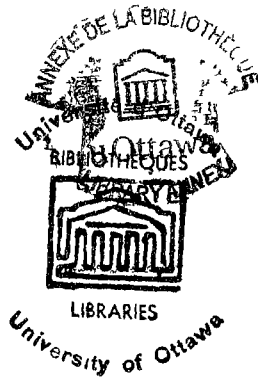


A PERSONAL HISTORY INVESTIGATION
OF THE ETIOLOGY IN RHEUMATOID ARTHRITIS

by Real A. Demers

Thesis presented to the Faculty of Arts
of the University of Ottawa through the
Institute of Psychology as partial ful-
fillment of the requirements for the
degree of Master of Arts.



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CURRICULUM STUDIORUM

Real A. Demers was born at Ottawa, Ontario on April 15, 1914. Having returned to his studies from service in continental Europe, in 1946, he graduated from the School of Instruction, Convalescent Hospital, Portage la prairie, Manitoba, and served a one year internship as Physical Remedial Therapist in Ottawa Hospitals. In 1950 he received the degree of Bachelor in Education from the University of Ottawa.

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INTRODUCTION

In the past progress in medicine has come largely through new ideas as to the cause of disease and the evolution of sound principles of treatment based on such concepts. But despite all the progress that medicine has made in principles and practice, sickness still prevails and trumpets its challenge anew to each and every generation¹.

Although the personal approach to the diagnosis of disease is as old as the art of healing itself, in the sense that it attempts to substitute controlled investigation of things sensed intuitively by the healer, it is comparatively new as a science. Though young in years it introduces a new light in the search for causal factors in some of the oldest diseases of humanity. Notwithstanding the fact that one may still find many physicians, even psychiatrists who regard psychological explanation as incompatible with organic diseases, this light, coming from the psychodynamic study of persons who are suffering from diseases of the vegetative organs--the stomach, bowels, heart, lungs and skin--has proven the necessity of investigating the psychological as well as the organic factors in the search for

¹ Flanders Dunbar, Psychosomatic Diagnosis, New York, Hoeber, 1943, p. vii.

causes of human diseases and bodily disorders.

The diseases that have proven to be the greatest cause of mortality and disability in our present population, cardiovascular and rheumatic illnesses respectively, have been shown closely related to emotions. Yet the psychological aspect of these illnesses is all but completely left out of most medical research. Today we accept the fact that the treatment of many organic diseases is frequently thwarted by psychological factors which cannot be measured with any degree of accuracy by our modern laboratory or clinical instruments. Moreover, organic conditions such as ulcers of the stomach, high blood pressure, hay fever, arthritis and others are known to have a high coincidence with periods of emotional stress arising from thwarted hopes, resentment, fears, as well as from the patient's general dynamic reaction to his human environment. It is gradually being recognized that the physician, who concentrates on the symptoms without due regard to the etiological features of the disease, very often becomes himself ~~pathogenic~~ ^{the cause} for a number of succeeding ailments. What is true of psychosomatic diseases in regard to the neglect of their etiological bases is and has always been particularly true of rheumatoid arthritis from the very beginning of physical medicine.

From the time that Pope Gregory in 590 A.D. included the arthritics in his classification of infirms and destitutes to be supported by public funds, there is hardly a therapeutic process in medicine that has not been utilized in the treatment of arthritis². From the rest cures of the past to the modern treatment by gold salts injection, some thirty odd types of medicaments have been hailed as miracle drugs only to subside into oblivion. Where one arthritis specialist reports the dramatic results of a compound or of a therapeutic application, another reports a total failure while following identical procedures.

Within the past twelve years various psychological factors have also been arraigned as causing, or predisposing to rheumatoid arthritis. But the lack of agreement on the relative importance of such factors would seem to be due to the fact that the opinions expressed by the majority of workers in the field are based on general clinical impressions rather than on controlled observations, on the one hand, and the fact that the few controlled experiments that

² Edward Weiss and O.S. English, Psychosomatic Medicine, Philadelphia, Saunders, 1943, p. 503.

have been carried out were somewhat biased either in their choice of subjects or through the inclusion of different forms of rheumatism other than rheumatoid arthritis, on the other hand. With this in mind, then, our main concern throughout this study will be to investigate the possibilities of significant psychological bases predisposing to or responsible for rheumatoid arthritis in human beings; and to attempt to appraise the psychodynamic implications of these bases with respect to the whole personality.

This experiment is carried out with the help of sixteen patients, ten of whom were chosen from the Ottawa General Hospital's out-patient arthritic clinic, and the other six selected from private practice patients undergoing treatment for rheumatoid arthritis. Each individual patient is given two or more interviews of at least one hour's duration. During the first interview a personal history investigation questionnaire is administered in which all phases of past and present symptoms, diseases, illnesses, physical status, financial and social adjustment as well as family history from the grandparents down to the patient's grandchildren, are taken. After a close analysis of the first interview, a second interview followed some time afterwards in order to discuss and concretely establish the accuracy of the material given in the previous interview;

and to deal with the specific problems of sexual development and marital adjustment of the patient. The third interview elaborates on the material produced in the first two, and clears up any doubtful areas concerning the patient's personal history.

To prevent all possible misunderstanding originating from the many different interpretations attached to certain technical terms, it is thought advisable to present an explanation of terms. In the following will be found a definition of terms considered of fundamental importance to the understanding of this research. Reference to these terms may be found in Dictionary of Psychology³ and in The American Illustrated Medical Dictionary⁴.

Arthritis: refers to any or all forms of joint inflammation.

Osteo-arthritis: a chronic disease of the joints marked by degeneration and hypertrophy of the bone and cartilage and thickening of the synovial membrane.

³ Howard C. Warren, Dictionary of Psychology, Houghton Mifflin, Boston, 1934, p. x-371.

⁴ W.A. Newman Dorland, The American Illustrated Medical Dictionary, Saunders, Philadelphia, 1944, p. 1-1668.

Rheumatism: a disease marked by inflammation of the connective tissue structures of the body, especially the muscles and joints, and by pain in these parts.

Rheumatoid arthritis: a chronic disease of the joints, usually polyarticular, marked by inflammatory changes in the synovial membranes and articular structures and by atrophy or rarefaction of the bones.

Dynamic: pertains to the causes and effects of behavior and mental activities, and often carries a special emphasis on motivation.

Etiology: investigation of causes or significant antecedents of a given phenomenon.

Psychogenic: that which is not attributed to physiological changes but apparently originates from underlying mental conflicts, suggestion, preoccupation, etc., e.g. hysteria. (Due to causes that are psychological as opposed to physical).

With these preliminary thoughts serving as a setting to the basic purpose, needs and procedures of this research, we may now proceed to the all important review of what has been thought of, written about, and accomplished in the field of psychosomatic medicine in general, but especially as it applies to rheumatoid arthritis.

CHAPTER I

REVIEW OF LITERATURE

Since the concept of psychosomatic medicine is a relatively new one, and because the few studies that have been made concerning the psychological aspect of rheumatoid arthritis are rather weak in some respects, a presentation of the main works on general psychosomatic illnesses followed with a brief survey of the literature on research for etiological bases in rheumatoid arthritis will provide the broad background to this study. In addition to their all-embracing value to psychosomatic problems in general the four volumes dealt with in the general survey present important material on the earlier efforts made in the quest for etiological bases in rheumatoid arthritis.

Among the outstanding contributions to this field we find those by Jelliff produced between the years 1910 and 1925, as well as the latter works of Sigmund Freud of the same period. Both Karl and W.C. Menninger have also added their support to the success of this newly discovered science.

Psychosomatic Medicine As a Science

An important milestone in the history of a science which is rapidly taking on importance in medical literature was the initiation in January 1939 of the journal

Psychosomatic Medicine, Experimental and Clinical Studies¹.

Another event of major importance was the appearance in Osler's Principles and Practice of Medicine of the first section devoted to psychosomatic medicine and functional diseases of the nervous system in place of the traditional chapter on infectious diseases².

Among present-day contributions to the literature on psychosomatic diseases we find those of Franz Alexander and his associates of the Chicago Institute for Psychoanalysis, which have been combined in one main volume entitled Studies in Psychosomatic Medicine³, Edward Weiss and his co-workers of the Temple University Medical School have also contributed highly to the advancement of this science through their publication Psychosomatic Medicine⁴. Psychosocial Medicine and other works published by

1 The board of editors for this journal is composed of heads of departments of separate specialties such as internal medicine, pediatrics, psychiatry, neurology and physiology, all of whom pass judgments on the same article.

2 H.A. Christian, The Principles and Practice of Medicine, (Osler), Ed. 14, New York, Appleton-Century, 1942, p. xxix-1475.

3 Franz Alexander and Thomas N. French, Psychosomatic Medicine, An Approach to the Cause and Treatment of Vegetative Disturbances, New York, Ronald Press, 1948, p. xiii-568, (Especially p. 489-498).

4 Edward Weiss and O.S. English, Psychosomatic Medicine, Philadelphia, Saunders, 1943, p. xxiii-687.

James Halliday constitute the bulk of literature on psychosomatic illnesses coming to us from the British Isles⁵.

Finally, but far from the least is the prodigious number of works and research that have flowed forth from the efforts of Flanders Dunbar and her associates at the Presbyterian Hospital, New York City. They have for the greater part been reported in two major volumes, Emotions and Bodily Changes⁶, and Psychosomatic Diagnosis⁷.

The above mentioned publications were the result of twelve to twenty years of intense research work, and constitute in themselves a complete and up-to-date synthesis of all contributions to the study of psychosomatic medicine.

Rheumatoid Arthritis

From the general field of work we will now proceed with those studies that have dealt specifically with the problem of psychological bases in rheumatoid arthritis. The remainder of this chapter, therefore, will be devoted to brief resumés of contributions made by the more important

⁵ J.L. Halliday, Psychosocial Medicine, New York, Norton, 1948, p. 1-278.

⁶ Flanders Dunbar, Emotions and Bodily Changes, A Survey of Literature on Psychosomatic Interrelationships, Ed. 3, New York, Columbia University Press, 1942, p. lix-601.

⁷ Flanders Dunbar, Psychosomatic Diagnosis, New York, Hoeber, 1947, p. xix-741, (Especially p. 372-415).

research as it has appeared in chronological order of publication.

Psychic Factors in Rheumatoid Arthritis, by Giles W. Thomas, gives a condensed but good synthesis of the attitude and position of the healers, as far back as the Greek, Paulus Aegineta, down to our present era, in regard to the part played by the psychic factors in the etiological background of the disease⁸. In this study, thirty-one unselected rheumatoid arthritics were given a complete psychiatric examination. The results showed that the illness in all of the thirty-one cases had been preceded by one or more of the following: character disturbance, conscious emotional disturbance, neuroses, frank hysteria, anxiety hysteria or obsessional neurosis. Most patients had had at one time or another hysterical symptoms of moderate severity such as: frigidity, ejaculatio praecox, gastro-intestinal disturbances of some duration.

