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A Study Of The Relationship Between Social Work
Intervention And Psychiatric Re-Admission At The
Lafayette Clinic

by

William Glen Joseph Sweet

and

Paula Ann Maher (nee Campbell)

A Thesis
submitted to the Faculty of Graduate Studies
through the School of
Social Work in Partial Fulfillment
of the requirements for the Degree
of Master of Social Work at
The University of Windsor

Windsor, Ontario, Canada.

1982

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Abstract

The proceeding study is an attempt to define whether a relationship exists between the variables social work intervention and psychiatric re-admission. The study was conducted at the Lafayette Clinic, Detroit, Michigan. Two psychiatric in-patient wards at Lafayette were chosen, from which the study sample was drawn. The two wards involved were 3 North; and 4 South. The study examined re-admission rates of the two above wards over the year long period, July 1, 1979 through July 1, 1980, (inclusive).

Wards 3 North and 4 South were chosen, because the former had advantage of full-time social work service over the study period, while the latter had only part-time social work available.

Patient files on all those admitted to the two wards over the study period were examined, and data collected, through use of a pre-coded case review schedule. Data collected included information on; number of re-admissions; number and nature of social work contacts; demographic information; psychiatric diagnosis; and prognosis.

A series of t-tests were employed to discern the difference in means among the re-admitted and non-

v

returning patients. The two groups were compared along lines of social work contact, and on other variables, such as those quoted above, that were felt, from a review of the literature to have the potential of affecting re-admission rates. In addition to the computed t-tests, a Multiple Regression Analysis was run involving three lines of research inquiry.

For the purposes of conducting the study, three research questions were derived. These questions dealt with the re-admission rate of patients seen by a social worker; of those not seen by a social worker; and the comparison of re-admission rates between the two groups.

The statistical design employed in this study was Quantitative-Descriptive, as defined by Tripodi, et al (Tripodi, Fellin, and Meyer, 1976).

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As with all scholarly endeavors, the proceeding research project could not have been accomplished without the generous assistance of many people. In completing this study the researchers wish to express sincere appreciation to those who have given of themselves, in time, support, and professional expertise, during the past year.

From the thesis committee, including Professors D.R. Cassano, V.J. Cruz, and R.A. Bolus, the researchers have received invaluable direction, criticism, and support. The dedication of the entire committee to our project has been unfailing, and is deserving of recognition.

Ms. Jacqueline Giering, Director of Social Services, Lafayette Clinic, has from the beginning of the project made us feel comfortable, and welcome, both in her facility, and in our frequent request for assistance, and guidance. Her patience through the entire process of completion of this study illustrates her high degree of professionalism, and commitment.

Also, from Lafayette Clinic, Mr. Paul Sherwood, Statistician, managed to skilfully tutor two statistical neophytes, with a style that could only come from his

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CHAPTER 1

Introduction^d

The literature on ~~in~~-hospital psychiatric treatment indicates that psychiatric re-admissions occur in numbers sufficient to present concerns to researchers and practitioners. Statistics from the Lafayette Clinic in Detroit specifically show a high percentage of re-admissions among psychiatric in-patients. Research results on psychiatric re-admission suggests the importance of the patient's family in enhancing his ability to remain out of hospital. Similarly, issues involving post-discharge living situations have been found to influence post-hospital functioning and re-admission rates. The practice of social work has been identified in its concern with family functioning, the coping ability of the individual and family. It has been presented in the literature as a valuable profession in the treatment of psychiatric patients and their families.

Social workers have been involved in the provision of services to the mentally ill for many years. Historically, the field of social work has been more attuned to practise than research. As a result, existing research contains few studies that deal with the role of social work in these settings. A great number of social

workers are involved in the treatment of psychiatric in-patients. Few studies however have systematically investigated the contribution of social workers to this client population.

The literature on psychiatric re-admission presents many references to the percentages of patients re-hospitalized. Relatively little information is found though on effective ways of lessening numbers of re-admissions. In fact the entire notion of psychiatric re-admission has undergone a massive re-interpretation in recent years.

The phenomenon of psychiatric re-admission has been re-interpreted in recent years. In order to avoid chronic institutionalization which led to a deterioration of the patient's ability to function independently outside the hospital, a different approach was developed. This approach allowed for shorter periods in hospital with more frequent subsequent admissions. Thus serial admissions are seen in a more positive light. The literature on psychiatric in-patient care, and re-admissions however points to the disruptive influence that repeated hospitalizations exert on the psychiatric patient and his family.

Psychiatric treatment techniques have not developed to the point where serial admissions are capable of

effecting therapeutic change without deleterious effects accruing to those involved.

Re-hospitalization, of psychiatric patients then, comprises an area of concern for practitioners, in that re-admission represents continuing disruption of the lives of the patient and his family. Research studies indicate the depth of the problem of psychiatric re-admission; and the need for further empirical knowledge. Statistics from the Lafayette in Detroit for a six month period in 1979 record forty-four re-admissions in an adult psychiatric ward with a fifty bed capacity.

This research project represents an effort to advance the empirical knowledge base of the field of psychiatric social work generally and the area of psychiatric re-admission specifically. This study will also contribute to knowledge designed to enhance the coping abilities of psychiatric patients in the community and that of their families and significant others.

The purpose of the project was to study that, if any relationship existed between the variables social work intervention and psychiatric re-admission. A comparison of re-admission rates of patients seen by a social worker and not, was carried out to decipher operative relationships among variables. Other variables possibly

impinging on the relationship between social work and re-admission were included in the analysis. Variables included in analysis were based on a review of literature in the areas of social work intervention; psychiatric in-patient care; and psychiatric re-admissions. As well the pre-test of the case review schedule added variables previously not considered.

The research was conducted employing a quantitative-descriptive research model. Three research questions were derived for use in the research project. The three questions are listed below:

Research Questions

1/ What is the re-admission rate of adult psychiatric in-patients who have received social work intervention?

2/ What is the re-admission rate of adult psychiatric in-patients who have not received social work intervention?

3/ How do the re-admission rates of adult psychiatric in-patients who have received social work intervention compare with the re-admission rates of psychiatric in-patients who have not received social work intervention?

The sample included all adult patients admitted to

wards 3N or 4S of Lafayette Clinic, during the study period July 1, 1979 through July 1, 1980. Data collection was accomplished through examination of the patient's clinical files at Lafayette by means of a pre-established case review schedule.

The data collection process included gathering information on demographic variables of psychiatric in-patients as well as information on social work intervention, and re-admission. Demographic variables were drawn from the case review schedule, and were included in the statistical analysis of the data. Variables other than social work intervention that might have contaminated research results were thus accounted for. Following this, analysis of the relationship between social work intervention and re-admission was carried out.

The methodology chapter contains an explication of the research procedures and techniques utilized in the study. A description of the procedures used to analyze the data and the findings resulting from these analyses are presented in detail in Chapter III. The interpretations of these findings in light of the literature reviewed are given in Chapter IV. Conclusions and Recommendations which have resulted from this research project are incorporated in Chapter V.

CHAPTER II

Review of the Literature

In preparation for this study a systematic review of the literature was conducted by the researchers. This was done to provide a direction for the inquiry, and to ground the study theoretically. The actual search was accomplished by means of manual library researching of pertinent journals and volumes. A computer search yielded additional material which was reviewed. The review examines the subjects of social work intervention, and psychiatric re-admission. In addition the literature pertaining to variables associated with the re-hospitalization of psychiatric patient is presented.

This chapter is divided into nine sections; the headings of these are underlined.

Section one focuses on the concern among mental health professionals with psychiatric re-admission. References are given which speak to the numbers of re-hospitalized patients and the percentage of the psychiatric population that return for in-patient treatment.

Section two deals with the position and responsibility of the social work professional in the psychiatric facility.

Section three reviews the effects of family involvement on the treatment of the psychiatric patient. The contribution of social work in improving family functioning and in aiding the patient's re-entrance into the community is also discussed.

Section four deals with the effects and implications of shorter more frequent hospitalizations of psychiatric patients. Sources are reviewed which discuss the "revolving door" syndrome, and how this has contributed to serial admission of psychiatric patients.

Section five pertains to the association between the variables re-admission, and change in diagnosis. Studies that indicate that those patients re-hospitalized show proportionately more changes in psychiatric diagnosis are presented.

Section six deals with the effect of social impairment of the psychiatric patient on post-discharge functioning. This variable is presented as one affecting the patient's ability to cope successfully in the family and community.

Section seven examines the subject of demographic variables as these affect the functioning of psychiatric patients. Demographic variables are discussed in terms of their effect on the patient's pre- and post-hospitalization functioning.

Section eight provides a review of material dealing with the multi-disciplinary approach to psychiatric treatment. A presentation of the specific contribution of the social worker on such a team is discussed.

Section nine of the review of literature presents a summary of the main points of the study. The summary synthesizes the salient points of the research project.

Psychiatric In-Patient Recidivism

The impetus for the present study derived from the opinion of the researchers that psychiatric recidivism represented an area of pervasive concern among mental health professionals. Two distinct factors were apparent. First that psychiatric re-hospitalization represents a barrier to satisfying social functioning for patients and their families. Secondly that despite the realization among psychiatrists, social workers, and allied professionals of the adverse effects of serial hospitalization, little empirical knowledge exists in this area. An empirical study of recidivism and related variables was seen to serve an obvious need in providing knowledge in an area that has previously received insufficient attention.

J.S. Tyhurst, writing on psychiatric treatment emphasized the need of professionals to attend to the

post discharge needs of the patient in his rehabilitation, after his re-entrance into the community:

Psycho-social rehabilitation and maintenance of the patient symptom free in the community is the problem now, rather than symptomatic improvement of patients in the hospital. The inability to keep the patient free of symptoms is graphically illustrated by the rising re-admission rates represents a major challenge of psychiatry today. (Tyhurst et al 1963, pp. 31-32)

Chronic unemployment was observed by Polansky, White, and Miller to be associated with psychiatric re-hospitalization. Other factors seen to contribute to the patient's return to hospital included poor social functioning, and unsatisfactory relationships in the patient's family, and in his interaction in the community. (Polansky, White, and Miller, 1957). Such observations serve to support Tyhurst's emphasis on the need for attention to post-discharge factors in the treatment of the psychiatrically ill. In a study of 965 patients released from California Department of Mental Hygiene facilities, Miller found that 40% of those released were re-admitted within twelve months of discharge. After five years, seventy-five per cent had been re-admitted on at least one occasion. (Miller, 1966). A British study, completed in 1974 found that less than half of patients admitted to hospital during the period 1964-

1970 remained out of hospital during that time. (Hailey, 1974).

Pryer and Distefano demonstrated that sixty-one per cent of those patients studied, returned to hospital within a year of discharge, (Pryer and Distefano, 1974). In studying re-admission patterns among psychiatric patients, Odegard compared re-hospitalization rates and found a significant increase from 52.4% in 1936 to 70.7% in 1958. (Odegard, 1968).

The results of the studies reviewed here emphasize the breadth of the problem of psychiatric re-admissions. The numbers of those re-hospitalized in psychiatric institutions have historically been high, and have increased in contemporary times. (Odegard, 1968). The literature draws attention to the need to re-order priorities in the care of psychiatric patients from maintenance in the facility to greater attention on matters related to healthier post-discharge functioning. (Tyhurst, 1963).

The Social Work Profession In A Psychiatric Facility

Social work's distinctive function is seen as coming from "...its social purpose...(To) ... strengthen the adaptive capacities of people and to influence their environments so that transactions are more adaptive.

Professional action is directed toward helping people and their environments overcome obstacles that inhibit growth, development and adaptive functioning". (Germain and Gitterman, 1980, p. 10).

M.J. Savage describes the role of social workers in a psychiatric facility as pertaining to the adaptive functioning of the patient in the context of family, community, and work place. This function is achieved through a combination of individual therapy, community work, and advocacy. The social work approach to treatment involves an understanding of individual, family, and community dynamics, as they affect the patient, and his significant others. (Savage, 1974).

In an article which deals with the effect of family involvement on psychiatric patient treatment, Goldstein cites the work of Kriesman and Joy:

...The major practice implications are that most families need help in dealing with the crisis of mental illness and psychiatric hospitalization, and that social work intervention with families may facilitate successful coping, as well as enable the identified patient to improve optimally. (Goldstein, 1979, p. 351)

The Goldstein study showed support for the relationship which exists between social work involvement with psychiatric in-patients and their families, and re-admission to hospital. The effects of the parents'

attitudes on the treatment outcome of psychiatric patients was the main concern of the study. Time series tests were completed by the patients and their parents. The results of the study indicate that those parents who had had "high intensity social work involvement" demonstrated improved attitudes toward their offspring. They also showed a continuing willingness to be involved in the rehabilitation of their offspring. In addition the results indicated that those parents who had "high intensity social work involvement" exhibited more realistic expectations of their offspring's recovery time. Their ability to contribute to their own rehabilitation was also seen to be enhanced through social work intervention. (Goldstein, 1979)

The treatment of the psychiatric in-patient continues to be accomplished primarily under the auspices of the medical model. (Pasnau, 1975). The literature however, indicates a trend toward greater attention focused on the families of the psychiatric patient. This is not to suggest an either/or situation. The introduction of family related therapies has not served to undermine the work of individual therapy. Rather it contributes to the treatment regimen, as a diverse, but cooperative therapy form.

There has also been a growing interest in the

patient's relevant community, and its affect on his post-discharge functioning. References quoted in the literature point out the fact that mental health professionals must work toward improved post-hospital functioning as well as in-hospital progress. (Tyhurst, 1969). The expertise of social workers in this area has been documented and reflects their potential value in psychiatric treatment. (Munro, 1969; Savage, 1974; Germain and Gitterman, 1980).

The literature review indicated that other variables may also have a pronounced affect on the psychiatric patient and his family. In addition, they may serve to contribute to the patient's re-admission to hospital. Such variables include; post-discharge social functioning; marital status; family status.

The expertise of the social worker lies in the area involving family dynamics and social functioning. Given this, investigating possible relationships between the variables social work intervention and recidivism rates appeared a logical course. The purpose here being to establish important variables associated with psychiatric re-hospitalization. Strategies for intervention based on empirical knowledge could then be developed.

The Involvement of the Patient's Family As A Variable
Associated with Psychiatric Re-admission

The affect of the patient's family on his functioning after release from hospital is a recurring theme in the literature. This suggests the dual responsibility of mental health professionals. Practitioners must deal with individual pathology, in hospital. In addition they concern themselves with factors likely to impinge on the patient's progress after his release from hospital. The family in most cases is the social unit which affects the patient's life most seriously. It is the entity which deserves close attention in treatment planning for psychiatric patients.

A study conducted at the University of Windsor School of Social Work in 1971, points out the pervasive basis for concern around the re-admission of psychiatric in-patients. It suggests that previous research results indicate that the majority of psychiatric patients are re-admitted, and that this situation is of strong concern to mental health professionals. Additionally, the study indicates that the avoidance of re-admission is directly related to areas traditionally seen as lying within the professional expertise of social workers:

Avoidance of re-admission is associated
with adequate family adjustment, conti-

nued employment and married status. Re-admission though related to continued unemployment and low functioning in the community, was, in the great majority of cases directly related to the re-occurrence of deviant behaviour unacceptable to the family and community, (Healey et al 1971, p. 23)

The above researchers speak to the importance of adequate family adjustment in the avoidance of re-admission of the psychiatric patient. In operationalizing "family adjustment" the above researchers utilized a number of definitions. These definitions included the reaction of the family members to the patient on his return from hospital. The most positive types of family responses were identified as those of acceptance and support. Another indicator involved the patient's ability to resume sex and age appropriate roles; and the family's willingness to sanction this type of re-merging of the family. The potential of social work in contributing to healthier, more adaptive functioning has been well documented in the literature. (Germain and Gitterman, 1980)

Since the 1940's, articles have appeared that have emphasized the need of social workers to assess the impact of mental illness on the family of the patient. In so doing it was felt that the family would receive higher quality treatment. Additionally, it was believed

that through such a treatment approach; '...(the) ... positive and negative role ...(of the family),... in the therapeutic process', could be assessed. (Goldstein, 1979, p. 351)

Herz, Endicott, and Gibson cited the fact that over half of the families of psychiatric patients studied reported worrying about the future of the patient. These families also suffered continuous distress that was attributable to the patient's condition. (Herz, Endicott, and Gibson, 1979). Generally, little work has been done in systematically surveying relatives' experience of management and whether they have in fact been helped by the professional advice they have received. (Creer and Wing, 1975). Langley and Pittman et al however, found that family oriented services prompted fewer admissions. Fewer re-admissions were seen as well, and those patients admitted spent less time in hospital. (Waring, 1978)

Results of a 1978 study stated that the family of the patient must be seen as an integral part of the treatment team. The value of involving the patient's family in attempting to understand the nature of the patient's illness, its prognosis and the preferred method of treatment was emphasized. (Hatfield, 1978). In a conference in Boston, in 1977, the necessity of

mental health professionals understanding family dynamics was presented by Aguela. She stated the importance of the therapist being able to assess exactly whom is in crisis at the time of the re-admission of the psychiatric patient; the patient or his family. (Aguela, 1978).

Goldstein asserted that symptoms in one person can be viewed as balancing forces within the family. Thus one individual in the family cannot change or improve within the family system without concomitant change on the part of other members. (Goldstein, 1979). The expertise of social workers in encouraging inter-member change has been documented in the literature. (Rushing, 1964; Germain and Gitterman, 1980; Savage, 1974).

An article dealing with family processes as related to schizophrenia underscored the influence of the family on the recovery of the discharged psychiatric patient. (Russell, 1978). The work of Brown et al, 1972 was quoted, on the effect of the home environment on the ex-patient's prognosis for post hospital recovery. According to the Brown study the patients returning to emotionally neutral homes had generally better prognoses than those returning to highly emotionally charged homes. Relapse was more likely among those patients returning to highly emotionally charged homes. High

emotion homes were classified as those exhibiting continuously inappropriately high levels of affect, hostility, or critical attitudes on the part of family members. (Russell, 1978). Vaughn and Leff (1976) also found that during the nine months after discharge from hospital, fifty-eight per cent (58%) of the patients from high "emotional environment" homes relapsed. This was compared to only sixteen per cent (16%) of low "emotional environment" groups. (Vaughn and Leff, 1976).

Data suggests that the presence of the family during hospitalization and presumably after discharge is related to better post-hospital functioning. Gould and Gluck's findings were consistent with this view of the importance of the family as a support system in the treatment of the schizophrenic patient. The authors stressed that the presence of the family during the period of hospitalization was related to improving functioning of the patient following release from hospital. It was found that if the family had been available during the hospitalization period the patient showed fewer symptoms after discharge, and functioned patient first, with his other roles and status receding during his institutionalization. (Polansky, White, Miller, 1957).

Patients and families tend to hide the fact of psychiatric hospitalization of a family member. Brodsky (1969) found that patients and families on their first admission were apprehensive about the return to family and the community. He reviewed the growing emphasis on family related therapy, given the fact of shorter hospitalization periods for psychiatric patients. The endorsement of social work intervention with psychiatric patients and their families is indirect, but apparent in Brodsky's writing, given social work's specialization in work with families. (Brodsky, 1969). The fear, denial, and anxiety of family members surrounding the patient's problems were studied by Raskin and Dyson. The familial anxiety, and denial of psychiatric difficulty were cited as factors inhibiting the patient's post discharge progress. (Raskin and Dyson, 1968).

Angrist sought to isolate family factors that might be associated with higher or lower re-admission rates among female patients. Her results indicated that patients readmitted were married in a large number of cases, and living in conjugal families. Among the most significant family factors were those related to the types of expectations family members placed on the released psychiatric patient on his release from hospital. In

addition, the family members' ability and willingness to tolerate deviant behaviour was found to be related to re-admission. It was found that the families of readmitted patients held consistently lower expectations of them than those patients who were not readmitted. Families of readmitted psychiatric patients were also more tolerant of deviant behaviours. The families of patients not readmitted, conversely, placed higher expectations on their returning members, and were less tolerant of deviant behaviour. (Angrist, et. al. 1961).

Endorsement of the pre-eminence of family factors in psychiatric etiology is found in the work of Becker and Weiner. These researchers referred to the development of psychiatric illness as symptomatic of general family malaise in a significant number of cases. Based on such an observation, the authors suggest the need of examining psychiatric illness in the context of family functioning. The preferred mode of treatment involves including all family members in assessment and therapy. Decompensation of the patient is presented as related in part to family dynamics. (Becker and Weiner, 1966).

In a study of stress resolution among psychiatric patients, results suggested that family relationships were significantly associated with stress outcome. The work illustrated that individuals vulnerable to decompen-

sation may be well supported by healthy family relationships, and be assisted in dealing with post-hospital trauma. Conversely it was found that those of stronger personality may be hindered in their functioning by conflictual familial relationships. The study further suggests the need for greater awareness of the family as an invaluable unit in crisis resolution to psychiatric patients. (Flamecraft, Kaplan, Langsley, 1969).

