SOCIAL AND EMOTIONAL PROBLEMS IN RHEUMATOID ARTHRITIS.

A Study of a Group of Vancouver Cases.

by

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ABSTRACT

The purpose of this study is to examine the aspects of arthritis as a social welfare problem as well as a health problem, and to show (a) that the social and emotional components of the disease have a significant bearing on the "treatability" of the patient; (b) that casework, community organization and public welfare must be involved in an adequate treatment programme.

The broader implications of the problem are indicated by statistics from national surveys and other related studies. But the essential material is derived from a study of cases. These include thirty hospital cases, of which twenty three were interviewed one or more times, and seven were taken from social histories in which sufficient data were available. Thirty replies were received from a special questionnaire sent to the homes of a second group of patients.

The study shows that (1) each of the patients had an average of 3.1 socio-emotional problems significantly related to onset or recurrence; (2) the disease created additional personal and family problems which are classified and discussed in detail, all of which prevented the patient from getting or benefiting from adequate treatment; (3) there are gaps in present treatment and rehabilitation programmes which must be filled, and (4) medical social work has an important role to play in assisting diagnosis, treatment and rehabilitation.

It is hoped that this study of the social aspects of rheumatoid arthritis will clarify the role that social work must play in an adequate treatment programme, indicate the kinds of further research which would be valuable in this area and point up the need for a much broader perspective on the whole problem.
ACKNOWLEDGEMENTS

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SOCIAL AND EMOTIONAL PROBLEMS IN RHEUMATOID ARTHRITIS.
To You, O Goddess of Efficiency,
Your happy vassals bend the reverend knee,
Save when arthritis, your benighted foe,
Sulks in the bones and slowly mumbles "No."

Samuel Hoffenstein.
CHAPTER I.

THE PROBLEM OF ARTHRITIS.

Arthritic disorders have plagued mankind since time immemorial, but never in great epidemics like those of smallpox or typhoid fever. It does not kill, so it is not possible to point to mortality records and say, "This disease has caused so many deaths; we must do something about it." In most cases it begins insidiously, and the patient may be thought consumptive, neurotic or just lazy until the disease has been allowed to do much damage. The disease is not known to be communicable, so that health departments have no morbidity records for it. Hence the public, in general, adopts a somewhat complacent attitude toward the disease and attention is turned to more dramatic diseases.¹

In recent years, however, arthritis has gradually begun to gain the attention it deserves. Arthritis has been called Canada's "number one crippler," and, as such, it was recently described by one of the M.P.'s in the House of Commons at Ottawa.² Various newspaper and magazine articles...

have also reflected the growing awareness of the problem. In October, 1948, Vancouver newspapers carried the report of an overflow meeting of approximately three thousand persons eager to find a cure for their common ailment. Among the speakers were the Hon. George S. Pearson, B.C. Minister of Health and Welfare, who suggested that "the size of the crowd indicates that people are demanding an answer to arthritis," and Dr. Wallace Graham, president of the Canadian Arthritis and Rheumatism Society, who said that "this meeting will bring a glimmer of hope to those whose plight is unrivaled in human suffering."  

INCIDENCE OF THE DISEASE.

The high incidence of arthritis makes the disease a medical-social problem of major significance. So far as current measurements can be trusted, there are ten times as many cases of arthritis as of tuberculosis, twice as many as heart disease, ten times as many as diabetes and seven times as many as cancer. Roughly two-thirds of these arthritis cases are of the rheumatoid type.  

Widely varying figures have been quoted regarding the relative incidence of the various groups of rheumatic diseases. The most reliable figures on the prevalence of


arthritic rheumatism are to be found in those countries which have a compulsory national insurance scheme covering a substantial proportion of the adult population, and which have made careful surveys of the incidence of the disease.

From the records of the national health insurance scheme in England and Wales, it is estimated that in those two countries one out of every twenty persons suffers from some kind of rheumatic disease, and that out of the total population one million are arthritics. Scotland is estimated to have more rheumatic victims than England and Wales combined.

Important data are available for the United States for the years 1935 - 1936, as this is the date of the comprehensive National Health Survey made by the U.S. Public Health Service. This survey established that rheumatic diseases head the list of chronic diseases. Of nearly seven million Americans suffering from rheumatic diseases, three million were arthritics. Of these, 130,000 were completely disabled, and another 800,000 partly disabled.¹

In Canada, a sample survey on a wider base was made in November, 1947, by the Vital Statistics Division of the Dominion Bureau of Statistics to determine the number of people suffering from arthritis in Canada. This study included 65,000 persons and from the results obtained estimates of the total problem were made. It was estimated

that 652,000 people were suffering from some form of arthritis at that date.

The time factor in the disease is an aspect equally as significant as is the high incidence rate. Table 1 brings into focus significant findings of the Canadian Survey relating to the duration of the disease.

Table 1. **Duration of Arthritis.**

Estimated numbers of persons who have suffered arthritis for various periods of years. (In thousands: 1947)

<table>
<thead>
<tr>
<th>Years of Duration</th>
<th>Men</th>
<th>Women</th>
<th>Both</th>
<th>Percentage of Total Arthritics in Each Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 5 years</td>
<td>117</td>
<td>108</td>
<td>225</td>
<td>34</td>
</tr>
<tr>
<td>5 - 9</td>
<td>73</td>
<td>75</td>
<td>148</td>
<td>23</td>
</tr>
<tr>
<td>10 - 14</td>
<td>46</td>
<td>54</td>
<td>100</td>
<td>15</td>
</tr>
<tr>
<td>15 - 19</td>
<td>26</td>
<td>31</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>20 years and over</td>
<td>60</td>
<td>62</td>
<td>122</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>322</td>
<td>339</td>
<td>652</td>
<td>100</td>
</tr>
</tbody>
</table>


The statistics of this report underscore the tragic fact that 66 per cent of the victims of arthritis have had the disease for more than five years. Many of these persons have therefore gone past the stage at which they could entertain hopes for a cure. Approximately 120,000 persons have had the disease twenty years or more. These long
sufferers have only one compensation in that the disease tends to burn itself out after a few years so that although the victim is deformed, he or she may be free of pain. Of course, many of these chronic sufferers may not be hopelessly involved. The largest single group in terms of "years of duration" were those who had the disease less than five years. It is this large group, 34 per cent of the total, who have the greatest hope of cure, or at least of alleviation of pain and prevention of deformity.

ECONOMIC AND SOCIAL ASPECTS OF THE DISEASE.

One of the disastrous effects of chronic arthritis is the great loss of earning power which it occasions, with consequent deleterious effects on the patient, on his family and on society as a whole. Arthritis accounts for a greater number of days lost from work than any other chronic ailment with the exception of nervous and mental diseases.

The Dominion Survey of 1947 indicated that during the month of October, 1947, 99,700 arthritic sufferers lost a total of 1,650,300 days from their regular activities; this would amount to nearly 20,000,000 days for the year - a great economic and social loss indeed! The Survey also showed that arthritis accounted for roughly one quarter of the time lost by men and women in Canada as a result of illness of all kinds.

Figures derived from the United States Public Health Survey (1935 - 1936) show that among the more than
3,000,000 arthritic sufferers more than 100,000,000 work days were lost by completely and partially disabled victims. Reckoning at a minimum of six dollars a day, a wage loss of $600,000,000 per year is indicated.

Recent national health surveys in Canada and the United States indicate that the burden of chronic disease falls heaviest on the part of the population which is least able to bear the cost. Disability from chronic illness, expressed in terms of the average number of days lost from work per person, is almost three times as great among families on relief, and twice as great among non-relief families with incomes under $1,000 per year as among families with incomes of $3,000 per year or more.

It is interesting to note, however, that according to the Dominion Survey, 7 per cent of those suffering from arthritis were in the managerial and professional occupations; 3 per cent were in clerical; 2 per cent in transport and communication occupations; 15 per cent were in agriculture, fishing, trapping and logging; 7 per cent were in labour and construction occupations and 41 per cent were housekeepers. This indicates that arthritis is not exclusively a "poor man's disease" as it has sometimes been called but that it strikes at all economic strata. It does, however, tend to affect more persons in the lower economic strata, because the greatest percentage of the population falls in the lower income brackets and because this portion of the population is less able to finance the
necessary health care than are those persons in the higher income groups.

Arthritis not only strikes most frequently among these lower income groups but it also attacks during the period of greatest economic productivity, roughly in the age group 25 - 54 years. This is a characteristic which this disease shares with other chronic diseases. It can be seen from Table 2 that approximately 60 per cent of those suffering from arthritis fall into this group.

Table 2. Estimated number of persons with arthritis, by age, at onset. (In thousands)

<table>
<thead>
<tr>
<th>Age at onset</th>
<th>Men</th>
<th>Women</th>
<th>Both</th>
<th>Percentage in each age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 15</td>
<td>12</td>
<td>16</td>
<td>28</td>
<td>4</td>
</tr>
<tr>
<td>15 - 24</td>
<td>37</td>
<td>37</td>
<td>74</td>
<td>11</td>
</tr>
<tr>
<td>25 - 54</td>
<td>191</td>
<td>195</td>
<td>386</td>
<td>59</td>
</tr>
<tr>
<td>55 - 64</td>
<td>51</td>
<td>56</td>
<td>107</td>
<td>17</td>
</tr>
<tr>
<td>65 and over</td>
<td>31</td>
<td>26</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>322</td>
<td>330</td>
<td>652</td>
<td>100</td>
</tr>
</tbody>
</table>


THE NATURE AND TYPES OF THE DISEASE.

Arthritis is simply one of a great group of diseases known as the "rheumatic diseases." This term is in current use by the medical profession but only as a convenient general term for a large number of diseases, some
of which are well understood while others remain a mystery. There is no classification of rheumatic diseases acceptable to the whole medical profession, but there is general agreement that the term includes three main groups.

The first of these is rheumatic fever, a disease occurring primarily in childhood and young adults. The second group is designated by the term non-articular rheumatism, that is, forms of rheumatism which affect the soft tissue around the joint but not the joint itself, and result in inflammation of the muscles (myositis), the fibres (fibrositis), the protective tendon sheaths (tenosynovitis), or the protective pads around the knees and elbows (bursitis); along with these go some cases of lumbago, neuritis, and sciatica. It is this second group that the layman knows as "rheumatism;" and his doctor, so as not to confuse him with the various forms of the rheumatic diseases, will probably give him this diagnosis. "Rheumatism" may be limited to slight twinges, or may result in severe pain and the appearance of hard nodules which can be felt under the skin. Though it may be very aggravating and stubbornly resistant to treatment, it seldom gives rise to serious disability.

At the outset non-articular rheumatism in its various forms may show symptoms similar to those of the diseases of the third great group of rheumatic diseases which is referred to as "arthritis." The medical term for "arthritis" is "articular rheumatism", that is, the forms of rheumatism that affect the joints. The term arthritis
itself comes from the Greek word "arth" meaning joint, and "itis" meaning inflammation.¹

Rheumatoid arthritis is one of several types of arthritic diseases² of which seventy-five per cent are of unknown etiology. The cases in the present study are confined to the rheumatoid type of arthritis because it is this form which causes more problems, personal and social, than any other.

Rheumatoid arthritis may begin suddenly and dramatically but usually begins insidiously with fatigue, general malaise, gradual loss of weight, vaso-motor disturbances, numbness and tingling in the extremities. These effects may occur weeks or months before any joint involvement is noticed. After affecting one joint the disease tends to proceed symmetrically inwards towards the trunk and may involve fingers, wrists, elbows, shoulders, ankles and knees. It progresses with acute remissions and exacerbations. In some persons it does not go beyond a certain stage. Several of the patients interviewed in this study reported having had "rheumatic pains" for years but they had still not yet become too seriously crippled to be beyond hope of alleviation or cure. On the other hand there were some examples of patients who had arthritis only a


². See Appendix B for classification.
short time and were now almost completely crippled.

In extreme cases of the disease the patient's skin becomes transparent, the palms of the hands and the soles of the feet become hot and moist or cold and clammy, the joints stiffen and the muscles weaken and eventually atrophy. Then the joints become deformed; the hands take on the characteristic spindle-shaped appearance, and the wrists become so stiff that the patient cannot raise his arms to dress himself. The feet may become so stiff that the victim cannot even shuffle around, and the knees may become swollen to two or three times their normal size and "grate like nutcrackers" when the patient tries to move. The jaws can become so stiff that chewing is impossible. The disease may also affect the eyes and vision may become dimmed for months at a time. Gastric and rectal complications may also be added to the suffering. In the extreme cases of the disease, it is readily to be believed that the patients, as they have testified, "pray for death."

The "Marie Strumpell's" form of rheumatoid arthritis, which occurs ten times as frequently among men as among women, stiffens the spine but usually spares the joints. The victim can regain his general health but is left with a stiffened spine. He may have either a poker-stiff back or a hump so rigid that he cannot bend or turn. He may have to wear an uncomfortable brace for the rest of his life, but he can get around after a fashion by re-educating his other joints to take over many of the movements in normal living.
Fortunately rheumatoid arthritis does not result in hopeless crippling in every case. It may arrest itself or be arrested by adequate treatment at any stage in its progress. Only about five per cent of cases progress to the "total immobility" stage, but even this is a large number when the great number of chronic arthritics is considered. Even if the disease stopped at the ankles and wrists, the degree of disability involved in the loss of the use of the hands and feet would suffice to make it a real dependency problem.

CONSTITUTIONAL, EMOTIONAL AND PSYCHIC FACTORS.

Although the cause of rheumatoid arthritis is not known, the theory of causation most generally accepted has been that "foci of infection" are always present and that "nests of bacterial (usually streptococcal) infection can precipitate rheumatoid arthritis." Dr. Margolis, writing from long experience with a wide variety of cases, states, however, that "infection must neither be ignored nor be considered a sole factor. To realize the fullest implications of this disease we must also view certain more fundamental aspects of the human organism upon which the trigger (of focal infection) acts." Some of these more fundamental aspects are constitutional, emotional and psychic factors.

2. Margolis, Dr. H.M. Ibid. page 325.
Constitutional vulnerability to arthritis probably depends on such factors as inherently inferior joint tissues, impaired blood supply, the type of nervous system with which the potentially arthritic patient is endowed, perhaps abnormalities in body build and in the form and function of various vital structures, and increased susceptibility to infection. These and probably many other influences determine in a large measure whether arthritis will occur at all, and they also modify the course of the disease.  

The inherent biological traits of the potentially arthritic patient are not static, but are subject to stresses of dynamic environmental influences that can mould the physique and personality toward or away from development of the disease. Dr. Margolis cites, as an example of the effects of these "dynamic" influences, the impressive evidence of autonomic nervous system imbalance in a large number of patients with rheumatoid arthritis. Such imbalance, however, is not simply a result of the disease; it is more likely a precursor of it, for the existence of such a state of autonomic imbalance may be observed for years before the onset of the disease. Undoubtedly in many patients this abnormality dates back to childhood.  

Emotional and psychic factors are also known to exert significant influences on the function of the autonomic nervous system. The relationship between pallor and

1. Margolis, Dr. H.M. Ibid. page 325.
2. Margolis, Dr. H. M. Ibid. page 325.
rage, muscle tension and fear, is too commonplace to require amplification; yet the emotional background of the physiological abnormalities which predispose a person to arthritis has been almost totally disregarded. Similarly the "emotional involvement" of the patient who is undergoing treatment has been ignored.