Psychological Factors in Rheumatism, by James Halliday presents an excellent account of how an illness

⁸ Giles W. Thomas, "Psychic Factors in Rheumatoid Arthritis", in American Journal of Psychiatry, Vol. 93, No. 3, issue of November 1936, p. 693-710.

may not be just an external object caught by a person but rather the result of his personal way of reacting to certain environmental influences such as a physical or a frustrating agent acting on the body or on the mind⁹. Thus it becomes a psychological factor capable of affecting the individual profoundly enough to bring about changes in body chemistry, physiological rhythm and even organic disturbances when the factors are entertained long enough. The author points to the fallacy of looking solely to the physical aspect of a disease and suggests four major questions involving four distinct possible areas of investigation in the psychological field: ~~What kind of a person was he?~~, ~~Why did he fall ill when he did?~~, ~~Why did he fall ill in the way he did?~~, ~~Had he any purpose in being ill?~~ Halliday concludes with an explanation of how the rheumatic pain and stiffness can be an expression of inferiority linked to a certain part of the body as a symbol standing for a mental experience from which one may deduce what a patient has perceived, felt, desired or thought, "My heart is sore, my heart is heavy,

⁹ J.L. Halliday, "Psychological Factors in Rheumatism, Preliminary Study", in British Medical Journal, Vol. 1, issue of Jan. 1937, p. 213-217.

my heart is broken!" Although this article is not a statistically based study, it is highly valuable as a presentation of the fundamental logic behind all the research that has followed to date.

Stanley Cobb, et al., present a study of fifty patients with rheumatoid arthritis undertaken in order to determine whether or not there existed a temporal relationship between environmental stress and the onset or exacerbations of the disease¹⁰. Their study was conducted by means of the Meyer life charts, in order that the synchronism between the medical and the social event might be apparent if it existed. The results showed that there were a significant relationship between life stress and the arthritis in over sixty percent of the patients, and that property, grief, and family worry seemed to bear more than chance relationship. They conclude,

We believe that there are within the individual certain emotional factors that may express themselves through tensions and spasms of the voluntary muscular system and thus influence the working joints¹¹.

¹⁰ Stanley Cobb, Walter Bower and Elizabeth Whitting, "Environmental Factors in Rheumatoid Arthritis", in Journal of the American Medical Association, Vol. 113, No. 8, issue of August 1939, p. 668-670.

¹¹ loc. cit.

Although the authors state that they do not regard their method of study as psychological in any sense, the fact that they report significant results would warrant a more elaborate statement on the procedures followed in their research.

Psychological Aspects of Rheumatoid Arthritis by James Halliday, presents a very good analysis of the arthritic's personality profile from the psychological viewpoint¹². He brings attention to the relative poverty of facial expressions and the lack of exteriorized tension in patients suffering from rheumatoid arthritis as compared to the anxious and strained countenance in many osteo-arthritics. This observation leads to the inevitable question, "Do the facies and behavior belong to a predisposing personality type or is the personality type an offspring of the disease?" Some of the features which appear repeatedly in the personality profile of arthritics show that these patients are cheerful, even-tempered, unworried, and well adjusted to social life and to their career, to

¹² J.L. Halliday, "Psychological Aspects of Rheumatoid Arthritis", in Proceedings of the Royal Society of Medicine, Vol. 35, issue of 1942, p. 455-463.

which they stubbornly adhere in spite of arthritic pains. The psychological characteristics of these patients present a picture of self-imposed restriction of feelings, parental fixation, masochistic devotion to some related person, overt punctuality and tidiness, and paranoid resentment to superiors. The onset and recurrence of the disease was noted to coincide with an upsetting event in eight cases out of twenty. All reacted in the same way to the frustration--they bottled up their resentment instead of expressing it. No purpose was found to be served by the disease.

The conclusion drawn from the research was that, irrespective of any treatment, there are natural recoveries brought about by unknown forces within the patient, permanent or not, particularly prevalent during pregnancies and attacks of jaundice.

Studies of the Relationship Between Emotional Factors and Rheumatoid Arthritis of Paterson, et al. presents another approach to the study of the disease by investigating the possibility of rheumatoid arthritis being due to the patient's excessive peripheral nerve

reaction to emotional stress¹³. Through these studies it was established, that although the emotive stimuli did produce a drop in temperature as compared with the control group, the method of action of an emotional stress in regard to the disease still remains unsettled. The problem was recommended as worthy of further investigation.

Johnson, Shapiro and Alexander have drawn up an excellent list of features that have been noted with great regularity in patients with rheumatoid arthritis¹⁴. These are: indulgence in outdoor pursuits and sports, strong control of all emotional expression, tendency to control their human environment with a masochistic need to serve them, overt rejection of the feminine role in women, selection of compliant and passive mates. The precipitating causes appeared in three constellations: unconscious rebellion against men, increased hostility and guilt feelings previously latent, events forcing them to accept the feminine role against their wishes. As a general psychodynamic formulation of precipitating causes the author

¹³ R.M. Paterson, et al., "Studies of the Relationship Between Emotional Factors and Rheumatoid Arthritis", in American Journal of Psychiatry, Vol. 99, issue of April, 1943, p. 775-781.

¹⁴ A. Johnson, L.A. Shapiro and F. Alexander, "A Preliminary Report on a Psychosomatic Study of Rheumatoid Arthritis", in Psychosomatic Medicine, Vol. 9, No. 5, issue of Sept. 1947, p. 295-300.

postulates a predisposing personality factor which develops as the result of excessively restricting parental attitudes. They have learned to discharge aggression through muscular activity in acceptable channels: hard work, sports, gardening and actively heading the house. They also relieve the restrictive influence of the conscience by serving others. Recurrence of arthritis was observed when opportunities for masochistic service were diminished, followed by its subsidence when self-sacrifice was again demanded of them.

The authors bring our attention to two very important facts concerning this research. The first is that they are not yet able to evaluate the etiological significance of all of these findings, the second is that since most of their patients were women, these postulates apply to female cases only.

Howard Rome discusses another aspect of the disease¹⁵. He claims that an inherited condition that makes the tissues react in a special way to certain stimuli develops into a specific personality pattern common

¹⁵ Howard Rome, "Neuromuscular and Joint Disease and the Psychosomatic Approach", in Medical Clinic of North America, Vol. 33, issue of Oct. 1949, p. 1061-1069.

to rheumatoid arthritics, and that the relationship of stimuli to muscles is shown through muscle readiness, abrupt suspension of action, posture, etc.

Edwin Gildea has presented a paper in which he proposes to reveal on the basis of three psychiatric interviews some of the behavior patterns associated with the following conditions: ulcerative colitis, hypertension, hyperthyroidism, rheumatoid arthritis and others¹⁶. In a well balanced table, he gives a summary of the distinctive personality maladjustments which have been commonly observed in patients with various psychosomatic disorders in a number of investigations. He also states two authors who have found a negative correlation for a personality profile in their studies. A third author is stated as claiming immaturity as basis for the disease. For rheumatoid arthritics he adheres to the women's personality profile as drawn by Alexander, Halliday, and Booth in which the patient is revealed as inhibiting hostile aggressiveness which finds relief by abnormal, self-sacrificing,

¹⁶ Edwin F. Gildea, "Special Features of Personality Which Are Common to Certain Psychosomatic Disorders", in Psychosomatic Medicine, Vol. 9, No. 5, issue of Sept.-Oct. 1949, p. 273-281.

masochistic helpfulness. These women are shown as tending towards tomboy behavior in their youth and rejection of the feminine role as they develop into adults. Conversion hysteria and some compulsiveness is considered to be prevalent in these cases.

In another experiment, 532 patients with rheumatoid arthritis and 532 control persons comparable in age, sex and status were investigated in regard to the significance of a variety of factors widely alleged to be of etiological significance¹⁷. In addition, an investigation of clinical patterns of the disease was simultaneously carried out. The experiment showed that the alleged etiological factors produced largely negative results, while the clinical pattern of the disease was found to be in keeping with the standard textbook description.. The investigators suggested that further study of the effects of cold and damp climate, abnormalities of the peripheral circulatory system, and the relationship of pregnancy and menopause to the etiology of rheumatoid arthritis be investigated. This investigation,

17 Report by the Scientific Advisory Committee of the Empire Rheumatism Council, "A Controlled Investigation into the Aetiological and Clinical Features of Rheumatoid Arthritis", in British Medical Journal, issue of April 1950, p. 799-805.

although carried out by medical men undoubtedly competent in their field, did not seem to do justice to all factors that could be involved. Out of twenty-six areas investigated only one was devoted to psychological factors and even this was limited to events occurring shortly before or after the onset of the disease.

Another very interesting study but of a different order is that of W. Aronson, et al., titled, Placental Serum Therapy for Rheumatoid Arthritis¹⁸. This new compound which follows closely on the heels of cortisone and ACTH, both having been quickly relegated from the 'wonder of' to the 'wonder about' category, is the latest drug produced by the world of physiological science in its attempt to control the disease. In this experiment thirty-five patients ranging from twenty-three to seventy-four years of age, thirty of whom were women, were treated. All patients had active rheumatoid arthritis. All were ambulatory. Most had received some kind of therapy previously with either slight or no improvement. The result showed

¹⁸ W. Aronson, et al., "Placental Serum Therapy for Rheumatoid Arthritis", in American Journal of Medical Science, issue of Feb. 1952.

definite, though slow improvement in eighty-five percent of the patients. In nine cases an apparent clinical remission which was limited to a period varying from one to six months was reported. There were four unimproved cases and no complete remission.

Even if this new serum should prove superior to its predecessors, the results of this experiment as well as those derived from ACTH and cortisone can only be attributed to a partial relief of the symptoms and not of the illness itself. It is a well known fact that many other therapeutic techniques such as hydro-therapy, infra-red and short wave treatments given in conjunction with curative massages are capable of the most outstanding results which resemble total remission. But as experienced above, the eventual recurrence of symptoms serves only to emphasize and support our hypothesis of a deeper psychological factor at the source of the disease.

Because of the very recent birth of psychosomatic medicine as a science and because of the very limited number of people who have a working knowledge of its operations, it was of vital importance to this study that it begin with a review of the literature. This need was met with first, by a brief statement of the works primarily concerned with psychosomatic medicine in general, and secondly, by the presentation of short summaries of those

studies that have dealt specifically with the etiology of rheumatoid arthritis. Through these, some knowledge of the historical development of psychosomatic medicine was gained and a better understanding of the etiological problem of rheumatoid arthritis was obtained. Among the specific works covered, it was found that rheumatoid arthritis had a positive correlation with character disturbances, environmental stress in the life of the patient, inherited condition of reaction to certain stimuli. James Halliday in both of his studies favours a personality make-up behind rheumatoid arthritis. This theory is also supported by both Johnson's and Edwin Gildea's studies. The Empire Rheumatism Society through their studies found largely negative results in their search for psychological factors in rheumatoid arthritis. Finally placental serum represents the latest drug to be applied with some measure of success as temporary relief from the disease.

The literature having been dealt with, our main concern becomes a matter of choosing the best instrument available to arrive at the successful conclusion of our work.

CHAPTER II

INSTRUMENTS OF RESEARCH AND CHOICE OF SUBJECTS

Having gained some insight into our field of study through a review of the literature, we are now in a position to approach the next and perhaps most difficult problem of this study--the quest for a personal history investigation form suitable to fulfill the ultimate purpose of this study. The need for such a form is best illustrated by a brief exposé of our present medical history-form and the difficult situation created through its neglect of the psychological aspect of diseases.