Studies reviewed dealing with the issue of family involvement in psychiatric treatment reinforce the need for closer attention to the value of significant relationship for the recovery of the psychiatric patient. It is important to note however, that most of these studies suggest the need for further research. General associations have been mapped out in the literature. To date, however, insufficient work has been accomplished in identifying specific factors related to family dynamics, psychiatric illness, and serial admission of psychiatric patients.

Previous Admissions and Psychiatric Diagnosis, As Variables Associated With Psychiatric Re-Admission

Recent trends in the treatment planning of in-patient psychiatric care have established a pattern of shorter hospitalization periods for the mentally ill. This

approach is based on the notion that it better serves the patient to be released back into the community than to spend long periods in the wards of a psychiatric facility. To that end an increase in drug therapy has been noted; medicated patients being seen to be able to more successfully cope with rigors of life outside the institution. As well, therapy programs have been developed which encourage an early discharge from hospital. With shorter hospitalization periods however has come the phenomenon of more frequent hospitalizations of psychiatric patients.

Freedman et al have identified this pattern as the "revolving door syndrome": "...this policy means that patients are frequently hospitalized indicating their repeated inability to sustain themselves in their social milieu". (Freedman et al 1964, p. 148). He continues on to write of the contemporary population trends that seemingly contribute to spiralling admission rates to psychiatric facilities. Furthermore re-admission rates recently, have been seen to increase even more rapidly than first admission rates.

A significant factor associated with psychiatric re-admission rates is that of previous psychiatric admission. Rosenblatt, and Mayer, found that psychiatric in-patients with a greater number of previous re-

admissions were more likely to return to hospital than those patients with fewer previous admissions. Odegard, made a similar observation. When compared with one-admission patients, those patients who had four or more admissions, had less than half the chance of remaining out of the hospital. (Odegard, 1968).

Further evidence to support the idea that a history of multiple hospitalizations served as an accurate predictor of re-admission among psychiatric in-patients, was found by Franklin et. al. (Franklin, Kitteridge, and Thrasher, 1975). Several other sources also provided support for the prediction value of past hospitalizations. A Canadian article, completed in 1977, quoted the work of Rosenblatt and Mayer, who found that the number of previous hospitalizations was the only variable consistently related to recidivism. Anthony and Buell were cited as having written of previous hospitalizations as the best predictor of rehospitalization. (Weller, and Miller, 1977). A study by Munley and Hyer yielded similar results. (Munley and Hyer, 1978). Sommer and DiScipio found that multiple previous admissions provided a strong indication of re-hospitalization among psychiatric patients. (Sommer, and DiScipio, 1974).

The review of the literature indicated that psychiatric diagnosis is also a variable affecting psychiatric treatment and planning. (Koppel and Farina,

1971). A British research project, produced results which showed that the majority of psychiatric in-patients that were re-admitted at least four times in two years, had received a change in diagnosis. Change in diagnosis was related to a change in psychiatrists on re-admission. Of the cases studied involving diagnostic change, approximately fifty per cent were labelled schizophrenic. (Cooper, 1967).

Given the fact that the present study deals with the variable, psychiatric re-admission, it was imperative to review relevant literature dealing with recidivism as a rate, and as an issue. Researchers have written alternatively of the beneficial, and negative effects of psychiatric recidivism. Some argue that higher re-admission rates are inevitable, in view of shorter hospital periods. The argument for more frequent, and shorter hospitalizations of psychiatric patients is supported by the fact that shorter stays inhibit the development of institutionalization. Institutionalization is seen to detract from the patient's ability to function independently upon release from hospital. Proponents argue as well, that serial admissions may be seen as a necessary part of ongoing treatment. The logic of the argument follows the line that the patient is more beneficially served by having more time outside

of the hospital.

In this study, psychiatric re-admission is seen as a phenomena to be avoided, representing as it does the failure of the patient to resume his previously vacated position in the community. (Freedman, 1964; Franklin, Kitteridge, Thrasher, 1976). One of the values underlying social work practice is that of the importance of the individual achieving his full functional potential. An interpretation of recidivism as a phenomenon which inhibits individual functioning is presented here. (Germain and Gitterman, 1980; Perlman, 1978; Pincus and Minahan, 1974).

Social Impairment of The Psychiatric Patient

Institutionalization has been identified as one of the factors most strongly affecting the progress of released psychiatric patients. The relative security of the hospital ward has been seen to undermine the motivation of some patients to leave hospital and confront the outside world. Patients sometimes find it less anxiety provoking on the ward, where psychiatric staff, and fellow patients tend to be seen as more sensitive to problems than those in the community or at home. Institutionalization, thus defined is indicative of a form of social impairment suffered by a significant percentage of psychiatric patients. Social impairment,

of the psychiatric patient has been seen to contribute significantly to psychiatric recidivism.

Syph, Ross, and Kedword discovered that social deficits were widespread and generally more severe among chronic psychiatric patients than among institutionalized mentally retarded subjects. The research further revealed that adequate preparation for discharge was critical for ex-psychiatric patients. (Syph, Ross, and Kedword, 1977)

Several sources reviewed indicated that poor social adjustment increased the chances of clinical relapse. As a result, deterioration in social performance and re-admission to hospital is more frequent. Socio-demographic indicator of social impairment have been presented in the research projects reviewed. For example, it was found that schizophrenic patients tend to be single rather than married; unskilled occupationally or unemployed; and live in geographical areas where social contacts can be minimized. (Wing, 1971).

The level of the ex-psychiatric patient's social functioning has also been found to have predictive capacity in terms of re-admission to hospital. Weller and Miller have developed a scale for predicting re-admission within six months of discharge. Among the high accuracy predictors were those variables relevant

to social withdrawal or hostility. (Weller and Miller, 1977).

Wiering, and Robertson suggest that persons without ties to others are prone to fall into, or remain in institutions. The absence of ties to significant others often stems from poor socializing ability on the part of the individual. These factors contribute to the individual's withdrawing from society, as seen in repeated, or continuous institutionalization. (Wiering and Robertson, 1971).

Social impairment of the psychiatrically ill, is especially relevant for social work practitioners as they tend to expand the locus of treatment beyond the individual patient. Such expansion includes involvement of family members, and significant members of the community, who may be of service to the patient.

The Affect of Demographic Variables On Re-Admission

Various demographic factors have been found to be important to the psychiatric patient with regard to re-hospitalization. A scale has been developed for predicting success or failure of trial home visits of psychiatric patients utilizing demographic variables as primary predictors. Researchers have stated that demographic variables have a stronger predictive

potential than psychopathological or social skill measures in forecasting re-admission. (Arthur, Ellsworth, Kroeker, 1968).

The association between post-discharge employment and re-admission was examined by Franklin, Kitteridge and Thrasher. The results indicated that employment of the ex-patient, in and of itself was valuable in reducing re-admission among psychiatric patients. This finding was consistent with the general tone of the study which suggested that re-admissions among psychiatric patients were largely related to impaired social functioning following discharge from hospital. (Franklin, Kitteridge, Thrasher, 1976). Another study demonstrated that the level of occupation was a variable affecting re-admission rates of psychiatric patients. Munley and Hyer devised an occupational rating scale for the purposes of their research. The scale placed occupations on a continuum from unskilled to professional. Results of the study conducted suggested that patients of higher occupational levels tend to be re-admitted more often than those of lower levels. (Munley and Hyer, 1978).

The return of the psychiatric patient to his family following hospitalization involves a number of stresses. During the patient's hospitalization, the family, and community adjust to his absence. Upon the patient's

return home he must re-negotiate his position in the family and community. The family and community must then adjust to the patient's return. If the patient does not conform to the expectations of the community and the family, his return to hospital might become an issue. (Community Psychiatry, April 1977).

Polansky, White, and Miller, wrote of the duality of difficulty faced by the psychiatric patient upon discharge, as these relate to his family. They point out that firstly, the returning patient must deal with his institutionalization, and the effects that his relative isolation has had on him. Secondly they outline the family's inevitable reorganization in the patient's absence, and the attending difficulties. The patient must therefore re-establish his position in a family that has reorganized, and do so under the handicap of his institutionalization. Such handicaps include, the patient's altered self-image, and lost role position. They further suggest that during his hospitalization the patient is liable to come to think of himself as a patient first, with his other roles and status receding during his hospitalization. (Polansky, White, Miller, 1957).

A discrepancy was found in the literature concerning the association between the variables marital status and

re-admission. Angrist found that patients re-admitted for psychiatric hospitalization were more often married and living in conjugal households. (Angrist, 1961). A project carried out by Franklin, Kitteridge and Thrasher indicated that patients re-admitted tended to be: "...single, separated, or divorced..." while those remaining out of hospital were more often married or widowed. (Franklin, Kitteridge, and Thrasher, 1976, p. 751).

An examination of the variables race, social class, and re-admission has been completed. (Angrist, 1961). Results defined a trend toward higher re-admission rates among non-caucasian patients, although no significant relationship established. Munley and Hyer also found that non-white patients tended to be re-admitted more often than white patients. (Munley and Hyer, 1978). On social class, research indicates a higher re-admission rate among the middle class. (Angrist, 1961).

Marital status, occupation, (in terms of work history and status of labour) and social class reflect to a large degree the individual's position in society. As well such variables affect performance socially. For each individual in society, these variables are indicators of performance, and predictors of behaviour. For the psychiatric patient, who has been removed from

society, and who faces the prospect of returning to the outer society to compete again, such variables are of escalating importance. For the individual suffering the impairment of mental illness, and hospitalization, the variables discussed may present valuable information on the course of illness. Also knowledge of the effects of such variables on post-discharge functioning can do much in furthering the success of psychiatric treatment and post hospital follow-up.

The Multidisciplinary Team Approach

The historical trend toward the team approach in psychiatric settings has been described as an evolution from the traditional benign authority approach to treatment, where allied professionals occupied roles of institutionalized subordination to psychiatric practitioners. The team approach described, involves ongoing conferencing of cases among treating professionals; psychiatrists, psychologists, nurses, occupational therapists, and social workers included. It is stated that such an approach leads to more consistency in treatment planning, to the benefit of the patient. The notion of consistency of treatment is not unchallenged in the literature. Rushing, states that the position and expected roles of social workers in particular, are

often ambiguously defined within psychiatric facilities. (Rushing 1964).

The early twentieth century evidenced a change in the nature of the casework process. (Strean, 1974). From an emphasis on social and economic issues as illustrated in the work of the Charity Organization Societies, social caseworkers became involved in the writings and therapies of the psychoanalysts:

Casework began to modify its orientation which was a socio-economic one to an approach to clients that could be termed 'psychosocial'. What psycho-analysis did for social work was to help social workers appreciate the inner life of the client and the significance of family interaction, hitherto approached as a moral problem. (Strean, 1974, p. 33)

It is of interest to note that being introduced to the importance of "...the inner life of the client and the significance of family interaction..." (Strean, 1974, p. 33) by the psychiatric community, that social workers, in their professional development have placed greater emphasis on family functioning, in assessment and treatment of the mentally ill. Social workers have evolved as allied treatment professionals of those who initially presented them with their psychosocial insights.

Psychiatric social work, then has made gains in evolving a specialized position in mental health facilities. This has been evidenced in increasing

cooperation among, and consultation between allied professions, for the improved treatment of the psychiatric patient.

Treatment plans based on the team approach allows for all levels of the individual's functioning to be considered:

The core principle involved is that planning treatment of an individual is to be carried out at all stages in the context of his being a member of a family and a community, with the promotion of communication and understanding between all individuals and groups involved (Savage, 1974, p. 217)

Selig has written of the trend toward more comprehensive use of the multidisciplinary team approach in mental health hospitals. He cautions, as well, of the need to avoid homogenization of professional roles. His writing endorses the need and benefit of varied professions contributing their specialized knowledge in the diversified regimen of psychiatric treatment. (Selig, 1973).

The multidisciplinary team approach in psychiatric facilities has been described as an innovation that has become increasingly firmly established even though psychiatric in-patient treatment continues to fall largely under the influence of the traditional medical model. The contribution of social work includes attention to the individual's social context. This is

presented as complimentary to that of traditional psychiatry (Muro, 1969).

Lowery wrote of the discipline, psychiatric social work as a specialty within the generic field of social work. He describes the work of its practitioners as carried out in cooperation with other psychiatric professionals, namely, psychiatrists and clinical psychologists. (Lowery, 1962).

Social work practitioners are described as acting alternately as consultants and consultees in their positions as members of multidisciplinary teams in psychiatric facilities. The consultation process as defined in one reference from the literature involves:

...provision of expert advice on the diagnosis management and prevention of mental disorders by specially trained mental health professionals at the request of other health professionals and within the constraints of available knowledge and techniques. (Lipowski, 1975, p. 4).

Consultation defined as above is presented as a process as well as a procedure. The definition, and description of the multidisciplinary approach emphasizes the cooperation of divergent professions in the treatment of the psychiatric patient. (Lipowski, 1975). In describing the multidisciplinary team approach in psychiatric settings, Lipowski predicts that the practice of involving allied professions with special areas of

expertise in treatment will continue to expand. In addition, it will involve an increasingly more diverse group of cooperating professionals. (Lipowski, 1975).

During the course of the early and middle portions of the twentieth century, social work practitioners developed increasing competence in work with the mentally ill, and have become recognized as qualified psychiatric professionals, and members of multidisciplinary treatment teams. In 1960, in recognizing the established position of social work intervention in psychiatric facilities, the psychiatric social work section of the National Association of Social Workers took as their task the definition of psychiatric social work consultation (as this applies to other mental health professionals.) (Kadushin, 1977).

The literature indicates that the contribution of social work intervention to the treatment of the psychiatric patient has not yet been fully realized. As part of a team of diverse psychiatric professionals, social work practitioners introduce an expertise and orientation that reflects the profession's emphasis on the family and community as change agents in therapy. Ambiguities in rôle definition, and authority issues remain unresolved, as is pointed out in the literature:

a fact that has prevented full development of the potential of the multidisciplinary team in the treatment of the psychiatrically ill.

Summary

Recidivism rates among psychiatric patients have historically been high; indications are that re-admission rates have risen even higher contemporarily.

The breadth of variables identified in the existing literature as associated with psychiatric in-patient re-admission indicates the complexity of the problem. The amount of time and effort expended in studying these associations demonstrates the concern of mental health professionals with contemporary re-hospitalization rates.

A controversy has emerged in recent years over the status of the phenomenon psychiatric re-admission. Some argue that more frequent re-admissions are the result of shorter hospitalization periods. Proponents of this argument suggest that shorter, more frequent re-admissions allow the patient to spend more time out of hospital, and so are desirable. From the standpoint of social work, research designed to enhance the patient's ability to remain out of hospital for greater periods appears valuable. Under this scheme, variables associated with enhanced coping abilities of patients

and their families assumes priority. This research project is designed to augment knowledge of associations among variables acting on psychiatric re-admission.

The literature suggests that the family of the psychiatric patient holds the capacity of aiding in more satisfying post discharge functioning, thereby contributing to lower re-admission rates. Thus far, insufficient knowledge is available in this area.

The socio-economic status of the psychiatric patient, (seen in his occupational level, income, marital status) have been identified as affecting his ability to avoid re-hospitalization. Associated with these variables is the social impairment of the psychiatric patient. The literature indicates that those patients more comfortable in interaction with their families and community tend to avoid re-admission more successfully. The association between demographic variables and social impairment can be seen in the fact that individuals more comfortable in their social interactions are more able to secure themselves in economic, and personal situations that enhance self-image, and confidence in their ability to function in the outside world.

The complexity of the problem of psychiatric admission and re-hospitalization is seen in the advent of the multidisciplinary team approach to psychiatric

treatment. Such an approach to therapy underscores the benefit of cooperation among diverse professions lending itself to treatment which accommodates the variety of problems involved in psychiatric illnesses.

Finally, a treatment mode such as that seen in social work has a strong therapeutic potential for discharged psychiatric patients. This potential derives from social work's emphasis on improved social functioning of the individual. This expertise, which involves assessment and treatment in the context of the individual's social environment affords the patient and his family the opportunity to alter patterns of interaction and to learn more effective coping abilities.

CHAPTER III

Methodology

The methodology and research design used in this study is discussed and explained in the following chapter. Specific topics discussed include the classification of the study, the research questions, the instrumentation, the setting, the sample, the limitations of the study, the collection of the data, and, the analysis of the data.

Classification of the Study

Wechsler, Reinherz, and Dobbin (1976) state that the decision of research design is dependent upon two major factors:

The most important factors in the ultimate decision on what type of design should be used are the present level of knowledge about the program, group, or phenomena to be studied, and concomitently, the degree to which one wishes to be able to generalize the findings of a particular study to encompass a broader group of people, agencies, or programs (Wechsler et. al., 1976, p. 65).

A review of the literature on research design indicated that a quantitative-descriptive model would be most appropriate for the study presented here. Fellin et al., (1969) indicate that "quantitative-descriptive studies are empirical research investigations which

have as their major purpose the delineation or assessment of characteristics of phenomena, evaluation of programs, or the isolation of key variables" (Fellin et. al., 1969, p. 139). These studies seek quantitative-descriptions among specific variables. The characteristics are obtained through the use of measuring devices to portray relationships among variables (Tripodi, Fellin & Meyer, 1969, p. 23).

Quantitative-descriptive studies are divided into four (4) subtypes. These include:

. . . hypothesis testing studies, program evaluation studies, studies describing characteristics of populations, and studies seeking to identify relations among variables (Tripodi, Fellin, Meyer, 1976, p. 24).

These are identified according to the primary purpose of the investigation. For the purpose of this project, the researchers have sought to study whether there exists a relationship between social work intervention and re-admission of psychiatric patients to hospital. Therefore, it was decided to utilize program evaluation subtype (Tripodi, Fellin, Meyer, 1976). In program evaluation studies, the hypothesis may be implicit rather than explicit, and the hypotheses are typically not derived from theory. Program evaluation studies frequently originate from practical interests, and they are all concerned with some aspect of the effects of a program

(Fellin et. al., 1969, p. 140).

The literature further indicates that a quantitative-descriptive design is utilized when "the variables in question are known with some precision, but their inter-relationship has not been measured in detail" (Wechsler et. al., 1976, p. 66).

In the literature reviewed, reference to recidivism rates among psychiatric in-patients spoke most frequently of two (2) general themes. First, that re-admission rates of psychiatric in-patients are too high, and that further empirical research is needed in this area. The second area involves the costs of psychiatric in-patient recidivism. Costs of serial psychiatric admissions involve the emotional stress and anxiety borne by the patient and his/her family (Raymond et. al., 1975), as well as the financial burden incurred through the patient's admissions (Heirz et. al., 1979). The community also bears the cost of psychiatric admissions, as tax dollars are expended on the maintenance of psychiatric institutions. As well, a loss is incurred as the individual, while hospitalized, is unable to contribute to the functioning and welfare of the community (Wierig et. al., 1971, Crouch, 1977).

Little advancement has been realized in identifying particular treatment modalities or programs that might

be used in the reduction of psychiatric re-admissions. In spite of the number of empirical studies conducted on recidivism of psychiatric in-patients, little progress is evident in the area of isolating factors that contribute to higher or lower in-patient re-admission rates. The result has been that variables significant in determining recidivism of psychiatric patients have not been successfully isolated.

According to Tripodi, Fellin and Meyer:

. . . the category of quantitative-descriptive studies is similar to that of experimental studies in that they both seek quantitative-descriptions among specified variables. Quantitative-descriptions are obtained through the use of measuring devices to describe relationships among variables hence statistical concepts such as correlations, proportions, and so forth are employed. With respect to the empirical methods employed, quantitative-descriptive studies differ from experimental studies in that they do not use randomization procedures in assigning subjects to experimental and control groups. In addition, they do not employ the experimental manipulation of independent variables (Tripodi et. al., 1976, p. 23).

This study is descriptive, in that it examines the characteristics of a particular group (i.e. the psychiatric in-patients at Lafayette Clinic). It also investigates whether a relationship exists between a number of independent variables and the dependent variable, re-admission. When such relationships are found, the nature of those relationships will be examined.

Research Questions

The specific objective of this evaluative study was to establish whether or not a relationship existed between social work intervention with psychiatric in-patients and their families at the Lafayette Clinic, and the re-admission of the patient to hospital. According to Michigan's Mental Health Association (May, 1980), in Michigan alone, 15,200 persons entered state operated psychiatric hospitals in 1979, while 33,800 persons entered licensed psychiatric units of general hospitals or private psychiatric hospitals. Regarding Detroit city, a psychiatrist from one of the emergency psychiatric facilities in the city recently stated that of those psychiatric patients admitted to state mental institutions, fifty per cent (50%) had been previously hospitalized for mental disorders within the previous six (6) months. A further twenty per cent (20%) had been admitted within the previous month. Based on a review of the literature, a problem of high and escalating rates of admission and re-admissions of psychiatric in-patients in North America is evident (Tyhurst et, al., 1963, Polanskey et. al., 1957, Vaugh and Leff, 1976, Schweitzer and Kurszenbaum, 1978).