Studies on the psychogenic make-up of the arthritic patient have revealed certain rather characteristic neurotic tendencies, in extreme cases tinged with morbid anxiety which existed as often before as after development of the disease. Dr. Margolis states that his experience "leaves no doubt about the direct effect of prolonged anxiety or emotional shock, having so often seen a violent attack of widespread arthritis developing in neurotic individuals in the wake of a stirring emotional experience, when they were seemingly bent by the loss of a partner, a child, or power around which life gravitated. With the least prodding and frequently voluntarily, the patient is likely to express belief in the close relationship between such emotional experiences and the onset of his arthritis."

Drs. Cobb, Bauer, and Whiting in a pertinent study of fifty patients with typical rheumatoid arthritis, from a social and psychological point of view, concluded that there was a significant relationship between life stress and the arthritis in over sixty per cent of the patients. "Environmental stress, especially poverty, grief

1. Margolis, Dr. H. M. Ibid. page 325.
and family worry, seem to bear more than a chance relationship to the onset and exacerbations of rheumatoid arthritis." The authors add, however, that "the relative importance of these factors in the etiology of rheumatoid arthritis can only be established by a more detailed psychiatric study on a large group of patients."

One distinguished physician has stated that "the effect of emotional upsets can no longer be considered mere coincidence, however. Any investigations in the past ten years show that anxiety and resentment are the two most constant emotional reactions in rheumatoid arthritis and maladjusted human relationships are a real (contributory) problem."

It is these psychic, emotional and social factors that point to the role of the social worker in both diagnosis and treatment of rheumatoid arthritis. In recent years, the need to consider both body and mind as a whole and to treat the "patient as a person" as well as to treat the disease is winning acceptance. Psychotherapy, therefore, has its place in the treatment of rheumatoid arthritis. Psychiatric and medical social workers are trained not only to practise psychotherapy directly, but to take account of environmental influences which may have predisposed the


patient to the disease or which may be hindering the progress of treatment. The social worker thus has a role in helping the physician to see the "whole person" in treatment and to gain insight into the needs of the patient which are related to his well being and "treatability." It is obvious that, from the very nature of the disease, the social effects are serious. As later sections show, there are also social implications on the causal side.
CHAPTER II.

A CASE STUDY APPROACH.

The first problem in approaching this study was to find a representative group of patients, preferably one which contained men, women and children of various ages and which would provide, on analysis, a fairly accurate picture of the typical problems and needs. From such a sample it is possible to get information to show that the social and emotional problems of the patient are associated with the onset and progress of the disease irrespective of age and sex, and that they must be considered in treatment. Other aims of the study are: To determine what problems the disease creates for the victim and his family and how these are related to the "treatability" of the patient; to indicate what treatments are now available and to point out significant gaps in present treatment and rehabilitation programmes; to show that arthritis is a public welfare problem as well as a public health problem which requires governmental action on national and local levels, comparable to that taken in the control of other widespread diseases such as tuberculosis and cancer; to indicate that medical social workers can contribute to the treatment and rehabilitation process and to emphasize the need for "teamwork" in the treatment and rehabilitation of the patient.

The final choice was a group of 60 cases which included: 23 patients interviewed one or more times; 7 cases
where case records only were used because sufficient social data was available; and 30 additional cases which were questionnaire studies. The first 23 case histories were obtained as a result of interviews at the weekly outpatient clinic of the Vancouver General Hospital, from November, 1948, to March, 1949, inclusive, a period of five months. The other 7 patients were not interviewed because they were being carried by other workers and it was not necessary to duplicate the work being done. It is interesting to note in passing that the records of the Social Service Department indicated that very few arthritic patients were being referred to social workers except for admission to nursing or boarding homes, to obtain appliances, crutches or some other similar service. This made a total of 30 patients on which adequate social and medical information was available by personal contact of the author or co-worker in the social service department. In addition, a questionnaire was prepared and sent to a different group of 50 patients known to be suffering from rheumatoid arthritis. The cooperation of the B. C. Arthritis and Rheumatism Society greatly facilitated this step. Thirty completed questionnaires were returned, which increased the number of patients included in the study to sixty.

In selecting these cases an attempt was made to obtain approximately equal numbers of men and women and a variety of age-groups from children to old age pensioners. No age limits were set but there were no children under fourteen available and the oldest person interviewed was seventy years of age. The patients eliminated were those
unavailable for interview and those who were considered
to be permanently and totally incapacitated. This last
group of patients was excluded because they could not be
included in a study concerned with treatment and rehabilita-
tion. Ten patients interviewed at the Glen and Grandview
Nursing Homes and at the Marpole Infirmary fell into this
group.

Several other avenues were explored in the search
for case material. Many hospital case records were read,
permission having been granted to examine charts of all the
rheumatoid arthritic patients admitted to Vancouver General
Hospital in 1948. Hospital statistics were not up to date
so that it was necessary to examine all charts containing
arthritic diagnosis in order to segregate the rheumatoids.
Moreover, only the occasional chart contained anything
approaching the social history required. The main result
of this, indeed, is that it re-affirmed the need for a study
of this kind. It became immediately obvious that the social
aspects of the disease were not being considered in treat-
ment. That is, little or no attempt had been made to ana-
lyze each patient's personality and background to determine
his personal problems, worries, burdens etc. and how these
were related to the medical problem. Twenty nine medical
case histories were obtained from these charts which ap-
parently included all or at least most of the cases having
a primary diagnosis of rheumatoid arthritis. Twenty of these
had been admitted to the Vancouver General Hospital in 1948
and nine in the previous year. Because of the lack of social
data these twenty nine cases were checked with the Social Service Index to determine whether the families were known to any social agency which might have information about the family relevant to the medical problem. It is interesting to note that the majority of the cases were not registered with the Index. Several were known to the City Social Service or to a provincial Social Welfare Branch. Four were known to the Family Welfare Bureau but only two contained sufficient relevant data. These 29 cases were not included in the main body of the thesis as case studies because of the paucity of social data.

Only one patient was interviewed outside of the hospitals and nursing homes. This patient, a young man almost completely crippled, was interviewed in his own home. He was the only patient who reported that he was financially secure in spite of years of involvement. This patient was not included as one of the 60 cases but reference is made to him elsewhere in the study for illustrative purposes.

The minimum length of each interview with patients in the outpatients department was one half hour; the average being longer. Several of the patients were interviewed regularly over a period of five months so that a full history could be obtained for inclusion in the study.
CHAPTER III.

PROBLEMS ASSOCIATED WITH ONSET AND RECURRENCE.

It is impossible to indicate to what extent any one factor may contribute to the cause or onset of a disease, because the various factors are bound to bear different weight with different individuals by virtue of the fact that individuals differ a great deal in family background, heredity, personality traits, and so on. Nevertheless one can assume that emotions of one kind or another are common to all human beings. In the onset and recurrence of rheumatoid arthritis it is the extent of the negative emotions that is the significant factor. Fear, anxiety, hate, resentment and kindred emotions are examples of negative emotions that have a detrimental effect on the human organism.

All chronic arthritics seem to have suffered a depletion of energy and strength manifested in loss of weight and a general feeling of tiredness. Tiredness and depletion of energy are generally attributed to overwork, but no study yet done, including the present one, has indicated that the arthritic patient becomes tired and depleted because of overwork in every case. In those who did overwork it might be asked what "emotional" motives were driving them. Many people have born witness to the tiring effect of discouragement, inner emotional conflict, worry and anxiety on their own bodies as well as having seen the effect on those of their acquaintances at some time or other. Naturally these negative emo-
tions would only have a severely depleting effect if they were felt over a relatively long period of time, and of course the effect would also depend much on the intensity of the strain. A severe shock can and does render some persons so ill that they have to go to bed, particularly if the person is of delicate constitution. And, if the shock is prolonged, the person can suffer loss of weight and strength and weakening of resistance to disease.

Dr. G. W. Thomas states that rheumatoid arthritis cannot be contemplated clinically without gaining the conviction that it is associated with physiologic depletion. Aside from infection there is no more important cause of physiologic depletion than that of emotional and physical trauma or strain. Dr. Cecil goes still further in stating that psychic factors are more important than infection in provoking the original symptoms or in bringing about relapses of rheumatoid arthritis.

**RELATED STUDIES.**

Several psychiatric studies of groups of arthritic patients have been made which indicate that emotional factors have a significant relation to the onset and recurrence of the disease. Some of the more pertinent examples are briefly


Emotional factors were studied in twenty-five cases by Drs. Patterson, Craig, Martin, Waggoner and Freyberg. About one half of the group of patients studied had experienced prolonged emotional stress for periods of months preceding the onset of rheumatoid arthritis. Discussion of their emotional problems caused a fall in skin temperature indicating a change in peripheral circulation. The importance of these physical changes appeared important in producing exacerbations of the disease.

Dr. Halliday discovered "a definite upsetting event" antecedent to the onset in nine of twenty cases of rheumatoid arthritis, and in seven cases emotional conflicts were thought to provoke recurrences. The emotional disturbances included shock following acute danger, anxiety over finances or the misbehaviour of relatives, fear of loss of an object, paranoid resentment concerning superiors, frustration at being jilted by a fiancee, and others. Although these studies were based on the findings of a relatively small number of cases, the Medical Review from which they were taken considered them scientifically valid and the implications of importance.

A much more comprehensive survey was made in Massachusetts in recent years by Dr. Donald Griegg which involved a study of 610 insane persons and a post mortem examination of 3000 other insane persons. Only one out of

the 610 insane persons had arthritis, and no frank evidence of arthritis was found in any of the 3000 autopsies. In contrast to this, one out of every 36 persons in the general population of Massachusetts had chronic arthritis. The suggestion has accordingly been made that the insane persons were not facing the stresses and strains faced by the sane section of the population. In effect, they had solved their emotional and social problems by escaping from reality into insanity.

Dr. Griegg suggests by way of explanation that man is endowed with reactions which enable him to escape from harmful forces or to fight them off by increasing his blood pressure, pulse, muscular activity, etc. These reactions are beneficial when appropriate and when not prolonged, but injurious when unduly extended. Through his memory and imagination, man has lengthened the period during which the blood pressure and pulse are increased and muscles are tense. But these normal reactions when unduly prolonged can produce a localized insufficient blood supply to a tissue, a condition called ischemia, which can lead to numerous disturbances, such as stomach ulcer, spastic colitis and arthritis.¹

Millard Smith's study of 102 cases of rheumatoid arthritis gave evidence that about 50 percent of the cases had undergone "depleting and unbalancing experiences" which were closely related to the onset of their arthritis.

Of the thirty hospital cases in the present study, eighteen of the patients, when interviewed, were suffering from emotional conflict of one sort or another and had cherished long standing resentment and hostility (usually unexpressed) towards other persons. One elderly lady was so resentful of her husband's alleged selfishness and ill-treatment of her that she could scarcely talk of anything else. It is obvious that her entire blood system would be upset by the intensity of her negative emotion. Another patient, a young man of 36 years of age, described himself as a "moral coward." He had never faced his personal problems in order to work them through to a satisfactory conclusion. Consequently, he always seemed to be "boiling inside" with inner conflicts and fears. Often he projected these feelings onto persons in his environment which caused him to bear strong resentment towards others over long periods of time. Another young man expressed great hostility towards his physician because the doctor had allegedly made a wrong diagnosis in his case two years previously. The young man had projected all his feelings of frustration to his physician. Over a period of two years he had built his feelings into a constant attitude of hostility.

Ten of the patients interviewed stated that they had "always been nervous and high strung." Most of these persons expressed the belief that their present poor health was definitely related to a disturbed, unhappy childhood.
In several instances this belief was mentioned without direct questioning, indicating that the patients themselves were conscious of the relationship between emotional states and physical disturbances.

Another group of ten patients had been disturbed over a period of years because of marital unhappiness. One woman stated that she felt that there was a definite connection between the onset of her arthritis and a series of emotional upsets occurring within a four months period, all of which were related to her husband leaving her for another woman. In this case, the patient was being affected detrimentally; first, by the emotional upset of what had happened and, secondly, by the strong resentment and animosity which she was feeling towards her husband whom she was blaming for breaking up the marriage. This patient felt that whenever she was most disturbed by the thought of "her misfortune" her arthritic pains and swellings became much more acute.

Evidence that prolonged shock had been suffered as a result of deaths in the family was given by ten of the patients interviewed. In some of these ten cases, the shock was clearly related to the onset of arthritis, and in others it was related to an exacerbation of the disease. One patient, for example, reported that she had had slight arthritic pains intermittently for years, but that her condition had not become serious until after the death of her husband upon whom she had been very dependent. This patient said that she still felt disturbed about the loss of her husband
and the difficulties involved in living alone. She felt that her anxious, disturbed state of mind was definitely making her arthritis worse.

The effects of severe shock in precipitating an attack of arthritis was described by another woman patient who told of a disturbing experience she had undergone at the time of the onset of her arthritis. She and her husband were at that time living in a rural district in Manitoba where there were no neighbours within several miles. During the absence of her husband, she had lit a fire in the yard to burn up some rubbish. The fire somehow got out of her control, caught onto the dry grass surrounding the house, and soon threatened the entire property. The woman was terrified, and worked feverishly for hours trying to put out the fire. She dared not go to a telephone lest the fire reach the house in the meantime. In her attempts to quench the flames, she pumped all the water out of the well - some two hundred buckets - and completely exhausted herself in the process. By toiling all day alone, she managed to save the house. When her husband finally came home, he took her immediately to the hospital. Shortly after this the woman developed definite symptoms of rheumatoid arthritis, and she has since suffered from the disease for many years. This incident, prior to onset, could not be said to have caused the disease but it most certainly would appear to have been a precipitating factor, because of the severe shock, great fear, and physical depletion that the patient experienced.
Fifteen of the arthritic patients interviewed admitted feeling frustration and resentment over a long period of time because of employment difficulties. Of these fifteen, seven had been unemployed or only spasmodically employed at the time of onset. Five were doing work that was distasteful to them, and three expressed marked feelings of frustration because of their inability to achieve their occupational goals. Another group of sixteen of the patients indicated that they had experienced much anxiety about low and uncertain income, particularly during the depression years of the 1930's. Most of these sixteen patients readily stated that they felt that their prolonged anxiety about financial and vocational matters was related to an increase in their arthritic involvement.

Overwork may be a causative factor as much as emotional strain, although the psychological counterpart of the former is usually discernible. Twelve of the patients in this present sample had a history of overwork, to the extent that they were suffering from chronic fatigue prior to the onset. The cause of this overwork varied: some had to work hard to pay off bills or to meet extra family demands; others worked hard because they feared they would lose their jobs; still others because they feared failure.

Table 3 contains some of the more outstanding social and emotional problems that were found to be common to those interviewed. It is obvious that no one of these problems can be entirely separated from the others because
of the fact that they were all interrelated. The two categories "personal and family" and "vocational and economic" are broad and are intended to illustrate in a general way the two main problem areas.

It is startling to realize that the patients considered in the present study were found to have an average of 3.1 of these problems to face. As can readily be seen, any one of the problems included in the table is relatively vital and would have marked effects on the patient. Each of these problems in itself is significant enough to be a contributory factor in precipitating the disease or causing a recurrence, and when each of these problems is only one of three, the patient is faced with almost insurmountable social and emotional difficulties.