Most of present day medical histories are highly limited both in scope and in depth. In general their contents revolve around a few specific questions such as age, place of birth, citizenship, parental country of birth, occupation and economic standing. A few questions deal with the immediate physical cause as well as with the time and circumstances of relief from, or exacerbation of the affliction. The family incidence of the disease is usually reported on, and a few remarks added concerning the general impression gained by the examiner from the patient's overt behavior in cases of neurotic or psychotic derangement. After one or more laboratory testing procedures, the case history is usually considered complete. In this respect

we quote Dunbar:

It is obvious that most errors in diagnosis and treatment have a background in the history. In the course of our early work on medical wards it became clear that many of these were inevitable because both the focus of the history and the method of history taking precluded any adequate evaluation of psychic and somatic aspects of illness even in terms of general therapeutic program. Inadequacies in the usual medical history were readily apparent¹.

Even if one considered our present form of medical history sufficient to cover all those people affected by diseases solely attributed to physical causes, how does it meet the challenge of an estimated one-third of the consulted physicians' patients who have no definite bodily diseases to account for their illnesses²? These people are looked upon as physical or physiological mechanisms to be treated by mechanical instruments and chemical injections rather than as human beings who should be treated as such.

The influence of emotion becomes disconcertedly evident to those who still stick to the strictly organic basis of a disease whenever a case of coronary occlusion is met with. This attack is invariably precipitated by a

¹ Flanders Dunbar, "Psychosomatic History and Techniques of Examination", in American Journal of Psychiatry, Vol. 95, No. 6, issue of May 1939, p. 1277.

² Edward Weiss and O.S. English, Psychosomatic Medicine, Philadelphia, Saunders, 1943, p. xxiii-687.

psychological reaction to some disturbing event, yet, very little if any of this is shown on the history sheet. The emotional circumstances of the illness are thought of as purely coincidental or at most acknowledged as having a slight influence. The destructive effect of repressed feelings, fears and anxieties resulting in prolonged muscle tension or constant physiological disorders, as clearly shown in neurotics and in peptic ulcer patients, are mostly omitted in the case history. The often demonstrated situation in which the cause of a woman's ailment does not lie in herself but rather in the husband's perversity or impotence, as the case may be, and that he is the real patient, has yet to be included in the medical files.

From the very beginning of this study, it became quite evident that the success of this experiment rested entirely on the outcome of our ability to produce, or at least to find amidst existing medical literature, a history-form much more elaborated than the present medical case history type. A methodological question arises as to what is the best history-form--the tool of this research--to confirm the basic hypothesis of this study. In order to attain this goal, the various fields of medicine have been combed and their procedures and methods of history-taking scrutinized for any valuable material that would help us towards a better type of personal history form.

Personal History Form

The results of our investigation show that although a great deal of work has been done in the search for psychological factors in psychosomatic diseases, it was only with the publication of Psychosomatic Medicine by Edward Weiss and O.S. English, that the first methodical attempt at outlining a personal history form covering areas of psychodynamic affluence in the personal history of individuals was made³. This form is divided into four main areas of investigation, history of present illness, other symptoms and illnesses, past medical and personal history of infancy, childhood, and adolescence periods, and the family history of diseases, traits, etc. As background for the history, a supplementary form is added to investigate the following: birth and infancy period, school history, home life, sexual development, religious attitudes, vocational problems, social adjustment, marital history, coincidence of psychological stress with onset of illness.

³ Ibid., p. 532-540.

Another highly valuable type of personal history recording is outlined by Flanders Dunbar in her book Psychosomatic Diagnosis⁴. This form of history taking is based on casual conversation, careful questioning and comparison of statements with those taken in the medical and social histories. These are supplemented by constant attention for signs of exacerbation and tension of illness in relation to the material given.

A third form is the anamnesis type of history recording as developed by Felix Deutch⁵. Here the patient is encouraged to talk about himself and is guided by questions or remarks formed with some of his own words, thus stimulating him through his own expressions for material concerning the time and circumstances surrounding the onset of illness. This technique has been accepted as guide for all free-association type of history taking. It has been found particularly adaptable to the investigation of psychological influence accompanying the onset of the disease in patients suffering from arthritis.

⁴ Flanders Dunbar, Psychosomatic Diagnosis, op.cit., p. 21-134.

⁵ Felix Deutch, "The Associative Anamnesis", in Psychoanalytic Quarterly, Vol. 8, issue of August 1939, p. 354-362.

The global result of our effort was a personal history-form obtained by combining the three main types of history taking just outlined above, and adding our own contribution drawn from diversified fields of investigation. For the purpose of clarity in the presentation of the history-form, we have divided the material thus obtained into two hypothetical sections, the physical case history, and the psychogenic case history. But because of the involvement and interaction of the psychic and the physical within the same affliction, it is preferable not to group these two areas of research under separate headings in the actual construction of the form. A copy of this form is given in Appendix I of this thesis, and its application is dealt with in Chapter III.

The Physical Case History

This subdivision, as previously mentioned, is purely hypothetical as far as its actual application is concerned. But within this concept enters most of present day medical history data plus additional material on the physical aspect of the individual which has hitherto been more or less ignored, and which we have considered essential for a thorough investigation of possible factors responsible for rheumatoid arthritis.

The main approach to the investigation of this history is centered around the illness as it is conceived, observed and related by the patient himself. It covers the cause, time and circumstantial setting of onset, relief and exacerbation of the disease.

Very close attention is paid to the possibility of emotional upsets such as personal frustration, financial difficulties, anxieties, worries, guilt feelings or death of a loved one that might have coincided with the onset and relapses. A complete chronological account of the course of the disease from the very first symptom through to a detailed description of all modifications in location, severity, relief, relapses was taken. Other illnesses paralleling the disease were inquired about.

In the secondary approach, as for most of the physical history, we have followed closely the questionnaire form as well as the material content of Weiss' history form outlined earlier in this chapter. In this second approach then, a systematic enquiry of all specific physical areas covering past and present symptoms and illnesses in any shape or form, other than rheumatoid arthritis, was followed and recorded along with the major details of each.

A third approach divided the life span of the individual into four main periods--prenatal to sixth birthday, sixth to fourteenth, fourteenth to twenty-first, and

twenty-first up to the present. Each of these periods corresponds directly with the four great periods of physical, mental and personality development. Within these periods an attempt was made to take in account all injuries, illnesses, handicaps, achievements and weaknesses whether of a physical, mental or personality nature.

Finally, the last approach to the physical history was made through the family history of the patient--early relationship with home environment, parents and siblings, family history of diseases from grandparents down (with special emphasis on the father's and mother's physical and emotional health), the number of siblings and their influence on the patient's life.

It will be noted that the physical history contains several questions that should normally fall under the heading of psychogenic, but it will also be noted that most of these questions may also be answered quite readily. Our main concern in subdividing the personal history was to separate those questions that could be answered more or less with a yes or no response so that they might fit in the pattern of the controlled interview, to be dealt with in the next chapter. Since the psychogenic history covers the more personal and dynamically loaded areas which in most cases cannot be enquired of through direct questioning, this section, which is dealt with presently, was made to

correspond with the conversational interview, also dealt with in Chapter III.

The Psychogenic History

This part of the form was the guide which was followed to prevent us from wandering too far from our subject or from omitting important questions pertaining to its various areas. For the application of this part of the history a modified form of Dunbar's semi-free-association interview was followed with particular emphasis on the method of Felix Deutch. Both of these have been presented earlier in this chapter. The material aspect of this section was derived in great part both from Weiss and Dunbar's history forms.

This part of the form covered six main aspects of the individual's private life--religious life, vocational interest, social adjustment, sexual development, marital history and finally a miscellaneous subdivision which oriented the conversation to any other problem that the patient might wish to discuss. Because the history-taking technique of this part of the form is discussed at length in Chapter III, the psychogenic history will be considered closed for the moment, and the remainder of this chapter will be devoted to the presentation of the procedures followed in the selection of subjects for this research.

Choice of Subjects

In this experiment the sample was as representative of the general population as could be under the circumstances and availability of patients for the work. The wide range in cultural background arising from an evenly divided population of French and English speaking elements found within the Ottawa area, seemed to afford an excellent field of work. In order to take full advantage of this factor, the Ottawa General Hospital (a totally bilingual institute) was the most appropriate for the selection of our subjects. Since practically all major experiments on rheumatoid arthritis were carried out with female patients only, it was essential that at least one half our subjects were male patients. To obviate all possibility of subjectivity in the choice of subjects, the selection itself was left in the hands of three people, a clerk, a nurse and a physician with the stipulations that half of them be males, and approximately half of the subjects French speaking and the other half English speaking. A third necessary restriction imposed on the choice of subjects called for a maximum age limit arbitrarily set at fifty-nine, so that the early history of both the patient and the disease might be given with more precision. A list of subjects having been made, it was submitted to us for a final check-up as to its

suitability, along with an individual account for each subject chosen.

From the original list two names had to be deleted. This move was necessitated by the fact that over half the women patients submitted were spinsters, thus creating a relatively greater proportion of spinsters to that of married women.

Although no hard and fast rules were ~~laid~~ down, a graduated representation in the following was asked for and obtained: age, twenty-five to fifty-nine (one over); stage of disease, mild to advanced; duration of disease, from short to long standing. Finally, in order to meet the critical attitude of experts, who claim a high percentage of neuroticism among subjects assisting at clinics, approximately one-third of our sample was chosen from a list of private practice clients and according to the rules mentioned above.

Following the review of literature in the first chapter, we have continued our presentation with a discussion of the many inadequacies to be observed in today's medical history-taking forms particularly as it concerns the psychological aspect of diseases. After a brief review of history outlines most closely allied to our purpose, a detailed presentation of our personal history form derived from a combination of Weiss' and Dunbar's and our

own contribution was proceeded with. For purposes of clarity the form was divided into two sections called physical history and psychogenic history. And finally, the procedures adopted in the selection of subjects for the experiment were discussed. The actual application of this form remains to be presented, and will be dealt with in the interview which is the subject matter of ~~Chapter~~ Chapter III.

CHAPTER III

INTERVIEW AND ITS ANALYSIS

It is not sufficient to have a good instrument to accomplish a good job, it is equally important to know how to use it in order to obtain maximum results. Being aware of the inherent difficulties associated with the clinical investigation of etiological factors in diseases, and the delicate objectivity-subjectivity situation arising whenever two people meet to discuss a problem, the following pages present a complete report on the methods adopted and the procedures followed in the application and administration of the personal history form. This is a prerequisite to the proper presentation of this work.

It has been our duty in this research to determine as closely as possible the part played by the mental and emotional factors for each individual patient concerned. This information could possibly come only from the patient himself and his reaction to the enquiry, and through observation of his physical and social environment. This called for the development of techniques and methods quite different from those in common practice. The most important of these would be the two main interviews given to each individual patient, the controlled and the conversational interview, over which we have extended the material content of our personal history investigation form.

The reason for presenting the two interviews as separate entities was to differentiate their individual purposes within the personal history investigation. Where Weiss, as seen in Chapter II of this study, favors factual data obtained from direct questioning, and Dunbar rejects this type of enquiry in favor of the conversational method, we have attempted to meet the necessity for factual data by basing our controlled interview on Weiss' direct questioning method, and to investigate the dynamic background of the disease by following a simplified form of Dunbar's free-association interview in our conversation interview. A detailed account of the different procedures followed and the various methods adopted for each of these two main interviews follows immediately.