The literature demonstrates an absence of empirical studies in the area of social work intervention in relation

to in-patient recidivism. Therefore, a hypothesis was not formulated for the study. For the purpose of the research, three (3) questions were identified:

Research Question One: What is the re-admission rate of adult psychiatric in-patients who have received social work intervention?

Research Question Two: What is the re-admission rate of adult psychiatric in-patients who have not received social work intervention?

Research Question Three: How do the re-admission rates of adult psychiatric in-patients who have received social work intervention compare with the re-admission rates of psychiatric in-patients who have not received social work intervention?

In order to know if there is an association between social work intervention and the re-admission of psychiatric patients, it is essential to identify those patients who received social work intervention. The study reported here attempts to answer the research questions proposed. These questions deal with a group of persons who share the common experience of having been admitted to a psychiatric facility. The sample selected included two groups. These were chosen because they allowed for a comparison between groups receiving social work intervention and those not (Suchman, 1967, Polansky,

1960). One group had an assigned social worker to provide on-going intervention, while the other group had no assigned social worker on their hospital ward.

The level of significance selected for this study was .05. A probability of .05 or less was interpreted as indicating support for the research questions.

Instrumentation

The purpose of the study lent itself to the collection of data from existing case records maintained at the Lafayette Clinic. The research tool employed was a case review schedule. This allowed for pertinent data to be recorded efficiently, and in enough detail to allow for accurate codification and interpretation. Variables which lent themselves to precoding were assigned codes on the case review schedule. Other variables were coded accordingly, following completion of data collection.

The researchers selected categories for the case review schedule based on a review of the literature. Those variables which seemed most closely associated with patient re-admission rates were included in the review schedule. The information specified by the case review schedule included demographic data, psychiatric diagnosis, information regarding the patients' re-

admission records, as well as information concerning the patients' predisposition to re-admission. The number and nature of social work contacts were also included. For example, Vaugh and Leff (1976) found that marital status was associated with re-admission. Hatifield (1978), on age, Munley and Hyer (1978), on occupation level, and, Goldstein (1978), on family, all found associations with re-admission.

The case review schedule was devised by the researchers. Having drawn the categories for the case review schedule from the literature, their validity was tested by means of a validity test carried out by the social work staff at the Lafayette Clinic. In terms of data collection, the concepts validity and reliability must be given a great deal of attention.

The validity of a measuring instrument may be defined as the extent to which differences in scores on it reflect true differences among individuals, groups, or situations in the characteristic which it seeks to measure, or true differences in the same individual, rather than constant random errors (Selltz et. al., 1961, p. 155).

The purpose of this validity test was to obtain feedback from the social work staff regarding the structure and format of the research instrument. The test involved five (5) social workers. The only revision required was the inclusion of the number of family contacts. The

other categories described were found to be appropriate for the purpose of the data collection.

A Pre-test was then carried out by the researchers on thirty (30) clinical files at the Lafayette Clinic. Here, the researchers were attempting to discover the reliability of the measuring instrument. As stated by Selltz:

Evaluation of reliability of a measuring instrument requires determination of the consistency of independent but comparable measures of the same individual, group, or situation (Selltz et. al., 1961, p. 16).

The pre-test resulted in another revision of the case review schedule. The category psychiatric diagnosis was changed to include a sixth class of variable. This was done to allow for the diagnoses which could not be included in previous classes. The second category revised was source of income. The original case review schedule had omitted a class for 'self', but the revision involved the inclusion of this category.

Development of the Instrument

For the purpose of this study, social work intervention and in-patient recidivism were defined as primary variables. Variables other than social work intervention were examined to determine if they were associated with in-patient re-admission. This data was collected so that the relationship between social work intervention

and in-patient recidivism might be more clearly defined. Intervening variables are acknowledged and accounted for in this manner. These variables have been referred to throughout the study under the following headings:

- (A) Personal History : This category includes age, sex, race, religion, education, occupation and, income.
- (B) Family : This category includes place of residence prior to admission, marital status, number of children, number of siblings, relationship or responsible relative, and, referral source.
- (C) Course of Illness : This category includes diagnosis, date of first admission, time interval prior to re-admission, prognosis, number of re-admissions, mode of admission, number of social work contacts, and, type of social work contacts.
- (D) After Care : This category includes living arrangements at time of discharge, types of follow-up recommended, and type of discharge, i.e., on or against medical advice.

Psychiatric Diagnosis

In order to categorize the diagnoses of the psychiatric patients, the following terminology were employed:

- (A) Neuroses : This category refers to mild functional personality disorders in which there is no gross personality disorganization (Coleman, 1964, p. 666).
- (B) Personality Disorders : This category refers to developmental defects of a pathological type rather than decomposition under excessive stress (Coleman, 1964, p. 656).

- (C) Mental Retardation/Brain Damage : This category refers to low intelligence which renders the person to some degree ineffective in handling his/her affairs or to disorders caused by or associated with impairment of brain tissue function (Coleman, 1964, p. 665).
- (D) Schizophrenia : This category refers to a major psychotic disorder characterized by emotional blunting and distortion, disturbance in thought processes and a withdrawal from reality (Coleman, 1964, p. 670).
- (E) Other Psychoses : This category refers to severe personality disorders involving loss of contact with reality and usually characterized by delusions and hallucinations (Coleman, 1964, p. 669).
- (F) Other : This category refers to any diagnosis which failed to be categorized in the previous categories.

These categories were used to classify the variable psychiatric illness. The literature demonstrates that the type of illness has an influence on the re-admission of a patient (Koppel and Farina, 1971).

The case review schedule contained no questions that required inclusion of identifying information. Each review schedule was assigned a coded number designed for the purpose of this study. There was no direct contact between the researchers and the patients during the course of the research activity. All information for the study was generated from in-patient files of the adult psychiatric wards of Lafayette Clinic, specified for the research.

Operational Definitions

For the particular purpose of this study, re-admissions and non-re-admission are defined with reference to the discrete population with which the researchers are concerned. Re-admission refers to the status of those patients in the sample who had been admitted to the Lafayette in-patient clinic more than once. Non re-admission refers to the status of those patients in the sample who have not returned to the in-patient clinic since their last discharge and the time of the study.

The definition of social work intervention was derived from the literature (Perlman, 1957, Germain and Gitterman, 1980, Savage, 1974). It includes the professional contacts established and carried on by social workers at the Lafayette Clinic. It was operationalized as follows: social work intervention included counselling sessions, the number of contacts between social worker, in-patients, and/or their families, conferences on behalf of the patients, and, community liaison efforts on behalf of the patient. In reviewing the clinical files, only those contacts followed by a signature of a social workers were included.

The researchers were interested in the context of the contacts. This helped determine the type of inter-

vention provided by the social worker at Lafayette Clinic. Following the review of team notes and summary recordings, it was decided to classify contacts by the focus of the intervention. The researchers assumed that the focus of each intervention could be accurately determined from the material in the clinical file.

Seven foci were operationally defined as follows:

- (1) Family Focus : The intervention was considered to have a family focus when the content included the social worker meeting with any or all of the immediate family members for the purpose of information gathering, family therapy, and/or family education to the patient's illness.
- (2) Marital Focus : The intervention was considered to have a marital focus when the content consisted of discussion of parents or spouse interactions.
- (3) Team Focus : The intervention was considered to have a team focus when the content of the recordings consisted of team notes (Lafayette treatment recording classification) and/or consultation with the staff on behalf of the patient, admission conferences, as well as review conferences.
- (4) Community Focus : The intervention was considered to have a community focus when the content of the recordings consisted of community referrals and/or consultation with other agencies on behalf of the patient.
- (5) Group Focus : The intervention was considered to have a group focus when the recordings consisted of work in group therapy.
- (6) Individual Focus : The intervention was considered to have an individual focus when the recordings consisted of interviews with the individual patient.

- (7) Discharge Focus : The intervention was considered to have a discharge focus when the recordings consisted of discharge plans, and/or after care plans for the patient.

The variable patient recidivism was derived from the records of actual admissions and re-admissions of adult in-patients over the time period selected for the study, June 1, 1979 through June 1, 1980.

Assumptions

According to Tripodi et. al., (1969), "assumptions are defined as propositions which have not been verified, but which are taken as given for the purpose of investigation" (Tripodi et. al., 1969, p. 74). Several assumptions were made in designing the case review schedule. The first assumption was that the therapeutic milieu was consistent for each patient. Therefore, no data was sought in this area. Secondly, it was assumed that recording within the clinical files was accurate, and therefore, a valid and reliable source of data. Thirdly, it was assumed that all social work contacts were recorded in the clinical files.

The Setting

The subjects for the study were drawn from two (2) adult in-patient psychiatric wards at Lafayette Clinic. The clinic is a one hundred and fifty-two (152) bed

psychiatric hospital with in-patient and out-patient facilities for children, adolescents, adults, and, neurological patients. The clinic provides psychiatric and neurological diagnosis and treatment. It is located in Detroit, Michigan, and serves all residents of the State of Michigan.

The proposal for the study, along with the case review schedule, was presented to and approved by the research committee at Lafayette Clinic. Following this, approval for the project was obtained from the governing body of the State, The Department of Technical Advisory Research Committee in Lansing, Michigan.

The Sample

The study includes all adult patients, admitted to wards Three North (3N) and Four South (4S) of Lafayette Clinic during the period of June 1, 1979 through June 1, 1980. Included in the study were two hundred and thirty-nine (239) patients. The actual sample contained two hundred and thirty-four (234) patients, because five clinical records were unavailable. There were one hundred and twenty (120) females and one hundred and fourteen (114) males included in the sample. It was decided that only adult psychiatric wards would comprise the study. To avoid contamination of the sample

resulting from gross age differences, patients under the age of sixteen (16) were not included.

The researchers elected to choose a sample from two adult psychiatric in-patient wards at Lafayette Clinic, as their site was readily accessible to them. The Lafayette Clinic also has a training and research center for psychiatric and related disciplines. The choice of the two wards for the study was carried out in conference with the head of social services at Lafayette Clinic. The two wards, 3N and 4S formed a natural comparison group. Ward 4S had no full-time social worker assigned to it, while ward 3N was regularly visited by social work staff.

Sampling Procedure

A purposive sampling procedure was utilized for this study.

The basic assumption behind purposive sampling is that with good judgement and an appropriate strategy, one can handpick the cases to be included in the sample and thus develop samples that are satisfactory in relation to one's needs (Selltz et. al., 1976, p. 52).

Selltz et. al., (1959) further state that "when insights that lead to the discovery of variables . . . are the intent, purposive sampling may be employed. Cases are selected on the basis of their likelihood of

stimulating insights within the investigator. In such research, the position is taken that the sample's representativeness is not an issue" (Polansky, 1960, Selltz et. al., 1976).

The decision to utilize purposive sampling was also based on the assumption that the "errors of judgment in the selection will tend to counter-balance each other" (Selltz et. al., 1976, p. 521). The sample is purposive in that the researchers based their choice of patients upon the criteria of convenience and economy for the researchers. Since there is no reason to believe that any of the chosen patients were atypical when compared to other psychiatric patients, it was felt that the sample was "satisfactory in relation to (our) needs" (Selltz et. al., 1976). This was also a non-probability sample, in that all patients admitted during the study period were included and were not chosen or assigned randomly. Thus, there was no assurance that every element had the same chance of being included. (Selltz et. al., 1976)

Limitations of Study

Certain limitations are apparent in this study. As a purposive sampling procedure was utilized in this research, findings cannot be generalized to similar groups. The project was further limited, in that all

social work contacts were not recorded in the clinical files. Likewise, some limitations are apparent in the use of re-admission to in-patient hospitalization as a criterion for social work involvement. Such limitations as the patients' environment, willingness to continue medications and to follow-up on discharge recommendations cannot be accounted for. These variables are obviously beyond the control of any researcher.

The Collection of the Data

The data was collected at the Lafayette Clinic over a four week period by the two researchers. The clinical files were obtained from medical records. These were carefully reviewed by the researchers in an office provided by the clinic. A case review schedule was completed for each of the 234 clinical files studied.

The Analysis of the Data

The analysis of the data was accomplished in several steps. First, the data was coded into symbolic form so that it was readily tabulated and counted. Secondly, the data was categorized under primary variables and secondary variables. Based on the literature reviewed (Koppel and Farina, 1971, Brown et. al., 1972), two (2) variables, diagnosis and sex, appeared to be consistently

related to in-patient re-admission. In view of these relationships and the intentions of the researchers to identify a target group for re-admission, it was decided to designate re-admission and social work intervention as primary variables. All other variables were defined as secondary. The significance of the primary variables was compared to that of the secondary. These were listed under the headings of: personal history, family, course of illness, and after care. The primary variables provided a consistent base against which the secondary variables were examined. The data was cross-tabulated against the secondary variables. Cross tabulation refers to the tabulation of the number of cases that occur jointly in two or more categories (Sellitz, et. al., 1959, p. 407).

The next statistical technique applied to the data was a multiple regression. Multiple regression analysis allows for evaluation and measurement of overall dependence of a variable on specified others. An examination of the possible relationship between social work intervention and re-admission to hospital forms the basis of the study. Analysis of the effect of other variables on re-admission is seen as necessary in this study, in order to account for spurious associations emerging from the analysis. A multiple regression

analysis allowed for the testing of the effects of other variables on re-admission that may act in conjunction with, or apart from social work intervention in influencing re-admission rates to the psychiatric wards for adults at Lafayette Clinic.

The Pearson's Product-Moment correlation coefficient analysis was also utilized. The multiple regression scores were correlated to compute Pearson's Product-Moment Correlation Coefficients (r) for pairs of interval-level variables. These coefficients "indicate the degree to which variation (or change) in one variable is related to variation in another (Nie et. al., 1975) and whether this relationship is inverse or positive (Malec, 1977). The Pearson r is appropriate because the categories developed satisfy the criteria for interval level scales (i.e. distance between categories can be considered as fixed and equal, but they do not indicate proportional magnitude (Malec, 1977)).

Finally, discriminant analysis was employed. The sample was divided into groups of high, medium, and low, based on social work intervention. Discriminant analysis was performed to determine what factors best discriminate between the high and low social work intervention groups. A step by step procedure was utilized to select the single best discriminating variable, then to

sequentially select the "second" best discriminator, given the variables already selected. To test the discrimination between groups, the lambda was used. This statistical test takes into consideration the differences between all centroids, ie., the means for each group on all discriminant functions and cohesion within groups. (Malec, 1977)

CHAPTER IV

REPORT OF THE FINDINGS

This chapter is concerned with the description and analysis of the data collected from 234 case records of patients admitted to Lafayette Clinic during the period June 1, 1979, through June 1, 1980.

Sample Description

The following section will provide a general description of the 234 patients and their families who comprised the sample for the study. To order the discussion, classifying sections have been devised. Titles of the sections include: a) demographic information, b) family, c) course of illness, and d) after care.

(A) Demographic Information.

This section will describe the variables: sex, age, race, religion, education, occupation, and source of income.

Of the 234 subjects in the sample, 51.2% (120) were female, while 48.7% (114) were male. The age range for the sample was 17 years to 81 years, with a mean age of 31.26 years. For statistical purposes, the ages of the sample were broken down into 5 year intervals, resulting

TABLE I
AGE DISTRIBUTION

x	f	%	Cumulative %
17-21	43	18.3%	18.3%
22-26	69	29.4%	47.7%
27-31	46	19.6%	68.3%
32-36	19	8.1%	75.4%
37-41	15	6.4%	81.8%
42-46	10	4.2%	86.0%
47-51	9	3.8%	89.8%
52-56	9	3.8%	93.6%
57-61	4	1.7%	95.3%
62-66	5	2.1%	97.4%
67-71	1	0.4%	97.8%
72-76	2	0.4%	98.6%
77-81	2	0.8%	99.4%

in thirteen (13) classes of age. The largest class interval was 22 - 26 (69), while the smallest class was 67 - 71 (1).

The majority of patients, 89.8% (211), were between the ages of 17 and 51 years, with only 10.2% (23) patients over the age of 52 years.

Under the variable race, three classes were established. These included white, black and other. It was found that the majority of patients in the study were white, comprising 75.2% (176) of the total sample. The Black patients accounted for 23.5% (55) of the total, while 1.2% (3) were made up of other racial minorities.

The largest reported religious denomination was that of Roman Catholic, which made up 38.8% (91) of the sample. The class labelled "other" included both those reporting no religion as well as the religions which could not be classified elsewhere. This category comprised 29.8% (68) of the entire sample. Those subjects reporting Protestant (65) and Jewish (10) religious affiliation accounted for 31.9% (75) of the sample. Affiliation with Roman Catholic, Protestant, or Jewish denominations represented 70.7% of the sample.

Number of years of formal education for subjects in the sample showed a range of thirteen years. The mean number of years of formal education was 11.49. Of the

sample, eight subjects reported enrolment in special education classes, while one subject reported no formal education. The lowest educational level was that of five (5) years, constituting 1.28% (3) of the total. The majority of cases fell within the twelve year class, comprising 35.89% (84) of the sample. This was followed by 10.68% (25) of the patients having had thirteen years of education. Twenty-two (9.40%) of the patients had eleven years of formal education, 8.97% (21) had received sixteen years, while 8.5% (20) had attended school for fourteen years. Of the total, 11.38% (29) had either ten years or fifteen years of education, while the remaining 8.52% (20) had attended school for six years, seven years, eight years, nine years, or eighteen years.

In viewing the variable of occupation, the researchers found that 72.2% (169) of the patients in the sample were unemployed at the time of their admission to hospital. Fifty-six or 28.8% of the patients were employed at the time of admission. Thirty-five or 15.3% of the sample were in unskilled positions; eleven, (4.7%) occupied skilled employment; and nine, (3.8%) held managerial or professional jobs. Homemakers constituted nine (3.8%) of the total group.

The final variable examined in this section is source of income of patients at the time of admission.

Twelve classes were established for this variable. One of the classes, supplementary income contained no cases and so will not be discussed. The greatest number of those in the sample, fifty-nine or (25.2%) were maintained on some form of government assistance. Pensions and disability accounted for 11.9% (28) of recipients; Social Security for 6.4% (15); while 6.8% (16) of the patients received Aid to Families of Dependent Children. The largest single class was that of "other", 20.9% (49), followed by 5.9% (14) of the subjects receiving general assistance, and 1.7% (4) supporting themselves on unemployment benefits.

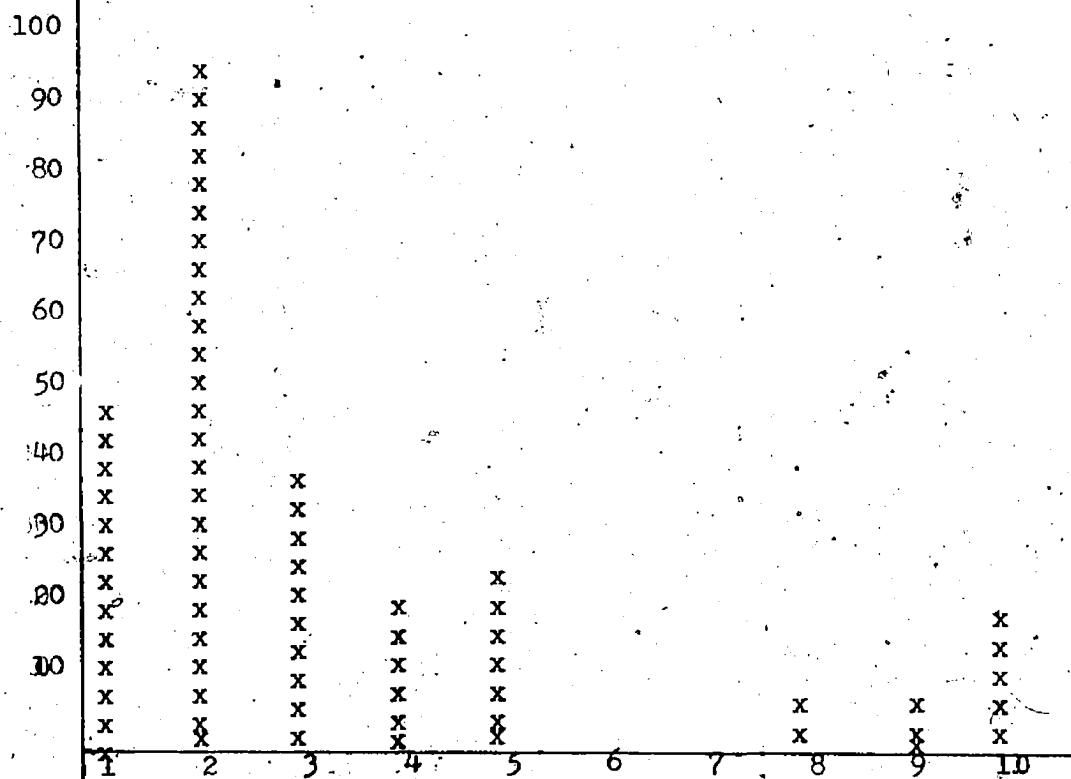
Included in the "other" class were those supported by family, friends, and relatives, as well as any other source of income which could not be classified elsewhere. Of the 234 patients included in the study, 17.0% (40) supported themselves. The third largest class was those patients whose source of income was unknown. These people comprised 14.9% (35) of the total. Cases which reported husband's income as the sole source of financial support constituted only 9.8% (23) of the sample. Husband's and wife's income combined was 2.9% (7) of the total, while only 1.2% (3) of wife's income was the sole support for the family.