TABLE 3 on next page
### Table 3: Socio-Emotional Problems Related to Onset and Recurrence

(based on 30 case histories)

<table>
<thead>
<tr>
<th>Emotional Disturbance or Strain</th>
<th>Number</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Personal and Family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long standing resentment or hostility (towards persons or situations)</td>
<td>18</td>
<td>19.6</td>
</tr>
<tr>
<td>Disturbing childhood experiences (e.g. unhappiness in the home)</td>
<td>10</td>
<td>10.9</td>
</tr>
<tr>
<td>Persistent negative feelings about divorce and separation</td>
<td>10</td>
<td>10.9</td>
</tr>
<tr>
<td>Prolonged shock (e.g. caused by a death in the family)</td>
<td>11</td>
<td>11.9</td>
</tr>
<tr>
<td><strong>B. Vocational and Economic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frustration and Resentment (e.g. dislike of job)</td>
<td>15</td>
<td>16.3</td>
</tr>
<tr>
<td>Long periods of anxiety about income, employment, etc.</td>
<td>16</td>
<td>17.4</td>
</tr>
<tr>
<td>Fear of unemployment, debt or failure; causing overwork, worry, depletion of energy.</td>
<td>12</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>TOTAL PROBLEMS</strong></td>
<td>92</td>
<td>100</td>
</tr>
</tbody>
</table>

Source - (Thirty case histories) 23 interviewed, 7 case history records

It should be noted that most of the patients interviewed appeared to be of fairly keen intelligence. They had thought a great deal about their ailment and some had considerable insight into the causative factors. None of them denied that there was some connection between their emotional states and life stresses, and their physical condition. Several indicated their belief in this correlation without being asked or
especially prodded to do so.

It must be made clear here that no attempt is being made in this study to prove that emotional factors cause arthritis. What is clear is that each patient has emotional and social problems that are related to the disease, and that these problems may well tend to predispose a person to arthritis or to precipitate an attack. The implication is that all those who are interested in treating and rehabilitating the patient should have some understanding of the problems which the patient is facing, both within himself (in the way of conflicts, anxieties, etc.), and in his environment (including his work, home, etc.) When a patient's "history" is being obtained in a hospital or clinic these aggravating problems should be uncovered in order that they may be dealt with in treatment, so far as personnel and facilities permit.

It is even clearer that this is important when the story of rheumatoid arthritis is reviewed in terms of individual patients lives. Therefore several cases are included in this chapter. They have been selected because they are representative of both sexes and of various age groups, and because they are typical of the social and emotional problems that are common to the arthritic patients.

THE PATTERN OF FRUSTRATION AND HOSTILITY OFTEN STARTS IN CHILDHOOD.

During the course of several interviews with Miss I. the following data were obtained. Miss I. had always admired her father more than her mother, particularly because of his calmness and emotional stability. Her mother was
"hot tempered and easily hurt." Miss I. never got along well with her mother and usually did not try to disguise her disagreement with her mother about how things should be done, for example. It is possible, then, that failing to identify with her mother, Miss I. never learned to accept the feminine role, and has been led to gain satisfaction from academic and other accomplishments.

Still another factor from her childhood days has influenced her: that of sibling rivalry. Her younger sister was less inclined to repress emotions, was more overt and generally adjusted more easily to life situations. This sister "knew how to get around mother." Miss I.'s parents were inclined to favour the younger daughter because she was the baby of the family and more appealing. Consequently, Miss I. has had to compete with her sister for parental attention and affection. She was always able to please them, however, by doing well with her studies because both parents wanted her to become a teacher. Her mother was an ex-teacher and she had supervised her two daughters through several years of regular, routine study of correspondence courses. (They lived in a remote rural area.)

All through Miss I.'s life history the striving tendency is evidenced. She was always at the top of her class when she attended school for brief periods even though she was two years ahead of her age grade. She was sent to the city to finish her final year of high school where she found her studies easy, but she had to "strive" to "keep up socially" because of her age and inexperience with city life.
At this time Miss I. felt pain in her knees; they became swollen at times and she was not able to do the physical training. This discouraged her and even at that early age she accepted the idea that her ailment was incurable.

During the previous spring and summer Miss I.'s mother had been in bed for nine months as a result of a major operation. During most of this period she was in the home and was nursed by Miss I. At the same time Miss I. was also helping her sister and keeping up with her own school work. In this situation Miss I. suffered ambivalent feelings toward both her mother and her sister. On the one hand she felt resentment and hostility towards them, and on the other hand, identifying with her father, she felt it her duty to be a "good girl" and help all she could. Her hostile feelings remained for the most part unexpressed. At this time her knee pain increased considerably.

Another area of conflict entered her life at university. She did not want to be a teacher although she appeared to be heading for that goal. She was torn between the desire to please her parents, or to please herself by working toward another occupational goal. She finally chose to go her own way, but was now more concerned than ever to succeed because her parents were still paying her way. Moreover, her mother had made it clear to her that she wanted the money back some day, even going so far as to express a desire to have the financial agreement put in writing. Miss I. resented her mother's attitude and expressed to the writer some hostility towards her mother for this.

Miss I. finished her course in spite of the dis-
couraging effects of unsatisfactory boarding home resi-
dences, recurring bouts of joint pain, and general weari-
ness. She continued the struggling, striving pattern of
behaviour until the fall of 1946 when she suffered what
she called a "shock reaction" to Gold treatment. Since
that time she has not worked at all.

Since hospitalization, Miss I. has admitted feel-
ing discouraged and resentful of her fate. There is also
an element of hostility and envy regarding her sister who
is married and has a child, and who is apparently living
a happy normal life. It bothers her a great deal to feel
that she has failed her parents and that she will not be
able to help them financially in their old age.

The parallel between the medical data and the
socio-emotional data in this case is particularly striking
and is presented in summary form in Appendix C, page 117.

POOR ADJUSTMENTS TO SCHOOL AND VOCATIONAL EXPERIENCES

AS PREDISPOSING FACTORS.

Mr. G. is now 40 years of age and has had some
form of rheumatism off and on for the past twenty years.
Mr. G. was always small, underweight, and somewhat sen-
sitive. However, he had been a fairly normal, active boy.
Mr. G. stated that the most disturbing period of his life
was his school days. He described them as being "highly
demoralizing" to him. His teachers were strict and au-
tocratic, especially the principal of the high school he at-
tended. He felt that he was surrounded by pedagogical
bullies on the one hand, and "ragging school kids" on the other. (All of this was by no means evidence of paranoia because the principal of the school referred to did have a reputation as a tyrant and his staff left much to be desired.) Mr. G. left school before finishing grade nine. He has since expressed the opinion that all schools should have a psychiatrist for the benefit of both staff and pupils who are not adjusting well.

Mr. G. concluded that he was an "arthritic type" just as some people are the tuberculosis type, in that he was undersized, sensitive and introspective and therefore handicapped to compete with more healthy men in a very competitive world. He felt that his difficulties in finding employment made his adult life merely an extension of his school difficulties; his worries, fears and anxieties "wore him down." He had worked only three years by the time he was twenty five and this was at an unsatisfactory selling job which involved tramping around the city streets in wet weather carrying heavy loads.

Mr. G. had rheumatic fever when he was twenty five. For the past fourteen years he has suffered intermittent bouts of joint pain, weakness, weariness and sleeplessness. One can only speculate on the total "emotional involvement" which must have been present over those years of stress and unemployment. (Mr. G. has not worked since 1935.) Can anyone doubt that his emotions have run the whole gamut of negation or that these emotional disturbances have been fuel for the fires of arthritic involvement? And can anyone
doubt the importance of considering these socio-emotional problems in the treatment plan?

PERSONAL AND SOCIAL MALADJUSTMENTS ARE OFTEN FOUND IN
THE PATIENT'S BACKGROUND.

Mrs. C.'s mother died in childbirth when Mrs. C. was six years old. Her father took care of her and a sister for two years in spite of the fact that he was very upset at his wife's death. Then Mrs. C. was placed in a convent after which she saw her father for brief periods only each week. Hence it can be said that Mrs. C. grew up without the benefit of normal parental relationships from the age of six.

When Mrs. C. married, she chose a man old enough to be her father; in fact he treated her like a child. Both her father and her husband were strict and were inclined to worry. Mrs. C. was fond of social life and "outings" whereas Mr. C. was a home-lover. Mrs. C. would often react like a child when denied the kind of social life she wanted; sometimes she would go away; always she felt sick, and got tired. Sometimes she was so tired in the mornings as a result of her frustrations that she could not talk. The only interest she and her husband had in common were their two children, but they, too, "held her down." About ten years ago she began to suffer back pain along with chronic tiredness and "female trouble." By 1947 this had evolved into typical thrumatoid arthritis, the final diagnosis being Marie Strumpell's spondylitis.
It is obvious that it is impossible for Mrs. C. to get well with medical treatment alone. In fact, it became quite clear to the writer that Mrs. C. did not want to get well. She was not prepared physically or emotionally to cope with her home difficulties, namely that her marriage was unsatisfactory to her (emotionally she was more her husband's child than his wife), she had many guilt feelings about her mother role and she disliked the town to which the family had recently moved for financial and health reasons.

Mrs. C.'s case is a typical example of how an abnormal family life, or lack of family life, can lead to a poor marital adjustment, which in turn can be a predisposing or precipitating factor in arthritis, depending on the constitution and personality of the individual concerned. The physical disease becomes an expression of the frustration and hostility that the patient seems unable to express in any other way. Mrs. C. like all other chronic arthritics needs help with all her problems, not just that of her disease, if she is ever going to be even partially rehabilitated.

THE RESULTS OF A PATIENT'S REACTIONS TO TRAUMATIC EXPERIENCES.

Mrs. P. was one of several patients who stated that she thought her arthritis had its origin in childhood when she had "growing pains" which were really rheumatic pains. She felt that if she had received proper atten-
Questioned further about her childhood, Mrs. P. explained that although her parents were well meaning they were very strict, cold and unaffectionate emotionally. Mrs. P. stated that she had always been a very nervous person. Several other women patients brought out similar data without being especially guided to do so.

Mrs. P. first noticed arthritic pain 30 years ago. She was in a weakened state of health at the time because of overwork and the effect of shock at the sudden death of her husband. A few months later, she suffered further shock when her only daughter died. Since then she has not been seriously troubled with arthritis until about ten years ago. Associated with this exacerbation was her increased worry about her only son who was presenting both health and behaviour problems and her worry about the fact that her financial resources had been used up.

Mrs. P.'s case is representative of the older age group who are living alone and trying desperately to maintain their independence. She might have been successful in doing this if it had not been for the fact that she had suffered the shock of two deaths in the family, and that she had been worrying over a long period of time about her financial problems and her son, all of which have predisposed her to the recurring attacks of arthritis.

THE EFFECTS OF SHOCK AND WORRY.

Mrs. K. stated that her arthritis "came on suddenly" twenty three years ago when she lost her mother and her
brother in the same week. She had suffered arthritic pain intermittently during the past seventeen years, particularly during the depression years of the 1930's when Mr. K. was out of work a great deal - a great source of worry to Mrs. K. She became much worse three years ago when Mr. K. became ill suddenly. Mr. K. has not worked since and as a result Mrs. K. has had to care for him. Their savings have almost gone and she has literally "worried herself sick" about it. Now she is becoming crippled and thereby getting more causes for worry - "a vicious circle." She is receiving regular treatment which is of little help to her, because, as is often the case, her worries are neutralizing the positive effects of the treatment.

OVERWORK THROUGH FEAR OF UNEMPLOYMENT.

Mr. H. gave no history of family difficulty of any serious kind. He admitted no emotional conflicts, worries or anxieties except fear of unemployment. He had worked several years at hard-rock mining in damp underground conditions. Toward the end of his stay in the mines he experienced a tendency toward joint pains and tiredness but he continued to work hard and long because he knew that "there were 50 more men standing by ready to take my job." (This was in depression days). He later took on a less strenuous type of manual labour, still however, being subject to dampness. By the summer of 1945 his hand joints had swollen enough to prevent his working and he has been off work and under treatment of some sort ever since.

Mr. H. impressed the writer as being intelligent, capable and industrious. He admitted being worried and de-
pressed about having arthritis but after a few months he decided that it was useless to worry and resigned himself to waiting for recovery. Mr. H. said that he was "not the worrying kind." It is interesting to note that Mr. H. has almost recovered from joint involvement with no special treatment apart from rest and medication. On the writer's last contact he asked further help in finding a job and was prepared to do a few hours of light work daily.

Mr. H.'s case exemplifies how overwork due to fear of unemployment (or fear of any kind) can predispose a person to arthritis. The case also shows the significant relationship between lack of worry after onset and the positive response to simple treatment measures.

It is clear, then, that persons who develop rheumatoid arthritis have personal and family problems which are as much a part of their ailment as is the pain and crippling. The most constant emotional pattern is that of frustration - resentment - hostility. In many cases this emotional pattern has its source in disturbing childhood experiences, an abnormal or unsatisfactory home life and unhappy social relationships. These earlier experiences become part of the personality and character of the individual and govern his habitual mode of reaction to the difficult life situations which he must meet.

All of the patients in the present study were found to have experienced difficulties in adjusting to life and because of their inability to cope with their troubles they had become intensely disturbed emotionally. This emo-
tional disturbance, in turn, undermined their health and greatly increased their vulnerability to arthritis. These patients were unable to express the hostility and resentment they felt because of their frustration - a characteristic shared by most arthritics. Consequently, their negative feelings were turned loose upon themselves to the detriment of their health.

It can be seen, then, that if the patient is to be treated thoroughly, his personality and habitual modes of reaction must be understood. His particular "environmental" difficulties must also be assessed; that is, current family relationships, school or vocational adjustments, social relationships, recreations, etc. It is necessary to know how much of the patient's trouble stems from inadequate personality and how much from unusual environmental stresses if adequate treatment is to be introduced.

Not only does the victim of rheumatoid arthritis have social and emotional problems which are associated with the onset, but also, when the disease strikes, the patient and his family are faced with a brand new set of problems. These new problems must also be considered in an adequate treatment programme and are fully discussed in the following chapter.
 CHAPTER IV.

PROBLEMS RELATED TO PROGRESS OF THE DISEASE.

The victim of rheumatoid arthritis becomes heir to a series of problems all of which cry out for solution just as vigorously as the disease cries out for treatment. In all of the cases considered in this study, these problems were added to the burdens that the patients already had and which had predisposed them to the disease or precipitated an attack. These other problems, personal, family, economic, vocational, social etc. must be dealt with because of their direct relationship to the "treatability" of the patient.

It has been noted that tiredness, in many cases chronic fatigue, was experienced by the person before onset. This feeling persists after onset, and continues to be a source of frustration to the individual. Soon after onset, the patient faces the fact that he has become a victim of a dread disease for which there is no sure cure. A few of the patients described their feelings as "sheer panic." However, in most cases the onset is so gradual that the victim is not required to make a sudden emotional adjustment to it. The accompanying emotion is some form of fear, usually anxiety and worry, along with discouragement, regarding the disease and the problems it creates. The patient may want to give in to his emotions and take out his feelings of hopelessness on his family and friends. On the other hand he may learn to accept the disease and the limitations it imposes upon him.
and consequently learn to make the most of his handicaps. If he chose the former course it would be unfortunate but understandable.

Every patient must face the tremendous problem of "What can I do with myself?" The thought of being a useless cripple depending on others and contributing nothing to the world is devastating and depressing. The patient may wallow in self pity and despair for months or even years. One man described how after several years spent in bed he suddenly discovered that he could type with one of the fingers of his deformed hands. This discovery, in his own words, was more significant to him "than the Battle of Waterloo was to England." Still later, this patient found to his delight that he could earn money by marking correspondence school papers. Although he did not particularly need the money, this discovery gave his morale the biggest boost it had ever received. This case illustrates very well that the patient must never lose his interest in living, or his hope of being useful, if he is ever going to adjust to his ailment or recover from it. A feeling of hope has exhilarating effects on the body while, conversely, despair tends to disrupt the normal functioning of the body.

All victims of rheumatoid arthritis are unable to carry on their usual active life because there is in each case some degree of joint involvement and limitation of movement. The patients interviewed almost invariably remarked about their former active life and the contrast presented by their present physical condition and restricted life.
Some indication of how the body may be affected is given in Table 4 below.

