1/ Langner & Michael, op. cit.

development through familial lacks. It may be further postulated that poor physical health of parents, and loss of a parent could result in financial stresses which in turn contribute to the inadequate social and educational processes of the child's development.

It is conceivable that the child who has been raised in an environment such as described might develop those personality traits shown in the histories of the adult psychosomatic personality type. This type has been described as showing a significant recurrence of such factors as poor physical health (frequently through identification with illness of the parent), inadequacy in interpersonal relationships, (presumably through poor conditioning experiences or gaps in childhood relationships), poor marital adjustment, and conflict in fulfilling parental roles.

The child of parents who are concerned with health, will express illness through his psychic memory as a means of obtaining love, security and acceptance. The lack of basic security inherent in a situation of this nature and identification with illness of the parent or close family member, might explain the development of situational stresses in the adult, in the form of poor interpersonal relationships, marital, financial and

parental role worries, all of which criteria have been described by Langner 1/ as significant indicators of a predisposition to psychosomatic disorder.

Psychosomatic medicine concerns itself with the evaluation and treatment of symptoms which have arisen in situations of stress. It is concerned with evaluating all those phenomena in which attitudes, emotions, behavior and associated physiological patterns affect the well-being of the patient. To say that a situation is stressful, implies that it has a threatening significance for the subject. Whether a person views a situation as stressful depends upon his idea of himself and his capacity to meet the situation.

A conflict situation arising out of situational stresses would, in all probability, be related to the self image of the subject, the way in which he perceives his role in society in relation to his goals, expectations and opportunities, and in the light of reality factors. This need to achieve both personal and financial satisfaction inherent in maintenance of homeostasis is derived through satisfactory employment experiences.

1/ Langner & Michael, op. cit.

Because of their very basic nature, these needs may be considered as constituting a major part of situational stress.

Therefore unsatisfactory, inappropriate and poor work history will be deemed to be a situational stress. A further exacerbation of this stress will be the age factor, where the subject is over forty years of age. This is based on the premise that if an arbitrary line must be drawn, then forty would appear to be the practical choice. This is based on the actuary and insurance tables, as well as the generally accepted pension plan schemes which preclude inclusion in certain industries and employment after the age of forty.

Another criteria for evaluating situational stress will be the nature and amount of income of the subject. Where income is insufficient, or the subject is a recepient of social assistance, there will be a presumed need which in turn would yield a presumed stress, aggravated by the age of the subject, if over forty. These collective stresses will be classified as indicators of "situational stress".

In defining the body patterns of reaction to stress, it has been noted that the muscles may serve as a means

of defense in maintenance of homeostasis. Freud [1] felt that homeostasis was interrupted because the individual could not find enough anxiety free modes of experiencing tension-reducing gratification. Several authors [2] favor the view that internal stresses evoke a response of marked rigidity of the muscular skeletal system. Where this tension is relieved through muscular action, homeostasis is maintained. When, however, the external expression of aggression in the form of muscular action is inhibited by repressing forces, then muscular tension will result and be expressed by the individual as pain and limitation of movement.

> "Many patterns of behavior involving the participation of the skeletal musculature in the production of action serve to protect the integrity of the individual against noxious threats and assaults from a hostile environment." [3]

There is a growing acceptance of the "on guard" theory as it applies to the muscular skeletal system. This protective mechanism of preparation for "fight" is of service in discharging stress when muscular action is not impeded. When the more appropriate

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1/ Brill, op. cit.

2/ Edward Weiss & O. Spurgeon English, PSYCHOSOMATIC MEDICINE; W. B. Saunders Co., Philadelphia, 1957 (third edition).

3/ Thomas H. Holmes & Harold G. Wolff, "Life Situations, Emotions and Backache," in PSYCHOSOMATIC MEDICINE, v 14, 1952; p. 31.

reaction should be "flight" instead of "fight" and, where the individual is precluded from taking this action through environmental and social pressures, the ensuing conflict will result in an inadequate expression of tension. This expression of tension will then culminate in a functional overlay of free anxiety which will generate a sustained rigidity of the muscular skeletal system. When this pattern becomes fixed as a way of life it may place an intolerable burden upon the individual's emotional and physical equipment. Difficulty will then ensue when the usual behavior pattern of action upon which the individual depends for security proves ineffective or inadequate.

Holmes and Wolff favor the view that,

> the genesis of the backache syndrome appears related to the inappropriate utilization of a protective reaction pattern involving the participation of the skeletal musculature in an "action" pattern of behavior designed to facilitate attempts at interpersonal and social adjustments. 1/

One final term remains to be defined, and that is "backache syndrome". Seaman and Reder 2/ term it the "disc syndrome" in that the symptoms are similar to that

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1/ Holmes & Wolff, ibid., p. 32.

2/ George J. Seaman & Louis E. Reder, "Psychogenic Back Disorders," in PSYCHOSOMATICS, v 4, no 1, 1952.

of disc damage, showing morning stiffness, some relief with mild activity, relief in flexion, increase of pain in extension, relief of pain with use of corset, increased pain on exertion. This latter symptom might be explained in terms of conflict arising out of the need for physical action, when psychologically, action is not the appropriate mechanism. The authors observe that their condition is not entirely organic, nor is it psychogenic but that there is a varying degree of each factor in different patients. The features of this syndrome are characterized by a general lack of response to treatment, a minimal period of initial disability following stress, with a later development of an extremely severe disability. The authors also noted from their experiences that it is rare to see a psychogenic back disorder in a man who has worked at a good wage for the same employer for some years. This would add impetus to the proposed view that for the unstable worker the disability provides an honorable excuse for failure. It is significantly expressed in the symptoms involving loss of use of back, since the back is generally equated with the ability to work. It would be expected, then, to find that the loss of use of back will be a more traumatic experience for the laborer who depends upon physical ability for work production than the clerical or intellectual worker

who might envisage this syndrome as a lesser threat.

The hypothesis of this thesis is concerned with demonstrating the fact that the development of the low back syndrome is related to stressful situational factors, which factors have been defined in the preceeding pages as unstable work record, age (if over forty) plus recipient of social assistance.