Controlled Interview

This interview adheres closely to the questionnaire form in which the questions are presented in a clear cut fashion, and the answers given in as few words as possible. In order to clarify the more ambiguous responses, the use of five or six acceptable probing phrases such as, "Why, When, What do you think, How often, How did you feel", were found necessary in order to establish concretely the duration, intensity and frequency of the illness. But in all our enquiries, even in the most delicate sexual fields where

acute tact and subtle manoeuvring is the sine qua non of success, one thought was kept constantly in mind--to be as objective as possible, and to avoid all subjective influence on our part.

The first and foremost essential to an interview is without a doubt the rapport which must be established between the examinee and the examiner in order to gain the full confidence of the person examined and to convey to him the moral certitude of the examiner's genuine interest in his particular problem. This can only be attained through the careful planning of interviews in so far as the time, place, means and conveniences dictate.

For all patients, including the ten who attended the hospital clinic, it was decided to hold the controlled interview at the patient's own home. The original purpose for this move was to establish a friendlier rapport by making the first contact with the patient in familiar surroundings away from the formal atmosphere of the hospital. In this way we did develop a person-to-person relationship which in most cases would have been reached only after several interviews at the hospital.

The success of this new departure from the regular medical pattern of research was not limited to our original expectations. As important perhaps as the friendlier atmosphere created was the invaluable insight gained at the very

source of most psychological problems through an actual contact with the patient's private world--the home condition, financial and social setting, marital partner, parents, children, relatives and friends. In this way the technician became intimately involved in the dynamics of the patient's family life, and both were better prepared to enter into discussions of the patient's personal problems. This precedent within the actual procedures of medical research, although obviously too laborious for application to every day case-study of psychosomatic illnesses, was found to meet a very necessary need within the procedures of our study.

A second advantage to this home interview was the additional information provided by other members of the family. It might be added that, for obvious reasons, only the physical history section of the personal form, and those questions of the psychogenic section which did not bear a private character were enquired of. Also because the explanation of purpose behind the enquiry and the creation of an ideal working rapport took as much as half an hour in some instances, the usual one hour period was extended to a minimum period of one hour and a half whenever possible. This step was more than justified through the greater bonds of confidence created by the added expression of self-concern, on the part of the examiner, to the

personal aspect of each individual case.

Finally, the greatest objection to the home interview is its abnormal time consuming factor. Taking all eventualities into consideration, two home interviews might easily represent a whole day's work.

In a study such as this to know the symptoms or even the basic factor for a disease is one thing, to understand the reason for its progress, relief and relapses is quite another. Weiss illustrates the importance of the second aspect by saying:-

When the emotions of the patient are ignored, and hate and fear are left to exert their toxic effects upon the body, then medical care, for all its accomplishments will never be truly scientificl.

With this in mind we will now proceed with the detailed analysis of the procedures we have followed in the conversational interview--the key to the personality dynamics affecting the course of a disease.

1 Edward Weiss and O.S. English, Psychosomatic Medicine, Philadelphia, Saunders, 1943, p. 507

Conversational Interview

For reasons of privacy and freedom of expression the conversational interview for the clinical cases was held at the hospital where an examination room was put at our disposal, and all procedures were carried out behind closed doors. As this usually extended quite beyond the hour period, the room was supplied with an adjustable couch. Since it is possible to reach an advance stage of mental and physical relaxation when undergoing a physical therapy treatment, we took advantage of this factor by administering radiant therapy when the conversation favored its application. For this same reason also the couch was made use of, except in cases where the individual's attitude contra-indicated it. This second interview took place at any time from two days to three weeks following the controlled interview, but only after the latter one had been closely examined for content and weaknesses.

For lack of better facilities the second interview with the private practice cases was carried on at the patient's home simultaneously with the administration of a radiant therapeutic treatment. Strict privacy was the prerequisite to these interviews. Whenever some doubts arose as to the adequacy of certain factors concerning the interview, whether of personal or environmental origin,

the procedures were tactfully suspended and another appointment arranged. All patients were given at least the two main interviews and several of them underwent a third one.

Due to the fact that the interest of these people can only be maintained for about two interviews, whether long or short, it was found preferable to have the first two interviews cover as much ground as possible so that a third one might at most clear up the contradictory statements within the history itself as well as the more difficult passages of the dynamically important areas. The actual interviewing time for each patient averaged three and a half hours.

The conversational interview may be called both directed and free conversational. It is directed in as much as the patient is guided to certain doubtful areas already dealt with in the first interview, and again as it covers specifically the social, sexual and marital life of the patient. It is free in that discussion of these subjects as well as other personal problems was encouraged and carried on to any degree and as long as the patient wished in a last effort to discover psychodynamic implications within the disease. It is appropriate to restate what has often been mentioned in this study--it is not only to discover traumatic incidents or life situations paralleling or at the base of the arthritic condition that we have

undertaken this work, more important to this research is the ability to discover how the incident fits in the picture and why the patient has reacted to it the way he did. If this is found then we would have the key to the fundamental problem of his personality dynamics.

In this experiment as in many others, particular attention was paid to the fact that few patients know what is important to tell or not to tell. Or they may not have noticed, or may have forgotten some important fact concerning the disease. Moreover, they may wish to forget a certain event due to painful association with it. By encouraging the patient to speak freely about his illness, his family, his work, many elements were recalled or corrected, and many delicate situations were relieved.

Two important sources of information investigated were the muscle tension and nervous reaction evoked by certain questions, and the patient's dream material and its relationship to his personality profile, e.g. a man who to all concerned presents a picture of the submissive type, but at the same time reports dreams of violent conflicts with his human environment, may be a likely candidate for hypertensive cardiovascular disease or even rheumatoid arthritis.

The pseudo hereditary factor--a condition in which a person who has been more or less emotionally traumatized

by witnessing the disastrous effect of a particular disease on a loved one, reacts to it later in life by adopting its symptoms in an unconscious defence against some frustrating situation--was closely investigated. The symptoms were also studied for possible defense to strong conflicts, and the patient's insight into his own reaction was checked for an advanced case of malingering. In this connection the chronological correlation of major stresses and other illnesses with the onset and exacerbation of rheumatoid arthritis was closely examined.

It should be emphasized that extreme caution was practiced whenever dealing with sexual activities within the private life of the individual. This particular care was not necessitated by the importance attached to the sexual field itself, but rather because in this sphere the patient can easily be emotionally shocked into an aggravation of the illness or into a negative attitude towards possible future psychotherapeutic measures.

In our quest for underlying emotional factors, particular attention had to be paid to the maximum depths beyond which the patient's personal integrity could become dangerously involved. This care was intensified whenever the danger of exposing the patient to a sudden insight of his basic psychological problem, which rationalization had kept hidden as a natural protection against too great an

emotional load, was increased. Failure to take into account the fact that a physical defect may serve a compensatory role for a neurotic symptom or a psychotic trait can prove disastrous and even fatal in such cases where the patient is not physically or psychologically capable of weathering the emotional shock.

A last point to deal with is the advisability or inadvisability of note-taking during an interview. It is recommended by some authors that the actual interviewing be conducted without the help of guiding forms or note-taking, but that a complete report of the interview be committed to writing after the patient has left. We did not follow this suggestion for two valid reasons. The first is the universal human failing of doing away with monotonous work as quickly as possible, the second is the difficulty of reproducing accurately the small but possibly significant details of the conversation. In this work it had been hoped to record the entire interview on tape and to transfer it to writing afterwards. Although this is an ideal way of recording an interview without affecting the inter-personal relationship factor, unfortunately, the condition of work forced us to abandon all attempts to follow this procedure in the study.

In this chapter we have dealt with the necessity of knowing how to carry on an interview so as to avoid the objectivity-subjectivity difficulty, and the best ways and means of getting at the emotional factors involved in the patient's illness. A controlled interview following the lines of the questionnaire form is administered in the patient's home where a friendlier rapport may be established. A conversational interview based on Dunbar's semi-free-association interview followed, and is given in conjunction with physical therapeutic treatment to facilitate relaxation. Attention is focussed on the dreams, muscle-tensions, pseudo hereditary and insight factors accompanying or influencing the course of the disease. With this said and done, the next step leads us directly to the actual data obtained through the interview and the application of the personal history form, and with which we are about to deal in our next chapter.

CHAPTER IV

ANALYSIS OF DATA

With the knowledge acquired through the review of literature and the detailed analysis of the instruments used, the subjects chosen, and the interview procedures, we are now fully prepared for an itemized presentation of results obtained through this study.

From the personal history form found in Appendix I, a number of items which seemed to bear a particular interest to this study have been selected and given in table form in order to present a more comprehensible picture of the dynamically important material found in our study.

In the tables it will be seen that certain areas have been underlined in order that quick reference may be made to them. These areas have been singled out either for their actual contribution as significant material in the support of our hypothesis, or as secondary material of particular interest to this study. An attempt was made to have the qualitative terms as uniform as possible but not so rigid that it would take away any of the actual color from the answers. The words that have been used were for the greater part the words used by the patient in describing a condition or situation. In the few cases where this was not possible the word most appropriate to the thought was chosen. Some of the words and abbreviations used in the tables are given on the next page. The others are more

or less self-explanatory. For better information concerning the questions themselves the reader is referred to Appendix I of this study.

Some of the words and abbreviations used in Tables I to III are listed below:

-	No findings	infect.	Infection
x	Bad condition	mo.	Months
xx	Very bad condition	pneumo.	Pneumonia
xxx	Extreme condition	quite	More than average
b.	Brother	rh.fever	Rheumatic fever
constip.	Constipation	s.	Sister
dizz.	Dizziness	v.	Very
frustr.	Frustration	w.	Work
indiff.	Indifferent		

In order to complete the information given in Tables I to IV, an itemized discussion of specific areas will be presented in their order of importance, i.e. the most significant area will be dealt with and followed by the second most important, etc. A general discussion of the non-significant material will close the presentation of data.

The first significant factor to come out of this study is given in Table I, question number 6, "position of patient". This position is in relation to the chronological age order of the patient in respect to the other children within the family group. Through this question it was found that nine out of sixteen patients of the experimental

TABLE I.- ITEMIZED PRESENTATION OF PERSONAL DATA
FOR SIXTEEN PATIENTS AFFECTED WITH RHEUMATOID ARTHRITIS

Case	1	2	3	4	5	6	7	8
<u>Particulars</u>								
Age of Patient	40	49	38	37	49	55	70	38
Sex of Patient	male	male	male	male	female	female	female	female
Mode of Onset	sudden	sudden	sudden	sudden	gradual	gradual	gradual	sudden
Cause of Illness	Rh. Fever	?	accident	heavy w. liver	worry	?	Rh. Fever	
Siblings	4b.1s.	4b.1s.	1b.4s.	2b.3s.	2b.3s.	1b.5s.	2b.4s.	5b.2s.
Position of Patient	youngest	youngest	youngest	eldest	eldest	eldest	eldest	eldest
<u>Other Symptoms</u>								
Headaches	x	x	-	-	-	-	-	xx
Eyes	x	x	-	-	-	-	x	-
Nose	-	x	-	x	x	-	-	-
Ears	-	-	-	-	-	-	-	-
Teeth	-	x	-	-	-	x	-	-
Throat	-	x	-	x	-	x	-	-
Tonsils	-	xx	-	x	-	-	x	x
<u>Miscellaneous</u>								
Night Sweats	xx	-	-	-	x	x	-	x
Asthma and hay fever	xx	x	-	-	-	-	-	-
Bronchitis	-	-	-	xx	-	x	-	x
Cardiac pain, palpit.	x	x	x	x	-	-	-	-
Appetite	-	-	-	-	-	-	-	-
Digestion	-	-	-	x	x	-	-	-
Bowels	-	x	-	-	-	-	xx	xx
Genito-urinary	-	-	-	x	-	-	-	-
Menstruation	-	-	-	-	-	-	-	-
Others	dizz.	dizz.	piles	piles	eczema	nil	constipet.	piles
Exacerbation	weather	weather	frustrat.	weather	frustr.	weather	weather	frustr.