**TABLE 4. LIMITATION OF MOVEMENT.** (Based on 60 cases)

<table>
<thead>
<tr>
<th>Part of body affected</th>
<th>Number</th>
<th>per cent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feet and knees</td>
<td>42</td>
<td>70</td>
</tr>
<tr>
<td>Hands and elbows</td>
<td>38</td>
<td>63.3</td>
</tr>
<tr>
<td>Back</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td>Shoulders</td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>Neck</td>
<td>10</td>
<td>16.7</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>28.3</td>
</tr>
</tbody>
</table>

Average number of parts affected per person 2.41

Source: 30 case histories; 30 questionnaire replies.

The greatest crippling appears in those limbs of the body which are most important to the patient in terms of his ability to carry on his normal activities, namely, arms and legs, 63.3 per cent of the cases being crippled in the joints of the hands and arms and 70 per cent in those of the feet and legs. When the joints of these limbs become stiffened and deformed, the victim is forced to cut down on his normal activities.

The spine comes next in frequency of involvement, 40 per cent of the cases of this study being so affected. Here again the effect is disastrous. When the spine is involved usually the hips and neck are also affected, so
that the person becomes greatly limited in scope of movement. Although the hands are often left free in these cases, the knees usually become flexed so that crutches must be used, and in extreme cases the patient becomes bedridden.

It can be seen, then, that for each patient to have an average of 2.41 body parts affected constitutes a serious crippling problem. Eight of the patients in this phase of the study were classified as completely crippled or bedridden; thirty four were partially crippled and eighteen were slightly crippled. These, of course, are broad, general categories and the division between them is not sharp. Those with "slight" crippling had no deformed joints or only slight deformity, whereas those who were "partially" crippled had markedly deformed or swollen joints with definite limitation of movement.

Crippling, of course, results in loss of employment or inability to follow any regular full-day employment or normal activity. This is a major problem in most cases and also appears to be the greatest source of emotional disturbance in that it is related to loss of independence, loss of social status and loss of the feeling of "wholeness." Most of the patients had been crippled over a relatively long period of time.
TABLE 5.

DURATION OF CRIPPLING
(Based on 60 cases)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 2 years</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>2 to 5 years</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>over 10 years</td>
<td>16</td>
<td>26.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: 30 Hospital cases and 30 questionnaire replies.

The fact that 55 per cent of the cases in this study have been crippled for five years or more indicates that the majority of victims are not being cured at present; that many victims of arthritis would have little hope for cure, assuming that the disease must be caught early, and that the problems caused by the disease tend to increase rather than to diminish.

Apart from learning to accept the disease with its crippling effects and of finding something useful to do, the problem which has the most marked effects is the financial one. Roughly one third of the social histories and questionnaire replies brought out the patient's resentment and frustration because of loss of employment and consequent insufficient income. Most of the patients had spent a considerable amount of money in vain to find a cure. Most of these indicated that their failures were very discouraging to them. Likewise the majority of the patients interviewed expressed discouragement at having to apply for assistance. They seemed
to feel badly about the fact of dependency after having previously taken pride in their self-sufficiency.

Financial dependency is thus one of the most devastating consequences of chronic arthritis. Many of the effects already cited could have been avoided if there had been no financial problem. The most serious financial and vocational problems are listed in Table 6 below.

TABLE 6.

<table>
<thead>
<tr>
<th>Vocational and Financial Problems</th>
<th>Number</th>
<th>per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced to give up employment</td>
<td>29</td>
<td>48.3</td>
</tr>
<tr>
<td>Living on savings, partly or entirely</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>Used up resources</td>
<td>45</td>
<td>75</td>
</tr>
<tr>
<td>Debt created</td>
<td>10</td>
<td>16.6</td>
</tr>
<tr>
<td>Forced to accept social assistance</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>Receive help from family</td>
<td>15</td>
<td>25</td>
</tr>
</tbody>
</table>

Average number of problems per person 2.33

Source: 30 case histories and 30 questionnaire replies.

Almost all of the 29 persons who were forced to give up their jobs were the breadwinners of the family. Those who had been working to help in the "breadwinning" (usually the spouse) were forced to give up their employ-
ment in order to stay home to look after the patient.

Added to the years of lost earning power were thousands of dollars spent in treatment both by the patient (until his savings were exhausted) and then by the government which subsidizes treatment of non-paying hospital patients. Of twenty one rheumatoid arthritic patients admitted to Vancouver General Hospital in 1948 the total number of days spent in hospital was 851. The total cost of hospitalization and treatment for these patients was $12,009.19. Each patient spent an average of 40.52 days in hospital at an average of $14.11 per day - a heavy drain on family resources and savings.

Approximately three quarters of the families considered in this study had used up their resources; only 13.3 per cent had any savings left. Most of the rest had little or no resources in the first place. It therefore became necessary for almost all the victims to seek financial help of some sort. Well over half the cases had to rely on some form of "social assistance" or on a pension, company or military. Fifteen were "getting by" with the help of immediate families or other relatives. At least ten had put themselves in debt in search of a cure or because of ineligibility for social assistance or because of reluctance to "go on relief."

Added to the discouragement and resentment caused

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1. This figure represents the majority of rheumatoid patients but hospital statistics were not up to date at time of writing.
by pain and crippling and by financial insecurity is the patient's feeling about losing his independence and status to some degree. The disease inevitably involves a great degree of dependency upon others.

**TABLE 7.** LOSS OF INDEPENDENCE. (Based on 60 cases)

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family burdened by care of patient</td>
<td>35</td>
<td>58.3</td>
</tr>
<tr>
<td>Need a housekeeper part time</td>
<td>33</td>
<td>55.0</td>
</tr>
<tr>
<td>Need a housekeeper full time</td>
<td>27</td>
<td>45.0</td>
</tr>
<tr>
<td>Forced to live with relatives</td>
<td>20</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Average number of problems per person 1.92

Source: 30 case histories and 30 questionnaire replies.

In fifteen of the thirty hospital cases there was clear evidence that the patient was discouraged or otherwise affected emotionally because of the fact that he had become a burden on the family.

In most of the cases, loss of independence and status was related to financial problems. Only three of the persons who replied to the questionnaire indicated that they could afford to pay a full time housekeeper and, of course, most of the hospital cases were of necessity low income cases who also could not afford such help. However,
all of the cases including the above three indicated that they needed housekeeper services on a full or part time basis. Almost all of the cases, then, because they could not afford help, were forced to depend on their families or friends for help.

One in every three of the patients was forced to live in the home of some relative. The reason for this was lack of finances in almost every case. The seriousness of the financial problem would be somewhat lessened if, after treatment, the patient were able to return to his former employment or at least to some form of remunerative activity. However, not one of the persons in this study who lost his (or her) job was able to go back to it after treatment; only one of them was able to take a substitute position, either full or part time.

There were 23 patients who were not employed at the time of onset. (These persons were for the most part housewives.) In these cases the average time lost from regular activities was 77.52 months or 6.46 years. That is, each of these persons had gone through a period of over six years when he (or she) was not able to carry on normal activities at all or was not able to carry on in the usual manner of speed or efficiency because of some degree of pain, stiffness, tiredness, weakness, deformity or lack of muscular coordination caused by the disease.
Obviously any crippling disease such as rheumatoid arthritis would also reduce the victim's social contacts and recreational activities to some extent.

**TABLE 8.**

**LIMITATION OF SOCIAL LIFE AND RECREATION.**

(Based on 60 cases)

<table>
<thead>
<tr>
<th>AMOUNT</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced to a great degree</td>
<td>28</td>
<td>46.6</td>
</tr>
<tr>
<td>Reduced to a slight degree</td>
<td>16</td>
<td>26.7</td>
</tr>
<tr>
<td>Reduced to zero</td>
<td>16</td>
<td>26.7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: 30 case histories and 30 questionnaire replies.

Some of the replies to the questionnaire concerning the effect of the disease on the patient's social life and recreation give a clear picture of the typical result. One husband who was himself well, completed the questionnaire on behalf of his invalid wife and wrote the following:

"Our social life and recreation have been entirely eliminated for both of us, because my wife cannot be left alone. We have no social life."

A woman who was partially crippled stated:

"Have been confined to home due to inability to remain on my legs or walk a great distance, particularly this month."

A male patient replied with significant abrupt-
ness:

"Completely ended it."

This bleak statement appeared on several questionnaires with such variations as the following:

"Social life and recreation nil."

"The only social life I have is from the kindness of friends who come to visit me. My husband or daughter cannot entertain at home or leave me alone to go out together."

"Don't go out at all."

"Unable to enter into any social life or recreation whatever."

"No social life or recreation since 1946."

"Has cut off all church and other activities outside the home."

"Social life given up."

One woman reported specific limitations:

"Stopped lawn bowling, gardening, also going out in the evenings."

Another woman had obviously been very active before arthritis came upon her and was wistfully recalling happier days.

"I am unable to play golf, bowl, climb mountains, do old time dancing, knitting, crocheting or even go for a good long walk."

However, other factors besides the actual reduction in social life enter the picture here. 26.7 percent of the persons stated that their social life had been reduced to nil even though some of them were not seriously crippled. On the other hand, some of those
who are permanently bedridden have kept up their social contacts to some extent and have devised means of recreation as well. In this study, 73.3 per cent of the patients managed to have some form of social contact or recreation. The effect here depends to a large extent upon the individual person's reaction and upon his family context. Whatever the reaction, however, a serious limitation has been imposed on the victim.

Any chronic disease is bound to have drastic effects on the victim's family and arthritis is no exception. The ways in which the disease could affect the family are many and varied depending on such factors as age, sex, family solidarity, economic standing, etc. Some of the effects not already mentioned are marital difficulties, care of dependent children and change of family plans. In eleven of the thirty hospital cases (36.6 per cent) the disease accentuated or created a marital problem within the family. In seven of the families (23.3 per cent) the problem of the care of children dependent on the arthritic victim was created.

In 29.5 per cent of the cases, family plans had been changed, postponed or thwarted because of the onset of arthritis which was in each case the disturbing factor. Of the persons replying to the section of the questionnaire concerning the effect on the plans of the family, one man answered the question as follows:
"My family has been affected, particularly my wife; she has had constant worry wondering and planning how to make ends meet and this could, were she not brave enough, affect her health materially. My young daughter has had to forego the many things she should have had, particularly the going around and about with Daddy. This hurts in places which do not show and I wonder how this may affect her in later life. We are forced to live meagerly and so neither I nor my family can get the proper supply of the very necessary nourishing foods."

Another person replied:

"Our family plans had to be changed and postponed. We have a son seven years old and would have liked to have another child about three years later but my arthritic condition would not allow it."

Still another reported his "plans for a new home were postponed," and another stated that she had to employ a housekeeper until her daughter arrived home from work.

"She (my daughter) looks after me at night. Because she has to curtail her social life almost entirely she is losing normal contacts and losing her friends. Men think twice before letting themselves fall for a girl with an invalid mother, particularly an arthritic."

Many more such remarks could be quoted but enough have been given to show that the patient's family becomes closely involved, usually to the detriment of all its members.

Among the 60 cases studied, housing was a fairly serious problem. 42.6 per cent had been forced to move into smaller quarters and obviously resented the fact. Some of these had run into disturbing housing problems such as insufficient space or facilities, no hot water or heat, uncooperative attitudes on the part of landlords or tenants, etc.

32.8 per cent of the sixty one persons had either
been forced to move into the home of a relative or were unable to move from the home of a relative. This in itself was a source of disturbance and annoyance in most cases as can well be imagined.

Two comments noted on the questionnaire give a fairly graphic idea of how housing difficulties can affect the sufferer of rheumatoid arthritis:

"Had to leave a five room fully modern home to live in a shack so that my husband could care for me and the home and manage to pay expenses."

"Had to level all floors of my home and share the house with my daughter and her family."

PERSONAL AND FAMILY PROBLEMS AGGRAVATE THE DISEASE AND PROLONG TREATMENT.

The discouragement caused by these many problems has a definite tendency to aggravate the disease and to prolong the treatment. In replying to the questionnaire in the section "Do you feel that personal and family problems, worries, etc. tend to aggravate the disease?" sixteen persons replied in the affirmative. Only two persons gave "no" for an answer and the remainder did not reply. The following specific problems and worries were mentioned as being particularly discouraging: financial, sickness, housing, marital, inability to cope with personal and family problems, death of spouse, pain and sleeplessness.

Some illustrative replies were:
If some member of the family is sick and I am worrying about them I usually have more pain. If I have financial worries they discourage and upset me too. I could give many examples."

"Definitely, any problems, excitements or worries tend to make the pain worse during the next few days. After an emotional upset, a flare up of some days or even weeks duration has been noticed. Lack of sleep through pain makes nerves ragged and makes me hard to live with."

"Yes, definitely so, for always having been an active independent woman and now having become a nuisance, asking for help to brush my hair, tie shoe laces and other trivial things, my home life is entirely different. I fret for days if I have to ask someone to take me to town for treatment."

Many of these "aggravating" problems which patients must face are graphically illustrated in the following five case studies.

MANY DISCOURAGEMENTS HARRASS THE ELDERLY PATIENT WHO IS LIVING ALONE.

Mrs. P. was worried about her arthritis and the limitations it was imposing upon her, and she was also upset because of several "environmental" problems. Mrs. P.'s problems are typical of those who are in her age group and who are in similar straits financially.

Mrs. P. stated that she worried "an awful lot." She has had a great deal to worry about, being the mother of fourteen children and having a husband who was too shy and backward to "stick up for himself." She had been especially worried and nervous during the past ten years because of the following reasons: she had been living alone in a poorly heated room; she is unable to do all her own
housework; she is subsisting on $40 a month, paying rent, gas, food, laundry, housekeeper, etc.; she fears that the landlady is going to raise the rent to $20 at any time; in the past six months her hands have become further stiffened with arthritis, and she is unable to walk more than a block.

Besides these worry-producing factors, Mrs. F. has suffered greatly from the shock of the sudden death of her husband four years ago and of a son, six years ago. Her husband used to have to do the housework and take care of her and she felt sorry for him because of this. This went on for nine years until he died and since then she has had to hire help which she can ill afford. One of her sons stayed with her for a while after returning from overseas but was ejected by the landlord. This greatly disturbed and worried her. Another son disappears for months at a time without writing - another fact which worries her.

All these things added to the weight of her years have produced an anxious, high-strung woman who finds it impossible to relax even in bed. Without some relief from environmental difficulties and numerous worries her disease is more likely to increase rather than to decrease in spite of medication and physiotherapy.

SOME PATIENTS REACT NEGATIVELY TO LONELINESS AND PARTIAL CRIPPLING.

Mrs. A.'s case is illustrative of several
things: the effect of the death of a spouse; the kind of housing problem which often results from the disease, and the typical frustration and resentment experienced by the patient because of his inability to be self-supporting, independent and useful. Mrs. A. has had some form of arthritis for twenty years. Her involvement became worse recently after the death of her husband upon whom she was dependent. She left her home in the interior because of loneliness, and came to Vancouver to live with her married daughter. The situation is not a happy one as the son-in-law is out of work; there are three lively children, and the house is small. Mrs. A. worries a great deal about these difficulties but does not know what to do about them. "I know I shouldn't worry but how can I help it? If only I could do something to earn a little money so that I would feel more independent it would be a great help to me and it would give me something to think about. There should be some provision for people like me so that we could help ourselves and try to become a little self-supporting."

Mrs. A., like many other patients, would benefit from the supportive help of a case worker. She obviously needs assistance in finding suitable living accommodation and in finding something useful to do to occupy her mind. She also needs the benefit of all known medical treatments as do all the patients attending the outpatients department of Vancouver General Hospital.
LOSS OF EARNING POWER AND INDEPENDENCE BRINGS VARIED PROBLEMS.