The second hypothesis is that there is a higher proportion of the psychosomatic predisposition characteristics in patients treated for low back syndrome, and again in patients treated for asthma, (a disease which shows a high correlation of psychosomatic factors to organic disorder), as compared with a group of patients whose diagnosis is one of cancer. This is based on the fact that the writings of most authors on psychosomatic disorders list asthma high on the index for consideration of psychosomatic etiology while no apparent attention is focused upon the theory of a psychosomatic component in the development of cancer. 1/

It is proposed to test the validity of these hypotheses by applying the difference of proportions test. This will be approached by studying the medical

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1/ Weiss & English, Dunbar, op. cit., do not devote a specific chapter to cancer in their consideration of the etiology of certain psychosomatic illness.

histories of a random sample of patients who have been treated for disc syndrome, for asthma and for cancer. The method of approach will be to determine whether there is a significantly higher proportion of psychosomatic indicators in the histories of the asthmatics and the patients suffering from low back syndrome than in the histories of the cancer patients.

While it is recognized that it is easier to compare qualities that are measurable numerically, than those that are not so measurable, the attributes of "psychosomatic predisposition", "situational stress" may be qualitatively determined by their presence or absence, and can be accurately measured in terms of frequency of occurrence. Since psychosomatic medicine deals with an illness where the immediate welfare of the subject is of prime concern, and data cannot be readily controlled, there are, of necessity, some limitations placed upon studies conducted "in vivo". Method also depends upon the nature and availability of data as well as the validity of the source material. In view of these recognized limitations, the following method was devised for testing the hypotheses.

As has already been mentioned, the difference of proportion test was adopted for purposes of this study.

In order to determine whether there is a significant difference between the psychosomatic predisposition factors shown in the two sample proportions of a group of disc syndrome patients as compared with a group of cancer patients, the null hypothesis shall be that there is no difference in the psychosomatic factors shown between the population proportions. The level of significance shall be defined to be .05, that is, that in applying the formula:

$$QP_1 - P_2 = \sqrt{\frac{Pu\ Qu}{N_1} + \frac{Pu\ Qu}{N_2}}$$

where N_1 is the result of findings re disc syndrome patients and N_2 the result of findings re cancer group, the level of significance will be accepted if it proves to be .05 or higher. The null hypothesis may then be rejected and the validity of the proposition will be upheld.

The null hypothesis, re-stated, then, is that there is no significant difference between the situational stresses shown in the histories of the disc syndrome patients as compared with those of the cancer patients.

The indicators used for this purpose shall be age, coupled with financial insufficiency, and whether the subject is a recipient of social assistance.

The second hypothesis, as stated, is that there is a psychosomatic component in the development of the disc syndrome.

The difference of proportion test shall be similarly applied to determine whether there is a significantly higher proportion of psychosomatic factors in the histories of a group of asthmatic patients as compared with those of a group of cancer patients. Secondly, the test shall be applied to the disc syndrome group as compared with the cancer group.

It is expected to show that there is a significantly higher proportion of psychosomatic factors in the histories of the asthma patients, as compared with those of the cancer patients; and secondly, that there will be a significantly higher proportion of psychosomatic factors in the histories of the disc syndrome patients as compared with those of the cancer patients.

Finally, it is expected to find that there is no significant difference between both these test results, indicating that there is a psychosomatic component in the development of the disc syndrome.

The indicators chosen for this purpose are, loss of a parent in childhood, history of previous illness

other than the ordinary diseases of childhood, (three shall be considered as significant) and history of a psychosomatic illness in a member of the immediate family of the subject, as proposed.

The null hypothesis, then, shall be that there is no significant difference between the frequency occurrence of psychosomatic indicators in the histories of the disc syndrome patients, as compared with those in the histories of the cancer patients.

Secondly, that there is no significant difference between the frequency occurrence of psychosomatic indicators in the histories of the asthmatic patients as compared with the data results from a group of cancer patients.

As already indicated, these hypotheses shall be tested by the difference of proportion tests and the results tabulated and interpreted in the following chapters.

CHAPTER IV

FIRST TEST RESULTS

A 2 x 3 chi square test was applied to the null hypothesis; i.e, that there is no significant difference in the psychosomatic predisposition shown in the histories of the disc syndrome patients, the cancer patients and the asthma patients. Tabulation and results are as follows:

TABLE 1

DISTRIBUTION OF 127 PATIENTS IN TREATMENT AT VICTORIA GENERAL HOSPITAL, HALIFAX, DURING YEAR 1963, BY PSYCHOSOMATIC FACTORS

Group 1 and 2	TOTAL	Cancer	Disc	Asthma
TOTAL:	127	53	38	36
Group 1 a/	32	8	11	13
Group 2 b/	95	45	27	23

a/ Group 1 represents number of cases showing psychosomatic predisposition.

b/ Group 2 represents number of cases showing no psychosomatic predisposition.

WM/js

Result of the 2 x 3 chi square test showed a value of 7.14, which for 2 degrees of freedom at the 5% level exceeds the critical value of 5.99.

The result is significant so that the tendencies described are not entirely subject to chance, and in fact the disc and asthma patients as groups show a greater tendency toward psychosomatic predisposition as compared with the cancer group.

A further proposition, that the development of the disc syndrome is an expression of the inadequate personality responding to a conflict situation, was considered for testing. A third proposition which merited attention was that the degree of reaction to the illness shown was proportional to the individual's need for secondary gain.

Unfortunately time, availability of data specific to the tests and the limitations of the thesis precluded further study at this time. Although not readily testable under the research conditions of this study, these propositions merit consideration as points of departure for future investigational study.

CHAPTER V

FURTHER TEST RESULTS

The second hypothesis which was tested is that there is no significant difference between the development of disc syndrome and the incidence of unstable employment record. The difference of proportion test was applied to a random sample from two populations, namely, a group of disc patients and a group of cancer patients. The results are as follows:

TABLE 11

DISTRIBUTION OF 91 PATIENTS IN TREATMENT AT VICTORIA GENERAL HOSPITAL, HALIFAX, DURING YEAR 1963, BY WORK HISTORY

Work Record	TOTAL	Disc	Cancer
TOTAL:	91	38	53
Stable	80	28	52
Unstable	11	10	1

WM/js

The difference of proportion test, that is, the greater the difference between the theoretical independent frequencies and the observed frequencies, the stronger the relationship between the two variables, proved significant in this instance, rising to a numerical value of 3.44.

It is therefore logical to assume that there is a significant relationship between the incidence of low back syndrome and unstable employment patterns.

Secondly, the relationship between situational stress and the incidence of disc syndrome was tested in the same manner. This was done by comparing the histories of the disc group with the cancer group for indicators of situational stress, previously described as age (if over 40) and whether the subject was a recipient of social assistance.

These results were as shown on Table 111, and these findings computed by the difference of proportion tests yielded a result rising to a significant value of 3.14.

From this result it is concluded that there is a significant relationship between the incidence of disc syndrome and the situational stresses described.