(B) Family

This section will examine these variables: place of residence at time of admission, the number of children, the number of siblings, relationship of responsible relative, and referral source.

The first variable, place of residence at time of admission, had a total of eleven (11) classes. The groups "Nursing homes" and "Boarding homes" will not be discussed, as there were no reports of such arrangements at the time of admission. The greatest number of patients, 38.8% (91) had been living with their parents prior to admission. The second largest group was those patients living by themselves. This class represented 18.8% (44) of the sample. The next largest category was those living with spouse, 14.9% (35). Of the total sample, 53 people were living with siblings/relatives (9.4%), with friends (6.8%), or in some other situation not elsewhere classified (6.4%). Medical state hospitals were responsible for transferring 3.3% (8) of the patients sampled to the Lafayette Clinic. It is important to note that a large proportion of these patients were transferred for insurance reasons (i.e. insurance benefits running out). Finally, three patients, 1.2%, had been living in adult foster care homes prior to their admission. Chart I demonstrates the distribution of

CHART I.
LIVING ARRANGEMENTS



Living Arrangements

Code 1 self	8 adult foster care
2 parent	9 medical/state
3 spouse	hospital
4 friend	10 other
5 sibling	
6 boarding home	
7 nursing home	

living arrangements. From the data, it can be concluded that 63.1% (148) of the patients live with some member of their family.

The second variable in this section is the number of children of each patient at the time of admission. Of the total, 59.4% (139) reported no children. The range in number of children was distributed between 0 to 7, with a mean of 1.23. The largest class was that of thirty (12.82%) subjects reporting two children. The next largest group was of those having one child, comprising 11.53% (27) of the total, while 6.41% (15) had three children. The remaining 9.80% (23) had between four and six children.

When looking at the number of siblings per patient, it was found that only 8.54% (20) reported no siblings. The range of siblings was 0 - 14, with a mean of 3.22. These figures reflect a change of 1.99 between the number of children in the family of origin and the present patient generation. The largest group included those patients reporting two siblings, 24.78% (58), followed by 17.94% (42) describing three siblings. This group was followed by 15.38% (36) reporting four siblings, with 12.39% (29) having only one sibling. When combined, 14.96% (35) of the patients had between five and seven siblings, 5.11 (12) had between eight

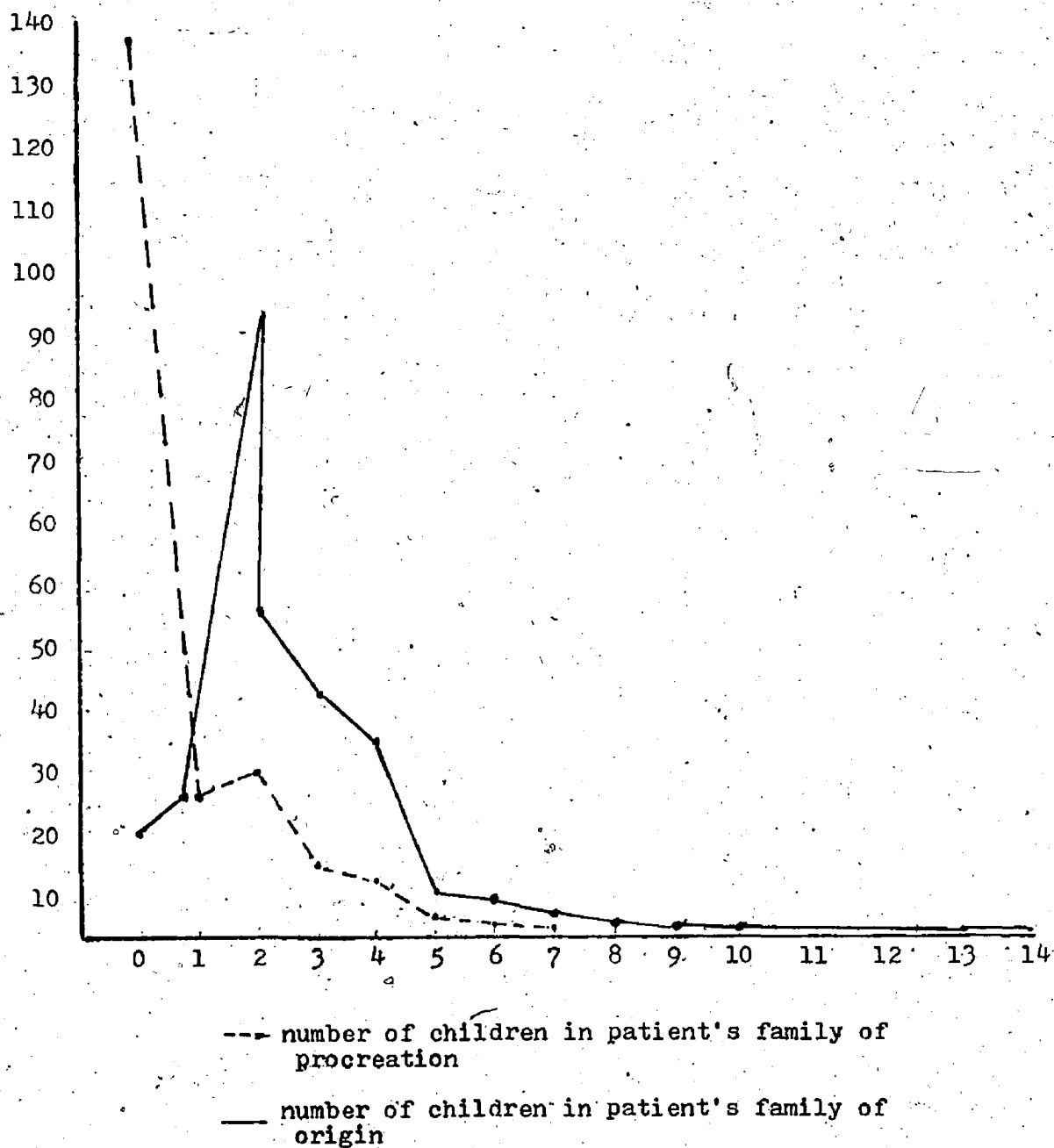
TABLE II
DISTRIBUTION OF CHILDREN IN PATIENTS' FAMILY OF ORIGIN
AND FAMILY OF PROCREATION

x	f_a	%	f_b	%
0	139	59.40%	20	18.54%
1	27	11.53 %	29	19.38%
2	30	12.82%	58	24.98%
3	15	6.41%	42	17.94%
4	13	5.55%	36	15.38%
5	5	2.13%	13	5.55%
6	4	1.70%	12	5.12%
7	1	.42%	10	4.27%
8	0	0.00%	6	2.56%
9	0	0.00%	4	1.70%
10	0	0.00%	2	.85%
13	0	0.00%	1	.42%
14	0	0.00%	1	.42%

f_a - number of children of patient's

f_b - number of siblings of patient's

CHART II
NUMBER OF CHILDREN IN PATIENT'S FAMILY OF PROCREATION
AND FAMILY OF ORIGIN

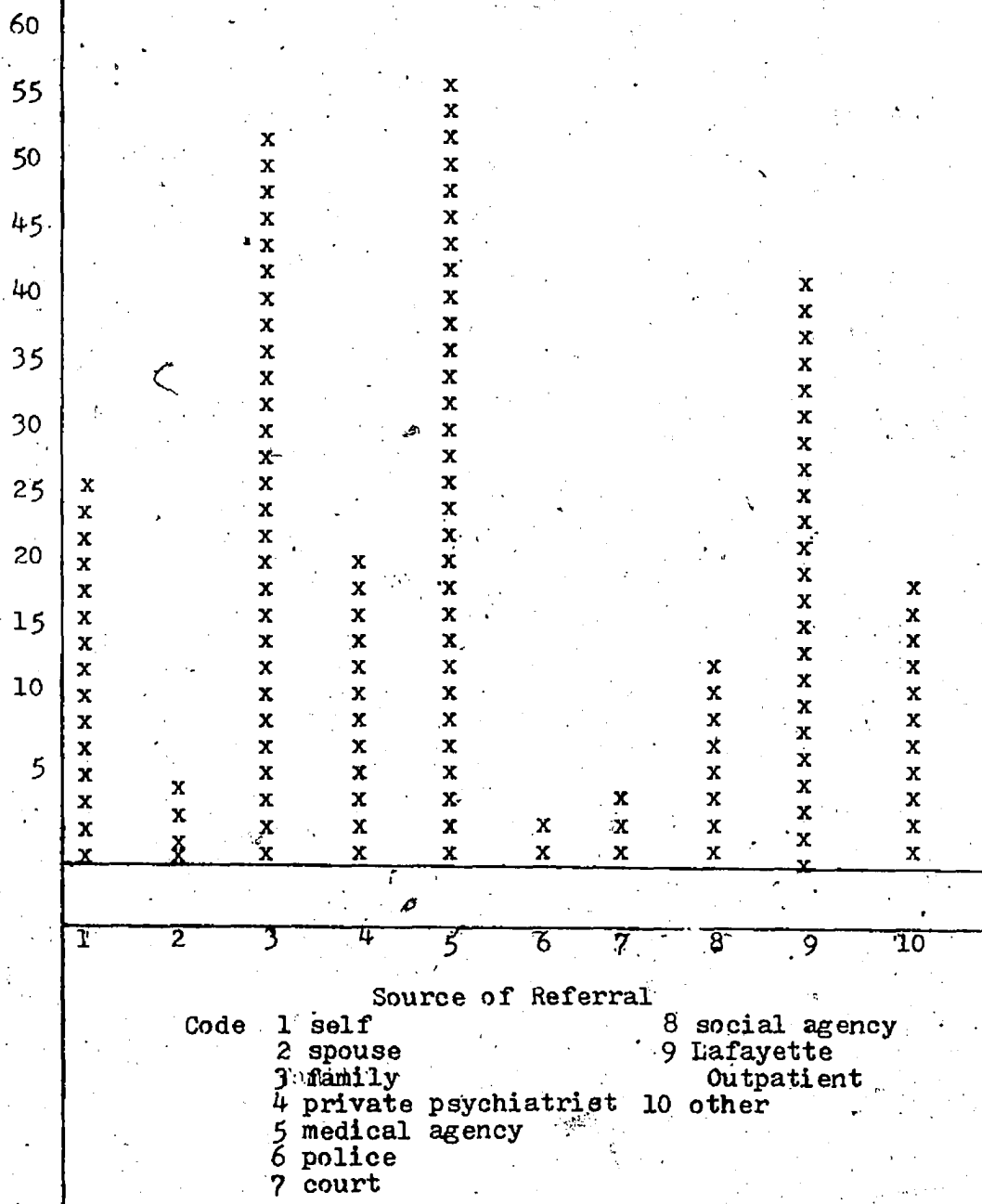


and ten siblings, while .84% (2) had either thirteen or fourteen siblings. Table II shows the difference in the number of children for the two generations. Chart II demonstrates the change in children between the family of origin (b) and the patient's present number of children. The chart clearly expresses the change in childbearing patterns from the last generation to the present generation.

The responsible relative for each of the 234 cases was recorded. The largest category was that of parents, comprising 53.8% (126) of the total. Spouses were listed in 16.6% (39) of the total number of cases. Siblings made up 8.5% (20) of the responsible relatives, while 6.4% (15) reported friends as next of kin. Of the total, 5.1% (12) reported 'other', and only 2.1% (5) listed "self" as responsible relative.

The last variable examined in this section is referral source for admission. This class showed a large split in its distribution. The majority of patients were referred by medical agencies - 23.5% (55). Often in these cases, the patient was transferred to the clinic for insurance reasons. The families of the patients were responsible for 21.7% (51) of the referrals. The next largest category was the Lafayette outpatient clinic, which referred 17.5% (41) patients. Of the

CHART III
DISTRIBUTION OF REFERRAL SOURCE



total sample, 11.5% (25) came to hospital via self referrals. Nineteen (19) (8.2%) of the patients came to the hospital under the auspices of private psychiatrists, 7.6% (18) of the patients were referred by "other" sources which were not elsewhere classified. Social agencies, the courts, the police, and spouses were responsible for only 7.9% (23) of the referrals.

Chart III gives a distribution of the referral sources.

(C) Course of Illness

This section will deal with diagnosis, change in diagnosis, nature of change, prognosis, change in prognosis, nature of change in prognosis, time intervals between admissions, and, mode of admission.

The first variable examined in this section was diagnosis at time of first admission. Of the 234 cases in the sample, 23.5% (55) were diagnosed as schizophrenic. Those subjects falling in the "other" diagnostic category comprised of 20.5% (48) of the sample. Other forms of psychotic behaviour was diagnosed in 20.0% (47) of the cases sampled. The class included those patients with affective disorders which had a psychotic base. Those patients suffering from various forms of personality disorder made up 18.3% (43) of the sample, the neurotic

category consisted of 11.1% (26) of the total, and 6.4% (15) were diagnosed as suffering brain damage or mental retardation. Of these, 20.5% (48) had a change in diagnosis on their previous readmissions, while 79.5% (186) did not. Included in the latter category are those patients with only one admission. In actual fact, only thirty-six (36) patients of those readmitted had no change in diagnosis.

Of the forty-eight (48) patients which experienced a change in diagnosis, 26.5% (13) were rediagnosed as other psychosis, 22.4% (11) as suffering from a personality disorder, and 20.4% (10) as having a schizophrenic illness. The last fourteen fell within the category of brain damage/mental retardation.

The next variable examined was that of the patient's prognosis at the time of first discharge. Five categories were established, and all were utilized. The majority of patients, 29.0% (68) were discharged with a guarded prognosis; 28.6% (67) had a fair prognosis, while 17.9% (42) of the sample were assigned poor prognosis. The class "good" constituted 17.0% (40) of the sample, while 7.2% (17) were discharged without a prognosis. A change of prognosis in subsequent discharges was found in 21.2% (50) of the cases. Of these, 32% (16) changed to guarded, 30% (15) to poor, and 22.4% (11) saw an altera-

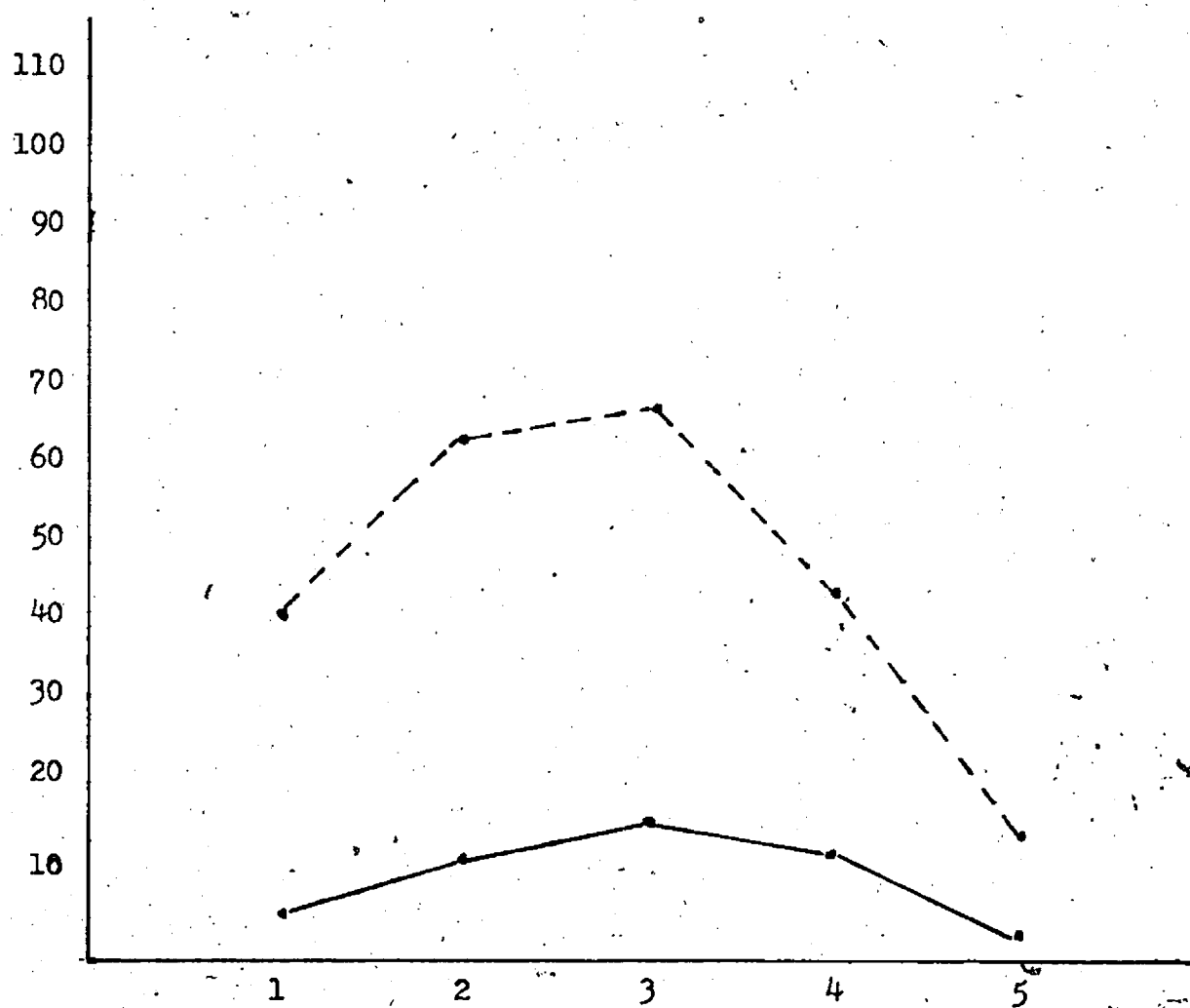
TABLE III
DISTRIBUTION OF PROGNOSIS
AND CHANGE IN PROGNOSIS

x	f_a	%	f_b	%
Good	40	17.0%	5	10.2%
Fair	67	28.6%	11	22.4%
Guarded	68	29.0%	16	32.6%
Poor	42	17.9%	15	30.6%
None	17	7.2%	3	6.0%

f_a - initial prognosis

f_b - subsequent prognosis

CHART IV
CHANGE IN PROGNOSIS



--- first discharge prognosis
— subsequent discharge prognosis

Code of prognoses 1 good
2 fair
3 guarded
4 poor
5 none

tion to fair. Three (3) of the cases were not assigned a prognosis on subsequent discharges, and 10.2% (5) were given a good prognosis.

Table III and Chart IV illustrate the changes in prognosis for patients admitted to the Lafayette Clinic during the study period.

Of the total cases admitted to the clinic during the study period, 64.1% (150) were first admissions, while 35.9% (84) had been re-admitted once or more. The mean for the variable re-admission was two (2), with a range of eight (8).