Mrs. R.'s case indicates the problems involved in living alone in unsatisfactory rooms on inadequate income. Mrs. R. was living in a room in an elongated two storey hutment. She was paying 43 per cent of her income for rent and fuel, which left her $20.00 for all other expenses for the month. This was a source of both worry and discouragement to her. She had been an independent woman for many years and had earned fair wages as a cook. She is now too crippled to work and has no relatives in this city to help her. To get to her room she must climb two flights of stairs. Also, her social contacts have reduced almost to nil since the disease struck her.

Mrs. R., too, would benefit from the supportive help of a case worker because of the fact that she is lonely and depressed. Her main difficulty, however, is financial; if she had sufficient money she could find more suitable housing, hire a housekeeper full or part time, and enjoy recreations that are at present beyond her economic reach. Patients like Mrs. R. would be greatly helped if they were able to enjoy the resources of arthritic treatment "centres" which would not only provide treatment but social contacts, recreation, employment service, etc. This treatment need is discussed in greater detail in Chapter 5.
UNEMPLOYMENT AND FAMILY PROBLEMS COMPLICATE THE MEDICAL PROBLEM.

Mr. D. first felt arthritic pains nine years ago when he was convalescing after a logging accident in which he lost considerable blood. He had been in a weakened state of health for several weeks after this accident; then he began to be troubled with arthritis, and he subsequently suffered from knee pain almost continuously for two years. By the second year the disease had involved the spine to some extent. Mr. D. was placed in a cast by his physician, and was in this for a year. By this time he had become completely unemployable and had almost given up hope of a cure. His finances had been depleted, and he had been forced to accept help from his relatives to supplement social assistance. During this period Mr. D.'s condition was aggravated by his feelings of resentment, frustration and discouragement about having the disease and losing his independence. After four years of involvement Mr. D. spent four months at the Banff Arthritic Hospital, but failed to get more than temporary relief from pain. He still owes a big medical bill for services received, and this worries him a great deal. To further complicate the situation, Mr. D. was having marital difficulties. Two years ago his wife left him, leaving their six year old daughter in his care. This action was precipitated by a shocking street
accident which took the life of their youngest child. The misfortune greatly discouraged both parents, although they reacted differently. Mrs. D. wanted to separate from her husband and move away from the district; Mr. D.'s condition became worse causing increased pain and discomfort. Mr. D. is at present very stooped although he is only thirty two years of age, and he gives the impression of literally carrying burdens on his shoulders. His spine has become so stiff that it forms a right angle with his hips as he walks.

These varied personal and family problems prevented Mr. D. from getting adequate treatment and neutralized the effect of the treatments which he did have. First, he was unemployed and felt very badly about this because he had been an active man, capable of earning a good living as a logger. Secondly, he was forced to apply for social assistance and learned, to his discouragement, that this income was insufficient to maintain a decent standard of living for his family. Thirdly, he was unhappily married and his wife finally left him. This break up in the family caused a fourth problem, namely that of caring for the child. So far Mr. D. and his mother have taken the responsibility although neither of them is able, physically or financially, to cope with the problem. If Mr. D. is to get well he must get financial security with adequate income during treatment and convalescence. He needs help in planning for the care of the child, and he should have had help with his marital difficulties. Without such assist-
ance Mr. D. will never be able to really relax and rest, nor will he be able to obtain the best treatment and receive the full benefit of this.

MARITAL UNHAPPINESS AND FINANCIAL INSECURITY WEAKEN RECUPERATIVE POWERS

Mrs. T. has experienced great anxiety during the past twelve years for two reasons, first because of financial insecurity, and secondly because of her husband's infidelity. During the depression years Mr. T. earned only $10.00 per week and there were three children to support. Mrs. T. worried constantly about the family income and the consequent effect of this on the health and happiness of her children. Also, the experiences of the early years of Mrs. T.'s married life had undermined her health. She had had a baby every year for eight years and five of these had died at birth - all traumatic events to Mrs. T!

Mr. T. joined the army and was away from home during World War II. When he was discharged he informed Mrs. T. that he had been supporting another woman for two years and that he wanted a divorce. This was another shock and source of worry to Mrs. T. Later, Mr. T. spent all his army gratuities on the new woman, and bought a house in another city for her to live in. To make matters worse, Mrs. T.'s two daughters left home to get married at the ages of sixteen and seventeen respectively, much to Mrs. T.'s
shock and disappointment.

Now Mrs. T. is living with her son in a hotel suite and she is struggling to earn a living so that she can remain independent and help her son get all the education he wants. However, Mrs. T. suffers from the chronic tiredness typical of this disease and she is unable to work more than one or two hours at a time. This worries her, and the worry, in turn, causes more tiredness and a continuous reduction in energy. A physician has ordered Mrs. T. to rest, but she cannot afford to do so. Mrs. T. has been irritated by these social and emotional problems for years and has needed help with them for as many years. At present, she needs financial security, complete bed rest and freedom from worry before she can begin to benefit from medical treatment.

The typical effects of rheumatoid arthritis on the person and his family, as indicated by the data derived from the study of the total group of sixty cases and by consideration of the case histories of five of these persons may be summarized as follows: tiredness with consequent limitation of the scope, number and frequency of the patient's normal activities; severe pain, coupled with loss of weight, strength and energy; some degree of crippling and limitation of movement; frustration, resentment and discouragement because of the above
effects; time lost from employment or other normal activity, creating a serious financial problem; loss of the individual's independence and social status; social life and recreation reduced or eliminated; marital problems created or accentuated; family plans changed or postponed; some difficulties regarding housing and almost invariably discouragement and depression.

These multiple effects imply the need for treatment that goes beyond medication and even the various kinds of therapy. They imply that the patient not only needs to be treated for arthritis but for all of the problems created by arthritis, because it is these problems that aggravate the disease and prevent successful treatment.
CHAPTER V.

TREATMENT AND REHABILITATION.

It has been said of rheumatoid arthritis that probably in no other disease have so many treatments been tried without success. In order to know what treatments are needed to cure rheumatoid arthritis and to see what lacks exist in present treatment programmes in hospitals and clinics, it is helpful to examine some of the treatment measures now in common use. A well known American magazine recently carried a long list of antidotes that doctors have tried out. It included: "high calorie diets, low calorie diets, vitamins A, B, C and D, typhoid vaccine, streptococcus vaccine, artificial fever, blood transfusions, injections of milk and horse serum, aspirin and whisky (for pain), massage, dry heat, mineral baths, metals such as gold, change of climate, psychotherapy, exercise and rest in bed." 1 To this list might be added other less scientific antidotes which many arthritics have tried in hope, or in desperation, such as chalmoonga oil, bee venom, snake venom, toad venom, in-

jections from the blood of a pregnant woman, and many others. In April, 1949, a new chemical, known as Compound E, was announced as a possible cure for arthritis and according to reports has already proven of some value; its beneficial effects, however, are only temporary.

In evaluating the kinds of therapy, one important fact to note about the treatment of rheumatoid arthritis is that, although there is no specific cure for the disease, it can be cured if caught early enough. Three quarters of all cases can be cured or greatly improved if properly diagnosed and treated during the first year of incidence. About fifty to sixty per cent might be cured or materially helped when attended to during the second and third year.\(^1\) Obviously, then, victims of the disease are not diagnosed and treated early enough or are not receiving the full benefit of all known treatments. Studies indicate that it is not so much a lack of diagnosis as a lack of consistent proper treatment, including treatment of all of the socio-emotional aspects, that has resulted in the wide incidence of chronic cases.

The importance of accurate and thorough diagnosis, however, must not be minimized. Dr. A. W. Bagnall, eminent Vancouver physician, states that diagnosis and treatment of a case of arthritis requires not only a

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1. Snyder, Dr. R.G. op.cit. page 1318.
lengthy physical examination and history, but also a proper analysis of the patient's personality. Environmental and familial factors must also be known and assessed. He goes on to say that "without such thorough knowledge, treatment may be superficially appropriate to a reasonably accurate diagnosis, but at the same time basically inadequate."¹ A complete history and accurate diagnosis, then, must be made before treatment can begin.

Treatment measures considered to be of proven value are: rest, physiotherapy, good nutrition, removal of foci of infection, equable climate, occupational therapy and psychotherapy.

Rest for body and mind is considered of primary importance. Rheumatoid arthritis is a systemic disease and all the body's resources need to be mobilized to meet it. This cannot be done if the patient tries to carry on his usual daily life at the same time. Bed rest may be necessary for weeks or months, or only part of every day. With the reduction of all forms of stress, the disease may be temporarily or permanently arrested at any stage short of ankylosis; but if movement of the affected joint is not preserved, a fixed joint may result.

Prevention of "fixed" joints involves the second

great therapeutic measure of proved value – physiotherapy. Rest does not mean complete inactivity. Even in cases of gross swelling, the joints must be passively moved through the fullest range of motion every day, and muscle setting exercises must be given in the acute stages. As the pain subsides, massage and passive movements are followed by a graduated programme of prescribed exercises which aim at the maximum sustained effort and movement with the minimum of strain.

Warm baths and pools are used to induce greater movement without pain, and to relax muscular and psychic tension.

Artificial heat is applied in the form the patient finds most soothing and tolerates best, which may be hot water bottles, electric heating pads or short wave diathermy. Like massage, which is also used, it increases the flow of blood through the joints and stimulates the circulation. It is obvious that a programme such as this requires the assistance of trained physiotherapists, working in cooperation with the doctor, and thus able to adapt the programme to the patient's individual need. Careless handling or excessive exercise can do untold damage.¹

Deep X-ray therapy is a helpful therapeutic measure in some forms of the disease. Surgical orthopedic

¹ Gallagher, Mary P. op. cit. p. 15.
therapy may have to be used in advanced cases, where limbs have become rigid in an abnormally fixed position, or in case of severe crippling. Cabinet-fever therapy is often helpful in cases of arthritis associated with the genito-urinary tract. Some idea of the time and expense involved in one of the therapeutic measures may be gained from the description by Dr. Dean Robinson of the Banff Hospital for Rheumatism of the measures used there in some cases of crippling: "the breaking of adhesions slowly and gently under anaesthesia followed by incasing of the limb in a cast which is removed every forty eight hours and re-applied after treatment by the masseur."  

There is no special dietetic therapy in arthritis. The patient requires a normal diet of nourishing food, attractively served, with perhaps some extra iron if he is anemic, or some extra calcium during convalescence if his bone lime is depleted.

Occupational therapy, which helps to keep up the patient's morale, exercise his muscles and even directly help to retrain him for a job to fit his reduced capabilities is another important therapeutic measure.

Once the disease is established, no particular climate seems to benefit the patient. However, most arthritics believe they are affected by changes in the weather, and it is true that they should avoid exposure to extremes of cold, heat and dampness. For this reason they are some-

1. Gallagher, Mary P. *op. cit.* p. 16.
times advised to escape the vigorous northern winter if they can. Psychologically, of course, a change in climate may do a great deal of good.

There is still no specific drug therapy for the cure of arthritis. Optimistic reports have been made concerning the uses of gold, but even this is still of undetermined value.

The following treatments were listed as being of some help by patients replying to the questionnaire.

**TABLE 9. TREATMENTS REPORTED AS HELPFUL** (based on 30 cases)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>number of times helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat</td>
<td>5</td>
</tr>
<tr>
<td>Massaging</td>
<td>4</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>3</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>2</td>
</tr>
<tr>
<td>Rest</td>
<td>4</td>
</tr>
<tr>
<td>Gold</td>
<td>8</td>
</tr>
<tr>
<td>Fever therapy</td>
<td>1</td>
</tr>
<tr>
<td>Mineral baths</td>
<td>2</td>
</tr>
<tr>
<td>Deep X-ray</td>
<td>3</td>
</tr>
<tr>
<td>Platinum salt</td>
<td>1</td>
</tr>
<tr>
<td>Exercises</td>
<td>3</td>
</tr>
<tr>
<td>Occupational therapy</td>
<td>1</td>
</tr>
<tr>
<td>Nothing helpful</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

Source: Questionnaire replies (some mentioned more than one treatment.)
Although several of the patients mentioned more than one therapy as being somewhat helpful, none of them seemed to feel certain as to the extent of the benefit received; the general impression being that all the therapies gave only temporary relief. It is evident that no one of the above therapies was considered to be of outstanding value, the two most popular being gold, which was mentioned by only eight of the patients (27 per cent), and heat which was mentioned only five times (17 per cent.)

One other important therapy not yet discussed is psychotherapy. As a therapeutic measure, psychotherapy is not a separate entity or practice but should permeate all other aspects of treatment. Perhaps it is reasonable to say that those concerned with treatment, particularly the physician, are giving psychotherapeutic help if they merely show a real interest in the patient, and convey to him a feeling of optimism.

Dr. Phelps has stressed the importance of optimism as opposed to discouragement and depression which usually grips the patient. He states, "The greatest help the physician can ask is the cooperation of the patient and his continued optimism. If the mind gives way to gloom, apprehension and panic, the body will surely suffer." 1

Some interesting conclusions are given in a recent professional journal regarding psychotherapy. At least one doctor has concluded that perhaps "the benefits

1. Phelps, Dr. A. E. op. cit. p. 135.
from most forms of current treatments result from psy-
chic effects, rather than physical effects." Another
doctor states that some therapies such as vaccines are
useful "only for their psychotherapeutic purposes." Still
another reported a study of a series of cases in which
significant improvement resulted in 40 per cent of pa-
tients given injections of sterile saline. The Review
stressed the importance of giving the patient "a new
lease on life," so to speak, by encouraging hope and
optimism and stimulating new interests for the patient.
It points out that the clinic course of the disease fluc-
tuates with the mental state of the patient, and that one
doctor had repeatedly noted the ameliorating influence of
a new interest added to the cramping life situation, thus
"giving the patient something to live for." 1

LACKS IN PRESENT TREATMENT PROGRAMMES

Assuming that a thorough knowledge of the per-
sonal, familial and environmental factors is necessary
for adequate treatment, this study indicates clearly that
the first gap is in meeting this diagnostic need. Physi-
cians are not getting this important data, nor are they
assigning the task to any other professional group. In
none of the cases studied, had the doctor given any in-
dication in the case record that the patient's personal-
ity and social relationships had been assessed or even
considered.

1. Annals of Internal Medicine. op. cit. January,
1948. pages 125 - 141.
From the social worker's point of view, this is one of the main gaps in the treatment programme - failure to get this complete "history" in diagnosis which is so necessary. It is this fact of seeing "the whole person" that is so vital and yet so often neglected in treatment. It is virtually impossible for a patient to benefit from any form of treatment when his ailment is being aggravated by his negative attitudes, by his emotional and environmental stresses and strains, all of which have been discussed in considerable detail in the previous chapter. Can a person, for example, carry out one of the prime requisites of treatment - rest - when he is troubled by an average of more than three major problems at onset, coupled with the numerous other problems created by the disease itself, such as crippling in two or more limbs, 1.92 dependency problems created and an average of 2.33 financial and vocational problems per person?

Such social and emotional problems should become known to the social service department when the patient is first admitted to the hospital. In this way the medical social worker could throw valuable light on the patient's needs, and by meeting these needs wherever possible, facilitate the healing process. At present there are too few medical social workers in our hospitals as well as too few physicians interested in the treatment
of arthritic patients.

