

SOCIAL CLASS AND TREATMENT  
IN BURNABY MENTAL HEALTH CENTRE

by

MELVYN B. FELKER  
NICHOLAS D. MANDUCA  
JEANNETTE E. MATSON  
EDWARD PRIMAS  
HANNAH SHNITZLER  
MARY M. SNELGROVE  
NANCY R. STIBBARD

A Thesis Submitted in Partial Fulfilment  
of the Requirements for the Degree of  
Master of Social Work

Accepted as conforming to the Standard  
required for the degree of  
Master of Social Work

School of Social Work

1968

The University of British Columbia

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and Study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the Head of my Department or by his representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of \_\_\_\_\_

The University of British Columbia  
Vancouver 8, Canada

Date \_\_\_\_\_

## ABSTRACT

Concern about mental health is on the increase in North America. Increased concern necessitated the provision of more treatment facilities for mental illness. For this reason, research is being conducted in the mental health field.

This study is the first undertaken in Canada, in an attempt to investigate a possible relationship between social class and mental illness. The study focussed on social class and treatment in a mental health setting at the Mental Health Centre, Burnaby, and comparisons were made with studies done in the United States.

Data were made available through the B. C. Department of Vital Statistics. These data were collected at the Mental Health Centre, Adult Clinic, Burnaby from April 1, 1959 to March 31, 1964. As the data were not collected by the researchers, there are limitations which are discussed in the study. Of the total number of persons seen at the Adult Clinic, 1231 were given treatment and terminated during this five year period. These were the subjects of this study.

The findings reveal no significant relationship between social class and the kind of treatment, or, between social class and the length of treatment. However, the findings do indicate that diagnosis is related to both social class and assignment of a therapist.

## TABLE OF CONTENTS

LIST OF TABLES . . . . .	i
LIST OF GRAPHS . . . . .	ii
LIST OF TABLES IN APPENDIX . . . . .	iii

### Chapter

I. INTRODUCTION. . . . .	2
Purpose	
History of Mental Health Centre	
Experimental Variables	
Review of Literature	
Hypotheses	
Assumptions Underlying Hypotheses	
II. DESIGN OF THE STUDY . . . . .	9
Level of the Design	
Sampling Design	
Data Collection	
Data Analysis Plan	
Hypothesis I	
Hypothesis II	
Hypothesis III	
Hypothesis IV	
III. FINDINGS. . . . .	15
Description of Population	
Hypothesis I	
Hypothesis II	
Hypothesis III	
Hypothesis IV	
IV. DISCUSSION AND CONCLUSIONS. . . . .	25
APPENDIX.....	30
BIBLIOGRAPHY.....	37

## LIST OF TABLES

Table		Page
I	Percentage Table of income distribution in four diagnostic categories	16
II	Percentage table of occupation distribution in four diagnostic categories	17
III	Percentage table for hours of psychotherapy distribution in four income levels	18
IV	Percentage table of patients in four income levels and assignment of therapist for all diagnostic categories	19
V	Percentage table of schizophrenic patients in four income levels and assignment of therapist	20
VI	Percentage table of depressive reaction patients in four income levels and assignment of therapist	20
VII	Percentage table of patients in five education levels and assignment of therapist for all diagnostic categories	21
VIII	Percentage table of schizophrenic psychotic patients in five education levels and assignment of therapist	22
IX	Percentage table of four diagnostic categories and assignment to therapist for all patients for whom income was recorded	23

## LIST OF GRAPHS

Graph

Page

- I Group Bar Graph: Percentage distribution of total population receiving psychotherapy or electrotherapy treatment

24

## LIST OF TABLES IN APPENDIX

Table		Page
1	Percentage table of education distribution in four diagnostic categories. . . . .	30
2	Percentage table of schizophrenic psychotics in four income levels and hours of psychotherapy . . . . .	31
3	Percentage table of phobic and anxiety reaction patients in four income levels and hours of psychotherapy. . . . .	32
4	Percentage table of depressive reaction patients in four income levels and hours of psychotherapy . . . . .	33
5	Percentage table of personality trait disturbance patients in four income levels and hours of psychotherapy	34
6	Percentage table of phobic and anxiety reaction patients in four income levels and assignment of therapist. . . . .	35
7	Percentage table of personality trait disturbance patients in four income levels and assignment of therapist . . . . .	35
8	Percentage table of patients in five occupation categories and assignment of therapist. . . . .	36
9	Percentage table of phobic and anxiety reaction patients in five education levels and assignment of therapist . . .	36

#### ACKNOWLEDGEMENTS

We wish to express our appreciation to those who have assisted us in the preparation and development of this study.

Mrs. Tanabe, advisor to this thesis project, has been most patient and helpful throughout the duration of the project. Her guidance has been greatly appreciated.

We extend our thanks to staff members at the Mental Health Centre, Burnaby. Their informal discussions, their professional experience and co-operation with technical information has greatly assisted our understanding and interpretation of the study findings.



## CHAPTER I

### INTRODUCTION

#### Purpose

The purpose of this study is to determine if there is any relationship between social class and treatment in the Mental Health Centre, Burnaby. We have set up four hypotheses to discover if a relationship exists: (1) is there a relationship between social class and the type of mental illness which a patient has? (2) is the patient's social class related to the length of time he will remain in psychotherapy? (3) is the principal therapist assigned according to the social class of the patient? and (4) is the patient with a higher class status more likely to receive a verbal form of therapy than a patient with a lower class status?

It was hoped that the data available to us on the Adult Clinic, Mental Health Centre, Burnaby, from 1959-1964, through the British Columbia Department of Vital Statistics would confirm or refute our hypotheses. It should be noted that this data was not collected with any specific research problem in mind. Thus, there are some areas where information is lacking for our particular research study.