TABLE I.- ITEMIZED PRESENTATION OF PERSONAL DATA
FOR SIXTEEN PATIENTS AFFECTED WITH RHEUMATOID ARTHRITIS

Case	9	10	11	12	13	14	15	16
<u>Particulars</u>								
Age of Patient	44	49	42	59	41	39	34	30
Sex of Patient	Male	Male	Male	Male	Female	Female	Female	Female
Mode of Onset	Sudden	Sudden	Sudden	Gradual	Sudden	Gradual	Gradual	Gradual
Cause of Illness	Nil	Hardwork	Strain	Hardwork	Bursitis	Surgery	Worry	Doubtful
Siblings	9b.4s.	3b.2s.	9b.7s.	5b.2s.	2b.3s.	7b.5s.	1b.4s.	5b.2s.
Position of Patient	5th	5th	8th	4th	5th	8th	youngest	2nd
<u>Other Symptoms</u>								
Headaches	-	XX	-	-	-	XX	X	-
Eyes	-	-	-	X	-	X	-	X
Nose	-	-	-	-	X	-	-	-
Ears	-	-	-	-	-	X	-	-
Teeth	-	-	-	-	-	-	-	-
Throat	-	X	X	-	-	X	X	X
Tonsils	X	-	-	-	X	X	X	X
<u>Miscellaneous</u>								
Night Sweats	X	X	XX	X	-	XX	X	-
Asthma and Hay-fever	XX	-	-	-	X	-	-	-
Bronchitis	-	-	X	X	-	-	-	-
Cardiac Pain, Palpitation	X	X	X	-	X	X	X	X
Appetite	-	-	-	-	-	-	-	-
Digestion	-	X	-	-	-	X	-	-
Bowels	X	-	-	-	-	-	XX	-
Genito-urinary	-	-	-	-	-	-	X	-
Menstruation	-	-	-	-	XX	XX	-	-
Others	Piles	Ulcer	Boils	Pneumonia	Piles	Piles	Shingles	Infection
	-	-	-	-	Upsets	Finance	-	-

TABLE II.- ITEMIZED PRESENTATION OF PERSONAL DATA
FOR SIXTEEN PATIENTS AFFECTED WITH RHEUMATOID ARTHRITIS

Case	1	2	3	4	5	6	7	8
<u>Birth and Childhood</u>								
Type of Birth	normal	normal	normal	normal	normal	normal	normal	normal
Mother's Condition	good	good	good	good	good	good	good	depressed
Breast Feeding	yes	yes	yes	yes	yes	yes	yes	yes
Bladder control	good	v.late	good	good	good	good	good	good
Fears	nil	some	nil	nil	nitemare	nil	quite	quite
Intellectual Achiev.	poor	poor	good	poor	v.good	average	average	good
Hobbies	nil	nil	nil	nil	nil	nil	nil	nil
Delinquency	nil	nil	truancy	truancy	nil	nil	nil	nil
Home Atmosphere	good	good	good	good	v.good	good	bad	bad
<u>Diseases</u>								
Measles	yes	yes	yes	yes	yes	yes	yes	yes
Whooping Cough	yes	yes	nil	nil	nil	nil	nil	nil
Mumps	nil	nil	nil	yes	nil	nil	nil	yes
Colds and Complicat.	pneumo.	nil	pneumo.	pneumo.	pneumo.	pneumo.	average	frequent
<u>Personality and Behav.</u>								
Ambitious	indiff.	indiff.	indiff.	indiff.	very	indiff.	yes	very
Worry	nil	nil	nil	nil	some	v.much	quite	v.much
Timidity	v.shy	some	very	shy	very	very	very	some
Self-consciousness	yes	nil	yes	yes	nil	some	some	very
Nightmares	nil	nil	nil	nil	some	nil	some	quite
Bed-wetting	nil	to 17yrs.	nil	nil	nil	nil	nil	nil
Nail biting	nil	nil	nil	nil	some	nil	nil	nil
Anger	nil	nil	yes	nil	nil	nil	nil	nil
Suppressed Hostility	yes	sometime	always	v.v.much	nil	?	nil	nil
Physical Activity	v.much	average	quite	hard wk.	average	average	hard wk.	hard wk.
Number of Friends	many	1-2	animals	normal	6-7	many	2-3	3-4

TABLE II.- ITEMIZED PRESENTATION OF PERSONAL DATA
FOR SIXTEEN PATIENTS AFFECTED WITH RHEUMATOID ARTHRITIS

Case	9	10	11	12	13	14	15	16
<u>Birth and Childhood</u>								
Type of Birth	normal	normal	normal	normal	normal	premature	normal	normal
Mother's Condition	good	good	nervous	normal	worried	twins	worried	v.nervous
Breast Feeding	yes	yes	yes	yes	yes	nil	yes	yes
Bladder Control	good	late	good	late	good	good	good	good
Fears	some	extreme	nil	timid	quite	?	some	v.v.bad
Intellectual Achiev.	v.poor	fair	good	fair	superior	v.poor	fair	v.good
Hobbies	nil	nil	nil	nil	nil	knitting	nil	nil
Delinquency	nil	nil	nil	nil	nil	nil	nil	nil
Home Atmosphere	good	good	good	bad	?	?	good	v.good
<u>Diseases</u>								
Measles	yes	yes	yes	yes	yes	yes	yes	yes
Whooping cough	yes	yes	yes	yes	yes	nil	nil	nil
Mumps	nil	nil	yes	yes	yes	yes	nil	nil
Colds and Complic.	nil	frequent	nil	pneumo.	jaundice	nil	nil	pleurisy
<u>Personality and Behav.</u>								
Ambitious	indiff.	indiff.	indiff.	average	very	average	indiff.	very
Worry	nil	nil	nil	v.much	quite	financial	extreme	quite
Timidity	quite	extreme	v.very	v.very	quite	quite	quite	v.much
Self-consciousness	very	extreme	nil	v.much	v.much	quite	v.v.much	v.much
Nightmares	some	some	nil	many	nil	nil	nil	v.frequent
Bed wetting	nil	to 6yrs.	nil	to 10yrs	nil	nil	nil	nil
Nail biting	nil	yes	yes	nil	nil	nil	nil	nil
Anger	yes	nil	nil	nil	v.easy	nil	nil	easy
Suppressed hostility	v.much	v.much	nil	v.much	v.much	nil	v.much	nil
Physical activity	hard w.	hard w.	average	v.hard w.	v.active	hard w.	v.active	hard w.
Number of Friends	nil	1-2	many	1-2	many	few	2-3	2-3

TABLE III.- ITEMIZED PRESENTATION OF PERSONAL DATA
FOR SIXTEEN PATIENTS AFFECTED WITH RHEUMATOID ARTHRITIS

Case	1	2	3	4	5	6	7	8
<u>Sexual Development</u>								
Age of sex interest	17	15	18.5	12	16.5	?	?	13
Parental attitude	average	average	v. poor	poor	poor	?	v. poor	good
Opposite sex relat.	v. shy	shy	good ?	shy	good	shy	good	v. shy
Age at first love	17	20	20.5	18	18	none	18	21
Number of loves	wife	1 & wife	3	3	2 or 3	none	several	husband
<u>Marital</u>								
Length of courtship	2 yrs.	10 mo.	9 mo.	11 mo.	1 yr.	nil	4 yrs.	8 yrs.
Patient's age at marr.	20	27	25	24	26		30	29
Partner's age at marr.	23	30	27	26	33		31	29
Health of partner	fair	fair	v. bad	good	v. good		good	good
Pregnancies (children)	7	6	1	3	3		1	1
Sexual Difficulties	nil	nil	nil	yes	nil		nil	nil
Infidelity	nil	nil	nil	yes	nil		nil	yes
Disparity of age	2	7	3	1	10		nil	nil
Compatibility	bad	bad	bad	v. bad	good		good	bad
<u>Miscellaneous</u>								
Hobbies, recreation	bowling	nil	nil	nil	cards	nil	nil	nil
Operations, injuries	nil	rupture	meniscus	accident	ptoses	nil	nil	nil
Past occupation	highway	taxi	clerk	trucking	h.wife	tel. oper.	h.wife	clerk
Present occupation	taxi	carpenter	clerk	trucking	h.wife	nil	h.wife	h.wife
Satis. with work	yes	yes	doubtful	yes	yes	yes	yes	yes

group were either the oldest or the youngest child in their family group. Although this fact may not be important in itself, when one considers that the number of children in the individual families for each subject of the experimental group ranges from a minimum of six to a maximum of seventeen, with an average of eight children per family, this item takes on significant importance in the support of the hypothesis for a psychological basis in rheumatoid arthritis¹. Furthermore, if one considers the fact that case number sixteen, who, although the second child was the eldest girl in a family of ten and who, due to environmental factors carried all the worries and responsibilities of an eldest child. And the reverse is true of case number ten, a man, who although the second youngest of six children was in fact and for all purposes regarded as the baby in the home, the statistical significance of this item takes on overwhelming proportions. In the first place 56.3% of the cases were either the eldest or youngest, and in the second place 68.75% fell in this group, whereas only 25% would normally

¹ Because the sample was deliberately selected with certain biases, it was agreed with technical advice that the data here could not be readily examined statistically. Nevertheless, taking these biases into consideration the item "Position of Patient" was statistically evaluated and found significant to the two percent level with the t technique.

be expected to be found. The reason we are referring to these two cases as belonging to the youngest-eldest group, will be quite evident and not only justified but actually shown as such, due to the above mentioned family circumstances, by the dynamic interpretation dealt with in the next chapter.

A second but perhaps still more important aspect, since it adds to the significance of the first factor just presented, and at the same time affords a preliminary glance into the dynamic interpretation of the basic hypothesis of this study, is found under question "Sex of Patient". If cases eleven and sixteen, as mentioned above, are included it will be noted in this respect that five of the eight women in the experimental group were the eldest child of their respective families and that four of the eight men in the same group were the youngest. In the case of the women one of the remaining three was the youngest, and in the case of the remaining four men only one was the eldest of the family. Impressive as the eldest-youngest group may be statistically, its importance takes on a fuller meaning and still greater value when consideration is given to the sex pattern within the main group itself. Where the chances of getting 68.7% of the patients to be either eldest or youngest are rather small, those of getting members of a specific sex within that same group to fall

consistently at one end of the group while the members of the other sex quite as consistently fall at the opposite end, as they do here, would indeed be a rare possibility.