Related to this lack is the great need for education of the general practitioner, medical social worker and those in the allied professions, in sound methods of diagnosis and treatment. Many physicians have no opportunity at present to study the newer methods because of the fact that there are too few clinics specializing in arthritis. The opportunity to study and treat it is rarely found even in the best teaching hospitals; in the United States, for example, at only six out of seventy medical colleges is specialized study of rheumatic diseases possible, and in Canada the opportunity to study and treat arthritis is not found even in the large university hospitals.

All too often the average physician has been rather bewildered by the problems he is confronted with in the arthritic patient. He has had little or no experience with the treatment of these patients under ideal conditions and is therefore pessimistic because his pills and injections (which have been the only remedies readily available) are rather ineffective when used alone. Dr. A. W. Bagnall thinks that six to eight months post-graduate course in rheumatology for all doctors should enable them to provide adequate diagnostic and therapeutic service at local centres and hospitals. Similarly the edu-

1. Bagnall, Dr. A. W. op. cit. page 4.
cational opportunities for social workers, physiotherapists, etc. need to be greatly extended.

Since bed rest is one of the most important needs in most cases, it follows that if adequate treatment is to be obtained there must be hospital beds available. In the United States prior to 1942 there were less than 200 beds specifically available for arthritic patients, while there were 100,000 free beds for tuberculosis patients. There was no hospital exclusively for arthritics in the United States until 1942. Today most large hospitals have clinics with some diagnostic and treatment facilities but few give any free service.

In the United States the patient who cannot afford nursing home care is for the most part dependent on the facilities of a few private hospitals. It is not surprising, then, that the majority of cases of chronic arthritis receive no medical care. Most sufferers, except veterans, go without the benefits of adequate treatment. In 1931, Bigelow and Lombard, in their survey of Massachusetts, found that 70 per cent of rheumatic sufferers were getting no medical care at all, or were treating themselves!

In Canada, the 1947 National Survey indicated that 25 per cent of the arthritic sufferers had no treatment whatsoever. Canada has only one special hospital for the care of the arthritic which is located at Banff, Alber-
ta, and is under the direction of Dr. Dean Robinson. Unfortunately this hospital is a private one and is very small, accommodating only seventy five patients who can afford to pay between $150.00 and $250.00 per month. The only other people in Canada who get adequate treatment are the veterans for whom five hospitals are available. There are only a few private nursing homes which might take arthritics but these would hardly provide the specialized treatments necessary.

In British Columbia it is estimated that there are 45,000 known cases of arthritis, yet they are allocated only a small proportion of the available hospital beds, and are not usually kept in the general hospitals when they become chronic. In Vancouver General Hospital there were only 103 cases of arthritis admitted during 1946 and of these, a number had only a secondary diagnosis of arthritis. Some chronics are cared for in the Glen and Grandview Hospitals, six in the former and two in the latter. One of the patients at the Glen Hospital is an ex-sailor who spent over $4,000 on nursing home care before he became destitute. All are completely bedridden. At Marpole Infirmary 9 per cent of the total of 121 patients are arthritics. 1

These figures obviously do not cover the whole picture. Thousands of disabled arthritics are forced in-

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1. There are no statistics on arthritis in St. Paul's Hospital.
to being cared for by their families because of lack of hospital accommodation. Obviously this tremendous inad-

equacy is one of the major gaps connected with the prob-

lem of arthritis and one which indicates that provision of adequate hospitalization for the arthritic must be undertaken at as early a date as is possible.

Many patients benefit in a general way from stays at a spa where baths, rest and special treatment may pro-
duce much improvement. However, from a list of sanatoria and spas with facilities for treating arthritis it is again difficult to find places where a person of even moderate income could afford any prolonged treatment. Comroe lists the outstanding spas and sanatoria of the United States and shows that the prices at these institutions vary considerably both for accommodation and treatment. Board and room varies from seven dollars to one hundred nineteen dollars per week. Baths and medical fees are extra. Spa treatment to be most effective should be sup-

plemented by careful supervision of rest and dietand an invidually planned programme of massage and exercise over a period of at least several months. This sort of treatment is, of course, denied to most because of ex-
pense and even those who begin such treatment are often forced to discontinue it before the disease is arrested.

Apart from this lack of accommodation in hospitals, sanatoria, etc., is the very real problem of the inability of the patient to afford medical treatment. Since this study was begun, free hospitalization has been inaugurated in B. C. This was a very necessary step but, of course, is relatively useless to the chronic patients without the provision of hospital beds. The British Columbia Hospitalization Scheme makes no provision for the problem of payment of medical fees and treatment expenses. It has been indicated previously that the average expense of treatment in 1948 was $14.11 per day including cost of hospitalization at $6.00 per day. Removal of the latter charge would leave $8.11 per day as the cost of treatment of "in-patients." It can be seen from the figures already quoted regarding time lost from work by patients in this study and in national surveys that the vast majority of patients would still not be able to finance any adequate treatment.

It follows that a system of free medical services must be introduced comparable to the system now in operation in Great Britain. Besides provision for free hospitalization and free medical services, such things as crutches, braces, fracture boards and all other necessary appliances would need to be provided.

The incidence figures for arthritis already mentioned, together with the typical social problems
which the disease has been shown to create can leave no
doubt that arthritis is a problem of national significance
and one which must be dealt with on a broad basis as a pub-
lic health and welfare problem. Any nation-wide attack on
the disease must include, among other things, an attack on
poverty and financial insecurity because inadequate diet,
bad housing and chronic worry about income are factors
contributing to the incidence of rheumatic infections and
have a bearing on the general health level and resistance
of the people.

Gladys Strum, M.P., stressed this point when
speaking on the subject of arthritis in the Dominion Legis-
lature recently. The writer is in agreement with Mrs.
Strum when she urges that the Dominion Government make an
all-out attack on arthritis, as has been done in tubercu-
losis, not limiting the number to be treated. It is rea-
sonable to believe also that "we cannot think in terms of
cost, (because) there will be many cases of preventive
treatment that will result eventually in a great saving
because we will prevent this crippling process which re-
moves so many from the field of actual production and
makes them a charge on the community, on the municipality,
or on the province." ¹

As has already been indicated, psychotherapy is
an invaluable adjunct to any of the treatment measures that

¹ Strum, Gladys. op. cit. page 4.
are considered beneficial to the arthritic patient. Adequate psychotherapy implies the availability of consultant psychiatric help and a trained staff of medical social workers and this is one of the significant treatment gaps at present. However, it is not always necessary to have psychiatric service in order to do much better work in treating the social aspects of the patient's ailment. Well trained medical social workers can do much of this work as well as act as consultants to doctors and nurses in these "psycho-social" matters. There are instances, of course, where psychiatric consultation would be very desirable and perhaps indispensable; for example, in cases in which functional symptoms were superimposed on those from arthritis. (In these cases, pain may be disproportionate to the activity and extent of the disease.) Some of the psychotherapeutic needs which are not being met at present are in reference to prevention of such attitudes as those of dependency, helplessness, frustration and self pity.

Any good treatment programme must also include trained physiotherapists. In B. C. however, there is a lack of both qualified physiotherapists and of equipment for treatment. In the Vancouver General Hospital treatment is handicapped by lack of facilities. Present facilities meet only a small fraction of the need. Also the patient has to be ambulant in order to attend the clinic and has to be eligible under the low outpatient department income limits, $90.00 per month for one person plus an additional $20.00 for each dependent.
This gap, however, has recently begun to be filled in British Columbia due to the activities of the Canadian Arthritis and Rheumatism Society which is now sponsoring training programmes and paying the salaries of several travelling physiotherapists. However, the programme designed to cover the whole province through the institution of "pilot" diagnostic and treatment centres in each district is barely under way and it is probable that many years will pass before sufficient personnel and facilities will have been mobilized to deal with the problem on a broad comprehensive basis as is tuberculosis control, for example. B. C. is the first province to undertake such a step in connection with arthritis, but as the Provincial Health Minister, Hon. G. S. Pearson has stated, "even this small beginning will serve as a bright hope to many."  

REHABILITATION.

Because arthritis is a crippling disease, the first kind of rehabilitation is obviously that of physical rehabilitation. Dr. Bagnall has pointed out that the basic programme for treatment of arthritis consists of "appropriate rest combined with physical therapy to prevent deformity, maintain excursion and build up muscle power."  This physical therapy can be considered as the

2. Bagnall, Dr. A. W. op. cit. page 3.
first step toward rehabilitation because it can be a great aid not only in preventing deformity but in helping to "loosen up" stiffened joints and tired muscles. This form of therapy has not been available to the average physician because of the lack of physiotherapists trained in the rheumatic diseases. Also it has been lacking for the patient because of the cost which most patients are not able to meet.  

A programme of occupational therapy may be advantageously combined with the physical therapy programme. Once the acute infection has subsided and the patient's general physical condition is improved, occupational therapy is important from a physical and a mental standpoint. Carefully selected occupations help to train muscles and increase or preserve joint motion, and may be a means of training the patient for a type of work more suited to his disability. Equally important, the patient is able to occupy his time usefully and cultivate new interests. Recovery is a slow process, a matter of months or perhaps several years, and the occupational therapist plays a vital part in maintaining the patient's morale.  

After the patient has had the full benefit of the necessary physical and occupational therapy he should show signs of improvement which would permit him to do some work 

1. Bagnall, Dr. A.W. ibid. page 4.  
with a view to actual vocational rehabilitation.

The twenty nine "breadwinners" in this study who had lost their jobs as a result of arthritis needed the benefits of such gradual rehabilitation. None of them under present treatment facilities was able to return to his (or her) job. In fact none of them has returned to any sort of employment except on a temporary basis.

Because of the magnitude of the vocational problem, then, which also involves finances, it seems necessary that the provincial government initiate some programme to meet this need. A special placement programme is essential before patients can be successfully rehabilitated. In this connection, Dr. Bagnall states that many partially disabled persons are now unemployed because concerted efforts to find them suitable employment do not lie in the domain of any existing agency. By reason of this fact the partially disabled persons in effect become completely disabled and, very soon, they and their families become "wards" of the state. He further suggests that job rehabilitation and job finding for the partially disabled is not alone a problem of the Rheumatic Diseases and therefore an agency be set up for these purposes. Such an agency would consist of the various organizations vitally interested, namely, Government, the Workmen's Compensation Board, the Canadian National Institute for the Blind, T. B. Control, British Columbia
The Swedish experience has demonstrated that a treatment programme which includes sound rehabilitation methods can be successful. In Sweden the care of the chronic rheumatic patient has been developed to an advanced stage. Figures for that country indicate that three years after discharge from hospitals sixty per cent of the patients are working at their former occupations and a further eighteen per cent have been rehabilitated to such an extent that they require no further social aid.

Another possibility in the vocational rehabilitation of arthritic patients who are not able to leave home is employment at piece work projects in their own homes. This would be of immense value to many, especially perhaps to women. This type of work is needed for several reasons, namely, to relieve the financial problem, to maintain interest and boost morale and to provide some exercise to keep muscles in shape.

Vocational guidance is another important aspect in rehabilitation. A particular problem is posed in the case of children who suffer from rheumatoid arthritis or some related disease such as rheumatic fever which may later develop into arthritis. This phase of the pro-

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1. Bagnall, Dr. A. W. op. cit. page 6.
2. Snyder, Dr. R. G. op. cit. page 1319.
gramme would probably best be handled through the school social worker or school counsellor in cooperation with teachers, nurses and parents. Vocational guidance for adults also would be an important adjunct to any complete programme for the rehabilitation of arthritics.

It is again necessary to stress here that if the patient is to become properly rehabilitated the provision of income for the family is necessary to enable him to take the necessary months or even years off from work that would be involved in adequate diagnosis, treatment, care and rehabilitation. Present social allowances are insufficient to supply even the barest necessities such as food, clothing, recreation, life insurance, payment of mortgages, education costs, etc. With such problems facing him, the worker will not stop for the rest and treatment so badly needed.

Since rheumatoid arthritis affects so many more women than men and in the child bearing and child rearing age, it seems necessary to provide some sort of homemaker services to help look after the home and family at least on a part time basis. It has been shown in this study that all of the patients needed a service of this kind either because of the necessity of looking after children or simply because the woman of the house was not able to carry on the work.

Rehabilitation from the social and recreational point of view must not be neglected. The patient must not be allowed to become withdrawn and introspective as arth-
Arthritic patients are often prone to do. The arthritic patient needs interesting things to do and to think about and also needs company within the limits of the need for rest. This implies provision of such facilities as recreational rooms, movies, hobbies (perhaps by occupational therapists), reading material, etc. In order that the arthritic will not feel that he has entirely withdrawn from normal living he needs this social and recreational contact with the outside world.

Treatment and rehabilitation measures, then, are closely related and can in some instances be carried out simultaneously. For the most part, however, rehabilitation measures follow successful treatment measures. From the point of view of this study the important need in both programmes is to focus plans on the patient as a person, so that all steps are taken with consideration for the patient's unique needs. These needs can only be ascertained by the thorough understanding of the patient, his personality and his social relationships. The "pressures" the patient has had to bear because of his personality problems and because of environmental difficulties must be taken into consideration if treatment and rehabilitation measures are to be successful. However, it has been made clear that the problem of rheumatoid arthritis cannot be dealt with by considering individual problems alone, because it is a health and welfare problem which requires local and national planning, financing and research.
The federal and provincial governments have together provided a grant to the newly created Canadian Arthritis and Rheumatism Society, which is a voluntary organization, to institute a programme of education, research and control. Unfortunately this society was not able to use all the funds it received this year; the reason for this being that there are no arthritic centres where the funds can be applied. It has been pointed out that the reason T.B. control has become so adequate is that there were treatment centres available where the research grants could be used; that while T.B. patients were being treated and sources of infection wiped out, valuable research information was being accumulated which has been of inestimable value to the world. 1 The problem of arthritis can and should be handled in a similar manner.

Funds for research alone will not be of the greatest value until such arthritic "centres" have been established to bring together doctors with specialized training and the victims of arthritis who are so badly in need of proper treatment. The Federal Government general health grant to the provinces is all to the good. Nevertheless it seems necessary that a large proportion of the grant be especially given to the institution of a complete arthritis control programme. The Dominion Government is still, however, not providing nearly enough money

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1. Strum, Gladys. op. cit. page 5.
to the provinces for these purposes because health and welfare are still considered to be largely the concern of provincial governments. Hence if a good beginning is ever to be made in providing arthritic centres with sufficient beds, facilities, laboratories, etc., both the provincial and federal governments will have to take action. To date this has not been done, although the problem has been brought to the attention of the members of parliament.

Research in arthritis, then, is still scant in comparison to that done in connection with other diseases chiefly because of this lack of facilities, personnel and funds. From the point of view of this study, there is a great need for research in the social aspects of the disease. It is felt that when the relationship between the social and personal problems of the patient and his disease is fully understood, much more comprehensive and basic measures of control will be undertaken.
CHAPTER VI.

THE ROLE OF MEDICAL SOCIAL WORK.

It has been shown in this study that there are two main groups of problems which each rheumatoid arthritic patient faces: those which he had before onset and those which have accrued as a result of the disease. It is these problems which present a challenge to the medical social caseworker. The worker obviously has a tremendous job on his hands if he attempts to deal with all the social and emotional problems of the patient which need attention. He must decide on an individual basis which problem is most in need of attention. However, this is the task for which he is trained and the sooner he can prove his usefulness to both patient and physician the sooner will his profession be given its true status in the medical setting.

All too often the social worker has been busily engaged in doing a variety of tasks which might well be the work of a clerical person. The position of the worker in most hospitals in the past, and in many at present, is aptly summarized by Dr. E. P. Boas as follows: "Social workers in hospitals are too often engaged in admitting patients, in determining how much they should pay for hospital care, acting as clinic clerks for administrators, etc.
They give relief to families, one of whose members is in hospital, and they shuttle patients from hospitals to convalescent homes or to custodial institutions for the chronically sick." He goes on to emphasize that their real function is to work out, in cooperation with the physician, a well conceived plan for the treatment and rehabilitation of the patient, employing their knowledge of the social, economic and emotional factors that condition the disease.