We believe, however, that this study has value to anyone conducting further research studies about mental health clinics in Canada. It could be used for the purpose of comparison with other studies in this field, as well as to indicate areas where information should be collected if a valid measure of social class is to be obtained. From the difficulties

experienced in this study it might also be possible to suggest changes in the statistical forms used by the British Columbia Department of Vital Statistics to obtain information on social class and mental illness.

#### History of Mental Health Centre, Burnaby

The Burnaby Mental Health Centre was established in 1957 for the purpose of treating people on an out-patient basis. It was necessary that referrals made to the clinic come from a physician practicing within the province. However, various agencies and people in the community such as Social Welfare Departments, Community Health Services, Penal Institutions, Police, etc., could initiate the referral by bringing the individual (potential patient) to the attention of a physician. The Mental Health Centre did not charge a fee and, therefore, acceptance for treatment at the clinic did not depend on the potential patient's income, but rather on a diagnostic assessment by the intake team.

#### Experimental Variables

Mental Illness is a dependent variable and for the purpose of this study we are assuming that individuals referred to the clinic are in need of psychiatric treatment, in that they have a mental disturbance with either an emotional or organic base.

Treatment is an independent variable which we have divided into the further variables of type of treatment and length of treatment. The types of treatment provided at the Burnaby Mental Health Centre can be divided into two main categories:

1. Verbal therapies which include:
  - (a) individual psychotherapy
  - (b) group psychotherapy
  - (c) day hospital or milieu therapy

2. Non-Verbal therapies which make use of some form of physical and/or chemical intervention:

- (a) electrotherapy
- (b) somnolent insulin

We have used two dimensions to measure length of treatment. These are:

- 1. Number of hours of psychotherapy
- 2. Length of contact with the clinic.

Although we cannot equate length of treatment with success in treatment, we can argue that continuation is a necessary condition for the successful use of treatment, for, "knowledge about the correlates of continuance-discontinuance contributes directly to an understanding of the determinants of success and failure in treatment". (10, p.21)

Principal Therapist is the third dependent variable. This is the therapist; i.e., psychiatrist, psychologist, social worker or nurse, to whom any case is officially assigned. The principal therapist is the person who gives most treatment to the patient, often in consultation with other team members.

Social Class is the independent variable we have used. There are grades and distinctions of social class between people with different occupations, levels of education, and levels of income. (16, p.160)

Blishen has combined income and education with occupation in a scale to successfully measure social class. (16, p.160) We did not, however, have sufficient information to use Blishen's scale and have, therefore, indicated social class by using each of these separately.

We have used four categories of income (high, average, low and subsistence); five categories of occupation (professional and managerial, clerical and sales, skilled, semi-skilled and unskilled); five categories

of education (less than seven years, seven to eleven years, high school graduate, technical training, university or equivalent professional training).

### Review of Relevant Literature

In examining the literature on the relationship between social class and treatment of mental illness, we found varying conclusions depending on the population studied, the types of treatment administered, and the type of treatment agency studied.

One of the major studies (5) found that the lower the class, the greater the proportion of patients treated in public agencies, and, that psychotherapeutic methods (particularly insight therapy) are applied in disproportionately high degrees to higher status neurotic patients. Organic therapies tend to be applied more often to neurotics in middle and lower middle classes. Among neurotic patients, the higher the class, the longer the patients are in treatment. We might expect our findings to differ in these areas, as the Hollingshead and Redlich study included state, veteran and private hospitals, private practitioners, as well as out-patient clinics.

Myers and Shaffer (13, pp. 307-310), however, studied an out-patient clinic where only psychotherapy was given and income of patients was under five thousand dollars per year. They found the following: that the higher a person's social class, the more likely he would be chosen for treatment; that he would be treated by highly trained personnel; that he would be treated intensively over a long period of time.

Brill and Storror (2 p. 68) also found a significant relationship between social class and whether a patient was accepted for treatment.

They discovered no relationship between social class and training and/or experience of the therapist.

Imber, Nash, and Stone (6 pp. 281-284) found that the lower class remained in treatment for a shorter time period than the middle class and that the lower class was less likely to return after initial screening.

McMahan (9 p. 283) studied the working class psychiatric patient from a clinical point of view and also found that for the lower class, psychiatric care is more unavailable than for other classes and that therapy for the poor is usually of a shorter duration than for the middle classes.

A study by Pasamanick, et al., (14 p. 39) shows that: the prevalence of psychoses falls as income increases; that the prevalence of treated neurosis is highest in the lowest income group and falls progressively, then, rises again in the highest income group; that the prevalence of psychophysical, autonomic and visceral disorders increase directly with income. The first finding of Pasamanick agrees with the findings of Hollingshead and Redlich.

We have used some of the above findings as a basis for our hypotheses relating to social class and treatment at Burnaby Mental Health Centre.

### Hypothesis I

The type of mental illness which a person manifests is associated with his social class. (By type of mental illness, we mean the psychiatrist's diagnosis made when the patient first presents himself to the clinic).

#### Sub-hypotheses

- A. The type of mental illness a person manifests is associated with his educational level.

- B. The type of mental illness a person manifests is associated with his income level.
- C. The type of mental illness a person manifests is associated with his occupational level.

### Hypothesis II

The higher the patient's social class, the longer he will remain in treatment. (Length of treatment is measured by number of hours of psychotherapy and the length of contact with the clinic.)

#### Sub-hypotheses

- A. The higher the patient's educational level, the longer he will remain in treatment.
- B. The higher the patient's income level, the longer he will remain in treatment.
- C. The higher the patient's occupational level, the longer he will remain in treatment.

### Hypothesis III

The patients with higher social class will be assigned to a principal therapist with higher status and longer training than patients of lower social class. (The highest status is assigned to the psychiatrist, while all others such as social workers, psychologists, and nurses have been assigned the same status in this study; i.e., below that of the psychiatrist.)

#### Sub-hypotheses

- A. Patients with higher educational levels will be assigned a principal therapist of higher status.