A third item also of great statistical and dynamic importance within this area is presented in the fourth question "Mode of Onset", the answer to which, not only supports our main hypothesis but leads directly to the dynamics behind the personality make-up of the arthritic patients as a group. In response to this query it is found that seven of the eight men have answered "sudden" while six of the eight women answered "gradual". It might be added that the onset of case fifteen, a woman, was marked "sudden" only to adhere to the letter requirements set for this study. Actually the patient had childhood rheumatic fever involving the knee joints from which complete remission was obtained at the age of eleven. The onset of the present illness was placed at thirty-one, and was definitely gradual. Here again the possibilities of attributing these results to a chance factor alone is rather small and therefore, again we are forced to seek the answer through an explanation of the dynamics within the personality make-up of the patients themselves.

Two other factors that might be mentioned as belonging within this area are ambition and worry. Both of these also follow the eldest-youngest pattern already presented.

In the case of "worry" only one man out of eight stated that he was apt to worry at times, while seven women expressed strong tendencies to worry for other reasons than financial problems. Although one might be tempted to say that this state can be expected in women, it is interesting to note that at least three of them stated worry as the cause of their illness. In the second case "ambition" seems also the prerogative of women. With the exception of one man who expressed himself as average in ambition none claimed this characteristic as part of their personality make-up, while six women characterized themselves as ambitious. The criterion for this evaluation was the attitude of the patients towards attaining success in their school work in general, and in a lesser degree, their attempts at bettering themselves or their environment in later life.

A second area of particular interest to this study is found under "Sexual Development". The most important factor discovered in this field is the fact that five out of the eight men married women at least two years older than themselves. An attempt was made to establish the significance of this item through official records of the territorial district concerned but this was not found possible. Nevertheless its value as personality dynamic material cannot be overestimated in the appraisal of personality make-up of arthritic patients as a group.

Within this sphere also it is important to note that although all married, the eight men averaged approximately twenty years and six months of age when they began courting their first steady girl friend (by steady we understand going out with the same girl a few times a week for at least three months--none of them were college men). A third point of interest in this field is the fact that only two of the eight women described themselves as definitely shy with the opposite sex, while three of the men expressed themselves as shy, one as very shy, and two as extremely shy with the opposite sex. A fourth point is the fact that four of the eight men married the only girl with whom they had gone out for any length of time.

Finally a last but basically the most extensive factor to come out of this study is the universal expression of lack of self-confidence and self-assurance on the part of all patients. Thirteen of the sixteen patients described themselves either as very timid or very self-conscious while the other three expressed themselves as such but in lesser degrees. A better and truer picture of this lack of self-confidence may be had through a short perusal of some of the case histories as given by the patients themselves.

Case number 12-male 59 years old:

"I was very shy with the opposite sex. I would go to

parties and sit in the stairway all night rather than ask someone to dance. When I was double-crossed by a friend in a financial deal involving my family's only financial security at the time, I only told him that we should part, but still kept a nodding friendship. All my life I have suffered from financial anxiety."

Case number 3-male 38 years old:

"When I married at twenty-six, eight of my in-laws moved in on me and, although a parent was still living but quite neglectful of his duties, was forced through my wife's insistence to take over the responsibilities for their financial security as well as their educational upbringing. Presently one of the sisters dominates the whole family situation, dictator type. My wife has always tried to control my whole life. A few years after marriage our sexual life had been greatly altered and mostly repressed".

Case number 10-male 49 years old:

"I was eighteen when I left for the States, I found it pretty hard out there, alone, even though my brother lived close by. I was very shy, that is why I did not go out with girls at all until I was over twenty-two years old and even then my only date was with a girl in her first year at high school. As a child I was very timid and feared darkness very much. I bed-wetted until up to school years and practiced nail-biting. I had all kinds of fears.

I have had nightmares all my life and have been greatly affected by them. My school records were very good and my superiors are always very very satisfied with my work.

Case number 4-male 38 years old:

"I was very shy and held back in my youth. My wife wears the pants at home. We have sexual intercourse once or twice a month but only when she wants; although I have good reason to believe she has extra-marital affairs quite often when I'm not at home. What do you think I should do about that? At ~~twenty~~ ^{twenty} years of age I had my first sexual experience when I was seduced by a girl who had had a great deal of experience in this field."

Other areas of general interest which might be brought to attention are the following:

1. Suppressed hostility which is closely allied to fear and timidity was a strong feature in seven out of the eight men whereas it scored only two positive answers for the women.

2. Bed-wetting, this was met with in three men only.

3. Six of the men had had or still had either asthma or bronchitis, evenly divided. Two women had bronchitis and one had hay-fever.

4. All of the patients were breast-fed and all had good appetites

5. With one exception all had had measles.

6. Fourteen had had rather bad teeth before they were replaced with dentures.

7. Nine had their tonsils removed.

8. Although "night sweats" and "heart palpitation" were often mentioned this situation was reported as due more to the medicaments rather than to natural causes.

9. Eleven of the patients claimed to have been greatly active particularly in their youth, but for seven of them it was all hard work and no play. Only two women were active in sports in their childhood.

10. Finally, the causes for exacerbation seemed to be evenly divided between frustration and the weather condition but both were of short duration--one or two days. The major causes for the disease varied a great deal but three women attributed it, at least in part, to worry while three men attributed it directly to hard work in all kinds of damp and cold weather.

In this chapter sixty-seven items of particular interest to this study have been selected from the personal history outline and presented in table form for better comprehension and easier assimilation. Following these, a detailed presentation of three dynamically important areas was given. In the first instance an attempt is made to illustrate:

1. The significant coincidence of rheumatoid arthritis with the patient's position as eldest or youngest in the family group.

2. The male and female relationship between the youngest and the eldest child respectively.

3. The mode of onset coincidence of sudden for the males and gradual for the females.

4. The prevalence of ambition and worry among the women patients when compared to the men patients.

A second area exposes the tendency of the men patients to marry ~~younger~~ *younger* mates, and their lack of initiative in their relationship with women. A third area treats of the highly recurrent expression of lack of self-confidence, particularly in men. This is illustrated through the presentation of four case histories. Finally a fourth area deals with the general presentation of items of particular interest to this study.

CHAPTER V

PSYCHODYNAMIC INTERPRETATION OF DATA

With the data of this research in hand, a formulation of the etiological basis in rheumatoid arthritis may be derived from these findings. But before venturing with this plan it would be preferable to review briefly the findings of other studies which have followed parallel lines of research, and the conclusion they have formulated.

Dynamic Interpretation of Other Studies

A thorough combing of the literature for studies in rheumatoid arthritis reveals a significant lack of attention to the etiological factors of this disease. The only study which seems to have contributed a good deal to this field is that by A. Johnson, L. Shapiro, and Franz Alexander¹. As a result of their studies they have drawn conclusions far beyond those of similar studies both in depth and in extent. For this reason then, it was thought a wiser procedure to present a detailed account of their findings both from the precipitating causes and the

¹ Franz Alexander, Psychosomatic Medicine, New York, Norton, 1950, p. 1-300, (especially 201-209).

personality dynamics view point; and then follow through with the presentation of the findings and formulations as to the etiological bases of rheumatoid arthritis of this study. Because Johnson in drawing his conclusions had taken in consideration the few pertinent facts that had come out of past experiences, it was thought preferable to use the words "other studies" in the subtitle to this chapter.

To begin with, it is necessary to state that since most of the patients studied were women, this discussion deals primarily with female cases. Among their principal findings, they state a predilection towards bodily activity particularly during adolescence. These patients tend to control their feelings as well as their human environment, husband and children, of whom they are generally demanding and exacting. But they also worry about their loved ones and do a great deal for them but always in a domineering type of solicitude--a mixture of the tendency to dominate with a deep need to serve other people. Although this seems contradictory, Johnson explains this as a need to sacrifice themselves for members of the family with a need to dominate and control them. He adds that the sexual attitude of these people shows a masculine protest through a rejection of the feminine role. They assume a masculine attitude, they compete with men and cannot submit to them. To serve their domineering complex, they are stated as tending to

choose husbands with physical defects who readily accept the role of serving their incapacitated wives. *Who go together?*

The causes *in females* are attributed to a few significant psychodynamic factors appearing in three constellations:

1) an unconscious rebellion and resentment against men, and increased by certain vicissitudes of life; 2) an event tending to increase hostility and guilt feelings, previously latent and carried over from sibling rivalries, etc.

Johnson explains that guilt may be mobilized when the opportunity for sacrifice and service becomes thwarted such as in miscarriage or death of a hated dependent relative. He adds that exacerbation of guilt increases the patient's self-imposed inhibitions and activates hostility which she cannot express because it can no longer be combined with doing service for others. The combination of service and domination which had been the way of expressing hostile impulses in a masked fashion is disrupted; 3) sexual experiences at the moment when the patient was forced to accept the feminine role against which she had reacted with an increased masculine protest.

To simplify the presentation of this section it might be better to begin with a quotation from

Johnson et.al.:

The general psychodynamic background in all cases is a chronic inhibited hostile aggressive state, a rebellion against any form of outside or inside pressure against being controlled by other persons or against the inhibiting influence of their own hypersensitive consciences. The masculine protest reaction in sexual relations is the most conspicuous manifestation of this rebellion against being dominated².

The author continues by expressing the belief that the hostile rebellious state can be traced back to a strong domineering mother and a compliant father within the childhood family constellation. As little girls the patients developed dependence upon and fear of the aggressive mother, while suppressing their rebellious feeling because of their dependence and fear. This rebellion is later transferred to men and to everyone within the family. When they become mothers they reverse the process by controlling their children as they have been controlled. Finally the authors postulate a predisposing personality factor resulting from excessively restricting parental attitude. They explain the psychodynamics of this situation by saying that in the

² Ibid., p. 203.

child the most primitive expression of frustration is random motor discharge. If this expression becomes associated with fear and guilt through punitive measures then later in life, whenever fear or guilt arises, there results a "strait-jacket". They try to achieve an equilibrium between aggressive impulses and control by discharging aggression through acceptable social activities such as, hard work, sports, heading the house, etc. The restrictive influences of the conscience are also relieved by serving others. When the equilibrium between hostility and guilt is disturbed, the inhibited aggression leads to increased muscle tonus and finally to arthritis.

Dynamic Interpretation of this Study

The views of past experimentors in this field having been expounded, the dynamic interpretation of the etiology of rheumatoid arthritis, as seen through this study, will now be presented.

If the patients from our experimental group are divided in two sections, male and female, and a concise picture of their most common characteristics is drawn, it is seen that the women patients have a strong chance of being the eldest child of the family, that the onset of their illness is gradual, that they tend to be ambitious and to worry a great deal, that they tend to be independent

particularly in their hetero-sexual social life, and finally that they show a strong attachment to their mother whom they describe as "the most wonderful mother". These women particularly of the eldest group, show a strong necessity to direct ~~the~~ activities and doings of those with whom they come in close contact. These patients are prepared to undergo a great deal of self-sacrifice and personal loss in order to impose their will on the loved ones. On the men's side it is seen that they have a strong chance of being the youngest child in the family, that the onset of their illness is sudden, that they show a high incidence of respiratory diseases--bronchitis and asthma, that they incline towards weak bladder control in childhood, that they seek to marry older women than themselves, that they are inclined to suppress their hostility. Both the men and women lean towards self-consciousness and timidity in their social contacts, particularly in childhood and adolescence, while they incline towards strong physical activities--mostly hard work.