Several hospital case histories from this study have been selected to illustrate the role of social work in the medical setting. The first case is an excellent example of what can happen to a patient when the social service department of the hospital is not active on the case from the first contact with the patient at the hospital, and when the social service department, having "entered" the case does not perform its "real function", working closely with the physicians and all of the agencies concerned with the treatment and rehabilitation process. The case of Mr. E. also illustrates the great (and largely unnecessary) expense that accrues to the hospital in long term recurring cases as well as the great loss of earning power to the patient.

LONG TERM, RECURRING CASES CONSTITUTE A SPECIAL PROBLEM.

Mr. E. was admitted to hospital in November, 1944.

after having consulted a doctor because of the swelling of his joints. Medication was given; the swelling lessened after five days and the patient was discharged. He was readmitted in April, 1945, complaining of a pain in the left wrist, later of pain in the ankles and in both feet. He had lost twenty pounds. There was some limitation of movement in the left ankle and knee and he suffered pain and loss of strength in all joints. He received gold therapy; the pain was reduced but he felt stiff in the joints. He was discharged to his home on crutches in May, 1945. In July, 1945, he was admitted to a nursing home because he was unable to get around at home and needed bed rest and nursing care. His condition had retrogressed to such an extent that he required an ambulance to get to the nursing home. He was placed in a ward with older men, had no occupational therapy or other activity to occupy his mind and was not happy there. Gold treatment was continued but evidently did not help. He was discharged from this nursing home in April, 1946. In August, 1946, the City Social Service Department reported to the hospital that the patient was too much responsibility for his mother. Nursing home placement was again arranged. He was in the nursing home until May, 1947, when he was again discharged to his home. Again the situation was impossible and the patient was admitted to a hospital annex in which he was the
only young man among a number of older chronic patients. This experience was upsetting to him. Later he was readmitted to the nursing home. During these years the patient's knees became flexed. On the advice of the orthopedic staff of the hospital, casts were applied to his knees to straighten them.

Up to this time Mr. E. had been admitted to hospital five times, involving approximately 1000 days in hospital. He is now classed as chronic, with little hope for other than institutional care.

Several pertinent questions regarding the social and emotional aspects of Mr. E.'s disease, which should have been considered in treatment, might be asked at this point. To what extent did adverse environmental factors and the patient's reaction to them contribute to his illness, and once having got the disease to what extent did these factors prevent his achieving a re-establishment of equilibrium, internally and externally? More particularly, what could the hospital social service departments have done to help?

Not until the month in which the patient was discharged from the hospital for the fifth time did the case come to the attention of a social worker (and this was not in the course of regular hospital procedure). At that time it was learned that during the past twenty years the patient had lived through a series of trying experi-
ences, some traumatic, both in his personal life and in his family, almost any one of which could have had a serious effect on his physiological processes, his emotions and his health and "wholeness" generally. Besides these disturbing experiences he suffered all the emotional stress that accompanies any chronic disease as devastating as arthritis.

In the first place, his family history spelled "insecurity." There were illnesses and deaths in the family, poor housing and unemployment. In the patient's own words, "there was just one disappointment after another." The patient's father, a streetcar motorman, died nineteen years ago leaving six children, of which Mr. E. was the second youngest. At that time he was twenty one years of age. Some of the more discouraging and traumatic experiences from that point were: (1) loss of the family home through inability to meet the payments; (2) application for social assistance in 1933; (3) patient's sister became ill and was nursed at home by the mother; (4) patient unemployed and on relief at this time; (5) a brother died of spinal meningitis; (6) an illegitimate child was born to patient's sister and the patient's mother cared for the child; (7) patient's sister died of tuberculosis; (8) patient's eldest brother was killed overseas; (9) another brother returned from overseas and was admitted
to the hospital with pleurisy; (10) another brother returned from overseas, a heavy drinker, and was no help to the family; (11) the family had to move many times from one set of "rooms" to another; (12) patient's mother was not well enough to look after him in the home, and (13) patient has not worked since 1944.

Since no complete social history was taken at any of the admissions to hospital, obviously the treatment programme was not aimed at meeting all the needs of the patient that were related to his illness. It does not require much imagination to see that some, if not all, of the above facts in the patient's history contributed to weakening his health and strength, so that his body was not able to withstand the encroachment of infection. More important, perhaps, was the fact that he was unable to face his discouraging life and consequently his emotions were not sufficiently positive to recharge the "batteries" of his dynamic equilibrium. Inner and outer stress were too much for him. The patient, it might be noted, was not an arthritic "type;" he was not thin, or asthenic or neurasthenic. On the contrary he was (before 1944) a strong, husky male, capable of doing heavy manual labour. Even now he is broad chested and gives the appearance of strength.

Where, then, could and should social work enter
the picture to help rehabilitate Mr. E.? It would be the responsibility of the hospital social service department to have obtained data concerning the family background in this case somewhere along the line, preferably at the first admission. Assuming that the case had been referred early (say sometime in 1944 or 1945) the obvious possibility would be to try to relieve some of the environmental pressures, even one of them. For example, help could have been given in finding housing, finding employment, budgeting, arranging homemaker services or V.O.N. services for the mother when she had the responsibility of caring for one or more sick offspring besides the child in the home. Perhaps even more important would be the psychotherapeutic help. Apart from the "supportive" or "environmental" therapy involved in the help listed above, the patient would undoubtedly have appreciated the friendly interest of a worker who could listen to his troubles, allow him to discharge the resentment and hostility which he would surely have (although it would possibly be well repressed) and help him to adjust to the various shocks and discouragements.

Lacking a social history early in the case, the next best thing would have been to call a case conference at some point. This could have been initiated by the City Social Service Department who knew the family because of their receiving social assistance. The family
was also known to the Children's Aid Society because of the illegitimate child and to the Family Welfare Bureau because of a request for visiting homemaker services. Such social agencies whose clients or their families are also hospital patients should be responsible for passing on to the hospital information about the family that has a bearing on the medical problem.

On the other hand, the medical social worker's understanding of the meaning of illness and of the hospital experience to the patient may enable him to aid such community agencies and their clinics toward a more effective use of medical facilities. By presenting the medical plan with its social implications carefully to the agencies, the worker aids them to do better work for the patients in their own area at the same time that they are furthering the medical care.

When social problems are first discovered within the medical institution the medical social worker can take the initiative in mobilizing community resources. Intelligently selection and use of these resources in relation to the patient's needs will be essential for the success of both the medical plan and the social casework services. This implies an even broader responsibility for the medical social worker - that of studying the gaps in the community programme in terms of adequate treatment and of assuming leadership in stimulating new resources as
needed. Such effort is usually most effectively carried out through organized groups which have the community point of view; preferably professional councils of health in social welfare, perhaps supplemented by citizen groups which have indicated interest and concern in the social programme.

Medical social workers whose chief concern is helping patients who enter and leave hospitals with handicaps, such as those created by rheumatoid arthritis, should be particularly active in connection with these other social agencies. They need to consult with nurses, teachers, agency workers, vocational rehabilitation workers, parents and others on behalf of the patient. Caroline Elledge gives a very practical account of some of the problems and responsibilities of social workers in dealing with handicapped groups. She points out the importance of such factors as the age at which the patient becomes handicapped, the severity of the handicap and the attitude of both patient and relatives toward the patient and his handicap in determining how casework can be best adapted in the various agencies to meet the needs of all concerned.¹

The social worker should at all costs avoid the

indiscriminate placing of patients in nursing homes or chronic hospital wards as was done in the case of Mr. E. If there was no other way of helping the family to care for Mr. E. then the community organization job outlined above is indicated: an attempt by the social service department and social work organizations to work together and to stimulate interest in the mobilization of community (provincial or national) resources to meet the needs of this type of chronic patient.

THE PATIENT'S PERSONALITY PROBLEMS MUST BE CONSIDERED IN TREATMENT.

1 Miss I. had suffered some form of rheumatoid pain with remissions and exacerbations extending over a period of sixteen years. In spite of this handicap she managed to carry on a reasonably normal life and to graduate from university. Two years ago her minor joint involvement became more serious and she has been confined to bed more or less since then. Not until late in 1948 did the hospital get any kind of social history on Miss I. By this time she had completely accepted the role of the chronic patient. She had been in hospital continuously for nine months and had no plans for the future beyond getting a change of environment some time.

Miss I. stated that she had thought a great deal

1. See page 30 and Appendix C.
about her ailment, how it started and why it did not improve. She admitted that exacerbations occurred during those times when she was most discouraged and resentful because of her condition. She also felt that this was true in past years; there was a definite connection between her negative emotional states and the attacks of joint pain accompanied by general tiredness.

The social worker is justified in assuming, in line with the "biodynamic point of view" expressed by Dr. Margolis and others, that if he can help the patient express her negative emotions of anger, resentment, frustration and guilt, and replace these emotions with positive ones based on the hope of an improvement in health and on the stimulation of taking some step, however small, toward rehabilitation, then some progress is being made.

In this case, the worker felt that a positive step would be to prepare Miss I. for placement in a suitable private boarding home to offset "hospitalitis." This step was carried out after several interviews over a period of about six weeks. During these weeks, the worker aimed to establish a good working relationship with Miss I., and to encourage in her a hopeful, expectant attitude. The boarding home with appropriate nursing care was to be the intermediate step between the hospital and the normal home environment. The next step was to be part time employment.
In trying to decide the best was to help patients, the social worker must continually ask himself, "What does this illness mean to this patient, and why?" This may not become apparent until the worker knows the patient well enough to make an accurate estimate of the patient's personality and character. How are the patient's pre-illness needs related to his present needs? How adequately did this person function as a member of society? Does she welcome her illness as an escape from an environment to which she could not adjust? Does the illness annoy and frustrate her? Did she have big ambitions? Was she competing with someone or something? What is the patient's capacity to accept the reality of her situation, to adapt herself to it and to make reasonable plans for the future? These and many other questions may have to be answered before the social worker is prepared to give the patient the therapeutic help she needs.

In trying to discover what the disease meant to Miss I. the worker concluded that, among other things, she felt guilty because of the fact that she would not be able to help her parents financially in their old age and that she would not be able to pay back to her parents the money they had spent on her education. The worker, in trying to alleviate this guilt, assured her that it was not her fault that she had become ill and reminded her that her intentions were good; some day she might be able to earn a
living again.

Discussion that allows the patient to vent his hostility reduces emotional tension that might otherwise be going into diseased joints. When Miss I. was placed in a boarding home, she reacted almost immediately to her new environment by finding fault with almost everything, including the proprietor of the boarding home. This hostility was to be expected after having been so long in the atmosphere of the hospital where all her needs were met and no demands were made upon her. The worker anticipated Miss I.'s hostility and arranged to interview her on her first return to physiotherapy, to allow her to "talk it out." She did have some legitimate cause for complaint and the worker said he could understand her disappointment and resentment at what appeared to her to be a move for the worse. However, the worker took the necessary action of looking into the complaints and of making some adjustments. On the second trip to the hospital Miss I. had quite a different attitude and was adjusting much better to the situation.

There are also the problems of family adjustments which must be considered by the social worker. In this case the family lived quite a distance away but the patient still needed help in connection with her family relationships. The patient's family reacted negatively to the patient and her illness. They were unable to face the situation real-
istically because of the pressure of other burdens. The family needed to be convinced of the necessity of prolonged hospitalization, as is often the case. Deprivation of essential income may engender feelings of deep insecurity and anxiety which the family may translate into uncooperativeness or open hostility. The skilled social worker may be able to prevent this and to prevent the family from wrecking the plans for the patient by interpreting the nature of the disease to them and by pointing out the significance of proper care.

VISITS TO THE PATIENT'S HOME CAN PROVIDE GREATER INSIGHT INTO TREATMENT NEEDS.

Jean: Jean was described as a small, dark, attractive, talented and "emotional" girl of fourteen years. She had been referred to as "always a high strung and intense girl." She was a poor eater, a light sleeper and she dreamed frequently. She had always been a very active child until the spring of 1948 when she became lazy and nervous. She developed joint pain, rashes, fever and nodules under her skin. She was admitted to hospital in the summer of 1948. After five weeks she was discharged, feeling better but not cured. She went back to high school but found she could not keep up to the class; this resulted in increased sleeplessness and further loss of appetite.
The social worker who visited Jean's home learned the following facts about the family. Jean was the younger by six years of two daughters. She was an unwanted child and had never really been accepted by her mother. Jean had been encouraged by her mother's attitude to feel that she was just a "carbon copy" of her sister. She felt that in order to obtain her mother's love and affection she had to be just like her sister and do everything the sister did. Hence, strong rivalry had motivated Jean all her life. She also hated her sister. However, the mother never allowed the daughters to express any hostility in any way. Her ambition was to make "little ladies" of the girls.

In working with the family, the aim of the social worker was to establish a good relationship with the mother so that eventually the real problem could be discussed with her. This took several interviews spaced over a period of three months, during which time it was learned that the mother had herself been raised very strictly by a maiden aunt and, although she had been unhappy as a child, she used the same training methods on her own daughters. There was also a marital problem which was discussed in some detail. Finally, due to the worker's continued contact and interest, the mother was able to see why Jean had always been so "emotional" and intense even as an infant.
Gradually the mother was able to see that Jean needed to be accepted and appreciated in her own right and not because she was like the older sister.

In handling this case, the worker was able to help the mother also in that some of her own inner conflicts were somewhat clarified and alleviated. She had been condemning her husband for the undesirable aspects of the family situation for which she also was responsible. She had been feeling discouraged, too, because the family had been forced to move from a good residential district to a poor one because of her husband's failure to do well in business. As a result of this work in the home, both Jean and her mother have been feeling more relaxed and happy in recent weeks.

Another aspect of this case also points up the worker's role in treatment. When Jean was discharged from the hospital, the family had not been told what the diagnosis was and they had received no instructions as to what the treatment plan was to be. The social worker was able to clarify what the diagnosis was, what the physician had recommended and why. Thus he was able to gain the full cooperation of the family. Even the father and sister, who had formerly been described as "insensitive to the feelings of others and not openly affectionate" began to take a new and warm interest in Jean. Jean has made rapid pro-
progress since the change in family attitude, particularly since that on the part of the mother has been brought about.

This case shows that indirect casework can be just as effective, or more so, in some cases than direct work with the patient. It also indicates that it is important that the worker be able to actually visit the home to assess the family situation in terms of the patient's needs. New aspects of the case are often revealed in this way which may provide the worker with new clues as to how to most adequately help the patient.

This case also points out the possible need for social casework services in the school setting which has already been mentioned. Jean's problems might have been detected and help might have been given much earlier by a school social worker had there been one in the school. However, this service is almost completely absent from the Canadian educational scene. Most schools are, however, fairly adequately covered by public health nurses who could be active in referring cases to such agencies as the Health Centre for Children or the Child Guidance Clinic in Vancouver, where help could be given by doctors, nurses, social workers and psychologists. All these services are, of course, needed for other health and welfare problems and need to be greatly expanded as a means of preventing social and health problems which might later arise.
THE SENSITIVE PATIENT BENEFITS FROM SUPPORTIVE CASEWORK SERVICES.

Mr. G. has been a victim of arthritis and consequent unemployment for a period of fourteen years. In spite of this, his hands have not been involved. This fact seemed to the worker to be a clue to a means of rehabilitation. The worker thought that by getting Mr. G. some suitable light handwork which he could do for an hour or two each day might be the first step to eventual financial independence.