- B. Patients with higher income levels will be assigned a principal therapist of higher status.
- C. Patients with higher occupational levels will be assigned a principal therapist of higher status.

#### Hypothesis IV

The higher the patient's social class, the more likely he is to receive a verbal form of therapy, while those in lower social classes will be more likely to receive a non-verbal form.

#### Sub-hypotheses

- A. The higher the patient's educational level, the more likely he is to receive a verbal form of therapy.
- B. The higher the patient's income level, the more likely he is to receive a verbal form of therapy.
- C. The higher the patient's occupational level, the more likely he is to receive a verbal form of therapy.

#### Assumptions Underlying the Above Hypotheses

1. We assume that there is a social class structure in Canadian society. For the purposes of this study, we are measuring this by the three variables of occupation, education and income.

2. We assume, that since the Mental Health Centre, Burnaby, is available to all social classes, our population from 1959 to 1964 should be representative of a wide range of social classes.

3. We assume that individuals living in a given social class experience problems of living that are expressed in psychological reactions and disorders differing in quantity and quality from those expressed by persons in other classes.

## CHAPTER II

### DESIGN OF THE STUDY

#### Level of the Design

The present study examines the relationship between both past and present variables which were taken at a single point in time, and included retrospective data. Therefore, the design used in this study is an Ex Post Facto Survey. The requirements for causal explanations in this type of design are:

- (a) Controlling the time order of the variables. Social Class was established before the determination of treatment. In this sense, the time order of variables was controlled. We are not concerned with future variables.
- (b) Ruling out alternative explanations. In order to achieve this, limited control is attained in this type of design through the use of matching techniques. In the present study, there is a large sample which allowed us to control for diagnosis to test whether this is a significant variable rather than social class factors.

#### Sampling Design

In this study, the total number of subjects was 1,231. These patients were at least sixteen years of age and had their treatment terminated in the Adult Clinic at Burnaby Mental Health Centre between April 1, 1959 and March 31, 1964. Excluded from the study were 1,681 people who were



assessed, but not engaged in treatment. Data collected before April 1, 1959 were not used for this study because uniform practices for data collection were then in process. Data collected after March, 1964 were not used because Burnaby Mental Health Centre changed the data collection instrument. Hence, the data used in this study are restricted to the stated time.

### Data Collection

Data used were made available through the British Columbia Department of Vital Statistics. These data had been collected by the provincial Mental Health Centre in Burnaby. Data were collected on the basis of standard information obtained on each applicant appearing at the clinic. This information was used as a file face sheet as well as for the purposes of government statistics.

At the time of intake, basic information, such as residence, education, occupation and income was recorded by the receptionist. Reliability of the data is increased through having one person collect the information according to standard procedures. However, occupation recorded was that of the patient seen and not that of the head of the household. In the case of employed women who were married and living with their husbands, and those patients residing with their parents, the occupation recorded may not reflect their social class. In fact, 40% of the women were employed. This creates distortion inherent in the data collection.

The same distortion is inherent in the data on education, which was recorded about the patient seen, and not about the head of the household. All the women were included in this analysis, as opposed to 40% in the variable, occupation. Validity of education as a measure of social class is thus impaired to a greater degree than in the use of occupation.

The highest validity is in the use of income as a measure of social class because the income recorded was that of the total family earnings. The least valid measure of social class is education.

Diagnosis was recorded by a psychiatrist or principal therapist following an assessment period with the patient. There was, as well, a final diagnosis recorded at the end of treatment, but in this study we are using the initial diagnosis. Diagnoses are reliable because the therapists were uniformly trained in the use of diagnostic categories based on the American Psychiatric Association classification. (1)

Upon termination of the case, the principal therapist recorded the data of termination, and the length and type of treatment.

#### Data Analysis Plan

Data were analyzed through the use of a computer program designed for multivariate analysis.

The independent variable in all hypotheses is social class which is inferred from the measurements of education, occupation and income.

Education was recorded as the highest school grade completed and then assigned to one of five categories for purposes of our study. These categories are less than grade seven, grade seven to eleven, high school graduation, technical training and university.

Occupation was grouped into nine categories which are professional and managerial, clerical and sales, skilled labor, semi-skilled labor, and unskilled labor. Housewives and students were excluded in all analyses involving occupation, as they do not give a measure of social class.

Total family income was assessed in relation to the number in the family and recorded systematically as high, average, low or subsistence.

It was adjusted for cost of living changes within the five-year period.

The distortion inherent in the data collection of education and occupation has already been discussed above. Because of the nature of the recording of these factors, it was not possible to derive a composite measure of social class. Hence, this variable will be inferred from separate analysis of each of the three measures.

#### Hypothesis I: The Relationship Between Social Class and Diagnosis

The dependent variable is the type of mental illness. Diagnoses recorded were based on the American Psychiatric Association classification. Diagnoses were grouped into four categories of schizophrenic psychoses, phobic and anxiety reactions and personality trait disturbance. These corresponded to major headings of the American Psychiatric Association classification. Seventy-two percent of the patients are diagnosed within these categories.

#### Hypothesis II: Relationship Between Social Class and Length of Treatment

Two measurements employed for the dependent variable of length of treatment are: length of time under care recorded in months and grouped into categories of under one month, one to three months, four to six months, seven to nine months, ten to twelve months and thirteen or more months; and number of hours of psychotherapy grouped into categories of one to five hours, six to ten hours, eleven to fifteen hours, sixteen to twenty hours, twenty-one to twenty-five hours, and twenty-six or more hours. These two measurements were analyzed separately.

Termination date was determined by the date on which the case was presented to an interdisciplinary conference, rather than by the time at

which dictation on the file was completed. Thus, any source of error would be in the delay between the final interview and the conference date. Information from the clinic staff indicates that this delay was minimal, and hence, the validity of this measurement is not greatly impaired.