The causes of rheumatoid arthritis are attributed to two extremely divergent and totally opposite factor groups responsible for two distinct categories of rheumatoid arthritics, the over-solicitous and the over-protected. In the first category are found those women who as a rule had been the eldest child in the family and on whose

whose shoulders had been placed the responsibilities and cares of younger siblings. In the second category are found those men who as a rule had been the youngest child in the family, and on whom all the affections and tender care of older and more responsible people had been showered.

Considering that sixty-two percent of our women patients were the eldest of their respective families the dynamic implication appears quite evident. These women from the early age of two or three years had been trained and forced, with each new addition to the family, to accept and take full responsibilities for the moral and physical welfare of the brood. As one patient ably expressed it, "If anyone of the others did anything wrong, I would be the one to get the beating". These people were mentally prepared to get the beating. Figuratively they were whipped into a constant state of worry concerning the welfare and well-being of those coming under their care. When one considers this repeatedly shown evidence, then the personality factor compelling these people to control and take away all vestige of responsibility from their loved ones, which was the main observation reported by such men as James Halliday, Booth, Alexander, Shapiro and Johnson, becomes self-explanatory. This hypothesis is not held up by one factor alone, it is also complemented by all the other findings of this study and by those that have come out of previous experiments.

Worry, which has been shown as deeply affecting the lives of these women is readily understood when considering the responsibilities of their early childhood which kept them in a constant state of mental apprehension lest they get a beating. Their tendency to exceed in school work, their physical exertion and their cold attitude of independence is partly the result of their duty-bound training of childhood and partly an attempt to gain and hold the respect and following of those who come in close contact with them.

The psychodynamic interpretation of the disease for the above group can be expressed as the persistent frustration of a deeply anchored need to take the direction and responsibilities from others lest they hurt themselves or do something wrong. These women were consistently trained to take responsibility for all that happened around them at an age when most personality dynamics are formed. From a very early age a personality pattern of complete independence from all outside direction or help has been ~~newed~~ hewn out of a cold and insistent family atmosphere. This divorce from all forms of outside directives has been instilled to such an extent that today these people find it exceedingly difficult to accept the most innocent suggestion coming from the outside. This explains the paradox met with by Halliday, Alexander, and others who have dealt with these patients. Inwardly these people are considerate, loving

and deeply devoted to their loved ones; outwardly they may reach a high level of selfishness by imposing their well meant but totally constricting over-protection on other people's activities.

As a general psychodynamic background the causes can be explained as a chronic state of apprehension lest other people impeach on their lifelong habit of deciding and doing things exactly as their hypersensitive conscience dictates them to do. (This explains why Johnson found these women to prefer compliant and even physically defective mates.) This state can be traced to an excessive share of responsibility particularly during the patients early childhood, and from which they have developed an increasing wariness of the judgment of other people. From the heavy responsibility the patient has evolved an urge to follow the dictates of their own judgments and feelings with a total disregard for the opinions and preferences of others. The immediate cause of the disease is a frustrating event such as the death of a parent, the infidelity of a husband, etc., which forces the patient financially or otherwise to come to terms with their environment, and forgo at least in part their complete independence of thought and action. With time this frustration increases. As the frustration increases the mental reaction brings about a change in the body chemicals (as shown by the increased sedimentation

rate) which in turn causes the arthritis to develop.

Considering the fifty percent of the men who were the youngest in their respective families, the dynamic bases are still more evident. These men from early infancy have, as a rule, been babied, spoiled and their every need looked after without any effort on their part. Nothing was left to their own initiative. In consequence these people never fully matured, particularly in their emotional attitude towards life.

These statements are held up by a number of factors:

1. At least three of the eight men bed-wetted up to the ages of six, ten and seventeen years.
2. Seven of the eight men claimed that they suppressed most of their hostility, even at times when they had all the right to be angry--this is quite usual in people who are not too sure of themselves.
3. Most of these people expressed a deep lack of self-confidence and a feeling of timidity which they tried to cover up through an excessive amount of work.
4. Their deficiency in self-assurance is also demonstrated by the late age at which they began steady courting and by the fact that four of the eight men married the only girl they had ever gone out with for any length of time.

5. Due to their emotional immaturity these men tend to choose as their mates women older than themselves.

6. Even the medical reports uphold our views in this matter. Six of the eight men had had either asthma or bronchitis--two highly psychosomatic illnesses.

7. The mode of onset "sudden" for seven of the eight men, is the typical reaction of spoiled people to a difficult situation--only two of the women had a sudden onset.

The psychodynamic interpretation of these men closely resembles that which is given to approximately eighty percent of the psychosomatic cases found among the out-clinic patients of any large hospital--it is a defense mechanism necessitated by the incapacity of the patients brought about by their lack of proper training in childhood to cope with some particular frustrating experience which to them becomes an unbearable life situation. The patient is usually unaware of this defense mechanism due to the unconscious nature of the physical adaptation to their mental stress.

The condition, if favorable as a protection for their weak ego, can be indefinitely entertained through the same unconscious dynamic process. Judging from the above factors the incidence of hysterical conversion may be quite high in this second group.

The third category of patients who neither fall in

the eldest nor in the youngest groups may be classified as belonging to the eldest group, in which case they, for some reason or other, had to shoulder heavy responsibilities or life stress in their youth; or to the youngest group of which the illness is attributed to immaturity in the mental or emotional life of the patient.

To clear up a point it might be said that the group who were the eldest in their families were not arthritics simply because they were women, nor the youngest ill simply because they were men. The reverse, where a man patient is the eldest, and a woman patient the youngest, is quite often true. The women patients are usually the eldest simply because in our culture the eldest girl is always expected to take a share of responsibility quite beyond her capacity to cope with, while the youngest boy is too often spoiled by the overprotection of his environment and particularly by the mother's solicitude.

Moreover, it is not being the eldest or youngest in itself which determines the disease but the role forced on the patient by his sibling position. Even where they are the middle sibling, if this kind of role is forced on them they can become arthritic.

One may wonder why arthritis is the unconscious choice of symptoms for these people. The joints of the body,

especially of the limbs are the points through which one carries into effect the physical manipulations of the social environment. When the patient wishes to manipulate that environment and feels unable to do so (psychically and/or somatically) there are changes which immobilize the joints. When the women can no longer manipulate the lives of others the means of manipulation is immobilized psychically and somatically; hence their symptoms. When the immature men feel that they can no longer handle their environment, because they perceive the demands on them as too great, they are immobilized psychically and somatically. The symptoms is a logical part of the psychodynamics.

In this chapter an attempt is made to draw a parallel between the findings of a study made by Al Johnson, et al., and their interpretation of the psychodynamics in rheumatoid arthritis, and the results of this experiment and the interpretation of the psychodynamics responsible for the disease. In the first study the authors claim a specific personality pattern as the basis for the disease, which they attribute to an unconscious hostility towards men, an event tending to increase hostility and guilt feelings carried over from sibling rivalries which reappears when opportunity to dominate and self-sacrifice is denied, and lastly a sexual experience increasing their masculine

protest to the feminine role. They state the belief that the hostility came about as a protest to a domineering mother in childhood, whom the patient feared, but on whom she depended. The rebellion created by this situation is later transferred to those around them. The illness itself is attributed to hostility brought about by fear or guilt feelings which they cannot dispell through soically accepted channels, which in turn increases the muscle tonus and finally leads on to arthritis.

In this study the cause is also attributed to a personality pattern formed in childhood. But unlike the findings by Johnson, the pattern discovered in this study is not necessarily the product of a cold domineering mother in childhood, nor that of a masculine protest to the feminine role, nor of revived childhood guilt-feelings, but as with the majority of our women patients, it is attributed to the strict exigencies of excessive responsibilities in childhood to which they react by adopting a perpetual state of worry over the welfare of their charges, which in turn pushes them on to increased over-work in order to ease their mind. Once the pattern of worry and over-work has been firmly established, should an exterior force be brought in to thwart or change their mode of adaptation to certain situations, then a mental stress caused by the urge-- brought about by their childhood responsibilities-- to

control and direct their human environment as they alone see fit to do, gradually develops. Should the frustration persist, certain changes in body chemistry take place and bring about arthritis.

In the "youngest" group where fifty percent of our male patients are found, a distinct personality pattern is drawn from seven significant characteristics shown to be relatively common to all of them. The psychodynamic implication is stated as closely related to that of patients with psychosomatic diseases in which the illness serves as a cover-up for a deep seated lack of assertiveness and self-assurance. In this group the patients are dependent on the illness to hold up their prestige in the community as well as within the family circle. They are usually the product of over-protection in childhood.

A third group of patients is discussed in which are found those people who although not the eldest in the family, but because of the fact that they were forced to take on heavy responsibilities early in life, are playing the role of the eldest and for this reason should be classified as belonging to that group. The reverse is true for the group of "youngest" in which a number of patients who although not the youngest in their families, but due to the fact that they were treated as such, fall in this particular group.

CONCLUSION

In writing this study our main concern has been to give a precise and detailed account of the procedures followed, and the results obtained in the course of our experiment. To achieve this end we have briefly reviewed the literature dealing with psychosomatic medicine in general and have followed this by a presentation of specific studies on Rheumatoid Arthritis, which were of particular importance to this study. Having elaborated on the construction and content of the instrument used (Personal History Form), and the procedures followed in the choice of subjects for this research, we have endeavored to give a true picture of the application of the history form and the types and methods of interviews followed during the investigation process. The data obtained were given in table forms in order to afford a global view of the psychodynamic areas of influence. These were followed with a short briefing on the significance of the data presented. The psychodynamic basis of the disease as seen through the data obtained from the research was expounded at great length and our interpretation compared to the interpretation of another study made by A. Johnson and his co-workers at the Chicago School of Psychoanalysis.

The main hypothesis of this study had a two fold purpose--to find out if there existed a psychological basis for Rheumatoid Arthritis, and if so, to appraise its

psychodynamic implication. Whether our purpose has been fulfilled depends in great part on the evidence brought forth to support or deny the hypothesis. From the data that have come out of this research, it has been established in as much as it is possible to do with the demands imposed by the choice of subjects that for our experimental group the occurrence of the disease in the eldest female child of families averaging eight siblings, and the youngest male child of families with the same number of siblings, was statistically significant. Furthermore, the very high incidence of specific factors associated with each of these groups strongly favored the hypothesis of a definite personality pattern common to members within these individual groups. Finally, an analysis of the factor found in the personality pattern clearly reveals the psychodynamic influence within the disease. The evidence shows that from a very early age the eldest female patients in our group had been burdened with heavy responsibilities and in consequence had developed a very strong habit of worry and over-work. The excessive responsibilities combined with the worrying habit prepared them from an early age to take control of and direct all the activities of those coming under their care lest they go astray. This habit of controlling and directing their environment has, through the years, developed into a compulsion very often approach that of a

neurotic state. When some outside factor came in to challenge their authority and habits of directing people, the patients reacted to the mental constriction and freedom to do as they think best with a physical incapacity to carry out what they had been told to do by developing arthritis.

The psychodynamic basis as evidenced in the group of youngest men is attributed to the fact that they were never trained to take responsibilities and whenever circumstances forced them into a situation demanding self-assurance, these men reacted to the situation by developing Rheumatoid Arthritis in order to preserve their social prestige both within the family circle and their outside environment.