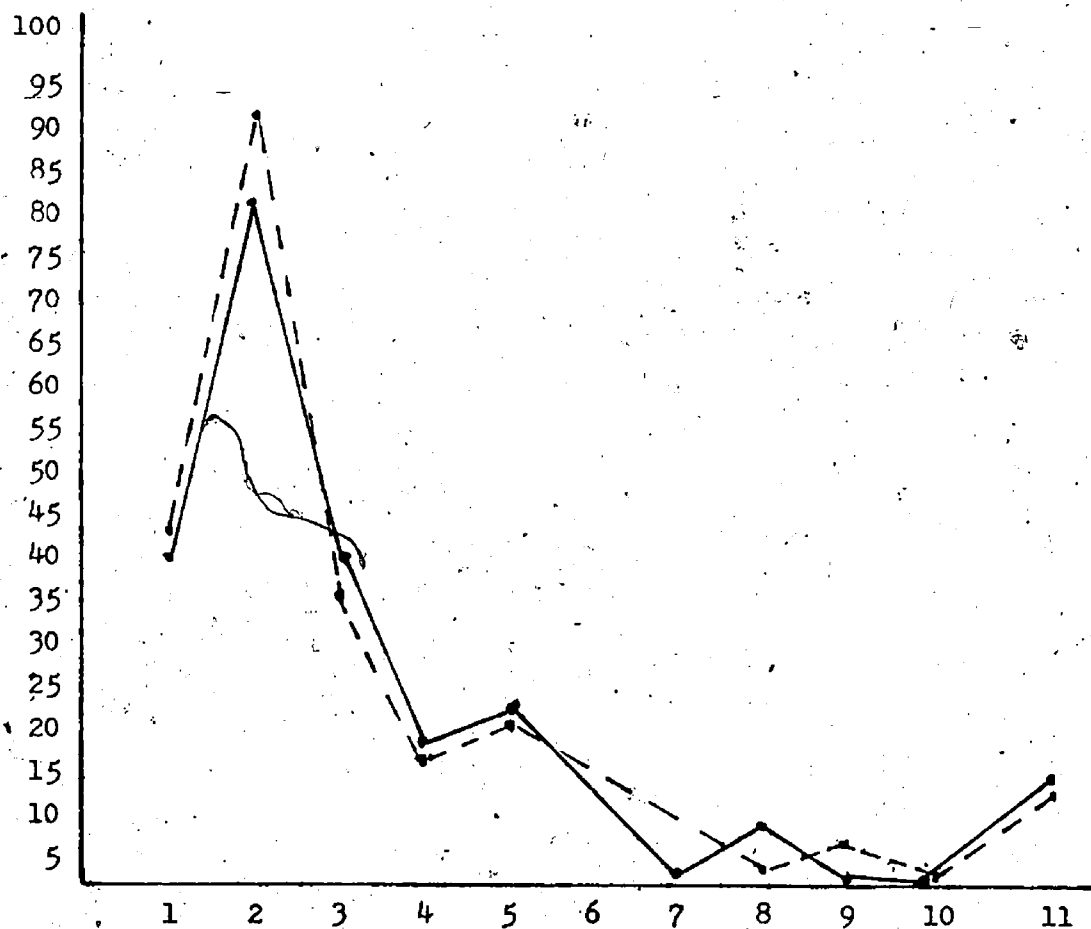
Time between admissions was examined and produced the following results. Months between admissions for patients from the sample ranged from one (1) to one hundred and twenty-two (122) months. The mean number of months between admissions was computed at 29.44. This variable involved those eighty-four (84) patients re-admitted over the time period of the study.

(D) After Care

This section examines the patients' living arrangements at time of discharge, the follow up recommendations, and the type of discharge.

Eleven (11) classes were established for this category, and only ten (10) were utilized. No patient that left the hospital went to a boarding home.

CHART V
LIVING ARRANGEMENTS AT
ADMISSION AND AT DISCHARGE



--- living arrangements at time of admission
— living arrangements at time of discharge

Code of living arrangements. 1 self
2 with parent
3 with spouse
4 with friend(s)
5 with sibling/relative
6 boarding home
7 nursing home
8 adult, foster care
9 medical hospital
10 state hospital
11 other

Eighty-two (35.0%) patients returned home to live with their parents after discharge. This number was slightly lower than the total living with parents prior to hospitalization, which was 38.8% (91). Thus, 3.3% (9) found other living arrangements following hospitalization. There was also a slight decline in the number of patients living independently after hospitalization. At the time of discharge, 17.0% left hospital to live on their own, while at the time of admission, 18.8% (44) had been living alone. This figure indicates a decrease of 1.8% (4). Those patients living with their spouse increased by 1.3% (3), as 16.2% (38) patients were discharged to their spouse's home. The classes of siblings/relatives, friends, and other living arrangements showed a slight increase. These groups constituted 25.1% (59) of the total. The adult foster care homes saw an increase of 3.0%, with 4.2% (10) being discharged to AFC homes. The state hospital and nursing homes provide 1.6% (4) of the discharge living arrangements, while .4% (1) were transferred to a medical hospital. Chart V plots the living arrangements for patients at the time of admission and at the time of discharge.

The second variable examined in this section was follow-up recommendations. Eight (8) classes were identified, however, class six, vocational rehabilitation,

drew no patients, as none were referred to vocational rehabilitation without another form of follow-up planned as well. As a result, these cases were included in the eighth class, other. The majority of patients, 48.7% (144), were referred to Lafayette out-patient clinic. Patients receiving no follow-up comprised 21.7% (51) of the sample, while 12.3% (29) were referred to social agencies, and 11.1% (26) fell within the other resources class. Private Psychiatrists constituted 2.9% (7) of the follow-up recommendations, while 2.5% (6) were to attend other medical facilities. Only one (1) patient was to be followed up with nursing services.

Summary.

The mean age of the sample was 31.26 years, while the average school grade completed was 11.49. Caucasians formed 75% of the sample. The average number of re-admissions for the sample was two (2). The majority (57.2%) of the subjects had never been married. Subjects reported themselves unemployed previous to admission in 72.2% of the cases. Schizophrenic diagnoses were seen in 23.5% of cases. Prior to admission, 38.8% of the subjects had been living with a parent.

Social Work Intervention With Re-Admitted And
Non Re-Admitted Patients

The number of social work contacts on first admission was measured for those patients re-admitted and those not. The mean number of social work contacts for those not re-hospitalized was found to be slightly higher on first admission. Those remaining out of hospital were seen on average 5.25 times on first admission. Re-admitted patients were seen for 5.15 contacts on first admission. The t-test score indicated no statistical difference in mean number of contacts ($t = 0.116$).

Social work contacts were subdivided into seven (7) categories, according to the foci of contacts, noted in the Lafayette Clinic files. These established categories included: a) Family; b) Marital; c) Team; d) Community; e) Group; f) Individual; and g) discharge planning modes of therapeutic contacts. Of the seven categories, only on individual contacts was a statistical difference found between the means of the two groups. On this variable, results showed that patients re-admitted were seen individually a mean number of 1.52 times. The corresponding number of individual contacts for those not re-admitted was 1.16. The

t-score computed was 6.341, illustrating statistical significance at the 0.05 level of significance.

On family intervention, the difference in mean number of contacts was very slight (0.20 visits per patient), with the families of those re-admitted being seen 1.84 times on average, as opposed to 1.64 times for the families of non-returning patients. The t-test score on this variable was noted at 3.398, below the level required to illustrate statistical significance. Differences in mean number of marital contacts was even more slight. For those people seen to return to Lafayette for in-patient therapy, the average marital contact numbered 1.15 visits. For those remaining out of hospital, the number was 1.08. The t-test value of 1.780 on this variable indicated no statistical significance in the difference in means.

Little difference was found between the mean number of team meetings held on behalf of patients from either group. An average number of such meetings of 1.69 for patients re-admitted was found, while 1.57 meetings on average was seen for non-returning subjects (t-test value - 1.771). Similarly, for community contacts, little difference in mean number of contacts was evident. Community contacts were made an average number of 1.48 times for re-hospitalized patients, and 1.46 times for

those remaining out of hospital over the period of the study (t-test - 0.411).

Group therapy sessions were held with returning patients on the average of 1.13 times during admission times. For patients with one recorded hospitalization over the period July 1, 1979 to July 1, 1980, 1.00 group sessions were conducted on average. Once again, the computed t-test indicated no significant difference between means.

Discharge planning comprised the final mode of social work contact noted. No significant difference was found between the means of the two groups on this variable. For patients returning to Lafayette, discharge planning was accomplished through a mean number of 1.41 visits, while the corresponding number of visits for patients not returning was 1.28. The t-test score on this variable was calculated at 2.032, again not sufficient to indicate statistical difference.

The time until first social work contact on first admission was computed for the two groups of patients. The results of the comparison of means on this variable were seen not to be statistically significant (t-test value - 0.465). A difference in the mean number of days between admission and first social work contact is evident, however. For those patients not returning to

Lafayette during the time of the study, the time between admission and first contact was shorter. For this group, contact with a social worker was seen within 11.76 days of admission. For those patients who were re-admitted, the time intervening was computed at 13.16 days. The computed t-test yielded a score of 0.462, indicating no statistical significance to the difference in means.

Summary

Results of the analysis, comparing mean number of social work contacts (according to foci of treatment) among re-admitted and non-re-admitted patients indicated, with one exception, no significant difference between the two groups. Mean number of social work contacts for both groups were consistently similar. On individual social work contact, significant statistical difference was found between the two groups. Results indicated that patients re-admitted had significantly more frequent contacts than those not re-admitted. Given the relatively low number of contacts of this type seen in both groups and the slight difference in means the validity of the results of this particular comparison is questionable.

A Comparison of Re-Admitted and
Non-Re-Admitted Patients

An analysis was undertaken in which the means of the group of patients re-admitted to hospital and those patients not re-admitted during the time period of the study were compared. To test the significance of any discerned differences in the means of the two sample populations, a t-test was computed for each of the compared means. By comparing the mean scores of those patients re-admitted with those not over the period of the study, the researchers planned to assess the effects that other variables might have on re-admission. In effect, the researchers attempted to discover the degree of similarity, or disparity, between the two patient groups. After establishing areas of similarity, and dissimilarities, the task of delineating the effects of a specific variable on another (in this case, social work intervention on re-admission) is more easily and clearly accomplished.

Twenty-five (25) separate calculations were involved in this portion of the data analysis. Variables were assigned to analysis by the researchers in consultation with a statistician, after preliminary computer programs had been run which identified parti-

cular variables that might be associated with re-admission.

By comparing the means of the group containing the non re-hospitalized patients with those of the hospitalized, the importance of the effects of intervening variables on re-admission was assessed.

Demographic Variables

The mean age of those re-admitted to hospital was compared to that of the patients who were not. The mean age of those re-admitted to Lafayette during the time of the study was found to be 34.09 years, while that of the group not returning was computed to be 29.67 years.

Although a difference in age of approximately five (5) years was seen, the t-test value computed indicated no significant statistical difference between the means of the two groups (t-test-score - 2.579).

A ratio of slightly fewer males was found to be present in the group of patients re-admitted to hospital. The difference in means; however, was so small in this instance as to be inconsequential. Within both groups, there was a larger number of females than males.

The mean level of education for both groups of patients was calculated, and the difference submitted to a t-test to ascertain the significance of the difference in means. The results of this analysis indicated that

those re-admitted to Lafayette held slightly higher education levels than those not re-admitted. The mean education in years for the former group was found to be 12.57, while for that of the latter, the figure was 11.99. Again, the difference in means was very slight, and, according to the derived t-Test score, not statistically significant (t-test score - 1.853).

Little difference was found in the means of the two groups with regard to number of children. The mean number of children for the group re-admitted was 1.05, while for that of those who did not return to Lafayette as in-patients, the mean was 1.00. The difference in means was not statistically significant, the calculation of the t-test yielding a score of 0.249.

A difference in the mean number of siblings of patients re-admitted to Lafayette was found in comparison to those who remained out of hospital during the period of the study. Patients who were re-hospitalized had a mean number of siblings of 2.85. Those of the sample population who were able to remain out of Lafayette Clinic showed a mean number of siblings equalling 3.42. The t-test performed indicated no statistical significance in the difference in means between groups on this variable.

The results of the preceding analyses are interes-

ting, in that no statistically significant differences emerged between the two groups of patients. Both patient groups show a moderately young (29 - 34 years), reasonably highly educated population (both groups show a mean of completed high school). Variables such as number of children, and number of siblings appear not to affect re-admission or avoidance of serial hospitalization, as both groups show similar means in these variables.

Mode of Admission

On the variable mode of admission, that is, voluntary or involuntary, no significant difference was found in the mean of the two groups. Both those re-admitted and those remaining out of hospital were admitted voluntarily in the majority of cases. Of the entire sample, two hundred and eighteen (218) patients had been admitted voluntarily, as opposed to sixteen (16) admitted involuntarily. This figure suggests the inconsequence statistically of the voluntary versus involuntary mode of admission. The t-test score on this variable was 0.00.

Number of Months Between Admissions

From a computation of mean number of months between admissions, no comparison was possible, since one

category contained no information (those patients not re-admitted showed no score on this variable). From the calculation of the number of months between admissions, it emerged that of those re-admitted, the mean number of months intervening between first recorded and most recent admission was 29.44. This figure does not necessarily refer to time between consecutive admissions, since the number of months in this instance is derived from the difference between the first and most recent admission recorded, up until the time of the study. Patients re-admitted may have had (and several did) intervening admissions. The range of months between first and most recent admission was seen to vary from one (1) to one hundred and fifty-two (152) months. The mean calculated, as well as the range of months, indicates that serial admissions of psychiatric patients may consume very significant portions of patients' indicating the importance of studies designed to ascertain variables associated with re-admission.

Type of Discharge

No significance was found in the difference in means on the variable type of discharge (on, or against medical advice). Scores of one (1) for those patients released on medical advice, and two (2) for those

released against medical advice were developed for coding. The mean of the group re-admitted was computed at 1.13, for those not returning to hospital, the mean was 1.25. Results of the analysis showed that most patients in both groups tended to be released on medical advice. The t-test value calculated was 2.220, indicating no statistical significance.

Summary

On the comparison of groups re-admitted and non-re-admitted patients difference were noted on particular variables. These differences however were not statistically significant.

Re-admitted patients tended to be somewhat older than patients not rehospitalized. More often they tended to be female, though the percentage was not greatly disparate. Those patients returning to hospital had slightly more education. On average they had completed 12 years of formal education.

A Comparison of Ward 3N and Ward 4S

It has earlier been established in the methodology chapter that a non-probability sampling method was employed in this research project. The method used was one of purposive sampling. The limitations of such an

approach have previously been discussed, as these refer to the loss in randomization in assigning subjects for study. During analysis, patients were divided according to wards (three north / 3N, and four south / 4S,) according to their assignment at Lafayette upon admission. Ward 3N had a full complement of social work staff during the study period. Ward 4S had only part-time social work available. The two groups thus formed were then analyzed. A t-test was utilized to discern the difference in means between the two assigned groups.

The analysis included the entire sample (234 patients), except on the variables education, months between admission, time until first social work contact (in days), first admission, and time until first social work contact on most recent admission (in days), where data was not available, or where variables did not apply. Explanations are presented for each of those analyses not included in the full sample in the report of the findings.

The two groups were not significantly at variance on a number of variables. This situation leads to greater confidence in the similarity of the sample. It leads, as well, to a clearer illustration of the association between the variables social work intervention and re-admission.

Demographic Variables

The first variable examined was age of patients in each of the wards. The result showed that there was not an apparent, or statistically significant difference in the mean age between the two groups. The mean age of patients on ward 3N was 31.34 years, while that of patients in ward 4S was 31.13 years. The t-test value indicated that the difference in means was not statistically significant (t-test value - 0.123).

Sex of patients in the two wards was found to be not significantly different (t-test value obtained - 0.445). The t-test indicates no meaningful difference in the means of the two groups according to the variable sex. Scores of one (1) for male and two (2) for female subjects were developed for coding. The computed mean for ward 3N was 1.52, while for 4S, the mean was 1.49, indicating a slightly higher percentage of female patients in ward 3N.

The next variable analyzed was education of the patients in each of the two wards. The mean education level of patients in ward 3N was found to be 12.29 years. For patients in ward 4S, the mean education level was seen to be 12.03 years. Analysis of this variable was conducted on only 225 patients, as nine of the patients

were listed in their files as having received special, or no formal education. As coding of these educational levels was not possible, the patients so described were eliminated from analysis of the education variable. The t-test obtained was 0.845, indicating no statistically significant difference in the means of the two groups.

The number of children reported for the patients in the study was analyzed. The mean number of children from each of the groups was shown not to be significantly different. The mean number of children of patients in ward 3N was .99, and for the patients in ward 4S, the mean was 1.07. The t-test computed was 0.402.

The difference in means of number of siblings between the two patient groups was computed, and no apparent or statistically significant difference was found. The mean number of siblings for patients in ward 3N was 3.13, while for those in ward 4S, the mean was 3.34 (the computed t-test score was 0.630).

Comparison of Mean Number of Re-Admissions By Ward

The mean number of re-admissions was computed for the two patient groups. A difference in means of re-admissions was seen. The difference between the means

of the two groups was not statistically significant. The mean number of re-admissions of those in ward 3N was .93, while for ward 4S, the mean number of re-admissions was .48. The t-test was 2.396.

Mode of Admission

On the variable mode of admission (voluntary or involuntary), no significant difference was found between the two groups (t-test score = 1.819). That is, there was a similar distribution of voluntary versus involuntary admissions in each of the wards studied. Code scores for this variable were developed, one (1) indicating voluntary admission, and two (2) showing involuntary admission. The computed mean for ward 3N was 1.08. For ward 4S, the mean was 1.02.

Intervening Months Between Admissions

The number of months between admissions for patients of both wards was computed, as well as the means for each of the patient groups. The result of the comparison of means for each of the groups yielded a difference that was not statistically significant (computed t-test value = 2.233). Even though the result was not statistically significant, the comparison did indicate a substantial difference in the mean number of months

between admissions for wards 3N and 4S. Ward 3N had a mean number of months between admissions of 13.41, while ward 4S showed a mean of 6.09. The mean length of time between admissions (first and second) for the patients in 3N was clearly more than twice as long as that of patients in ward 4S. This is an important observation for this study, since ward 3N was the ward with regular social work staff assigned. Ward 4S, by comparison, had only part-time social work service during the period of the study. The fact that patients from the ward with regular social work contact remained out of hospital, on average, twice as long as patients from the ward with only part-time social work contact (between first and second admissions), is not, in and of itself, significant. It does, however, provide a basis for comparison of other variables as they differ between the two groups.

Change in Diagnosis

The comparison of the two groups on the variable change in diagnosis between admissions showed that no significant difference existed between the mean number of changes in diagnosis seen in patients from the two wards. The mean computed for change in diagnosis among subjects on ward 3N was 1.23. For those on ward 4S, the

mean computed was 1.16.

Change In Prognosis

The variable change in prognosis was found to be not at significant variance between the two groups. The means of the wards: 3N having 1.23, and for 4S, 1.17. The t-test value equalled 1.017, well below the level required to indicate statistical significance. On the variable change in prognosis, only 231 subjects were included. Three (3) of the patients in the sample had had no recorded prognosis, preventing their inclusion in this portion of the analysis.

Type of Discharge

The distribution of types of discharge from hospital was not significantly at variance between the two groups. Two types of discharge were coded, on or against medical advice. The majority of patients from both wards were discharged on medical advice. The means of the two groups differed by only 0.01% (t-test value - 0.309).

Number of Social Work Contacts

On the variable number of social work contacts on first admission, no statistically significant difference

was found in the comparison of the two groups. The mean number of social work contacts on first admission for patients on ward 3N was 5.30, while for those on ward 4S, the mean number of contacts was 5.07. The close similarity in means between the two groups is of interest, in that patients were seen almost as often on ward 4S as 3N, even though ward 4S had only part-time social work service. The t-test computed for this variable showed a result of 0.277.

On the same variable, relevant to the second admission, a different result is seen. The result of the comparison of mean number of social work contacts on second admission between the two wards indicated that patients on ward 3N were seen almost twice the number of times, on average, over the patients on 4S. The mean for ward 3N was 1.98, while for ward 4S, the mean was 1.00. The t-test indicated a score of 2.292, which does not illustrate statistical significance.

Number of Visits of Patients' Family

The number of family visits for patients on first admission was computed, and the means of each of the groups calculated. The result was found not to be statistically significant (t-test value - 1.331). A definite difference in means was found, however. Patients

from ward 3N had a mean number of family visits equaling 14.58, while 4S patients had a mean number of 11.00 visits with family on the first admission. The mean number of family visits for both patient groups was collected for the second admission as well. A lowering trend in the mean number of family visits for both patient groups was noted. For example, patients on ward 3N had a mean number of family visits on second admission equalling 4.78. The families of patients on ward 4S visited on average 1.97 times during the patient's second admission. The computed t-test result, 2.238, indicated no statistical significance between the means on this variable.

Types of Social Work Intervention

Seven categories of social work contacts were developed for the coding and analysis of this data. The seven categories included: 1) Family, 2) Marital, 3) Team, 4) Community, 5) Group, 6) Individual, and, 7) Discharge Planning. A comparison of the mean number of family contacts with families of patients between the wards illustrated that no significant difference in means existed between the two ward groups. The mean for ward 3N was 1.69, while that of ward 4S was 1.74, with a calculated t-test value of 0.904. Similar results were

found for marital therapy. The mean number of social work contacts for purposes of marital counselling, showed very little variation between the two groups. The mean for ward 3N was 1.11, while for 4S, the mean was computed at 1.08. T-test score equalled 0.745.