The problem of rehabilitating Mr. G., however, was not a simple one. In the first place, he said that he was not good at handwork and doubted that he could ever do good work of this kind. He recalled his school manual training which had been a distasteful, unhappy experience for him and had contributed to what he described as "the horrible feeling that I was not suited for any kind of work."

The suggestion was then made by the worker that perhaps Mr. G. would benefit from some correspondence course, preferably one which would introduce him to some vocation. Questioned about this, Mr. G. said that the only subjects which would interest him were literature and

1. See also page 33.
history. The worker discussed this with him pointing out that although these subjects were interesting they would probably never lead to any position in which he could use the knowledge to earn a living. Mr. G. agreed but seemed unable to face having to make a decision about choosing a trade or occupation for which to train himself through study.

The only feasible plan for the worker was to continue seeing Mr. G. regularly in a "supportive" role so that he would be kept interested in his own rehabilitation and so that he would have someone with whom to discuss his feelings and plans. The worker, therefore, saw Mr. G. regularly over a period of three months. It was obvious that Mr. G. was benefiting from the relationship. He became much more friendly while in the outpatients department; he would speak to the various staff members who passed him, whereas previously he had been sullen and apathetic. He gained weight steadily and seemed to be in better spirits as time went on. The worker encouraged him to talk about how it felt to be crippled by arthritis. In one interview Mr. G. said he would put in writing his ideas, thoughts and feelings about what factors contributed to his arthritis, what it meant to him to have the disease and what he thought could and should be done about it.

More recently, the worker arranged for Mr. G. to take a series of vocational guidance tests in order to
get a better idea of what he might be best suited to do. Mr. G. was willing to take these tests although he was somewhat apprehensive about it. The worker had to proceed slowly with this plan explaining every step, getting Mr. G.'s cooperation and allaying his fears. Although the plan was slightly premature, it was felt it would be a positive step in giving Mr. G. the feeling that he was making definite progress toward a better future. The tests were not particularly revealing, the conclusion being that Mr. G. was best suited for light handwork that did not involve much skill. Mr. G. is now at the point where he is ready to take on a part time job of this sort and plans are under way to this end.

The fears that Mr. G. expressed throughout the worker's contact with him are typical of all patients who have been crippled by arthritis over a period of years. The sense of inadequacy and hopeless feelings are natural outcomes of the devastating effects of the crippling. Nevertheless, as this case illustrates, a great deal can be accomplished in a relatively short space of time even though the patient is chronic and has been crippled for years. It points out what needs to be accomplished in all cases, namely, achieving in the patient a feeling of hope and interest, the "mental equivalent" of rehabilitation.

The role of social work in the treatment of
rheumatoid arthritic patients, which has been discussed or inferred throughout this entire study, has definite basic similarities to its role in the treatment of any patients. This is because of the fact that social work recognized the importance of seeing the "whole person" in the treatment process, not just a person-with-a-disease; and this applies also to treating persons who have problems other than medical problems. Social work, generally speaking, has been more conscious of the need to know more about the patient, his family relationships and "total" needs in order to help him effectively, than has the medical profession. However, in recent years a new emphasis is being placed on the patient as a person as a result of the growing understanding of the emotional and social aspects of illness.

It is this new emphasis on treating a patient as a person rather than treating a disease per se that has pointed up the great need to understand not only the physiology of the patient, but also the psychology; more specifically the "psycho-dynamics" of the individual and the dynamics of his significant relationships with other people. Physicians, for the most part, are not trained to consider the whole person thus conceived; and, even if they were, there would be neither time enough nor doc-
tors enough to deal with all aspects of the situation.
It is in this area of social, emotional and psychic fac-
tors that social workers have special training and skills
and they can join with the physician to form a treatment
team, along with nurses and other interested persons.

Many physicians and social workers have written
to elaborate on this new concept in medicine. However,
the principles of treating patients today used in the most
progressive hospitals are not really new discoveries; they
have been held for many years. "In certain basic respects
they were expressed by Hippocrates and the physicians of
ancient times. Today we are re-stating an old concept
in medicine, bearing considerable significance for social
casework practice." ¹

W. B. Cannon in his studies of the relation
between emotions and physiological processes is one of
the modern scientists who helped bring about the new ap-
proach to medical problems. ² Dr. Margolis states that
Cannon's concept of physiological equilibrium cannot be
limited to purely physical phenomena - "For the human or-
ganism cannot be considered as an isolated specimen in a
hermetically sealed environment, but rather an integral

¹ Margolis, Dr. H.M. "The Biodynamic Point of
View in Medicine." Journal of Social Casework. January,
1949. page 3.

² Cannon, W.B. The Wisdom of the Body. W. W. Norton
part of the wider milieu from which he stems and in which he lives."  

Richardson, too, has reminded us that in addition to the physiological "organ-equilibrium" which individuals must maintain, "patients have families," and that the "family maintains an equilibrium within itself comparable to homeostasis (physiological equilibrium) . . . . The balance which is reached, favourable or otherwise, involves not only health and illness, but also social relationships, economic support, education and other contacts with the outside world. Only to the extent to which the individual can fuse his physical and social adaptation does he succeed as an integrated person and remain well."  

It has been shown in this and various other studies that persons who fall prey to rheumatoid arthritis have experienced considerable difficulty, and in most cases insurmountable difficulty in trying to achieve this integration and so do not remain well.

Dr. Margolis, in summing up the psychosomatic concept and indicating the need for casework help in the treatment process, says: "The streptococcus which is probably involved in the rheumatic process becomes a patent etiologic agent only when other conditions - climate,

1. Margolis, Dr. H.M. op. cit. page 4.

hereditary, sociologic, and emotional - favour the breakdown of organismic equilibrium or resistance. It is little wonder, then, that the physician, aware of the social environmental influences that are so closely related to the maintenance of health or the breakdown of adaptation, which spells illness, is turning more and more to the help that he can get from well applied social casework."

The treatment goal, then, is not that of victory over some demonic "attack of disease" or germ invasion but rather the reinforcement of nature's own attempts to restore physiologic balance. The therapeutic programme, therefore, must be planned to cover all factors including psychological and sociological. This principle is an important one for social casework because its services to an individual may fail to meet his real need if the focus is too narrowly confined to only one aspect of his problem and fails to take into account how this is related to the other disturbances in adjustment which are apparent.

So little attention is being given to the social aspects of the disease that the subject cannot be over-emphasized. A great part of the physician's time and energy is taken up seeing the same patients over and over again endlessly, and achieving no cure, and it be-

1. Margolis, Dr. H.M. op. cit. page 4.
hooves researchers to look into all the problems of the patient to see why he is not getting better. The personal and social problems loom so large in the patient's life that it is impossible for him to get adequate treatment or to benefit from treatment. Until these problems of financial and emotional insecurity, etc., are dealt with, no end of time and money will continue to be wasted in futile attempts to curb the problem.

The problem of rheumatoid arthritis, then, has been shown to be of much more significance than a physician-patient relationship, on a medical basis. Medicine alone has failed to solve the problem of arthritis. Obviously something more is needed. It has been shown that social work has a great deal to offer as part of a treatment team. Five branches of social work can and should be included in the total programme, namely: (1) casework services to the individual patient and his family; (2) research to determine what the patient's problems are and to determine the best methods of approach to the control and treatment of the disease; (3) community organization to meet needs indicated by casework and research findings; (4) public assistance on provincial and federal levels to provide necessary income to the patient and his family so that he will be free to obtain the necessary adequate treat-
ment and (5) public welfare programmes on dominion and provincial levels to build treatment centres, laboratories and clinics to train personnel and to promote research.

"... (arthritis) cripples in the largest number of cases and kills the smallest number. This very ability to cripple without killing would seem to put it in the lead of all other chronic diseases as of pre-eminent social, economic and medical importance."

Bigelow and Lombard.
APPENDICES.
Appendix A

Classification of Arthritis.

(Developed and adopted by the American Rheumatism Association, 1942 and quoted by Dr. B. I. Comroe in Arthritis and Allied Conditions. Lea and Febiger, Philadelphia, 1944, p. 37)

Arthritis Rheumatoid: Takes various forms which are specified as multiple arthritis (synonyms: proliferative arthritis, atrophic arthritis, chronic infectious arthritis, Still's disease) atypical rheumatoid arthritis (focal infection arthritis) rheumatoid arthritis of spine (synonyms: rheumatoid spondylitis, Marie Strumpell's disease, spondylase rhizomelique, infectious spondylitis, spondylitis ankylopoietica, von Beckterew's disease.)

The other main groups of arthritis are:

Arthritis due to infection: This may be of the spine, due to tuberculosis; of the knee due to gonococcal infection; of the wrist, due to pneumococcal infection; of the hip, due to syphilis. Other sources of infection are: treponema, pallida, typhoid and paratyphoid bacilli, meningococci, staphylococci, streptococci, (and arthritis occasionally associated with dengue, dysentery, chronic ulcerative colitis, leprosy, malaria, Brucellosis, scarlet fever, yaws, and infections with B. coli, B. diptheriae, of B. influenzae;) some forms of Tenosynoritis.

Arthritis due to rheumatic fever: Rheumatic fever is primary diagnosis.

Arthritis due to direct trauma: Affects the knee due to contusion; the elbow due to habitual dislocation. This group includes traumatic forms of synoritis and tenosynovitis, fibrositis, bursitis, sprains, internal derangements to cartilages, etc.

Neurogenic Arthropathy: (Charcot joint) (associated with Tabes dorsalis, syringomyela, cord trauma, nerve injuries or leprosy.)

Arthritis due to gout: Gout is primary diagnosis. Joint must be specified.

New growths of joints: Joints and neoplasm are specified as: Synoroma of knee, cyst, xanthoma, hemangioma, giant cell tumors, synoroma.

Degenerative joint disease: multiple due to unknown cause; synonyms: osteoarthritis, hypertrophic arthritis, degenerative arthritis, chronic senescent arthritis.

Mixed forms of arthritis: (especially rheumatoid arthritis and degenerative joint disease.)

Hydramathrosis: intermittent; joint must be specified.
Appendix B

QUESTIONNAIRE USED IN THE STUDY.

(Names, addresses, ages, sexes, etc. were obtained from the files of the British Columbia Arthritis and Rheumatism Society. A brief letter was enclosed with the questionnaire explaining its purpose.)

1. How long have you been crippled by arthritis?

2. Did you lose your job as a result of arthritis? When?

3. How has the disease affected you financially?
   Used up your resources? __________
   Put you in debt? __________
   Forced you to apply for assistance? __________
   Other? __________

4. To what extent are you crippled? Slightly ________
   Partially ________ Completely (bedridden) ________
   What parts of your body are involved?
   Hands ________
   Legs and feet ________
   Back ________
   Other ________

5. How has your family been affected?
   What adjustments became necessary, for example:
   Occupational:
   Financial:
   Housing:
   Family plans changed or postponed:
   Other:

6. Does your incapacity make it necessary or advisable for you to engage a housekeeper, part or full time?

7. How has your crippling affected your social life and recreation? (Use reverse side for details)

8. What treatments have you found effective?

9. Your suggestions as to what is needed in the way of treatments, facilities, etc. for the cure or prevention of arthritis. (Use reverse side)

10. Your general remarks: e.g. Do you feel that your personal and family problems, worries, etc. tend to aggravate the disease? (Use reverse side)
Appendix C: Summarized Case History.

Exemplifying Relationship Between Medical and Social Data in Sequence of the Disease.

<table>
<thead>
<tr>
<th>Date</th>
<th>Medical Data</th>
<th>Social and Emotional Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1933</td>
<td>First sign of arthritis - aching joints. Previous spring run down, had colds; tonsils and adenoids removed. Had rheumatic heart murmer.</td>
<td>Striving hard to do well with school studies under strict supervision of mother, an ex-teacher. Competition with younger sister for parental love and affection.</td>
</tr>
<tr>
<td>1938</td>
<td>Developed knee pain.</td>
<td>Mother ill and in hospital two months; later, seven months at home in bed. Patient looking after house, caring for mother, helping sister and doing her own work. Great resentment to this.</td>
</tr>
<tr>
<td>1939</td>
<td>Knees became puffy and painful.</td>
<td>Completing high school intramurally at 15, striving unsuccessfully to compete socially with older girls. Couldn't do P.T. Thought she had an incurable disease.</td>
</tr>
<tr>
<td></td>
<td>Tired easily; tendency to aching joints.</td>
<td>In a poor boarding home at university; felt unhappy, resentful, disturbed. &quot;Plunked&quot; two exams. - her first failures. Felt badly; also not getting along with landlady. Almost left university. Worked very hard to make up for failures and passed.</td>
</tr>
<tr>
<td>Spring</td>
<td>More pain in knees; in bed three weeks.</td>
<td>In same boarding home.</td>
</tr>
<tr>
<td>1941-42</td>
<td>Joints still troublesome. Improved in second term.</td>
<td>Did not work so hard; liked courses better. Got more rest; did not go out much.</td>
</tr>
<tr>
<td>Date</td>
<td>Medical Data</td>
<td>Social and Emotional Data</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1942-43</td>
<td>Had sulpha treatments - &quot;made me sick.&quot; Felt very weak.</td>
<td>Back at university, &quot;don't know why.&quot; Parents paying her way to become a teacher. She wanted something else; inner conflict.</td>
</tr>
<tr>
<td></td>
<td>Further injections.</td>
<td>Some improvement. Selected more interesting courses, got good marks. Could still get around fairly well.</td>
</tr>
<tr>
<td></td>
<td>Felt pain, some stiffness.</td>
<td></td>
</tr>
<tr>
<td>1943</td>
<td>Knees bothered her two days out of seven.</td>
<td>This slowed her down, caused her annoyance. She was always inclined to be active and to work hard. In a poor boarding home. &quot;Running around&quot; a lot.</td>
</tr>
<tr>
<td>Christmas</td>
<td>Got worse.</td>
<td>Visiting at home with her sister with whom she had a poor relationship. Discouraged about her condition. Always sees worse when at home. Has no affection for mother; they do not get along well.</td>
</tr>
<tr>
<td></td>
<td>Still worse; lost appetite, interest in work.</td>
<td></td>
</tr>
<tr>
<td>1944</td>
<td>Treated at hospital.</td>
<td>Improved. Went home. After six weeks got a cold and went &quot;down hill&quot; again. Had now spent all her money and became a &quot;staff&quot; patient.</td>
</tr>
<tr>
<td>Spring</td>
<td>Back to hospital.</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>Picked up; gained weight. Could ride a bicycle in May.</td>
<td>Went back home again.</td>
</tr>
<tr>
<td>1946</td>
<td>Got very tired; got cold, laryngitis. Most of her joints bothered her.</td>
<td>Taking special training course. Walking to work in cold and rain. Later went back to work but not much better in joints.</td>
</tr>
</tbody>
</table>
### Appendix C (continued)

<table>
<thead>
<tr>
<th>Date</th>
<th>Medical Data</th>
<th>Social and Emotional Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946(\text{cont}) September</td>
<td>Using aspirins to kill pain. Lost more weight. Shock reactions from gold treatments. Back to bed.</td>
<td>Back to work; now doing fine copying work; very difficult for her. Very disappointed because she could not go home for a visit as planned. Mind felt dull.</td>
</tr>
<tr>
<td>Christmas</td>
<td>In bed most of time. Felt dull, listless, no appetite; could not read.</td>
<td>At home.</td>
</tr>
<tr>
<td>1947 January</td>
<td>Fingers lost normal shape.</td>
<td>Felt very depressed.</td>
</tr>
<tr>
<td>1949 February</td>
<td>In hospital almost continuously to date.</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>Placed in a private boarding home.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D.

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