In conclusion it might be said that the erroneous impression gathered by Johnson was the natural development of a rapidly disappearing early Freudian concept which could have been avoided had their experimental group included a greater number of men.

The main purpose of this study had been to discover at least one small promising area from the vast field of the patients lives that would permit us to proceed with a more concentrated and accurate investigation. This has been done and only awaits further developments at a later time.

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This study is concerned with the investigation of peripheral nerve reaction to emotional stress. Although the results are not very convincing, yet the aspect under study makes for quite interesting reading.

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The findings of this committee concerning the etiological features of Rheumatoid Arthritis are mostly negative, nevertheless the procedure followed in their study is particularly significant in the final analysis of their results.

Rome, Howard, "Neuromuscular and Joint Disease and the Psychosomatic Approach", in Medical Clinic of North America, Vol. 33, issue of Oct. 1949, p. 1061-1069.

The author claims an inherited condition that makes the tissues react in a special way to certain stimuli develops into a specific personality pattern. Although not highly elaborate their findings are worthy of attention.

Thomas, Giles, "Psychic Factors in Rheumatoid Arthritis", in American Journal of Psychiatry, Vol. 93, No. 3, issue of November 1936, p. 693-710.

The findings of this study with thirty-one Rheumatoid Arthritics show that all cases had been preceded by some kind of character disturbances.

Weiss, Edward, and O.English, Psychosomatic Medicine, Philadelphia, W.B. Saunders, 1949, 310p.

This is an absolute essential for all studies in psychosomatic medicine in general. It has proven the greatest single source of reference in the persuasion of this research.

Weiss, Edward, "Psychosomatic Diagnosis", in Medical Record, Houston, Vol. 42, issue of (no month) 1948, p. 466-471.

This research is based on three main areas in which it concentrates in search for psychogenic causes: the patient as he appears at the interview, the precipitating factor, and a survey of the patient's life, background and habits up to the time of the interview.

APPENDIX I

PERSONAL HISTORY FORM

- I-History of present illness (in patient's own words).
- 1-Chief complaint
 - 2-Secondary complaint
 - 3-Time of onset
 - 4-Probable cause
 - 5-Mode of onset
 - 6-First symptom
 - 7-Course of disease in chronological order.
- II-Further symptoms referable to other parts of body.
- 1-Headaches: location, type, date of onset, periodicity.
 - 2-Eyes: vision, inflammatory disease, glasses.
 - 3-Nose: colds, obstructions.
 - 4-Ears: hearing, earaches, discharge.
 - 5-Teeth: pain, bleeding, gums, dentures.
 - 6-Throat: sore throat, tonsillitis, hoarseness, quinzy.
 - 7-Neck: thyroid-relationship to puberty, pregnancy, strains.
 - 8-Lungs: pain in respiration, cough, hemoptysis, night sweats, asthma, bronchitis, hay fever.
 - 9-Heart: pain, palpitation and distress, effect of exercise and eating, pulse rate, circumstances, cyanosis, etc.
 - 10-Gastro-intestinal: appetite, digestion, bowel movements, vomiting, jaundice, pain periodicity, hemorrhoids.
 - 11-Genito-urinary: difficulty of urination, nocturia, polyuria, etc. gonorrhea and syphilis-treatment; menstruation-onset, type, dysmenorrhea, amenorrhea.
 - 12-Skin and appendages:-eruption, tumors, pigmentation, hair.
- III-Pre-natal to sixth birthday
- 1-Type of birth: cesarian, unusual circumstances of delivery.
 - 2-Mother's condition during pregnancy:-mental and physical.
 - 3-Was child desired?
 - 4-Breast or bottle-fed:-circumstances of weaning.
 - 5-Temperament of child:-placid, fretful.
 - 6-Age of sphincter control.
 - 7-Fears, tantrums, nightmares, food problems, thumb-sucking.
 - 8-Age of walking and talking.
 - 9-Adaptation to playmates.

10-Illnesses and physical handicaps.

IV-Sixth to fourteenth birthday.

- 1-Age on entering school
- 2-Adaptation to playmates-Friendly, timid etc.
- 3-Intellectual achievements:-mark, promotions.
- 4-Hobbies-unusual interests.
- 5-Physical exercise.
- 6-Delinquency:-truancy, lying, stealing, etc.
- 7-Education-ambitious, indifferent.
- 8-Diseases: measles, mumps, whooping-cough, scarlet fever, rheumatic fever, chorea, sore throat, colds and complications, small pox.
- 9-Operations and injuries.
- 10-Behavior: nail biting, bed wetting, nightmares, fears, aggressiveness, sleepwalking, worrismatic, retiring, moody, guilt feelings.

V-Fourteenth to twenty-first birthday.

- 1-Diseases, operations or injuries.
- 2-Conflicts: religious, sexual, hostility to father and mother, worrismatic, startled reactions, nervousness.
- 3-Education: longing for more? obtained through sacrifice?
- 4-School or work--like or dislike.
- 5-Physical exercise--little, moderate, intense. (play or work)
- 6-Hobbies and recreations.

VI-Twenty-first birthday to present date.

- 1-Present age of patient
- 2-Sex of patient.
- 3-Marital Status, When?
- 4-Age, health and occupation of partner.
- 5-Pregnancies: abortions, children, living or dead.
- 6-Operations or injuries.
- 7-Diseases; faintness, dizziness
- 8-Occupation: past, present, satisfaction at work.
- 9-Hobbies and recreation.
- 10-Behavior: anxiety, parental fixation, emotional control, worrismatic, anger, suppressed hostility, tension., insecure, depressed, moody, irritable, nervous
- 11-Habits: diet, tobacco, alcohol, drugs, bowels, sleep.

VII-Family history

- 1-Home life in childhood-happiness at home? Family atmosphere.

- 2-Specific diseases--tuberculosis, malignant diseases, diabetes, arthritis, goiter, asthma, hay fever, heart and kidney diseases, obesity, nervousness, mental affliction, suicides, hypertension, alcoholism.
- 3-Father's history--age, birthplace, health, occupation, traits: severe, tolerant, ambitious, seclusive, gregarious, emotionally stable, companionable.
- 4-Mother's history--the same as above.
- 5-Siblings: name, age, occupation, success, failures.

VIII-Religious Life

- 1-Parental attitude to religion
- 2-Was patient religious as child, adolescent.
- 3-Present need of religion.
- 4-Conflicts in relation to religion.

IX-Vocation

- 1-Influence of choice--parental and economic
- 2-Vocational aims
- 3-Satisfaction with progress

X-Social adjustment

- 1-Relationship to playmates
- 2-Any close friends
- 3-Number of friends
- 4-Have friends treated patient well
- 5-Self-consciousness in groups.
- 6-How is criticism and kidding taken.
- 7-Ever felt queer, peculiar, different
- 8-Satisfaction with life in general.
- 9-Ever feel moody or want to be alone.
- 10-Need of alcohol, tobacco, drugs.

XI-Physical status

- 1-As child: frail or strong.
- 2-Reaction to operations or injuries.
- 3-Satisfaction with physical appearance.
- 4-Physical handicaps with effect on personality.

XII-Sex Development.

- 1-Age of manifestation of sex interest
- 2-Attitude of parents to sex in childhood
- 3-How knowledge obtained--directly or literature.
- 4-Any threats applied
- 5-Age of menstruation.
- 6-Shyness in contacts with other sex.
- 7-Any disgust, shame or emotional reaction at onset of menstruation.
- 8-Any conflicts with parents' social or sex values.

9-Frequency of loves: emotional involvement, age
at first love.

XIII-Marital History

- 1-Length of courtship and reason of late marriage.
- 2-Compatibility and common interests.
- 3-Disparity in age between partners.
- 4-Frequency and degree of satisfaction in sex life.
- 5-Nature of sex difficulty-impotent, frigidity, etc.
- 6-Reasons for marriage. Problems of infidelity.

APPENDIX II

ABSTRACT OF THE THESIS

Many hypotheses have been held concerning the etiology of rheumatoid arthritis, yet few of these have been scientifically investigated. In this study an attempt is made to investigate the possibilities of psychological bases to the disease and its psychodynamic implications in respect to the whole personality.

In order to do this a personal history investigation form was drawn up which covered all aspects of a person's physical and psychological life from conception to the present date.

The number of subjects in this experimental group was set at sixteen, ten of whom were selected from the out-patient arthritic clinic of a large hospital and the other six from private practice. The experiment called for the following graduated representation; age, twenty-five to fifty-nine; stage of disease, mild to advanced; duration of the disease, short to long standing. The group was to be made up of an equal number of male and female patients. Due to the evenly divided French and English elements in the district investigated, half of the men and women were to be taken from the French-speaking population and the other half from the English speaking element.

The research itself called for two main interviews: a controlled interview which was held at the patient's home and a conversational interview most of which were held at the hospital.

From the data obtained the following pertinent facts associated with our group of patients were observed.

1. The chance of the patient being the eldest or youngest in their respective families was shown to be statistically significant.

2. The chance of women patients being the eldest in their family was observed to coincide very highly with the occurrence of the disease.

3. The chance of male patients being the youngest in their family was also noted to be quite high.

The following features were also noted to appear quite frequently among our women patients--particularly those of the eldest group:

1. Most of them had to shoulder heavy responsibilities in their youth.

2. The onset of the disease was practically always gradual.

3. They are apt to worry a great deal.

4. They have a strong tendency to be ambitious.

5. They tend to control the lives of their children and in particular that of their husband.

6. Most had been very active in their youth (mostly hard work).

7. Worry tended to be associated with the cause of the disease.

The most interesting feature noted among ~~men~~ ^{men} patients was their high tendency to marry women older than themselves (five of the eight men).

Other characteristics of repeated occurrence were:

1. The onset of the disease was practically always sudden.
2. Ambition and worry was markedly absent in these men.
3. They tend to suppress their hostility.
4. Late bed-wetting was noted in three of eight men.
5. Six of the men had had asthma or bronchitis.
6. Seven of the men expressed themselves as shy with the opposite sex.
7. Most men began steady courting after their twentieth birthday.

Finally shyness or self-consciousness was the universal attribute of all patients during their youth, while the causes of exacerbation they ascribed were about evenly divided between the weather and frustration.

The psychodynamic interpretation of the disease for the eldest group, all of whom except one were women, may be given as follows:

From early childhood these patients had constantly been trained to take full responsibilities for all that happened to their younger siblings. As a consequence they developed the perpetual habit of worrying over their charges which in later years was responsible for a personality pattern compelling them to take full responsibility for all that took place within their immediate environment. When their self-imposed duties to govern the lives of those around them were thwarted, the constriction imposed on their way of behavior was strong enough to bring about a physiological reaction which in turn brought about the arthritis.

For the second group, all of whom except one were men, the psychodynamic interpretation though quite different seems obvious. In most cases these patients were the spoiled product of an over-protected early childhood. All their cares had been satisfied; they were not allowed to develop initiative of their own; they never fully matured. Consequently in later life when they began to shoulder responsibilities the strain was quite strong. When the dilemma caused by the necessity to shoulder responsibilities and their tendency to run away from it became too great, the arthritis suddenly developed as a protection against a possible loss of prestige and self-respect within their immediate environment.