To increase the validity of the conclusions to be drawn, the second measurement of number of hours of psychotherapy was used. Other treatment methods offered by the clinic were group therapy, electrotherapy, and somnolent insulin (sleep therapy). However, only hours of psychotherapy was used in the hypothesis because this includes the largest proportion of patients.

#### Hypothesis III: Relationship Between Social Class and Status of the Therapist

The dependent variable of status of therapist is operationally defined by two categories: that of psychiatrist and social worker. Other professions, namely, psychologists, nurses, occupational and physiotherapists were excluded because less than 5% of the population were treated by them. Psychiatrists were assigned the higher status because of having greater specialization and length of training.

#### Hypothesis IV: Relationship Between Social Class and Type of Treatment

The dependent variable of treatment is operationally defined by two categories: psychotherapy which is a verbal therapy; electrotherapy which is a non-verbal type of therapy. Somnolent insulin and group therapy were not used because too few people received these treatments to permit analysis. Because of the nature of the computer programme, it was necessary

to analyze the data according to the distribution of social class for each of the two types of treatment.

Diagnosis was not used for electrotherapy analysis because few patients received this type of treatment.

## CHAPTER III

### FINDINGS

#### Description of Population

The majority of the clinic population comes from the middle and lower status groups. Sixty-two percent of the patients are in the average income group, while only 4% of the patients are of the high income category. Sixty-four percent have less than Grade 12 education. Considering occupation, only 27% are included in the managerial, professional and skilled occupations. From this, we may conclude that the clinic population is biased toward the middle and low social class groups.

#### Hypothesis I

A percentage distribution of the total patient population of 1,231 reveals that 73% of the patients fall into four categories of mental illness. These are: (1) Schizophrenic psychosis - 24%; (2) Phobic and Anxiety Reactions - 13%; (3) Depressive Reactions - 25%; and (4) Personality Trait Disturbance - 11%.

Our findings indicate that there is a definite relationship between diagnosis and two of the variables which we chose to determine social class, that is, income and occupation, at a level of significance of .01 (See Tables I and II). However, there is no relationship between education and diagnosis. The level of significance here is .30 (See Appendix, Table 1).

Looking at the horizontal percentages for income compared to diagnosis we find that 46% of the patients with a subsistence level of income have schizophrenic psychosis, while only 16% of the patients who have a high income level fall into this same diagnostic category (See Table I).

TABLE I PERCENTAGE TABLE OF INCOME DISTRIBUTION IN FOUR DIAGNOSTIC CATEGORIES

Income	Schizophrenic Psychoses	Phobic and Anxiety Reactions	Depressive Reactions	Personality Trait Disturbance	n
High	16.67	16.67	56.67	10.00	30
Average	30.91	19.18	36.13	13.78	537
Low	32.21	15.38	33.17	14.23	208
Subsistence	46.32	15.79	20.00	17.89	95
Total Percent-age	32.41	17.82	34.37	15.40	870

$$\chi^2 = 24.293$$

$$p .01$$

$$df = 9$$

Looking at the horizontal percentages for occupation compared to diagnosis we find that 50% of the patients who are unskilled have schizophrenic psychosis while only 36% of the patients in a professional occupation fall into this same diagnostic category (See Table II).

TABLE II PERCENTAGE TABLE OF OCCUPATION DISTRIBUTION IN FOUR DIAGNOSTIC CATEGORIES

Occupation	Schizophrenic Psychoses	Phobic and Anxiety Reactions	Depressive Reactions	Personality Trait Disturbance	n
Professional	36.21	24.14	36.21	3.45	58
Clerical & Sales	36.91	14.77	30.20	18.12	149
Skilled	25.81	29.03	29.03	16.13	62
Semi-Skilled	32.73	18.18	29.09	20.00	55
Unskilled	50.46	8.26	23.85	17.43	109
Total	38.11	16.86	29.10	15.94	433

$$\chi^2 = 28.802$$

$$p .01$$

$$df = 12$$

From these two horizontal percentage tables, we can state that the lower the income and the occupational status of the patient, the higher the rate of psychosis.

In the table showing income and diagnosis, the high income population is 30. (See Table I). Seventy-three percent of these patients fall into the two combined neurotic categories, phobic and anxiety reactions and depressive reactions. Only 36% of the 95 people at the subsistence level of income, are included in these same two categories.

Of the professional and managerial population, which is 58, in the table showing occupation and diagnosis (See Table II), 60% of these patients fall into the two combined neurotic categories, while only 32% of the unskilled population, which is 109, are included in these same two



categories. It should be noted that the majority of neurotic patients fall into the depressive reaction category.

From these horizontal percentages, it would appear that those patients from the high income level and from the professional and managerial occupations tend to be neurotic, whereas, those patients from the subsistence level of income and unskilled tend to be psychotic.

### Hypothesis II.

Our findings reveal that there is no significant relationship between the patient's social class and the length of time he will remain in treatment. For example, in analyzing the relationship between number of hours of psychotherapy and levels of income, the level of significance achieved was less than .50 (See Table III).

TABLE III PERCENTAGE TABLE FOR HOURS OF PSYCHOTHERAPY DISTRIBUTION IN  
FOUR INCOME LEVELS

Income	1-5 Hrs	6-10 Hrs	11-15 Hrs	16-20 Hrs	21-25 Hrs	25+ Hrs	n
High	50.00	28.57	2.38	7.14	0.00	11.90	42
Average	45.74	20.57	8.93	6.04	5.55	13.13	739
Low	49.13	18.47	10.10	4.88	4.53	12.89	287
Subsistence	37.19	25.62	8.26	8.26	7.44	13.22	121
	45.89	20.86	8.92	6.06	5.30	13.04	1189

$$\chi^2 = 14.114 \quad p .50 \quad df = 15$$

It is interesting to note that the length of treatment measured by hours of psychotherapy did not vary significantly when controlled for

diagnosis. Our horizontal percentage tables indicate a higher proportion of schizophrenic patients receiving one to ten hours of psychotherapy than those patients diagnosed as neurotic or personality trait disturbance (See Appendix, Tables 2, 3, 4 and 5). Similar results were obtained with all three variables of social class.