Team conferences on behalf of patients in each of the ward groups were held practically the same number of times. The mean number of such conferences held on ward 3N was 1.68 for each patient. Team meetings were seen to take place on ward 4S at the rate of 1.50 times per patient. The t-test value seen in this instance, indicating an absence of statistical significance, was 2.790.

Social work contacts classified as community work involved all those types of activities by social workers designed to aid the patient in his return to the community on discharge, including advocacy in the courts, in outside social agencies, and, in arranging foster care placements. Once again, no significant difference was found in the mean number of contacts in this category on behalf of patients from wards 3N and 4S. Mean number of contacts for subjects on 3N was 1.48, while for those on 4S, the number was 1.45. The t-test score on this comparison was 0.475.

Group therapy was found to be performed in both

patient categories, in practically equal numbers. The mean number of group therapy sessions per patient on ward 3N was 1.06, while that of 4S was 1.02. The t-test value computed at 1.623 was illustrative of no statistical significance difference.

Patients on ward 3N were seen in individual therapy a mean number of 1.29 times during their time in hospital. The mean number of individual contacts for patients on ward 4S was 1.28. Once again, little difference in the mean number of individual contacts was noted between the two wards. The t-test computed for this comparison of means was 0.130.

Discharge planning for patients in both groups was achieved an almost equal number of times on average. Figures show that patients on 3N were seen for discharge planning a mean number of 1.33 times, while 4S patients were aided in discharge planning through 1.32 number of visits, on average, during their time in hospital.

In computing data on number of specific types of social work contacts for each of the patient groups, data was included from all admissions. No distinction was made on the basis of whether the social work contact occurred during the first or subsequent admissions to Lafayette Clinic.

D

Time Between Admission and First Social Work Contact

Comparisons between the two patient groups on the basis of time between admission and first social work contact were drawn for first and last (most recent) admissions. On the first admission, a difference in mean number of days until contact of approximately five (5) was found between the two groups. Patients on ward 3N were seen within 14.02 days, on average. Patients on ward 4S, however, were seen, on average, five (5) days earlier following admission. The mean number of intervening days between admission and first social work contact was found to be 9.55 days. The t-test, calculated on this comparison resulted in a score of 1.577, indicating no statistical significance. Patients were seen, on the average, more quickly on the ward without regular social-work service.

The same variable, measured on the most recent admission of patients to wards 3N and 4S, yielded results indicating that as with the first admission - patients tended to be seen sooner following admission on ward 4S. On this measure, fewer patients are included, reflecting the fact that a total of seventy-one (71) patients from the sample were re-admitted to wards 3N or 4S. Of the seventy-one re-admitted to these wards, 53 patients were admitted to ward 3N on the most recent

admission, while 18 were admitted to ward 4S. The comparison of means for the most recent admission showed that patients admitted to ward 3N were seen, on average, within 30.05 days following admission. For patients admitted to ward 4S, patients were seen by a social worker within 7.08 days of admission, on average. The t-test computed yielded a score of 0.765, well below the value necessary to indicate statistical significance.

Number of Social Work Contacts on First and Subsequent Admissions

The mean difference in number of contacts between admissions for the two patient groups was noted, and the results submitted to a t-test analysis. This measure was designed to discern whether a decline in number of social work contacts emerged between admissions. In the case of both groups, a lesser number of social work contacts was seen in the most recent admission as compared to the first. In the case of patients from ward 3N, the mean number of contacts decreased by 3.32 visits. For patients of ward 4S, the mean decline in number of social work contacts equalled 4.07. From earlier analysis presented under the variables social work contact, first, and most recent admissions, the information is given that patients on ward 3N were seen

by a social worker a mean number of 5.30 times on first admission, and 1.98 times on most recent admission. The same computation of figures for patients on ward 4S indicates that patients were seen by a social worker, on average, 5.07 times on first admission, and 1.00 times on most recent admission. From this analysis, it may be seen that patients on ward 3N were seen slightly more frequently on first admission, and that the decline in number of visits was somewhat less on most recent admission than for those patients on ward 4S. The computed t-test for this variable indicates an absence of statistical significance ($t = 0.789$).

Summary

A comparison of patients admitted to wards 3N and 4S was carried out to discern whether differences would be found in patients' and their performance, according to whether they were assigned to a ward with full, or with part-time social work available. With the exception of ward assignment, the two groups studied were not significantly at variance on a number of the variables examined.

A composite profile of the patients can be drawn from information from the data collected. Patients were, approximately 31 years old, with both sexes represented

equally. They had completed four years of high school education. The average number of children of patients was one. Patients came from families with three siblings. The majority of patients had been admitted voluntarily to hospital. Patients on ward 3N tended to remain out of hospital longer than those on ward 4S. The average time between admissions were 13 and 6 months respectively. Patients experienced one change of diagnosis and of prognosis over subsequent hospital admissions. On the first admission patients received five social work contacts (approximately). On subsequent admissions patients on 3N received two social work contacts, and patients on 4S received one contact. Over successive admissions patients on both wards received fewer social work contacts.

Additional Lines of Analysis

To further test the question of whether a relationship exists between the variables social work intervention and psychiatric re-admission of patients at Lafayette two further lines of analysis were pursued. The first line of analysis involved comparison of the number of social work contacts for patients grouped according to the number of re-admissions which they had experienced. The second line of analysis involved a

comparison of patients seen by a social worker and patients not seen by a social worker.

A Comparison of Social Work Contacts According To Number of Re-Admissions

To discern the presence or absence of a relationship between the variables social work intervention and patient re-admission, all of those re-admitted at least once to Lafayette were grouped according to number of re-admissions. This was carried out as the comparison of mean number of social work contacts for patients re-admitted and those not re-admitted yielded no statistically significant difference. For patients re-admitted the analysis showed a mean number of 5.15 social work contacts. For those patients remaining out of hospital a mean number of 5.25 contacts with a social worker was noted. The t-test score obtained on this variable was 0.116, illustrating no statistical significance.

Following is a list of the categories defined for the purposes of analysis. The numbers in brackets following each of the groupings indicate the number of patients in each class. The second number in parentheses refers to the mean number of social work contacts computed for that class. One re-admission (44; 5.86), two re-admissions (16; 4.18), three re-admissions (11; 5.18),

four re-admissions (5; 5.60), five re-admissions (5; 3.60), more than five re-admissions (3; 1.66). This analysis included eighty-four subjects, the total number of those with more than one re-admission to Lafayette Clinic at the time of conducting of the research study. Table IV illustrates the results of the analysis.

The mean number of social work contacts for each of the established classes was calculated, and the differences in means analyzed, utilizing an f-test to establish whether the difference was statistically significant. An f-test score of 0.382 was obtained, indicating no statistically significant difference in the means of the groups on first admission.

A comparison of the mean number of social work contacts was computed for the most recent admission of these same eighty-four patients. The groups, arranged according to number of re-admissions, are listed in Table V. The f-test calculated using this data yielded a value of .435, indicating no statistical significance. The greatest number of social work contacts is seen among those patients with three to four re-admissions. Little difference in mean number of social work contacts is evident between the groups showing one re-admission and those with more than five re-admissions. Once again,

TABLE IV
DISTRIBUTION OF PATIENTS ON FIRST ADMISSION ACCORDING
TO NUMBER OF RE-ADMISSIONS AND SOCIAL WORK CONTACTS

x	f_a	f_b
1	44	5.86
2	16	4.18
3	11	5.18
4	5	5.60
5	5	3.60
5+	3	1.66

x- number of re-admissions

f_a - number of patients

f_b - mean number of social work contacts

TABLE V
DISTRIBUTION OF PATIENTS ON MOST RECENT ADMISSION ACCORDING
TO NUMBER OF RE-ADMISSIONS AND SOCIAL WORK CONTACTS

x	f_a	f_b
1	44	4.61
2	16	3.75
3	11	4.90
4	5	6.00
5	5	2.80
5+	3	4.66

x - number of re-admissions

f_a - number of patients

f_b - mean number of social work contacts

no definite trend emerges from the analysis of the data.

A Comparison of the Patients Seen by a Social
Worker and Patients Not Seen by a Social Worker

The second line of analysis involved a comparison of patients who had received social work intervention and patients who had not received social work intervention. The two groups of patients were compared on twenty-nine variables. Two of the variables proved to be statistically significant.

The first variable was the type of psychiatric discharge. Patients leaving the Lafayette Clinic do so in one of two ways. They may leave with or without the permission of the attending psychiatrist. The results indicate that patients not seen by a social worker tended more often to leave Lafayette against medical advice. The mean number of AMA discharge among this group was almost 50% higher than those seen by a social worker. Results of this comparison were found to be significant at the 0.01 level of significance. Discharge against medical advice precluded follow-up and possible re-admission to the Clinic.

The second variable which proved to be statistically significant was family involvement with the psychiatric patient. On first admission the results showed that

those patients receiving social work intervention had a mean of 14.17 visits from their families. For patients not seen by a social worker the mean was 3.23 visits. The f-score on the comparison of the means was 5.757, indicating statistical significance at the 0.05 level.

Summary

A comparison of social work contacts between re-admitted and non-returning patients was completed. The computed t-test established that the mean number of contacts between the two groups was not statistically significant. Re-admitted patients were then grouped according to number of re-admissions, and the mean number of social work contacts computed for each group. Computations were completed for first and most recent admissions. This analysis indicated no significant relationship between the variables social work intervention and re-admission.

Dividing the study sample into groups, according to whether social work treatment was received, two variables were found to vary significantly. Patients not receiving social work treatment left Lafayette against medical advice significantly more often than patients seen by a social worker and received significantly more visits from family on first admission, than those patients not seen by a social worker.

Multiple Regression Analysis

A multiple regression analysis was utilized to evaluate and to measure the overall dependence of the numerous variables on each other. The literature indicates that this type of analysis can only be employed when interval level data is reviewed. (Anderson and Zelditch, 1968). Multiple regression analysis allows for the difference in variance to be examined. When the variation in two different variables is associated it is quite possible that one of the variables can be used to account for the other. (Anderson and Zelditch, 1968). The researchers acknowledge the qualification in quoting the results of a multiple regression analysis for non-interval level data. The results of the analysis are presented here as some trends worthy of note which have emerged.

Four lines of inquiry utilizing multiple regression analysis were employed. First, the initial twenty-nine variables on the case review schedule were analyzed. Secondly analysis was carried out with the last nine variables on the case review schedule. Thirdly those variables comprising interval level data were analyzed. The first two steps were necessary as the program utilized was designed to accept only twenty-nine

independent variables for one dependent variable. A specific line of analysis was pursued as well, in which the variable social work intervention on first, and on most recent admission was examined for association with re-admission. Only those eighty-four patients re-admitted over the time of the study were included in this line of analysis. This distinction in programs allows for the differentiation between programs technically appropriate for analysis utilizing multiple regression.

The first multiple regression analysis involved the first twenty-nine variables of the case review schedule. Two hundred twenty-five cases were included in the analysis. Those nine cases reporting special education were excluded as the computer program was not designed to account for missing data. The dependent variable was number of re-admissions. The twenty-nine independent variables were examined to establish the extent to which they varied with the changes in the values of the dependent variable. Of the twenty-nine independent variables examined, two showed the greatest degree of significance. The most significant variable was change in prognosis. With a coefficient value of 1.9267, and a partial R of 0.5939, the f-ratio was computed at 121.523. The critical value for f for df 1 and 224 at the 0.05 level

of significance is 3.84. Since the observed value of f is substantially greater than the critical value necessary, it is concluded that there is an association between change in prognosis and number of re-admissions.

The variable change in diagnosis emerged as significantly associated with re-admission in the multiple regression analysis. The f -ratio was computed at 68.163. The critical value for f with df 3 and 222 at the 0.05 level of significance is 2.60. The f -ratio computed for change in diagnosis is considerably greater than the critical value; an association between the variables change in diagnosis and re-admission is concluded.

The next line of analysis was utilized to establish the status of the variable re-admission as a function of social work contact on the first and the most recent admission. An f -test was computed for each of the procedures to define the presence or absence of statistical significance. This analysis yielded information on the difference in number of re-admissions (range 1-9 re-admissions), and the spread in number of noted social work contacts on the first and most recent admissions. For the first recorded admissions the range of contacts was 0-28. For the most recent admissions, the range was found to be 0-17.

On the first recorded admissions, the findings indicate no significant association between the variables social work intervention and re-admission. The f-test computed, as well, showed no statistical significance: $f=(1.181)$. Variance on re-admission attributable to social work contact was seen to be less than five per cent (5%).

An identical line of analysis was run including the variables social work contact and re-admission for the most recent admission. Social work contact on the most recent admission was not found to be significantly related to re-hospitalization. The f-test completed in this analysis indicated no statistical significance in the results of the test; ($f = 0.587$).

The third multiple regression involved the last nine variables on the case review schedule. All cases were included except those nine reporting special education. Of the nine variables, individual social work contact showed a significant association with re-admission. The f-ratio was computed, and equalled 33.658; the critical value for f for df 1 and 224 is 3.84. Given the results of this analysis an association was seen to exist between the variables individual social work contact and re-admission.

The fourth line of multiple regression analysis

involved only those variables of interval, from the data. Age of patients emerged as associated with re-admission. The computed f-ratio equalled 6.195. The critical value for f for df 1 and 75 at the 0.05 level of significance lies between 3.66 and 4.00. As the observed value of f is greater than the necessary critical value, an association is observed between age and re-admission. The final variable indicating statistical significance in this line of analysis, emerged as education. The computed f score equalled 2.809; beyond the critical value necessary of 2.21 to 2.25 for df 6 and 70.

Summary

Change in prognosis, and change in diagnosis emerged as significantly associated with re-admission. The findings here are congruent with those achieved in earlier analysis, and reported in previous sections of this chapter. Association between change in diagnosis and prognosis, and re-admission was established through the computed f-test.

Social work intervention on the first and most recent admissions was found not to be significantly associated with re-admission, with the exception of one of the identified social work foci. Individual social work contact was found to be associated with re-admission. A similar finding of association was seen in

the computed t-test, in which means of re-admitted and non-returning patients were compared.

With the interval level data, the variables education, and age of patients were found to be significantly associated with re-admission. A contradiction is seen in these findings. In previous lines of analysis the means of re-admitted and non-returning patients were compared, and submitted to a t-test. The results indicated no association between the variables age or education of patients and re-admission.

Research Questions

Three research questions were derived for this study. The questions were designed to facilitate comparison of re-admission rates for patients admitted to wards 3N or 4S of Lafayette Clinic, Detroit, during the study period, July 1, 1979 to July 1, 1980. Re-admission rates were compared according to whether or not patients received social work intervention during their in-patient stay at Lafayette.

The first research question referred to the re-admission rate of patients receiving social work treatment during their admission to Lafayette. Of 213 patients receiving social work intervention while at Lafayette Clinic, 84 or 39.34% were re-admitted.

over the time of the study.

The second research question dealt with the re-admission rate of those patients not receiving any kind of social work intervention during their stay at Lafayette. Twenty-one patients, or 8.97% of those admitted to ward 3N or 4S over the time of the study received no form of social work therapy. The re-admission rate of these patients was zero. None of these patients were re-hospitalized during the study period.

The final research question seeks a comparison of the re-admission rates of patients receiving social work treatment, during hospitalization and those not. The comparison of re-admission rates indicates that eighty-four (84), or thirty-nine point three five per cent (39.35%) of patients receiving social work treatment were re-admitted over the time of the study. Of the twenty-one patients not receiving social work therapy, none were re-admitted to Lafayette over the study period.

CHAPTER V

Interpretation of The Findings

Interpretation of the findings of the study is based on the data collected from a review of 234 in-patient files from the Lafayette Clinic, Detroit, and the literature reviewed. The researchers will first examine the three research questions derived for the study. These are underlined, after which discussion and interpretation is presented for each question. Following this the effect of identified intervening variables on the association between social work intervention and psychiatric re-admission is interpreted. Subsequent sections include; Demographic variables; Mode of Admission; Prognosis; Diagnosis; and finally Social Work contact.

Research Questions

Research Question # 1

What is the re-admission rate of adult psychiatric in-patients who have received social work intervention?

In order to answer the research questions, the sample was divided into two groups. The first group was composed of those patients who had received social work intervention during their time at Lafayette. The

second group comprised those patients who had not been seen by a social worker during their in-patient stay at Lafayette Clinic.

The results indicated that of the 234 patients in the sample, 213 had had a form of social work contact. The mean number of re-admissions for each of these groups was computed. Results showed that those patients with some form of social work intervention had a mean re-admission rate of 0.83. Of the 213 patients seen by a social worker during their in-patient stay at Lafayette, 129 or 60.56% were not re-admitted during the study period. The number of patients receiving social work intervention, and seen to be re-admitted over the period of the study equals 84, or 39.35%. Thus, 60.56% of those subjects seen by a social worker were not re-admitted, while 39.35% of the sample receiving social work intervention were re-hospitalized. These gathered facts are reflective of information drawn from the review of literature, which indicates that those psychiatric in-patients receiving social work therapy while hospitalized tend more often not to be re-hospitalized. (Goldstein, 1979).

Research Question # 2

What is the re-admission rate of adult psychiatric patients who have not received social work intervention?

Twenty-one of those patients admitted to wards 3N or 4S over the time of the study were found to have received no form of social work intervention. For these patients, no re-admissions were recorded over the study period. The computed re-admission rate equalled 0.00.

Research Question # 3

How do the re-admission rates of adult psychiatric in-patients who have received social work intervention compare with the re-admission rates of psychiatric in-patients who have not received social work intervention?

The above research question, deals with the comparison of re-admission rates of those subjects receiving social work intervention, and those not. Results indicate that 60.56% of those patients receiving social work intervention were not re-admitted to hospital. Of those patients not receiving social work intervention, none were re-admitted to hospital. Given the relatively small number of patients not receiving social work intervention, and the fact that none of these patients were re-admitted to Lafayette during the study period, comparison of re-admission rates in isolation from other variables is impossible.

The mean number of re-admission for each of the patient groups was computed, and the difference in these means submitted to a t-test to ascertain statistical significance. The results of the t-test indicated statistical significance at the 0.01 level, ($t = 2.620$). The strength of significance was greatly affected by the fact that one of the groups showed no re-admissions.

The above quoted results stand in direct contradiction to the literature reviewed, regarding the association between social work intervention and psychiatric re-admission. Empirical results from a 1979 study indicated that those psychiatric in-patients receiving "high intensity social work involvement" tended to avoid re-admission more successfully (Goldstein, 1979). Other sources in the literature, emphasize the need for attention to the patient's post-discharge functioning potential, marital status, family status, and relationships in the community in aiding the patient avoid psychiatric re-hospitalization. (Germain and Gitterman, 1980; Savage, 1974; Munro, 1969). These areas are presented as within the expertise of social work practice indicating its value as an integral field in contemporary psychiatric treatment.

As stated above, the results of the foregoing line of analysis appear incongruent with the literature

reviewed, on social work intervention and psychiatric recidivism, unless qualified. An examination of statistics derived, provided information relevant to the research question, and more congruent with results cited in the literature on social work intervention and psychiatric recidivism. Of the 234 patients in the sample, 150 were not re-admitted to Lafayette over the time of the study. From this information, it can be seen that although the twenty-one who had not received social work intervention, were not re-admitted, 129 of these patients seen by a social worker were not re-admitted to Lafayette on an in-patient basis during the time of the study. The 129 patients seen by a social worker and not re-admitted to Lafayette over the time of the study, constitute 86% of the patients not returning for in-patient admission. Conversely, 14% of those not re-admitted had received no social work intervention. These statistics support the value of social work intervention in lessening re-admission rates.

The literature review indicated that psychiatric re-admission rates are of a magnitude to be of strong concern to mental health professionals, (Hailey, 1974; Miller, 1966). Research suggested that psychiatric recidivism has historically been high, and seen to increase contemporarily. (Pryer and Distefano, 1974;

Odegard, 1968). Statistics from the present study indicated that a situation of high re-admission rates existed among the sample of patients at Lafayette Clinic drawn for this research study. Of the 234 patients admitted during the study period, 84, or 35.90% had been re-admitted. These results bear out the studies reviewed indicating that a high percentage of psychiatric patients are re-admitted to hospital. The percentage figure seen here is not as high as some of those quoted in the literature. (Hailey, 1974, Miller, 1966). This may be accounted for by the fact that the study covered only a twelve month period. If the study had been a longitudinal one covering a period of years, the re-admission rate may have been higher. .

The Effect of Intervening Variables on Re-Admission

The two hundred, thirty-four patients in the sample were divided into two groups according to whether or not the patient was seen by a social worker, during his time as an in-patient at Lafayette. The first group contained two hundred thirteen members, the second, twenty-one. The two groups were compared on the variables contained in the case review schedule. These operations were carried out in order to clarify whether other variables



may have been present. Such intervening variables would have had the potential to affect re-admission rates among those patients who had social work intervention and those patients who had not had social work intervention.