TABLE 111

DISTRIBUTION OF 91 PATIENTS IN TREATMENT AT VICTORIA GENERAL HOSPITAL, HALIFAX, DURING YEAR 1963, BY FINANCIAL STATUS AND AGE

STATUS	TOTAL	Disc	Cancer
TOTAL:	91	38	53
SA [a] and age 40 +	17	13	4
No SA [b] or under 40	74	25	49

a/ SA represents, "receiving Social Assistance".

b/ No SA represents, "not receiving Social Assistance".

WM/js

It was further postulated that the nature of the stress and its effect upon the bread-winner in the family should yield a significantly greater number of males than females showing the disc syndrome. This did not prove to be validated by test results, and it would appear that there is no greater predisposition on the part of males as compared to females toward development of the disc syndrome.

A further hypothesis, namely, that there is a significant relationship between the incidence of disc syndrome and the unsatisfactory occupational placement of the individual, where employment is markedly inappropriate to the level of educational achievement, was also considered for testing. It was not possible, however, because of lack of availability of research data. This might also prove a testable hypothesis for a subsequent study.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The findings described would appear to indicate some relationship between the incidence of the disc syndrome and certain situational stresses arising out of socio-economic factors, and more specifically in the area of employment relationships. The course of the findings would suggest further that there is a significant relationship between the incidence of the disc syndrome and a general history of unsatisfactory interpersonal relationships experienced by the subjects studied. This suggests itself as an area for possible further study pursuant to a greater clarification of the etiology of the disc syndrome.

At the treatment level, it is recommended that patients admitted to hospital with a disc syndrome diagnosis be referred to the Social Service Department for a psycho-social diagnosis with a view to ameliorating those conditions which might be contributing to exacerbations of the illness and impeding clinical

progress. Case work services should be made available to the patient on admission to hospital, and not on discharge, for assistance with surgical supports which is the current trend. Greater attention should be given to the educational, occupational and social milieu of the subjects with a view toward reduction of any contributory tension-producing conditions which might impede recovery. Follow up services should be also made more readily available for further study and treatment of those cases where symptoms persist beyond the generally accepted course of treatment. Long term planning should be established to focus upon re-training, rehabilitation or upgrading of education of patient where indicated.

The importance of history taking both from a psychosocial and medical point of focus cannot be minimized. Because of the high incidence of previous illnesses shown both in the asthmatic and disc patients there is some suggestion that social ills might play a significant role in the unsatisfactory clinical state of these patients, or perhaps enhance and exacerbate already existing clinical findings. The following treatment goals, therefore, suggest themselves as possible points of focus, namely, an adequate social diagnosis concurrent with medical diagnosis, greater attention to recurrent symptoms, frequent illnesses and persistent symptoms

beyond the clinically defined course of treatment, closer analysis of the environmental pressures of the subject with a view to alleviating these where indicated, earlier total diagnosis and preventive therapy, and rehabilitative measures where indicated. The importance of early recognition of gross pathology and referral to psychiatric and psychological services is of great import in treatment.

Because the histories of the patients observed yielded a high incidence of persistent unsatisfactory interpersonal relationships and social maladjustment, greater attention should be paid to the significance of development of socializing skills through individual or appropriate group therapy. Referral to suitable community resources should be high on the list of consideration for treatment.

The psychosomatic approach both to medicine and casework calls for a closer liaison between physician and social worker in the interests of integrating the social and medical needs of the patient. Some implications of this suggest themselves, such as, regular medical, social worker staff conferences, interpretative services geared to better understanding of both disciplines toward more efficient services to the client.

Opportunity should be provided personnel for attendance at staff meetings, lectures, conferences and refresher courses wherever possible. Opportunity should be afforded wherever possible for growth and understanding of both disciplines toward better integrated services to the patient.

In those hospitals where a medical teaching unit has been established, a social service teaching unit should be concurrently installed, bearing the same goals, purpose, focus and professional recognition as the rest of the hospital teams.

One of the major implications of this thesis is a recognition of the interdependent relationship between physical, mental stresses and social dysfunction; a fact which suggests need for a more structured and better integrated programme of all those services which contribute toward, or enhance the satisfactory functioning of the total organism of the human system. Some of the findings, or lack of findings of this thesis, suggests a need for re-organization and improvement of methodology for further studies.

The limitations of the data, and the inattention to sociological and environmental influences, call for inclusion of a more clearly defined sociological and

psychological focus in history taking, and a more structured method of recording and interpreting the findings of all the disciplines active in the process. This should include history taking and adequate recording of significant family members and collateral personnel as well as some indications of the developmental history and environmental influences of the subject studied.

In undertaking a subsequent study of this nature, it is recommended that there be a clearly defined pre-study schedule drawn up by the investigators geared to the type of information required. The research, ideally, should be conducted on an individual basis and be of the controlled experimental type insofar as possible. Creativity and dynamism should be encouraged toward development of methodology and in seeking new sources of data and initiating visionary techniques. The traditional demonstration method of research might be converted into an experimental or clinical design as a means of furthering practice and improving diagnosis and treatment.

Finally, because this study suggests a high correlation between the incidence of disc syndrome and continuous interpersonal maladjustive histories, treatment

should be aimed at manipulation, modification and control of environmental pressures. This can be effected through appropriate use of rehabilitative facilities, adult education programmes, and centres for enhancing socialization skills through satisfying interpersonal contacts. Assessment of the total family constellation toward corrective and supportive casework methods is to be encouraged, as well as a clearly defined, well structured follow-up programme of casework and medical services following hospitalization.

It is evident that social forces and intrapersonal conflicts are intimately related to the development of certain illnesses through continuous stress. This manifestation of dysfunction is a subjective, personal, and highly individualized syndrome which requires both an understanding of the patient's reactions and the etiology of the illness. Treatment then should be aimed at the emotional aspect and its underlying conflict, as well as at the clinical syndrome. This can only be effected through an efficient integration of the skills of the medical practitioner used concurrently with those of the social worker toward a more individualized and better focused treatment for the patient.