### Hypothesis III

TABLE IV PERCENTAGE TABLE OF PATIENTS IN FOUR INCOME LEVELS AND ASSIGNMENT OF THERAPIST FOR ALL DIAGNOSTIC CATEGORIES

Income	Psychiatrist	Social Worker	n
High	80.49	19.51	41
Average	70.51	29.49	712
Low	63.84	36.16	271
Subsistence	47.46	52.54	118
Total	66.90	33.10	1142

$$x^2 = 28.890 \quad p .001 \quad df = 3$$

The analysis of the total population seemed to show a significant relationship between income and assignment of therapist. (See Table IV) However, further analysis indicated that diagnosis was a more significant variable than income.

TABLE V PERCENTAGE TABLE OF SCHIZOPHRENIC PATIENTS IN FOUR INCOME LEVELS AND ASSIGNMENT OF THERAPIST

Income	Psychiatrist	Social Worker	n
High	100.00	0.00	5
Average	76.25	23.75	160
Low	69.84	30.16	63
Subsistence	59.09	40.91	44
Total	72.43	27.57	272

$$\chi^2 = 7.204 \quad p .10 \quad df = 3$$

TABLE VI PERCENTAGE TABLE OF DEPRESSIVE REACTION PATIENTS IN FOUR INCOME LEVELS AND ASSIGNMENT OF THERAPIST

Income	Psychiatrist	Social Worker	n
High	94.12	5.88	17
Average	64.06	30.94	181
Low	67.69	32.31	65
Subsistence	50.00	50.00	18
Total	72.20	27.80	277

$$\chi^2 = 8.109 \quad p .05 \quad df = 3$$

From Tables V and VI, it may be seen that the relationship between income and therapist noted for the total population is largely accounted for by the psychotic and depressive reaction diagnostic groups, that is, both diagnostic groups tend to be seen by a psychiatrist. No relationship was found in the phobic and anxiety reactions, and personality trait disturbance groups. Levels of significance were .30 and .20 respectively. (See Appendix, Tables 6 and 7)

There is no relationship between occupation and therapist as level of significance was .20. This finding held for all diagnostic categories. (See Appendix Table 8)

TABLE VII. PERCENTAGE TABLE OF PATIENTS IN FIVE EDUCATION LEVELS AND ASSIGNMENT OF THERAPIST FOR ALL DIAGNOSTIC CATEGORIES

Education	Psychiatrist	Social Worker	n
Less Grade 7	68.52	31.48	54
7-11 Years	64.12	35.88	680
High School	69.23	30.77	260
Technical	50.00	50.00	36
University	78.57	21.43	126
Total	66.61	33.39	1156

$$x^2 = 15.361 \quad p .01 \quad df = 4$$

As with income, there appeared to be a significant relationship between level of education and assignment of therapist. (See Table VII) However, this is largely accounted for in that 94% of patients with schizophrenic psychosis and a university education are treated by a psychiatrist. (See Table VIII)

TABLE VIII PERCENTAGE TABLE OF SCHIZOPHRENIC PSYCHOTIC PATIENTS IN FIVE EDUCATION LEVELS AND ASSIGNMENT OF THERAPIST

Education	Psychiatrist	Social Worker	n
Less Grade 7	58.82	41.18	17
7-11 Years	71.43	28.57	161
High School	71.93	28.07	57
Technical	40.00	60.00	10
University	93.75	6.25	32
Total	72.20	27.80	277

$$\chi^2 = 14.136$$

$$p .01$$

$$df = 4$$

Analysis of other diagnostic categories revealed no relationships between education and therapist. (depressive reaction,  $p = .70$ , phobic and anxiety reactions  $p = .70$ , and personality trait disturbance  $p = .80$ .) (See Appendix, Table 9)

Therefore, diagnosis appears to be more influential than education or income in the assignment of therapist. In an attempt to account for this, we compared percentages in each diagnostic category with the assignment of therapist. This was done separately for patients for whom income, occupation and education were recorded. (See Table IX) In all three cases we found a pattern that indicated schizophrenic psychotics and depressive reactions were more likely to be assigned to a psychiatrist than the other two diagnostic categories.