Two variables were found to be statistically significant. Those patients not receiving social work intervention left hospital against medical advice 50% more often than those receiving social work contact. On family involvement, the mean number of family visits on first admission for patients seen by a social worker was 14.17; for patients not seen by a social worker the mean was 3.23.

The literature review yielded no information on association between the variables social work intervention; type of discharge; and re-admission. At Lafayette however, type of discharge plays an important role. Those patients discharged against medical advice tend not to be followed up by the Clinic. This situation precludes re-admission to Lafayette, and affects re-admission rates of the sample studied.

The above results on family involvement raise some questions. The literature on family involvement with psychiatric patients indicates the importance of the family's commitment as related to psychiatric recidivism.

"Adequate family adjustment" has been cited as essential to avoidance of psychiatric re-hospitalization. (Healey et al 1971). The strain of psychiatric admission on the family of the patient, and the importance of assessing and accounting for this stress in treatment planning has been emphasized by other researchers (Goldstein, 1979). The involvement of the patient's family in treatment is presented in the literature as a powerful medium through which recidivism can be avoided, (Goldstein, 1979; Hatfield, 1978). This fact establishes social workers with their expertise in family dynamics as essential therapists in the treatment of the psychiatrically ill. (Germain and Gitterman, 1980).

The data on family involvement for this sample indicated a high number of visits from family for patients who received social work intervention. The data however, does not indicate the nature or quality of interaction between the patient and his family. It provides information only on the number of family visits. From this it is impossible to define whether family members were motivated to visit the patient by an active, positive interest in his rehabilitation, or by the stress that accompanies psychiatric admission.

Two facts emerge from other lines of analysis which shed light on the issue. First, from the analysis of

difference in means between the group with social work contact and those not seen it was found that family visits decreased dramatically between first and most recent admissions for that group receiving social work contact. On first admission, the group receiving social work contact showed a mean number of family visits of 14.17. On most recent admission the mean number of family visits decreased to 4.05. This large drop in number of visits may indicate a frustration on the part of the families of the psychiatric patient suggesting that family visits may have derived more from concern over the patient's admission than active participation in his rehabilitation. If active participation in the patient's rehabilitation had motivated family visits on the first admission, a large drop in number of family visits would not be expected.

Secondly, in a comparison of mean number of social work contacts involving the patient and his family, no statistically significant difference was noted between the group re-admitted to Lafayette, and those not. The mean number of family social work contacts for those re-admitted equalled 1.84. For those patients not re-admitted the mean number of family social work contacts was 1.74. In view of the large difference in number of family visits between the groups on first admission

these findings appear important. With the relatively large number of family visits occurring among the re-admitted patients, it would be expected that a proportionately large number of family social work contacts would be seen. This was not the case however. As the analysis indicates, very little difference is seen in number of family social work contacts, despite a much larger mean number of family visits within the group of patients seen by a social worker during their stay at Lafayette.

A comparison of family visits for patients on ward 3N and ward 4S indicated a large drop in number of visits between first and most recent admission.

On the variable family social work intervention, no statistically significant difference emerged in the mean number of contacts between the two groups, even though ward 3N and 4S had only part time social work service. On ward 3N, families were seen a mean number of 1.69 times; for ward 4S the mean number was 1.74. These findings would suggest that although differences in number of visits appear, this does not necessarily suggest that the families of the patients were involved in therapy always.

The Effect of Demographic Variables on Re-Admission

Demographic information on patients sampled was

gathered from the case review schedule. Demographic variables were then examined for their potential effect on re-admission.

Occupation

Classes of occupation covered a range from unemployed through unskilled labour to professional. A high percentage of admitted patients sampled were within the unemployed or unskilled category; (205 or 87.5%). Computed t-tests however, indicated no statistical significance between occupational level and re-admission. Studies reviewed suggested an association between employment itself and avoidance of re-admission. (Franklin, Kitteridge, Thrasher, 1976). Another study however, contradicted this, citing results which indicated an association between higher occupational levels and re-admission. (Munley and Hyer, 1978)

Source of Income

The variable "source of income" showed no statistically significant association with re-admission. The fact that income sources for patients were spread across the entire spectrum may have contributed to this finding. All categories in the case review schedule were represented, with the exception of supplementary income.

Social Security benefits accounted for the income of sixty-three or 21% of the sampled patients.

Although 72.2% or one hundred sixty-nine of the subjects were described as unemployed, only four or 1.7% were classed as receiving government unemployment benefits. This suggests that many of the subjects may have been unemployable previous to admission, for health reasons, or because of family commitments, (i.e. single parents, or caretakers). This may partially account for the lack of a significant association between employment and re-admission. Stated unemployment in this sample obviously does not refer strictly to unemployed potential workers, but most often to those not employable.

A rather large segment of the sample had an income of undefined origin. Seventy-five, (31.9%) of the subjects showed income source as undefined or unknown. This large percentage of patients with undefined income sources prevented accurate analysis of the relationship between source of income and re-admission. The review of literature uncovered no information on possible relationship between the variables, source of income, and re-admission.

Race

Race of the subjects reviewed was classified

according to three categories: White; Black; Other. The present sample was largely white, one hundred seventy-six, (75.2%). Black patients numbered fifty-five or 23.2% of the remaining members. Those classed as other numbered three or only 1.2% of the sample. Analysis of the data suggested no statistical significance in the relationship between race and re-admission. The literature as well presented somewhat ambiguous results, citing trends more often than statistically significant results. (Munley and Hyer, 1978; Angrist, 1961). Trends suggest a higher percentage of re-admissions among non-white psychiatric patients. This finding was not borne out in the present study.

Sex

Sex of those patients sampled was practically equally divided, with women representing 120 or 51.27% of those seen, while men comprised 49.7% with 114 members. The sample was divided among sex lines, and the effect of sex on re-admission analyzed, and tested for statistical significance. The mean number of males and females re-admitted and not re-admitted was compared. Results of the computed t-test indicated that no statistically significant difference existed between the group of re-admitted patients and those not re-admitted, along sex lines. Material from the review of literature

indicated that male psychiatric patients tended to be re-admitted significantly more often within the first two weeks of discharge from hospital. The same study, indicated that female patients tended to be re-admitted significantly more often after the elapse of the first six month period following discharge. (Zolik, Lantz, Sommers, 1968).

Religion

Religious denomination of the patients in the sample was recorded. This referred only to stated affiliation. The data collection instrument did not include a recording scheme for participation in religious activity. No statistically significant association was found between the variable religion and re-admission. The sample was fragmented according to religion. All four categories included members from the sample. Numbers and percentages, in parentheses, of subjects according to religion follow. Roman Catholic; ninety-one (38.8%); Other; sixty-eight (29.0%), Protestant; sixty-five, (27.7%); Jewish; ten, (4.2%). Given the large spread along religious lines, a finding of no statistically significant association is not unexpected. As well, no studies were found associating religion significantly with re-admission.

Education

Education of each of the patients sampled was recorded according to number of years of completed formal education. Only 225 subjects were included in this analysis concerning association between the variables education and re-admission. Eight individuals reported special education, which was not classifiable, utilizing the case review schedule. One of the subjects reported zero years of formal education.

The mean educational level of those patients re-admitted to Lafayette Clinic during the study period was compared to that of those not re-hospitalized. A statistically significant difference was found between the mean educational levels of the two groups. Those patients re-admitted reported a mean of 12.57 years formal education; for those not re-admitted the number was 11.99 years. The results of the completed multiple regression analysis as well indicated statistical significance between the variables education and re-admission.

Rao, in a study examining the relationship between education and re-admission, found that a positive correlation existed between higher education, and higher re-admission rates to psychiatric hospitals. (Rao, 1966). The results of the present study do not stand

in contradiction to Rao's findings. In fact those patients re-admitted during the study period, did show a higher mean level of education than those not re-admitted. The difference in means however was so slight, as to not be statistically significant.

Age

To assess whether those re-admitted and those not, varied according to age, the study sample was divided according to re-admission or no re-admission, and a mean age computed for each group. Results of this line of analysis indicated that those re-admitted tended to be older than those patients not re-hospitalized. Comparison of means show a mean age of 34.09 for those re-admitted to Lafayette; and a mean of 29.67 years for those not returning to hospital. Despite the difference in age between the two groups of patients, this was not statistically significant. The mean age of those re-admitted is slightly higher than the mean for the entire sample which was computed at 31.26 years. The mean age of patients re-admitted is higher than that of the majority of the sample. One hundred fifty-eight of the two hundred thirty-four patients were below thirty-two years of age. The above analysis indicates that those patients re-admitted during the time of the study

tend to be older than the average age patient in the sample.

The results of the analysis pertinent to the association between age and re-admission can only be described with reference to the sample drawn from this study. The review of literature provided no material relevant to association between the variables age, and re-admission.

In this particular sample, it appears that those subjects in their mid-thirties are most susceptible to re-admission. Of interest is the fact that from the descriptive statistics, information emerges that over half the sample was classed as single at the time of the study, (one hundred, thirty-four, or 57.2%) a high percentage as compared to that of the general population of that age. Categories were included that accounted for separated, and divorced persons; it appears that a relatively high percentage of the sample had never been married.

Living Arrangements

Data collected on living arrangements illustrated that the majority of patients lived with parents, (ninety-one, or 38.8%) or by themselves (forty-four, or 18.8%). These percentages appear high as well, given

the average age of the sample. It might be expected that a higher percentage would have been classed as previously or presently married and living with a spouse.

Social Adjustment

Wing, (1971), has indicated that poor social adjustment is associated with higher re-admission rates among schizophrenic patients. A diagnosis of schizophrenia formed the single largest category. Fifty-five patients, (23.5%) were so diagnosed. The mean age of subjects re-admitted, the preponderance of never married subjects, together with the propensity of those reviewed to live with parents or by themselves, and the diagnosis schizophrenia as the largest category, appears to support the literature on social impairment. In this sample it appears that adults approaching middle age, without meaningful ties to others, or only with their family of origin are at greatest risk of re-admission.

Living Arrangements Following Discharge

The pattern of living with members of their family of origin continued with subjects from this sample, after discharge from Lafayette. Statistics indicated that 48.2% (one hundred thirteen) patients sampled lived with parents, siblings, or other relatives following discharge. This compares to 14.9% or thirty-five

patients seen to return to live with a spouse. It appears that living arrangements noted before and after admission tended to remain stable. The number of subjects returning to live with a spouse was identical to that of subjects living with a spouse previous to admission. Slightly fewer (3.0%); one hundred, six patients returned to live with parent, sibling or relative after discharge, than were seen previous to admission.

Number of Siblings

No statistically significant difference was found in the comparison of mean numbers of siblings, between the group of re-admitted and not re-admitted patients. The results indicated that re-admitted patients had a mean number of 2.85 siblings. For those patients not re-admitted, the number was 3.42. The computed t-test resulted in a t value of 1.748, well below the critical level necessary, of 6.314, to establish significance for one degree of freedom.

A comparison was also completed on the number of siblings between those groups of patients having social work contact and not, during admission to Lafayette over the period of the study. Results of this comparison indicated a mean number of siblings of 3.21 among

those patients receiving social work intervention during the study period. For patients not seen by a social worker during the study period, the mean number of siblings was 3.23. These results show no statistical significance in difference in means between the groups of patients seen by a social worker and those not. The computed t-test on this comparison resulted in a score of 0.040, well below the level required to indicate statistical significance at .05, for one degree of freedom.

The absence of association between the variables number of siblings, and re-admission is not unexpected. The literature contains no reference to an association between the variables number of siblings and re-admission. References rather speak to the importance of quality of interaction among family members of psychiatric patients. (Gould and Glick, 1977).

Mode of Psychiatric Admission

The mode of each subject's admission to Lafayette (voluntary, or involuntary), was examined.

The re-admission rates of those patients admitted involuntarily was compared to those patients admitted to Lafayette voluntarily. The results of this comparison of mean re-admission rates indicated no statistically significant difference between the two

groups of patients. The variable mode of admission, was therefore seen not to be significantly related to re-admission in this sample. It was impossible to compare the results of this comparison, with other research results, as the literature review uncovered no studies dealing with the relationship between mode of admission, and psychiatric re-admission.

Prognosis

Prognosis at time of first discharge was found to be significantly related to re-admission when included in the multiple regression analysis. Change in prognosis, and nature of change were also found in the multiple regression analysis to be significantly associated with re-admission. These variables are ordinal and so the association illustrated can be taken only as an indication of a possible trend. A review of the descriptive statistics dealing with prognosis and nature of change illustrates a trend toward degenerating prognosis among re-admitted patients. Fifty of eighty-four patients re-admitted had a change in prognosis on most recent admission, (59.52%). The trend in nature of prognosis between admissions worsened appreciably between first and most recent admissions.

As can be seen from the above, prognosis among re-

admitted patients tends to degenerate as the patient is re-admitted. From this it appears that as patients were re-admitted on this sample, behaviours were manifest which led the attending psychiatrist to prognose degeneration in the patient's ability to rehabilitate.

Diagnosis

A change in diagnosis was also found to be significantly associated with re-admission. The same qualification exists in submitting this variable in multiple regression analysis, as it is nominal. A trend is suggested from the analysis which appears borne out from a review of the descriptive statistics for the present study. Of those 84 patients re-admitted to Lafayette, over the study period, 49, or 58.31% were found to have a changed diagnosis between first and most recent admission. No discernable pattern emerges from the data involving "nature of change" of diagnosis.

Because of the nature of the variable psychiatric diagnosis it is impossible to rank the diagnostic categories, and so define precisely the meaning of diagnostic change among the patients sampled here. Only the fact of association between the variables change in diagnosis and re-admission can be discerned. This finding is consistent with study results presented

in the literature. Cooper, in a study, stated an association between change in diagnosis and re-admission. In his study of psychiatric in-patients, Cooper found results indicating that patients re-admitted to psychiatric hospital tended to show changed diagnosis over their subsequent admissions. (Cooper, 1967).

Social Work Intervention

In attempting to discern whether a relationship exists between the variables social work intervention and re-admission, social work intervention was categorized along seven lines of intervention focus. These seven foci include; individual; family; marital therapies; team conferences involving psychiatric staff; group therapy; community advocacy; and discharge planning. Each of these foci were tested for statistical significance in association with re-admission. As well, the time between admission and first social work contact was recorded, and utilized in analysis.

Time Between Admission and Social Work Contact

The time (in days) between the patient's first admission and first contact with a social worker was recorded. The sample was then divided into two groups for purposes of analysis. The first group included those patients re-admitted during the study period; the second

group comprised those patients not re-admitted. The mean number of intervening days was computed for each group, and the difference tested for significance utilizing an f-test. Results indicated no statistically significant difference in the mean number of intervening days between the two groups. Those patients not re-admitted, however were seen sooner after admission. These patients were seen on average, within 11.76 days of admission. For patients re-admitted social work contact came within 13.16 days of admission, on average.

Mean number of days between admission and first social work contact was measured between the two wards reviewed as well. The difference in means emerged as not significantly different. Analysis indicated, however that patients on ward 4S (the ward without full-time social work service), were seen on average more quickly than those patients on ward 3N (which had full-time social work service). Time between admission and first social work contact was 9.55 and 14.02 days, respectively.

The literature presents no findings on association between time until first social work contact, and re-admission. The researchers recorded and analyzed this data in order to establish whether a relationship existed between these variables, in this sample. Interesting

results emerge from comparison of mean number of days between admission and contact among wards 3N and 4S. Given the fact that ward 4S had only part-time social work service, it might be expected that mean number of days between admission and first social work contact would be greater. In fact the opposite is seen in the analysis. What appears to emerge is a situation where efforts have been made to contact patients early, despite fewer available social workers, and the lesser manpower that was entailed in providing professional treatment and service.

Mean Number of Social Work Contacts - First Admission

The mean number of social work contacts during first admission was found not to be at significant variance between wards 3N and 4S. A slightly higher mean number of social work contacts between the group of patients re-admitted during the study period, and those not was not found to be significantly different. Results indicated that patients re-admitted were seen on average, 5.15 times; while those not re-admitted were seen 5.25 times. The computed f-test on this difference illustrated no statistically significant difference. These results indicate the number of social work contacts between the wards reviewed, and groups of re-admitted and not re-admitted patients did not vary sufficiently

to present significance.

Social Work Contacts Focussing On Marital Therapy

Types of social work contact, divided according to focus of intervention however showed significant differences on some types reviewed.

Social work intervention involving marital therapy was found not to be associated with re-admission. On a comparison of mean number of marital contacts between the re-admitted subjects and those not, the difference was found not to be statistically significant. This lack of significance may be accounted for by the fact that a very low number of subjects were reported as married; thirty-eight, or (16.2%) limiting the numbers of those seen in marital therapy. Mean number of marital contacts was low in each group. For those subjects re-admitted a mean of 1.15 contacts was seen. For those not re-admitted a mean of 1.08 was found.

The results of this analysis are contradictory to findings seen in the literature. Although not referring specifically to marital therapy, sources speak to the value of family oriented social work intervention, in assisting the patient re-enter the family following psychiatric discharge. (Polansky, White, and Miller, 1957). Angrist spoke to the benefit of aiding families

establish realistic expectations of the patient on his return from hospital, in reducing re-admission. (Angrist, 1961). Given the preponderance of not married patients in this sample and the low number of marital contacts, a lack of association between marital therapy and re-admission is not unexpected.

Team Conference

Social work contact involving team conferences was similarly not found to be significantly associated with re-admission. The literature makes reference to the multi-disciplinary team approach as an innovation of benefit to the psychiatric patient. (Selig, 1973; Munro, 1969; Lowery, 1962). No information is presented however on the association between a multidisciplinary team approach and re-admission.

From data collected it was found that the team conferences were held on behalf of patients re-admitted, and not re-admitted in the majority of cases. For the re-admitted patients team meetings were held for Fifty-seven or (69.04%) of those with social work contact. Team meetings were held for eighty-four, or (65.2%) of patients not re-admitted. Mean number of such contacts was not at significant variance between the two groups of patients. Some difficulty was found in collecting

data on the number of team conferences involving social workers, held on behalf of patients. Files of patients included notes on team conferences held; however not all such noted conferences specified the attending professionals. The researchers counted social work contacts only where notes established the presence of a social worker at the team conference.

These results indicate that although team conferences were held on behalf of the majority of patients, receiving social work intervention, this type of contact was not significantly associated with re-admission. The mean number of such conferences for each of the patient groups was not high. This fact may have contributed to the absence of significant association among the variables team conferences and re-admission. Mean number of conferences on behalf of re-admitted patients was 1.69; for patients not re-admitted, the mean number of conference was 1.57.

Social Work Intervention Involving Community Advocacy

Community oriented social work intervention was found not to be significantly related to re-admission. Community oriented social work was practiced on behalf of sixty-nine or (53.49%) of patients not re-admitted. The mean number of contacts was 1.46. For patients re-

admitted 1.48 contacts of this type were made, with social workers representing forty, or (48.8%) of those in the community. The literature reviewed emphasized the importance of community advocacy on behalf of discharged psychiatric patients, and the fact that such action falls within the expertise of social work practitioners. (Germain and Gitterman, 1980; Savage, 1974; Munro, 1969). Specific to this sample, is the situation where a few discharged patients appeared to require advocacy within the community, at least as this is relevant to living arrangements. From the data collected information emerges that of 234 patients 15, or 6.2% left hospital for a community living facility. Most left hospital to live with parents; eighty-two or (35%); spouse, thirty-eight or (16.2%); friend, sixteen or (6.86%); or sibling or other relative, twenty-four, (10.2%).

From the data collected on employment status, and source of income, quoted in earlier statistics, indicated the majority of patients were seemingly unemployable, precluding advocacy in this area. These factors however, are specific to this particular sample.

Group Centred Social Work Therapy

Intervention involving a group focus formed a small

segment of social work services provided to patients in this sample. Ten or (13.0%) of patients re-admitted were involved in group therapy during their first admission to Lafayette. For those patients not re-admitted, only one patient (.77%) received this type of therapy. No statistically significant association was found between this type of social work and re-admission. The inherent value in treatment involving group therapy, with psychiatric patients has been established in the literature. Heap, for example has written of the benefit of group treatment for psychiatric patients, in attempting to alleviate social isolation, and improve self esteem. (Heap, 1978). The contribution of group therapy in aiding alteration of behaviour through modelling has also been documented. (Heap, 1978). In the review of literature, no specific information on possible association between social work involving group treatment, and re-admission was found.

Individual Social Work Therapy

Social work intervention involving individual therapy was found to be significantly associated with re-admission in the sample. Dividing the subjects into two groups according to whether they were re-admitted, or not re-admitted, the mean number of individual social work

contacts was computed for each. Results indicated that re-admitted patients were seen individually a mean number of 1.52 times, while for patients not re-admitted the number was 1.16. These results submitted to a t-test were shown as statistically significant.