APPENDIX

1	MAIL THIS COPY TO	NOVA SCOTIA HOSPITAL INSURANCE COMMISSION	P.O. BOX 1057 HALIFAX, N.S.

37343

HOSPITAL ADMISSION - DISCHARGE RECORD

-40-

HOSPITAL	LOCATION OF HOSPITAL	HOSPITAL ADMISSION NUMBER
PATIENT - TYPE FAMILY NAME FIRST	FULL ADDRESS TO WHICH PATIENT WILL RETURN	MUNICIPALITY
MAIDEN NAME / BIRTHPLACE	OCCUPATION OF PATIENT ☐ OR HEAD OF FAMILY ☐ / PHONE	RELIGION
ADDRESS OF HEAD OF FAMILY	NUMBER AND DATE OF LAST ADMISSION	
NAME AND ADDRESS OF NEXT OF KIN OR FRIEND	PHONE / RELATIONSHIP	

ADMISSION HISTORY

ROOM	HOUR OF ADMISSION: HOUR	A.M.	P.M.	DATE OF ADMISSION: DAY	MONTH	YEAR

SEX: N.B.M.	N.B.F.	MARITAL STATUS: SINGLE	M.	W.	D.	SEP.	DATE OF BIRTH: DAY	MONTH	YEAR	AGE

ELIGIBILITY / WARD	N.S.H.I.C.	D.V.A.	W.C.B.	SELF	OTHER — SPECIFY

ON ADMISSION (COMPLETE AFTER SIGNATURE OF APPLICANT)

PHYSICIAN	ATTENDING PHYSICIAN	SURGEON

ACCOMMODATION REQUESTED

DATE	SEMI-PRIVATE	STANDARD WARD	NURSERY

ALL PREVIOUS ADDRESSES OF PATIENT FOR PAST YEAR. IF IS A NEWBORN, INSERT INFORMATION ON MOTHER.	FROM MO.	FROM YR.	TO MO.	TO YR.

ALL PREVIOUS EMPLOYERS FOR PAST YEAR WITH FULL ADDRESS. PATIENT ☐, HEAD OF FAMILY ☐	FROM MO.	FROM YR.	TO MO.	TO YR.

NAMES OF TWO RELIABLE PERSONS WHO CAN CONFIRM THE ABOVE STATEMENTS OF RESIDENCE.

(FULL NAME) (ADDRESS) (OCCUPATION)

APPLICATION FOR BENEFITS: I HEREBY (1) MAKE APPLICATION FOR BENEFITS UNDER THE HOSPITAL INSURANCE ACT ON BEHALF OF MYSELF OR THE ABOVE MENTIONED PATIENT, (2) AGREE TO ASSUME RESPONSIBILITY FOR CHARGES NOT COVERED BY THE HOSPITAL INSURANCE ACT, OR OTHER AGENCY, (3) CERTIFY THAT I HAVE READ THE STATEMENTS ON THIS FORM, OR HAVE THEM READ TO ME, AND THAT SAME ARE TRUE AND CORRECT.

(WITNESS) HOSP. EMP.	DATE	SIGNATURE OF APPLICANT (IF SIGNED BY OTHER THAN PATIENT ALSO COMPLETE LINE BELOW)

MOS.	RELATIONSHIP TO PATIENT	APPLICANT'S FULL POSTAL ADDRESS

ACCIDENT CASE

IS AN ACCIDENT CASE?	YES ☐ NO ☐
(IF REVERSE SIDE MUST BE COMPLETED)	
IS THIRD-PARTY LIABILITY BE INVOLVED?	YES ☐ NO ☐
HAS FORM 10 BEEN SUBMITTED?	YES ☐ NO ☐
(FORM 10 MUST BE SUBMITTED FOR ALL CASES WHICH MAY INVOLVE THIRD-PARTY LIABILITY)	

DISCHARGE HISTORY

DATE OF DISCHARGE: DAY	MONTH	YEAR	HOUR OF DISCHARGE: HOUR	A.M.	P.M.	TOTAL DAYS

DISCHARGE CONDITION	WELL	IMPROVED	UNIMPROVED	DIED IN 48 HOURS	DIED AFTER 48 HOURS	AUTOPSY: YES	NO

PATIENT DISCHARGED TO: HOME ☐, OTHER — SPECIFY ☐

DIAGNOSIS ON DISCHARGE

SECONDARY DIAGNOSIS

NATURE OF OPERATION OR EXAMINATION PERFORMED	DATE OF OPERATION

SPECIAL SERVICE PROVIDED OR FACILITIES USED

	NO.		NO.		NO.
X-RAY (TM) UNITS		E.K.G.		E.C.T. TREATMENTS	
X-RAY (RM) UNITS		E. E. G.		B.M.R.	
X-RAY THERAPY TREATMENTS		BLOOD OR PLASMA		RADIUM TREATMENTS	
LABORATORY UNITS		PHYSIOTHERAPY TREATMENTS			

OXYGEN THERAPY ☐ YES ☐ NO — OPERATING ROOM ☐ YES ☐ NO

ACCOUNTING RECORD

ACCOMMODATION	DAYS	RATE	AMOUNT
STANDARD WARD			
PRIVATE OR SEMI-PRIVATE			
NURSERY			
OTHER CHARGES			
GRAND TOTAL			
LESS:- CHARGES TO PATIENT OR OTHER AGENCY			
CHARGE TO N.S.H.I.C.			
LESS:- SUBMITTED ON ACCOUNT TO - N.S.H.I.C.			
PAYABLE BY N.S.H.I.C.			

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

APPL.	APPROVED	NON-N.S.H.I.C.	ACCT.	PAYMENT AUTHORIZED	NON-N.S.H.I.C.

DO NOT WRITE BELOW THIS LINE

HOSPITAL CODE NO.			MUNIC. OF PATIENT		DISCHARGE DATE: DAY		MONTH		YR.	SEX	AGE OF PATIENT		MARITAL STATUS	ATTENDING PHYSICIAN				DIAGNOSIS ON DISCHARGE: PRIMARY LIST NO.	PRIMARY CLASS				SECONDARY CLASS				AUTOPSY OR CONDITION	NO. DAYS TO OPERATION	TYPE OF OPERATION			ATTENDING SURGEON			REPORT ON ACCIDENT		
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
		X																																		

SERVICES RENDERED: X-RAY (RM) UNITS	X-R THY.	LAB. UNITS			E.K.G. E.E.G.	BLOOD OR PLASMA	PHS. TH. TREAT.	B.M.R. E.C.T.	NO. DAYS IN HOSPITAL	HOSPITAL ADMISSION NUMBER							AGE GROUP	N.S. LIST NUMBER		L OF S GROUP										C. C.
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																																					X

Accident Report

TYPE OF ACCIDENT

HIGHWAY ACCIDENT

- obile
- ck or Transport
- ber Motorized Vehicle
- cidental Falls
- ber

CCIDENT

- ctor or Combine
- ber Farm Equipment
- ns or Scalds
- cidental Falls
- used by Animals
- son
- tting, Piercing or Foreign
  odies
- ber