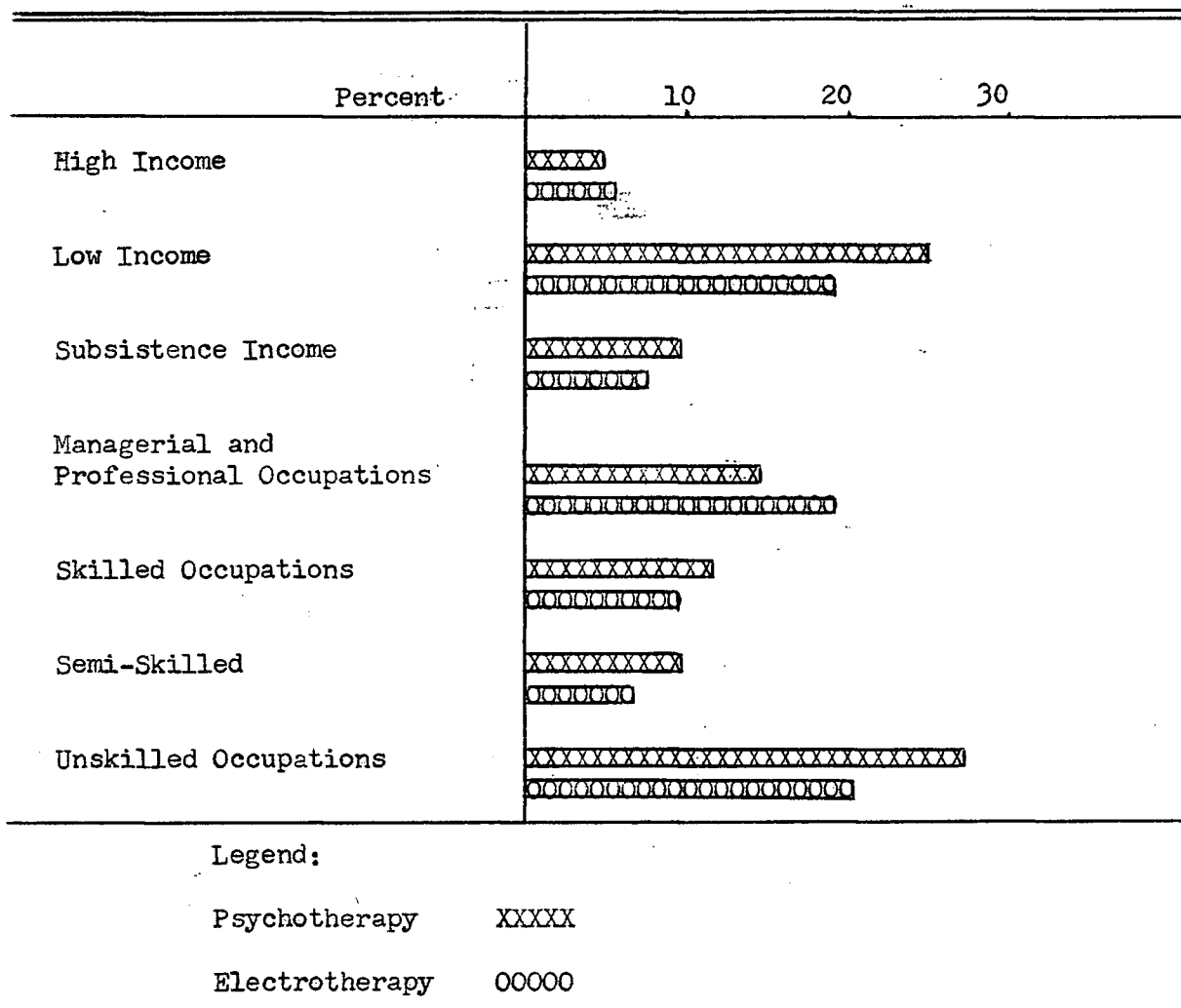
TABLE IX PERCENTAGE TABLE OF FOUR DIAGNOSTIC CATEGORIES AND ASSIGNMENT TO THERAPIST FOR ALL PATIENTS FOR WHOM INCOME WAS RECORDED

Diagnosis	Psychiatrist	Social Worker	
Schizophrenic Psychosis	72.43	27.57	
Phobic & Anxiety Reaction	60.81	39.19	
Depressive Reaction	69.04	30.96	
Personality Trait Disturbance	55.81	44.19	

#### Hypothesis IV

From an examination of the population receiving verbal therapy in the form of psychotherapy, the population receiving non-verbal electrotherapy treatment, no relationships or trends were seen between the measures of social class and the forms of treatment. For purposes of comparison, the percentage distribution of the income and occupation measures to the two treatment populations is taken. The total population receiving electrotherapy treatment is 89, while the population receiving psychotherapy is 1134. (See Graph 1)

GRAPH I PERCENTAGE DISTRIBUTION OF TOTAL POPULATION RECEIVING PSYCHOTHERAPY OR ELECTROTHERAPY TREATMENT



GROUP BAR GRAPH

#### CHAPTER IV

#### DISCUSSION AND CONCLUSIONS

In comparing our findings to those of Hollingshead and Redlich (5), we found a relationship ( $p=.01$ ) between diagnosis and two measures of social class; i.e., income and occupation. Forty-six percent of the patients with a subsistence level of income have schizophrenic psychosis, while only 16% with a high income fall into the same diagnostic category. Fifty percent of the unskilled patients are diagnosed as schizophrenic, while only 36% of the patients in the professional and managerial category are diagnosed as schizophrenic.

Hence, we can conclude from our study that the lower the income and the lower the occupational status, the higher is the incidence of schizophrenic psychosis. This agrees with findings in studies done by Hollingshead and Redlich (5), and Pasamanick, et al. (14). If Hollingshead and Redlich's findings of an inverse relationship between social class and prevalence of psychoses in the general population is correct, this pattern is to be expected in our study.

The greatest percentage of patients in the high income level are diagnosed as neurotics. For example, 56.67% of the high income category are diagnosed as depressive. From this, we can conclude that the higher the income the greater the incidence of neurosis.

Like Myers and Schaffer (13), Brill and Storow (2), we found no relationship between measures of social class and length of time in



treatment. We found, however, that there is a higher proportion of schizophrenic patients terminating after one to ten hours of treatment than persons diagnosed as neurotic or personality trait disturbance. For example, 74% of the schizophrenic psychoses terminate after one to ten hours of treatment, while 58% of phobic and anxiety reactions, 68% of depressive reactions, and 59% of personality trait disturbances terminate within the same number of hours of treatment.

One possible reason for this finding might be that psychotics were given a trial period of treatment, after which, if unsuccessful, patients were referred to other resources such as the provincial mental hospital. Another reason might be the fact that by their very nature, psychotics are the type of people who are unable to keep regular appointments and are, therefore, prevented from continuing treatment.

Our initial findings, before controlling for diagnosis, showed that the higher the patient's social class, the more likely he will be treated by more highly trained personnel. This agrees with the findings of Myers and Schaffer (13). However, our control for Hypothesis III showed that diagnosis is a more important factor in determining the assignment of patients to therapists than is social class.

The findings indicated that schizophrenic psychoses and depressive reactions were more likely to be assigned to a psychiatrist than the other two diagnostic categories. Furthermore, as discussed above, schizophrenic psychoses are more prevalent in lower classes and depressive reactions are more prevalent in the higher classes. Thus, the two diagnosis categories more likely to be treated by a psychiatrist cut across the social classes and, therefore, we can conclude that diagnosis is a more

important factor than social class in determining assignment to therapist. This would indicate a need for a future study, using the relationship between diagnosis and therapist, and controlling for other variables.

We found no relationship between social class and type of treatment; i.e., verbal (psychotherapy) and non-verbal (electrotherapy). Our findings do not agree with Hollingshead and Redlich (5), who found that psychotherapeutic methods are applied in disproportionately high degrees to higher status neurotic patients, while organic therapies tend to be applied to those neurotics in the middle and lower middle classes. Our total electrotherapy population, however, was only 89, compared to a population of 1,134 receiving psychotherapy. With such a small electrotherapy population, our results may have been skewed. Of the small number of patients receiving this form of treatment, we can see by Graph I (p.24) that for the highest income and occupational groups, there is a greater percentage of patients receiving electrotherapy than psychotherapy. This may possibly be accounted for by private psychiatrists referring their patients to Burnaby Mental Health Centre specifically for electrotherapy treatments. We also speculate that assignment to a psychiatrist may be due to the fact that certain types of mental illness require medication. Further, we speculate that there may be an unwritten rule in the clinic whereby patients with a certain mental illness are assigned to a psychiatrist rather than to a social worker.

Future studies might indicate a shift toward non-verbal therapies, such as E.C.T., as current research seems to point out that there are organic factors to consider in treating mental illness.

In general, from the income measure of social class, our findings would appear to agree with Hollingshead and Redlich (5) who found that

the lower the class, the greater the proportion of patients treated in public agencies. In our study, the average, low and subsistence income groups composed 96% of the total population.

According to our study, as indicated in Hypothesis II and IV, there is no significant relationship between social class and treatment, or, between diagnosis and treatment. Therefore, there must be other intervening variables that we have not considered, which affect treatment. However, we cannot draw any such conclusions about the relationship between social class and the treatment of mental illness in the general population, or, in other psychiatric treatment facilities, as this study was restricted to an outpatient mental health clinic. Hopefully, future studies will be done in this field which will lead to a more generalized view of mental illness in Canada.

In looking at these results, one must keep in mind the following distortions inherent in our data collection instrument: (i) we do not always have a measure of the education or occupation of the head of the household, but rather that of his working wife and/or working son or daughter; and, (ii) unlike Hollingshead and Redlich, we were unable to obtain data that would give us a composite index of social class (4).

Ideally, if this kind of research is to be done again, information should be recorded on the head of the household.

### Conclusion

Our study indicates that diagnosis is related to social class, that is, depressive reactions are associated with the higher class, and schizophrenic psychoses are associated with the lower classes.

Furthermore, the patients in these two diagnostic categories tend to be assigned to the psychiatrist rather than to a social worker for treatment. We conclude, then, that diagnosis is more important in the assignment of a therapist than is social class.

TABLE 1 PERCENTAGE TABLE OF EDUCATION DISTRIBUTION IN FOUR DIAGNOSTIC CATEGORIES

	Psychoses	Phobic & Anxiety Reactions	Depressive Reactions	Personality Trait Disturbance	n
Less Grade 7	37.50	14.58	29.17	18.75	48
7-11 Years	32.68	16.93	33.07	17.32	508
High School	29.27	20.00	35.61	15.12	205
Technical	32.26	19.35	35.48	12.90	31
University	32.93	21.84	36.78	3.45	87
Total	32.65	18.09	33.90	15.36	879

$$x^2 = 14.264$$

$$p \quad .30$$

$$df = 12$$

APPENDIX

TABLE 2 PERCENTAGE TABLE OF SCHIZOPHRENIC PSYCHOTICS IN FOUR INCOME LEVELS AND HOURS OF PSYCHOTHERAPY

	1-5 Hrs.	6-10 Hrs.	11-15 Hrs.	16-20 Hrs.	21-25 Hrs.	26+ Hrs.
High	80.00	20.00	.00	.00	.00	.00
Average	58.18	17.58	6.67	6.67	4.24	6.67
Low	50.75	20.90	5.97	2.99	7.46	11.94
Subsistence	45.75	25.00	6.82	4.55	9.09	9.09
	54.80	19.57	6.41	5.34	5.69	8.19

$$\chi^2 = 9.41$$

$$p .80$$

$$df = 15$$

TABLE 3 PERCENTAGE TABLE OF PHOBIC AND ANXIETY REACTION PATIENTS IN FOUR INCOME LEVELS AND HOURS OF PSYCHOTHERAPY

	1-5 Hrs.	6-10 Hrs.	11-15 Hrs.	16-20 Hrs.	21-25 Hrs.	26+ Hrs.
High	.00	40.00	.00	.00	.00	60.00
Average	34.31	22.55	12.75	6.86	2.94	20.59
Low	34.38	25.00	12.50	12.50	.00	15.63
Subsistence	40.00	26.67	6.67	6.67	6.67	13.33
	33.77	24.03	11.69	7.79	2.60	20.13

$$\chi^2 = 11.603$$

$$p \quad .70$$

$$df = 15$$

TABLE 4 PERCENTAGE TABLE OF DEPRESSIVE REACTION PATIENTS IN FOUR INCOME LEVELS AND HOURS OF PSYCHOTHERAPY.