ACCIDENT IN PUBLIC BUILDING OR INSTITUTION

31 ☐ Burns
32 ☐ Falls
33 ☐ Cutting, Piercing or Foreign Bodies
34 ☐ Other

HOME ACCIDENT (INCLUDING FARM HOUSEHOLDS)

41 ☐ Falls
42 ☐ Burns or Scalds
43 ☐ Home Appliances
44 ☐ Poison
45 ☐ Cutting, Piercing or Foreign Bodies
46 ☐ Other

RECREATIONAL ACCIDENT

51 ☐ Falls
52 ☐ Collision
53 ☐ Firearms
54 ☐ Flying Object
55 ☐ Other

INDUSTRIAL ACCIDENT

61 ☐ Accidental Falls
62 ☐ Cutting, Piercing or Foreign Bodies
63 ☐ Falling Object
64 ☐ Machinery or Equipment
65 ☐ Burns
66 ☐ Strain
67 ☐ Other

ADDITIONAL DESCRIPTION OF ACCIDENT

_____

_____

ent occurred Day_____ Mo._____ Year_____

nt happen in ☐ City ☐ Town ☐ Village or ☐ R.M.? (Check one)

e of city, town, village, or R.M. in which accident occurred_____

III. FAMILY CONSTELLATION Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

1. Father: birthplace: mo & yr born:
ethnic origin: religion:

2. Mother: birthplace: mo & yr born:
ethnic origin: religion:

Children (list with oldest first, include cl/pt and identify with "X" in left-hand margin; identify others in treatment with "T" and schedule no.)

3. Ma/Fe birthplace: mo & yr born:

4. Ma/Fe birthplace: mo & yr born:

5. Ma/Fe birthplace: mo & yr born:

6. Ma/Fe birthplace: mo & yr born:

7. Ma/Fe birthplace: mo & yr born:

8. Ma/Fe birthplace: mo & yr born:

(___) check here and continue on back of sheet if more children

Other significant persons (specify relationship or role with respect to cl/pt, but not name)

a. _____ birthplace: mo & yr born:
ethnic origin: religion:

b. _____ birthplace: mo & yr born:
ethnic origin: religion:

c. _____ birthplace: mo & yr born:
ethnic origin: religion:

d. _____ birthplace: mo & yr born:
ethnic origin: religion:

e. _____ birthplace: mo & yr born:
ethnic origin: religion:

(___) check here and continue on back of sheet if necessary

If religion of cl/pt is other than that shown for father (___) check here and clarify on back of this sheet

FAMILY CONSTELLATION (page 2) Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified: _____

Indicate present status of each member with "X" and give dates of any change of status, using same number or letter to identify individuals as used on previous sheet.

	Single	Married	Cohabit	Deserted	Sep'ted	Div'ced	Widowed
1. Father							
2. Mother							

Children (list with oldest first, include cl/pt and identify with "X" in left-hand margin; identify others in treatment with "T" and schedule number)

3. Ma/Fe							
4. Ma/Fe							
5. Ma/Fe							
6. Ma/Fe							
7. Ma/Fe							
8. Ma/Fe							

(___) check here and continue on back of sheet if more children

Other significant persons (specify relationship or role with respect to cl/pt, but not name)

a. _____							
b. _____							
c. _____							
d. _____							
e. _____							

If marital history of family cannot be shown clearly above (___) check here and explain below, continuing on back of sheet if necessary

IV. FAMILY DYNAMICS Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

1. (___) Check here if record gives no significant information on family functioning; otherwise note below, especially as regards housekeeping and living arrangements, eating and food preparation, money handling, discipline, recreation, family routines and rituals, and family values:

(___) check here and continue on back of sheet if necessary

2. (___) check here if record gives no signifcant information on the pattern of relationships within the family; otherwise note below, especially as regards positive or negative relations of cl/pt to parents and siblings:

(___) Check here and continue on back of sheet if necessary

FAMILY DYNAMICS (page 2) Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified: _____

3. (___) Check here if record gives no significant information on family dominance patterns; otherwise note below, especially as regards stable or fluctuant nature and whether members accept or rebel against the pattern:

(___) check here and continue on back of sheet if necessary

4. (___) Check here if record gives no significant information on family patterns of reacting to environmental or internal stress; otherwise note below, especially as regards nature and degree of strees, reaction pattern, effectiveness of reaction pattern, integrative or disintegrative effect of experiences:

(___) check here and continue on back of sheet if necessary

FAMILY DYNAMICS (page 3) Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

5. (___) Check here if record gives no significant information on family's handling of social roles; otherwise note below, especially as regards whether roles are accepted or rejected; whether complementarity of roles exists or not, whether there is disparity between conscious and unconscious roles or not, whether roles are culturally appropriate or not, whether members deviate from characteristic handling of roles or not:

6. (___) Check here if record gives no significant information on family's goals; otherwise note below, especially as regards existence of common goals if any (particularly educational or vocational), whether goals are appropriate or not, whether there has been success in achieving family goals, whether achieving family goals has called for individual sacrifices or not

(___) check here and continue on back of sheet if necessary

FAMILY DYNAMICS (page 4) Schedule No. _____

This sheet refers to (circle) the natural/step/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

7. (___) Check here if record gives no significant information on the nature and degree of individual satisfactions derived from family participation, otherwise note below:

(___) check here and continue on back of sheet if necessary

8. (___) Check here if record gives no significant information on family history, otherwise note below, with month and year, especially any reported events that precipitated crises or changes in family or individual petterns or mode of living:

(___) check here and continue on back of sheet if necessary

V. INDIVIDUAL PERSONALITY Schedule No. _____

This sheet refers to (circle) cl/pt or member #____ of natural/step/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

1. Check here if record gives no significant information on stressful experiences during developmental years: otherwise note below, showing nature and degree of stress; age or date, and effect on personality:

(___) check here and continue on back of sheet if necessary

2. (___) Check here if record gives no significant information on identifications made during developmental years; otherwise note below, showing with whom identification was made, type of model offered, and effect on personality formation:

(___) check here and continue on back of sheet if necessary

INDIVIDUAL PERSONALITY (page 2) Schedule No. _____

This sheet refers to (circle) cl/pt or member #___ of natural/step/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

3. (___) Check here if record gives no significant information on basic attitudes; otherwise note below, especially as regards sense of selfworth, sense of trust in others, capacity for initiative, capacity for love, atitudes to authority and limits, attitudes to own and other sex roles, and capacity for socially acceptable functioning:

(___) check here and continue on back of sheet if necessary

4. (___) Check here if record gives no significant information on adjustive capacity; otherwise note below, especially intelligence, emotional sensitivity to self and to others, capacity for emotional relationships, plasticity in traits and defences, assertiveness, self-esteem, conscience, tolerance for reasonable stress or anxiety and ability to gratify vital biological and social needs in conformity with mores of significant groups:

(___) check here and continue on back of sheet if necessary

INDIVIDUAL PERSONALITY (page 3) Schedule No. _____

This sheet refers to (circle) cl/pt or member #____ of natural/step/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

5. (___) Check here if record gives no information on defensive mechanisms; otherwise note below, using list as guide:

Conscious effort: actual withdrawal, bodily satisfactions, distractive activity, day-dreaming, suppression, rationalization, philosophizing, "self-control", acting out, "thinking through", alcoholic indulgence, use of drgus;

Personality defences: over-dependency, submissiveness, expiatory patterns, dominating patterns, aggressive patterns, emotional withdrawal, narcissistic patterns, compulsion to power;

Repressive defences: reaction formation, accentuated intellectual control, blunted mentation, dusturbed consciousness, disturbed memory, emotional inhibitions, sensory disorders, motor paralyses, visceral inhibitions, displacement and phobic avoidance, undoing and isolation;

Regressive defences: helpless dependency, withdrawal from reality, depressions, excited acting-out.

(___) check here and continue on back of sheet if necessary

INDIVIDUAL PERSONALITY (page 4) Schedule No. _____

This sheet refers to (circle) cl/pt or number ___ of natural/step/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

6. (___) Check here if record gives no significant information on symptoms of personality malfunctioning in childhood; otherwise note below, using list as guide, and giving age or date:

Habit disorders: vomiting, crying, picking, scratching, masturbation, enuresis, rocking, head banging, nail chewing;

Conduct disorders: defiance, tantrums, destructiveness, cruelty, overactivity, secretiveness, lying, stealing, sex exhibitionism, delinquencies;

Neurotic traits: jealousy, shyness, nightmares, sleepwalking, stuttering, phobias, withdrawal, general "nervousness";

Psychophysio disorders: anorexia nervosa, constipation, chronic diarrhoea, fainting, migraines, eczema, asthma

(___) check here and continue on back of sheet if necessary.

INDIVIDUAL PERSONALITY (page 5) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

7. (___) Check here if record gives no significant information on acceptance or rejection of family, religious or cultural values; otherwise note below:

(___) check here and continue on back of sheet if necessary

8. (___) Check here if record gives no significant information on acceptance or rejection of the family by neighbours, peer or reference groups; otherwise note below:

(___) check here and continue on back of sheet if necessary

INDIVIDUAL PERSONALITY (page 6) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

9. (___) Check here if record gives no significant information on stressful experiences after childhood (biological, psychological or sociological); otherwise note below, briefly if reported elsewhere, but in appropriate detail if not; note effect on relationships with others and on living arrangements:

(___) check here and continue on back of sheet if necessary

INDIVIDUAL PERSONALITY (page 7) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

10. (___) Check here if record gives no significant information on personality malfunctioning after childhood; otherwise note below, using the lists as a guide; note informant's role or relationship to the individual reported; note any treatment given or prognosis offered; note effect of malfunctioning on relationships with others or on living arrangements.

Suicide attempts, over-excitement, anti-social behavior, intense anxiety or panic states, acute alcoholic intoxication, acute barbiturate poisoning, severe psychosomatic symptoms, impact of incurable somatic illness;

Psychoneurotic disorders (anxiety reactions, conversion and dissociative reactions, phobic reactions, obsessive-compulsive reactions, depressive reactions); psychophysiologic, autonomic and visceral disorders; personality disorders ("inadequate," infantile and dependency patterns, "schizoid" and detached patterns, paranoid or "anal" patterns, power patterns, narcissistic reactions, sociopathic personality, alcoholism, drug addiction, sexual deviations, speech disorders); psychotic disorders (involutional psychotic reactions, manic-depressive reactions, schizophrenic reactions); stress reactions (to accidents, hurrican, flood, famine, war, etc.):

(___) check here and continue on back of sheet if necessary

VI. LIVING ARRANGEMENTS Schedule No._____

This sheet refers to cl/pt while (circle) living alone/with natural/step/adoptive/foster family or with
other surrogate family group as specified: _____

1. Address:

2. Mo & yr in: 3. Mo & yr left:

(___) if this is an institution check here and omit remainder of sheet

4. Circle type: single / duplex / apartment / tenement / lodgings

5a. Number of rooms: 5b. Number of occupants:

6. Circle condition: excellent / very good / good / average / fair / poor
very poor / not recorded

7. (___) Owned? what value? (___) rented? what rent?
(___) free? from whom? why?

8. Housekeeping standards (note informant):

(___) check here and continue on back of sheet if necessary

9. Neighbourhood attitudes to family:

(___) check here and continue on back of sheet if necessary

VII. EDUCATION Schedule No. _____

This sheet refers to (circle) the natural/step-/adoptive/foster family of cl/pt or to other surrogate family group as specified:

Use same numbering as for FAMILY CONSTELLATION _____

	STILL IN SCHOOL		LEFT SCHOOL		NOT RECORDED
	Age/date	Grade	Last grade completed	Age in L G C	
1. Father					
2. Mother					

Children (list with oldest first, include cl/pt and identify with "X" in left hand margin; identify others in treatment with "T")

3. Ma/Fe					
4. Ma/Fe					
5. Ma/Fe					
6. Ma/Fe					
7. Ma/Fe					
8. Ma/Fe					

(___) check here and continue on back of sheet if more children

Other significant persons (specify relationship or role with respect to cl/pt, but not name)

a.					
b.					
c.					
d.					
e.					

(___) check here and continue on back of sheet if necessary

(___) Check here if record gives no significant information on attitudes of family members, other than cl/pt, to school; otherwise note below:

(___) check here and continue on back of sheet if necessary

EDUCATION (page 2) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

2. (___) Check here if record gives no significant information on school performance; otherwise note below, especially with regard to school standing, changes of school, grades repeated, special classes, etc.