	1-5 Hrs.	6-10 Hrs.	11-15 Hrs.	16-20 Hrs.	21-25 Hrs.	26+ Hrs.
High	52.94	29.41	.00	11.76	.00	5.88
Average	40.93	25.39	7.25	5.70	4.66	16.06
Low	52.17	17.39	8.70	4.35	5.80	11.59
Subsistence	31.58	31.58	10.53	.00	15.79	10.53
	43.62	24.16	7.38	5.37	5.37	14.09

$$\chi^2 = 15.445$$

$$p .30$$

$$df = 15$$



TABLE 5 PERCENTAGE TABLE OF PERSONALITY TRAIT DISTURBANCE PATIENTS IN FOUR  
INCOME LEVELS AND HOURS OF PSYCHOTHERAPY

	1-5 Hrs.	6-10 Hrs.	11-15 Hrs.	16-20 Hrs.	21-25 Hrs.	26+ Hrs.
High	66.67	.00	33.33	.00	.00	.00
Average	43.24	14.86	14.86	4.05	9.46	13.51
Low	41.03	20.51	17.95	.00	2.56	17.95
Subsistence	29.41	29.41	17.65	11.76	5.88	5.88
	41.35	18.05	16.54	3.76	6.77	13.53

$$\chi^2 = 12.348$$

$$p .70$$

$$df = 15$$

TABLE 6 PERCENTAGE TABLE OF PHOBIC AND ANXIETY REACTION PATIENTS IN FOUR INCOME LEVELS AND ASSIGNMENT OF THERAPIST

Income	Psychiatrist	Social Worker	n
High	60.00	40.00	5
Average	66.00	34.00	100
Low	50.00	50.00	28
Subsistence	46.67	53.33	15
Total	60.81	39.19	148

$$x^2 = 3.764 \quad p \quad 30 \quad df = 3$$

TABLE 7 PERCENTAGE TABLE OF PERSONALITY TRAIT DISTURBANCE PATIENTS IN FOUR INCOME LEVELS AND ASSIGNMENT OF THERAPIST

Income	Psychiatrist	Social Worker	n
High	66.67	33.33	3
Average	63.89	36.11	72
Low	44.74	55.26	28
Subsistence	43.75	56.25	16
Total	55.81	44.19	129

$$x^2 = 4.882 \quad p \quad .20 \quad df = 3$$

TABLE 8 PERCENTAGE TABLE OF PATIENTS IN FIVE OCCUPATION CATEGORIES AND ASSIGNMENT OF THERAPIST

Occupation	Psychiatrist	Social Worker	n
Professional	69.51	30.49	82
Clerical & Sales	67.15	32.85	207
Skilled	73.68	26.32	76
Semi- Skilled	54.55	45.45	66
Unskilled	63.33	36.67	150
Total	65.92	34.08	581

$$x^2 = 6.687 \quad p .20 \quad df = 4$$

TABLE 9 PERCENTAGE TABLE OF PHOBIC AND ANXIETY REACTION PATIENTS IN FIVE EDUCATION LEVELS AND ASSIGNMENT OF THERAPIST

Education	Psychiatrist	Social Worker	n
Less Grade 7	50.00	50.00	6
7-11 Years	58.54	41.46	82
High School	70.00	30.00	40
Technical	50.00	50.00	6
University	70.29	29.41	17
Total	62.25	37.75	151

$$x^2 = 2.772 \quad p .70 \quad df = 4$$

## BIBLIOGRAPHY

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. Washington, D. C., 1952.

Brill, N. and Storrow, H. "Social Class and Psychiatric Treatment". Mental Health of the Poor. The Free Press of Glencoe, New York. 1964. p. 68.

Clausen, J. A. and Yarrow, M. R. Paths to the Mental Hospital. The Journal of Social Issues, Vol. 11. Nov., 1955. pp.25-32.

Hollingshead, A. B. Two-Factor Index of Social Position. Unpublished Paper. Yale University. 1957.

Hollingshead and Redlich. Social Class and Mental Illness. Science Editions. John Wiley and Sons. New York. 1958.

Imber, Nash and Stone. "Social Class and Duration of Psychotherapy". Journal of Clinical Psychology, Vol. 11. July, 1955. pp. 281-284.

Landy, D. and Albert, R. S. "Waiting for Hospitalization: a study of persons placed on a hospital waiting list and their families. Archives of General Psychiatry. 1959. pp. 519-529

Levinger, G. Continuance in Casework and Other Helping Relationships: A Review of Current Research. Social Work, Vol. 5, No. 3. July, 1960. pp. 40-51

McMahon, J. T. "The Working Class Psychiatric Patient: A Clinical View". Mental Health of the Poor. The Free Press of Glencoe, New York. 1964. p. 283.

Maas, H. S. Five Fields of Social Service: Reviews of Research. National Association of Social Workers, inc. New York. 1966

Meyer, J. K. and Roberts, B. H. Family and Class Dynamics in Mental Illness. John Wiley and Sons, New York. 1959.

Moore, R. A. , Benedek, E. P. and Wallace, J. G. Social Class, Schizophrenia and the Psychiatrist. American Journal of Psychiatry, Vol. 20. August, 1963. pp. 149-154.

Myers, J. K. and Schaffer, L. "Social Stratification and Psychiatric Practice: A Study of an Out-Patient Clinic". American Sociological Review, Vol. 19. June, 1954. pp. 307-310.

Pasamanick, B., Roberts, W., Lemkau, P. and Kreuger, B. "A Survey of Mental Disease in an Urban Population: Prevalence by Race and Income". Mental Health of the Poor. The Free Press of Glencoe. New York. 1964. p. 39.

Polansky, N. A. Social Work Research. University of Chicago Press. Chicago. 1960.

Porter, J. The Vertical Mosaic. University of Toronto Press. 1965.

Riessman, F., Cohen, J. and Pearl, A. Mental Health of the Poor. The Free Press of Glencoe. Collier, MacMillan Limited. London. 1964.

Scheff, T. (ed.) Mental Illness and Social Processes. Harper and Row. New York. 1967.

Strole, Leo et. al. Mental Health in the Metropolis. McGraw Hill Inc. New York. 1962. pp. 140-252.

Weiss, P., Macaulay, J. and Pincus, A. "Geographic Factors and the Release of Patients from Mental Hospitals". American Journal of Psychiatry. pp. 408-12.

Whitmer, C. A. and Conover, C. G. "A Study of Critical Incidents in the Hospitalization of the Mentally Ill". Social Work, Vol. 4, No. 1. 1959.