(___) check here and continue on back of sheet if necessary

3. (___) Check here if record gives no significant information on school adjustment; otherwise note below, especially in regard to truancy, expulsion, attitudes to school, attitudes of school personel or of school peers to cl/pt or to family member being reported

(___) check here and continue on back of sheet if necessary

EDUCATION (page 3) Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/adoptive/foster family of cl/pt, or of other surrogate family group as specified: _____

4. (___) Check here if still in school; otherwise circle below reason for leaving, and explain:

financial / health / intellect / behavior / own attitudes / family attitudes

other:

(___) check here and continue on back of sheet if necessary

5. (___) Check here if record gives no information of grade levels, staff estimates of ability, etc; otherwise note below (formal IQ or other psychological tests should be reported as PROFESSIONAL ASSESSMENTS):

(___) check here and continue on back of sheet if necessary

6. School history:

School	Place	Age/date began	Grade began	Age/date left

(___) check here and continue on back of sheet if necessary

EDUCATION (page 4) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

7. (___) Check here if record gives no information on completion of specific units of educational activity attempted, such as grade school, high school, vocational courses, undergraduate or graduate study; otherwise note below and show any certificates, diplomas, degrees or other academic recognition received:

(___) check here and continue on back of sheet if necessary

VIII. EMPLOYMENT Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

1a. Type of (___) present or (___) most recent employment (circle):

proprietor or managerial / professional / clerical / agricultural

other primary / manufacturing or mechanical / construction

transport or communications / commerce or finance / personal service

laborer, not primary / not reccrded

1b. Description from record:

2. (___) Check if employment above is typical and appropriate; otherwise note below what is, and why above is not:

3. If not working but recently employed circle reason for leaving, and note significant information from record:

termination / performance / behavior / illness / voluntary / not reccrded

(___) check here and continue on back of sheet if necessary

EMPLOYMENT (page 2) Schedule No._____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

4. Source of income (circle):

inherited wealth / earned wealth / profits & fees / salary / wages /

other not recorded

5. Income: (___) Not recorded; $ _____ per day/week/month/year

6. Does record indicate that family considered income to be (circle):

most adequate / just adequate / almost adequate / insufficient / no record

Explain:

(___) check here and continue on back of sheet if necessary

7. (___) Check here if record gives no significant information on frequent job changes, otherwise note below:

8. (___) Check here if record gives no significant information on job difficulties, otherwise note below:

9. (___) Check here if record gives no significant information on periods of unemployment, otherwise note below:

10. (___) Check here if record gives no significant information on attitudes to work, otherwise note below:

11. (___) Check here if record gives no significant information on vocational goals of individual or of family for him; otherwise note below:

(___) check here and continue on back of sheet if necessary

EMPLOYMENT (page 3) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

List employment as shown in record:

1. Type of work: Wage per wage period: /

Date or age began: Date or age left:

Reason for leaving (circle): term'n / perfor'ce / behav'r / voluntary illness / no record

If part-time circle type: after school / weekend / summer / casual

Special remarks:

(___) check here and continue on back of sheet if required

2. Type of work: Wage per wage period: /

Date or age began: Date or age left:

Reason for leaving (circle): term'n / perfor'ce / behav'r / voluntary illness / no record

If part-time circle type: after school / weekend / summer / casual

Special remarks:

(___) check here and continue on back of sheet

EMPLOYMENT (page 4) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

Mo & yr began	Mo & yr left	Type of work or Employer

(___) check here if a further sheet is necessary

IX. OTHER AGENCY REFERRALS Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

NOTE: if record shows a professional assessment it is to be recorded in section X; a police or court history in section XI, or an institutional history in section XII, but complete this section also.

1. Agency or service:

2. Mo. & yr. referred: Mo. & yr. contact ended:

3. Contact was (circle) intermittent/continuous

4. Presenting problem:

(___) FINANCIAL: employment placement, vocational guidance, vocational training; social insurance claim, social assistance request, shelter care, service for transients, etc.

(___) EMOTIONAL: psychiatric, casework, counselling or guidance; delinquency, correctional, detention

(___) CHILD WELFARE emergency homemaker, day care, foster care; adoption; neglect or protection, etc.

(___) HEALTH: hospital, nursing or convalescent home, out-patient clinic; home nursing; specific health problem service

(___) RECREATION, LEISURE TIME ACTIVITY or INFORMAL EDUCATION

(___) OTHER (specify):

5. Outcome, for person referred and for others affected:

(___) check here and continue on back of sheet if necessary

X. PROFESSIONAL ASSESSMENT Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/
adoptive/foster family of cl/pt or of
other surrogate family group as specified: _____Y_____

1. Agency or service: 2. Date:

3. Assessed by (circle): psychiatrist/psychologist/caseworker/med doctor

other (specify): _____

4. Referred by:

5. Reason referred:

6. Digest of findings:

(___) check here and continue on back of sheet if necessary

XI. POLICE AND COURT HISTORY Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

1. Court: 2. Place:

3. Mo.&Yr. appeared: 4. Complainant:

5. Offence: 6. Disposition

7. Effect on emotional attitudes of cl/pt or others concerned:

(___) check here and continue on back of sheet if necessary

8. Effect on living patterns of cl/pt or others concerned:

(___) check here and continue on back of sheet if necessary

1. Court: 2. Place:

3. Mo.&yr. appeared: 4. Complainant:

5. Offence: 6. Disposition:

7. Effect on emotional attitudes of cl/pt or others concerned:

(___) check here and continue on back of sheet if necessary

8. Effect on living patterns of cl/pt or others concerned:

(___) check here and continue on back of sheet if necessary

If a further sheet is required for police and court history of this individual check here (___)

POLICE AND COURT HISTORY (page 2) Schedule No. _____

This sheet refers to (circle) the natural/step-/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

Member Place Offence Disposition

(___) check here if it is necessary to continue on another sheet

XII. INSTITUTIONAL HISTORY Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

1. Institution name: 2. Place

3. Purpose

4. Mo. & yr./admitted: Mo. & yr. discharged:

Stay was (circle) interrupted/continuous

5. Referred or sent by:

6. Reason for institutionalization:

(___) check here and continue on back of sheet if necessary

7. Did institutionalization achieve its intended purpose or not?

Comment:

(___) check here and continue on back of sheet if necessary

8. Effect on emotional attitudes of cl/pt or others concerned:

(___) check here and continue on back of sheet if necessary

9. Effect on living patterns of cl/pt or others concerned

(___) check here and continue on back of sheet if necessary

XIII. HEALTH HISTORY Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

For all illnesses:

Mo & yr of onset	Diagnosis	Where treated

(___) check here if it is necessary to continue on further sheet

HEALTH HISTORY (page 2) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

For non- or pre-hospital illness:

1. Mo & yr of onset: 2. Duration:

3. Diagnosis:

Self-made/professional

4. Prior stresses reported:

5. Treatment:

6. Outcome: cure/remission/death Other (specify):

7. Check or number successively if illness required:

(___) hospitalization (___) total nursing care (___) visiting nurse

(___) supervised home care (___) self-care (___) other:

8. Period(s) under care:

9. Effect of illness on living arrangements, employment, relationships with others:

(___) check here and continue on back of sheet if necessary

HEALTH HISTORY (page 3) Schedule No. _____

This sheet refers to (circle) cl/pt or member # ___ of natural/step-/ adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

For hospitalization:

1. Mo & yr admitted: 2. Mo & yr discharged:

3. If stay was interrupted show number and durations:

4. Symptoms and prior stresses recorded:

5. What significant "consults" are recorded:

6. Diagnosis:

7. Other illnesses found:

8. Treatment:

9. Outcome: (If death, give age and date; if transfer to other institution, give type; if total nursing care, visiting nursing care, supervised home care, self care or restricted activities, specify for what period(s):

10. Condition on discharge: improved/not improved

11. Prognosis and recommendations:

(___) check here if any part is continued on back of sheet

HEALTH HISTORY (page 4) Schedule No. _____

This sheet refers to (circle) the natural/step-/adoptive/foster family of cl/pt or to other surrogate family group as specified:

_____

For family health history:

1. Member 2. Diagnosis: 3. Date/Age

4. Where treated:

5. Duration and outcome:

1. Member 2. Diagnosis 3. Date/Age

4. Where treated:

5. Duration and outcome:

1. Member 2. Diagnosis 3. Date/Age

4. Where treated:

5. Duration and outcome:

1. Member 2. Diagnosis 3. Date/Age

4. Where treated:

5. Duration and outcome:

(___) check here if further sheet is necessary

HEALTH HISTORY (page 5) Schedule No. _____

This sheet refers to (circle) cl/pt or to member # ___ of natural/step-/adoptive/foster family of cl/pt or of other surrogate family group as specified: _____

For referrals to Hospital Social Service:

1. Mo & yr referred: 2. Referred by:

3. Reason referred:

4. Problem as assessed in Social Service:

5. Treatment goals and activities:

6. Status or outcome:

(___) referred but not yet seen/service rejected

(___) at intake problem of referral was found to be

non-existent/otherwise resolved*/untreatable*/requiring another resource*/requiring an unavailable resource*

* (specify):

(___) treatment offered and refused/on waiting list/in treatment/

or withdrew while on waiting list

(___) treatment terminated because completed/pt/cl withdrew

if withdrew, specify reasons:

Other (specify):

BIBLIOGRAPHY

Books

Alexander, F., PSYCHOSOMATIC MEDICINE; W. W. Norton, New York, 1950.

Brill, A. A., THE BASIC WRITINGS OF SIGMUND FREUD; Random House, New York, 1938.

Cameron, N. & Cameron, Margaret A., BEHAVIOR PATHOLOGY; Houghton-Mifflin, Boston, 1951.

Cantor, Alfred J. & Foxe, Arthur N., PSYCHOSOMATIC ASPECTS OF SURGERY; Grune and Stratton, New York, 1956.

Dennis, Lorraine Bradt, PSYCHOLOGY OF HUMAN BEHAVIOR FOR NURSES; W. B. Saunders Co., Philadelphia, 1962.

Dornbusch, Sanford M. & Schmid, Calvin F., A PRIMER OF SOCIAL STATISTICS; McGraw-Hill Book Co. Inc., Pa., 1962.

Dunbar, Flanders, SYNOPSIS OF PSYCHOSOMATIC DIAGNOSIS AND TREATMENT; C. V. Mosby Co., St. Louis, 1948.

Engel, George L., PSYCHOLOGICAL DEVELOPMENT IN HEALTH AND DISEASE; W. B. Saunders Co., Phila., 1963.

Grinkler, Roy R., PSYCHOSOMATIC RESEARCH; Grove Press Inc., New York, 1959.

Hinsie, Leland E., THE PERSON IN THE BODY; W. W. Norton Inc., New York, 1945.

Horney, Karen, THE NEUROTIC PERSONALITY OF OUR TIME; Norton, New York, 1937.

Landreth, Catherine, THE PSYCHOLOGY OF EARLY CHILDHOOD; Alfred A. Knopf, New York, 1958.

Langner, Thomas S. & Michael, Stanley T., LIFE STRESS AND MENTAL HEALTH; Free Press of Glencoe, Collier MacMillan Ltd., London, 1948.

McCormick, Thomas C. & Francis, Roy G., METHODS OF RESEARCH IN THE BEHAVIORAL SCIENCES; Harper and Brothers, New York, 1958.

Menninger, W. C., PSYCHIATRY IN A TROUBLED WORLD; The MacMillan Co., New York, 1948.

Myer, Adolf, PSYCHOBIOLOGY, A SCIENCE OF MAN; Charles C. Thomas, Springfield, Ill., 1957.

Murray, J. Barrie, SOME COMMON PSYCHOSOMATIC RELATIONSHIPS; Oxford University Press, London, 1949.

Noyes, Arthur P. & Kolb, Lawrence Co., MODERN CLINICAL PSYCHIATRY; W. B. Saunders Co., Phila., 1963.

Piaget, J., LANGUAGE AND THOUGHT OF THE CHILD; Harcourt Brace and Co., N. Y., 1926.

Schottstaedt, William W., PSYCHOPHYSIOLOGIC APPROACH IN MEDICAL PRACTICE; The Year Book Publishers Inc., Chicago, 1960.

Ulett, George A. & Goodrich, D. Wells, A SYNOPSIS OF CONTEMPORARY PSYCHIATRY; C. N. Mosby Co., St. Louis, 1956.

Weiss, Edward & English, O. Spurgeon, PSYCHOSOMATIC MEDICINE; W. B. Saunders Co., Phila., 1957 (third edition).

Articles

Grace, William J. & Graham, David T., "Relationship of Specific Attitudes and Emotions to Certain Bodily Diseases," PSYCHOSOMATIC MEDICINE, v 14, no 4, 1952, pp. 243-251.

Holmes, Thomas H. & Wolff, Harold G., "Life Situations, Emotions and Backache," PSYCHOSOMATIC MEDICINE, v 14, no 1, 1952, pp. 18-33.

Seyle, H., "The Two-Edged Sword of Stress," CANADA'S HEALTH AND WELFARE, v 19, no 5, 1964.

Seaman, George J. & Reder, E. Louis, "Psychogenic Back Disorders," PSYCHOSOMATIC MEDICINE, v 4, no 1, 1952.

Shyne, Anne W., (ed) "Use of Judgments as Data in Social Work Research," National Association of Social Workers Publication, New York, 1959.