A line of analysis was also completed comparing the percentages of patients re-admitted and not re-admitted who had received this form of social work intervention. Results indicated that forty-three or (52.38%) of re-admitted patients and twenty-three, (18.60%) of those not re-admitted had received this form of therapy. Association between this variable and re-admission is difficult to interpret. A straight association between individual social work contacts and higher re-admission rates is simplistic. The statistical analysis completed however, was not of the type to isolate other factors that might have been involved. For example, it cannot be known if individual therapy was practiced in a significant number of cases because of an absence of important others who might be involved in therapy. If such were the case, the absence of meaningful relationships with others may have contributed to the higher re-admission rate seen. The importance of such factors are supported in the literature. (Goldstein, 1979; Gould and Gluck, 1977). Greater numbers of individual

social work contacts may have been necessary with subsequently re-admitted patients because of an absence of ties with significant others.

On another note; the mean number of individual therapy contacts with patients re-admitted, or not, is seen to be low. The fact of apparent association between individual therapy and re-admission may be spurious, in that with so few contacts, individual therapy may have had little opportunity to prove effective.

Social Work Discharge Planning

Social work intervention involving discharge planning was found not to be significantly associated with re-admission. Mean number of social work contacts of this type did not vary greatly between the groups of patients re-admitted and not re-admitted to Lafayette over the period of the study.

This variable may be viewed as similar in design in this sample to community oriented social work intervention. Discharge planning, involving post-discharge living arrangements and community re-entrance, would necessarily involve fewer patients in this sample. This because of the large percentage discharged in the sample who returned to live with families of origin and who were seen to be unemployable. The question remains

however, of whether post-living arrangements and unemployment status were satisfying to those patients discharged. Reference in the literature emphasize the importance of factors related to satisfying post-discharge functioning in avoiding re-admission. (Germain and Gitterman, 1980; Savage, 1974; Munro, 1969).

Family Focussed Social Work

The final focus of social work intervention examined, involved that of family focussed therapy. No statistical significance was found between the mean number of family focussed social work contacts between the group of patients re-admitted and not re-admitted. The results of the computed t-test indicated a score of 3.398, below the level required to establish statistical significance at the 0.05 level of significance. The literature indicates a strong association between family centred social work intervention and re-admission rates. (Goldstein, 1979; Hatfield, 1978; Russell, 1978).

Patients re-admitted to Lafayette were involved in family centred social work intervention marginally more frequently than those patients not re-admitted. At first view this situation presents a contradiction to the literature on family involvement and re-admission. Researchers have identified family involvement as

essential to lower re-admission rates (Goldstein, 1979; Hatfield, 1978; Healey, 1971). The literature indicates as well that the nature of family involvement presents an important factor affecting re-admission. The strain of psychiatric re-admission and the patient's return home, on family members is well documented. (Herz, Endicott, and Gibson, 1979; Aguela, 1978; Brodsky, 1969; Polansky, White, and Miller, 1957). Patients of families able to resolve anxieties around the psychiatric illness of one of their members were seen to more successfully avoid psychiatric re-admission. Conversely, patients of families showing high anxiety over hospitalization or difficulty in re-organizing around the patient on his return from hospital were seen to be more prone to re-admission. (Brown, Hurley and Wong, 1972; Flamenhaft, Kaplan, and Langsley, 1969; Raskin and Dyson, 1968).

Research from the literature suggests as well that insufficient empirical knowledge exists concerning family members' experiences around hospitalization and their perceptions of the effectiveness of therapy. (Creer and Wing, 1975). Given the nature of the present study, identification of family members' experiences around hospitalization of one of their members has not been possible. Indicators exist only in enumerating number of family visits and number of family centred

social work contacts.

The contradiction between the literature on the value of family contact in reducing re-admissions, and these results may be clarified. Research suggests that family involvement with the patient may contribute to, or act as an impediment to, avoidance of re-admission. This varies according to whether family attitudes are manifested positively or negatively. Positive attitudes are seen in active optimistic involvement of family members. Negative attitudes are evidenced through stressful reactions on the part of the family members. (Healey, et al, 1971). Assessment of family reactions to hospitalization of patients in this sample was not carried out. The large decline in number of family visits between admissions however would seem to suggest a frustration on the part of family members, as their kin undergo subsequent psychiatric admission(s).

The Relationship Among The Variables Selected For Investigation, And Re-Admission

To further elucidate possible relationships among variables studied, a multiple regression analysis was utilized, employing variables defined in the case review schedule. Variables found significantly associated with re-admission included; Prognosis; Diagnosis; Individual Social Work Contact; Age; and Education.

Prognosis

The variable prognosis at time of first admission was found to be significantly associated with re-admission. Information is presented in the Report of Findings chapter which suggests a degeneration of prognoses over subsequent admissions in this sample. The literature review carried out in preparation for this study uncovered no reference to association between the variables prognosis, and change in prognosis and re-admission.

The data on prognosis and change in prognosis would appear to suggest that patients may have been misprognosed on first admission, demanding a corrected prognosis on re-admission.

Diagnosis

A finding of significance of association was also found between the variables change of diagnosis and re-admission. Support for the notion of association between change in diagnosis and re-admission comes from a review of the descriptive statistics. These indicate a deterioration of diagnosed illness over subsequent admissions. Re-diagnosis frequently involved a diagnosis of more severe pathology over successive hospitalizations. It appears that patients are seen as suffering

more debilitating illness over subsequent re-admissions in this sample.

The literature reviewed indicated an association between change in diagnosis and re-admission. Cooper in a British study indicated that patients showing multiple re-admissions tended more often to have changed diagnoses (Cooper, 1967).

Individual Social Work Contact

Of the seven identified social work treatment foci; only individual social work therapy was found to be associated with re-admission. A similar finding was seen in the computed t-test comparing mean number of individual social work contacts among re-admitted and non-returning patients. Information from the t-test however suggests that the difference in means on this variable was very slight. Association in this instance, appears a statistical anomaly. The apparent association appears spurious.

The literature contains no reference to association between individual social work intervention and higher re-admission rates, specifically, or social work practice generally. Studies drawn from the literature emphasize the importance of social work treatment in psychiatric treatment (Goldstein, 1979, Savage, 1974, Munro, 1969).

Age

Age of patients was found to be significantly associated with re-admission. This finding stands in contradiction to the results of the earlier computed t-test, which indicated no association between the variables age and re-admission. The comparison of mean age of re-admitted and non-returning patients did however indicate that re-admitted patients tended to be older than those not rehospitalized, and were on average, older than the mean age of the entire sample.

The literature contains no reference to association between the variables age and re-admission.

Education

The final variable showing a significant association with re-admission was education. As with age, the finding of association between education and re-admission in the Multiple Regression Analysis stood in contradiction to earlier analysis results. The computed t-test indicated that the difference in mean education between patients re-admitted and not was not statistically significant.

The Multiple Regression results suggested significance. The f-score however was only minimally beyond the required critical value for significant association.

This is congruent with the actual noted difference in means of education for the two groups of patients.

Re-admitted patients showed only a slightly higher mean level of education than those not re-admitted; (one half year approximately). Certainly not enough information is available to draw a conclusion of association between the variables education and re-admission in this sample. The literature on education among psychiatric in-patients presents contradictory findings, with some sources stating an association between the variables education and re-admission while others argue the association of lesser education and recidivism. Given this the present results are not surprising.

The results of analysis of the variable education as well as the variable age stand in contradiction to earlier analysis. On both variables a difference in means was evident, but both were slight. The discrepancy in analysis results may have occurred in the fact that the Multiple Regression Analysis represents a more sophisticated statistical process, and is more sensitive to slight deviations. Interpretations of results must in both cases be made with caution. Although results indicate a difference between the groups on these variables, neither are of a magnitude to demand more than attention in future studies for possible emerging

trends. If trends in the direction indicated in this study were replicated in further studies, information gathered may prove of strong benefit in treatment planning. As well if association were found between the variables age; education; and re-admission, further empirical study may be profitable in attempting to cross tabulate these with other significant variables, to identify association with psychiatric re-admission.

Summary

One of the premises upon which this research was based involved the fact of high re-admission rates among psychiatric patients. In the present study, eighty-four or, (35.90%) of subjects were re-admitted over the time of the project. Such a percentage underscores the validity of research in the area of psychiatric in-patient re-admission.

Dividing the patient population of wards 3N and 4S according to whether they received social work intervention variables other than social work therapy were tested for association with re-admission. From this two variables appeared as significantly associated with re-admission.

{ Results of analysis of type of discharge showed that those subjects without social work intervention tended significantly more often to leave Lafayette

against medical advice. This finding was important, in that patients leaving Lafayette against medical advice were often not followed up by Lafayette. Such would preclude re-admission to Lafayette and potentially contaminate the comparison of re-admission rates of the two groups.

The second variable found to significantly differ between the two groups was family involvement, (accounted for by number of visits of family members to patients). Results indicated that those patients seen by a social worker had a higher mean number of family visits, as compared to the group without social work contact. A related finding indicated that mean number of family visits dropped dramatically over subsequent hospitalizations.

Of the seven social work intervention foci examined here, only individual therapy was found to be significantly associated with re-admission. The findings indicated that those seen individually by a social worker tended more frequently to be re-admitted. Interpreting such a statistic without qualification is simplistic and potentially misleading. It cannot be known from the data collected however, if other factors contributed to higher re-admission among patients seen in individual therapy. For example, it might have been

that patients were seen in individual therapy because of an absence of significant others who might have been involved in therapy - a factor which might have contributed to higher re-admission.

Change in prognosis on first admission and change in diagnosis, were found significantly associated with re-admission when included in the Multiple Regression Analysis program. Data collected indicated that patients in relatively large numbers had to be re-diagnosed and prognosed on subsequent admissions.

Individual Social Work contact was found to be significantly associated with re-admission, in the regression analysis. The results of this analysis are open to question as the difference in means in this analysis was very slight.

Age of patients was found not to be associated with re-admission in the computed t-test, but significance of association was noted in the regression analysis. Data indicates that re-admitted patients in this sample tended to be older than those not re-hospitalized.

Education was also found to be significantly associated with re-admission in the regression analysis. This result stood in contradiction to results of the computed t-test comparing mean education between re-admitted and non-returning patients. The observed

difference in mean education between the groups was very slight (one half year approximately).

The purpose of this study was to ascertain whether there was a relationship between social work intervention and the re-admission of psychiatric patients to hospital. Apart from the relationship between individual contacts with the social worker and re-admission, there was an absence of association between social work intervention and re-admission. Data indicates that in all forms of social work therapy noted, a low mean number of contacts was seen. Generally, very small differences were noted in the number of social work contacts between patients seen and re-admitted; and seen and not re-admitted. However, the number of social work contacts was in all cases so low as to open to question whether research results indicate an inherent absence of association between social work intervention and re-admission; or whether such an absence is specific to this sample.

CHAPTER VI

Conclusions and Recommendations

The purpose of the study was to discern whether a relationship existed between social work intervention and recidivism rates. This was accomplished by a review of the numbers of psychiatric in-patients re-admitted to Lafayette Clinic during one year. The idea for the study came from a preliminary literature review. This review indicated that psychiatric re-admission rates are of concern to researchers and mental health practitioners. As well it was found that very little empirical knowledge exists in the area of association between social work intervention and psychiatric re-hospitalization.

Three research questions were derived for the study. The research questions were devised to form a basis of comparison of the re-admission rates of those patients seen by a social worker; and those not receiving social work intervention.

1/ What is the re-admission rate of adult psychiatric in-patients who have received social work intervention?

2/ What is the re-admission rate of adult psychiatric in-patients who have not received social work intervention?

3/ How do the re-admission rates of adult psychiatric in-patients who have received social work intervention compare with the re-admission rates of psychiatric in-patients who have not received social work intervention?

From the review of the literature variables relevant to psychiatric re-admission, and social work intervention were drawn for analysis. The variable, social work intervention was derived from all contacts held with the patient and/or his family, during hospitalization, or under an arrangement for out-patient follow-up. These contacts were sub-divided into seven foci of intervention, according to information gathered from the literature review on psychiatric social work, and from the Lafayette Social Service Director. Psychiatric recidivism was defined by the number of in-patient re-hospitalizations during the study period, to the two wards reviewed.

Variables that might have affected the relationship between social work intervention and re-admission were included in the analysis. For example, demographic variables were examined for their affect on psychiatric re-admission. In addition, variables such as psychiatric diagnosis, and prognosis, lapse time between psychiatric admission and first social work contact, referral source on admission, type of discharge, were analyzed in the study.

A case review schedule was devised by the researchers for collection of data from existing case records maintained at Lafayette clinic. Variables lending themselves to pre-coding were pre-coded according to the case review schedule. Those variables that were not pre-coded were coded following completion of the data collection stage of the project. Coding categories were based on information drawn from the review of the literature.

The case review schedule was tested for validity with the assistance of the social work staff at Lafayette. They examined the case review schedule prior to its use in the study. Recommendations of the staff were carried out in revisions of the schedule. The researchers accomplished a reliability test of the case review schedule by utilizing it in a test run of 30 case files at Lafayette. This pre-test resulted in a final revision of the data collection instrument.

Major Findings

The first research question dealt with the re-admission rate of those patients receiving social work intervention. Results of analysis in this area indicate that social work practice forms an important part of psychiatric treatment at Lafayette. Of 234 patients sampled, 213 had had some form of social work therapy,

during their hospitalization. Of patients seen by a social worker, eighty-four or (39.44%) were re-admitted during the study period.

The second research question was relevant to the re-admission rate of those patients not seen by a social worker. Patients in this group showed no re-admissions. Patients not seen by a social worker formed a small percentage of the sample, twenty-one or 8.9%.

A comparison was sought in the third research question between the re-admission rates of those patients seen by a social worker and those not. The comparison indicates that those patients seen by a social worker during their in-patient stay at Lafayette tended not to be re-hospitalized over the study period. Of those seen slightly more than a third were re-admitted. This contrasts with re-admission of zero for those patients not seen by a social worker. The very small number of patients not seen by a social worker during hospitalization, and the fact that no re-admissions were noted among the group unfortunately precludes comparison of the two groups within the sample.

Additional Findings

In addition to the answers to the research questions, several findings of importance emerged from the data analysis. They will be presented in this section under

the appropriate headings.

Psychiatric Discharge: On or Against Medical Advice

Research results indicated that a significantly greater number of patients not seen by a social worker left hospital against medical advice. This information becomes important in two areas. Firstly, it appears that those patients seen by a social worker are more likely to remain in hospital, until deemed prepared for discharge. Given the tendency toward shorter, more frequent hospitalizations presently, premature leaving of hospital becomes a larger concern. Conversely, the contribution of a profession to a lessening of premature hospital leaving becomes extremely valuable. Secondly, the fact of those not seen by a social worker tending significantly more often to leave hospital against medical advice may have had an important effect on re-admission rates of the sample studied. It is generally seen in patient files examined that those leaving Lafayette against medical advice, are not followed by the Clinic. Such a situation would greatly affect the re-admission rate of those not seen by a social worker in this study.

Demographic Variables

Of the demographic variables examined two were

found to be significantly associated with higher re-admissions. The mean age of those re-admitted was 34.09 years. For those not re-admitted the mean age was 29.67 years. The mean age then of those re-admitted was slightly higher than for that of the sample, and higher than the majority of patients sampled in the study. A contradiction was noted in the two statistical analyses involving the age of patients re-admitted and not. The computed t-test indicated no statistical significance in the association between age and re-admission. The results of the Multiple Regression Analysis however indicated significance of association at the 0.05 level. Accepting the results of the more sophisticated statistical process, (Multiple Regression), it appears that those approaching middle age, who have few meaningful familial ties (as seen in previous lines of analyses) show higher potential for psychiatric recidivism.

Education of patients was found as well to be significantly associated with re-admission, on the Multiple Regression Analysis. As with age, the result found in multiple regression was at variance with results from previously computed t-test. Results indicated that re-admitted patients had achieved a mean educational level of 12.5 years (approximately), while non-returning patients had completed 11.9 years of

formal education (approximately). The difference in means in this comparison is slight, as was the margin between the critical value and computed f-score on the regression equation. These factors suggest a need for caution in drawing conclusions.

Prognosis

The descriptive statistics indicated that a high number of re-admitted patients had a change in prognosis over successive admissions to Lafayette (50 of 84; or 59.52%). Results of the computed t-test, on means for patients re-admitted and not, and the Multiple Regression Analysis indicated a significant association between change in prognosis and re-admission. The statistics derived from this study suggest that in the study sample, re-admitted patients often are re-prognosed on subsequent admissions, and that re-prognoses frequently imply a less optimistic prognostication. The trend toward re-prognosing in this sample indicates a need for close attention to observation of the psychiatric patient on initial hospitalization. The data derived argues as well for the psychiatrist's and allied mental health professional's close collaboration in observation, treatment and prognosis.

Diagnosis

As with the above quoted variable, change in prog-

nosis, change in diagnosis was seen to be significantly associated with re-admission in the computed t-test for comparison of means between re-admitted and non re-admitted patients, and on the Multiple Regression Analysis. As with change in prognosis, a significant number of re-admitted patients experienced a change in diagnosis on successive admissions to Lafayette. Of 84 patients re-admitted, 49, or 58.31% were re-diagnosed on subsequent admissions.

The areas of diagnosis and prognosis are central to the treatment of the psychiatrically ill. Diagnoses, and prognoses will effect to a large degree the course of treatment for the patient. Errors in this area exert profound affect potentially on the patient's progress.

An association between change in diagnosis, and change in prognosis and re-admission has been established in this study. Information derived from this project would appear to emphasize the responsibility of mental health professionals to work collaboratively for the benefit of patients. It seems incumbent on each member of the professional treatment team to contribute his expertise in the therapeutic work with the psychiatrically ill; and conversely for those in the profession of psychiatry especially to utilize the professional expertise of allied treatment clinicians in assisting

them in arriving at sound professional judgments, which affect the patients seen.

Social work services at Lafayette have been seen to extend to a large number of patients sampled. The degree of contact with patients and families however has been found not to be extensive. Greater involvement of social workers with patients and families may well serve as valuable assistance to physicians in the forming of diagnoses, based on valid information and history taking; and in the ongoing treatment of the mental disorder.

Findings Regarding The Foci of Social Work Intervention

The focus of social work was subdivided into seven categories for purposes of analysis:

Social work intervention concentrating on marital therapy was found not to be significantly associated with re-admission. This may be partly accounted for by the fact that very few of the patients were married at the time of the study, producing a situation where few marital therapy cases were identified. Of the patients sampled, only thirty-eight, or (16.27%) were married.

Social work therapy involving team conferences on behalf of patients was not found to be significantly associated with re-admission. Team meetings were held on behalf of over 60% of both groups of patients (those

re-admitted, and not). Such meetings were not held frequently. The mean number of these contacts was 1.69 for patients re-admitted; and 1.57 for those not re-hospitalized.

No statistically significant association was found between social work intervention involving community advocacy and re-admission. Once again, relatively few contacts of this kind was seen in the study. The mean number of contacts in the community on behalf of patients not re-admitted and those that returned to hospital was less than two per patient. The absence of association between this form of intervention and re-admission again may have been more a function of few contacts; Group therapy was offered to a small percentage of those patients sampled; and was found not to be significantly associated with re-admission. Patients not re-admitted had 1.33 group contacts on average. For those re-admitted, the mean number of contacts was 1.41.

Data collected, indicated that patients re-hospitalized during the study period received individual social work therapy more frequently than patients not re-admitted. Data showed that re-admitted patients had a mean number of individual contacts equalling 1.52; while the corresponding number for patients not re-hospitalized was 1.16. Given the small number of

individual social work contacts in both patient groups the significance of the relationship between individual therapy and re-admission may be statistical only. The higher re-admission rate among patients seen individually may also be an indication that individual therapy was practised because of the absence of significant others to involve in therapy. If such were the case the absence of significant others may have been primary in contributing to re-admission.

No significant association was found between discharge planning and re-admission. The absence of association was seen in the fact that the means of the two groups were not significantly at variance according to computed t-testing. Analysis indicated that contacts in this area were minimal for both groups of patients. For patients re-admitted mean number of contacts equalled 1.28; for those not re-hospitalized the mean was 1.41.

On a comparison of mean number of social work contacts involving patients and their families, no significant difference was found between the groups of patients re-admitted and not. Data collected indicated that few family centred contacts were achieved for patients either re-admitted or not over the study period. For patients re-admitted mean number of family centred contacts equalled 1.84; for patients not re-admitted the

mean equalled 1.64. Neither number of visits to the patient by the family during his admission to hospital or the availability of full, or part-time social work (on a ward to ward comparison) affected the number of family centred social work contacts, significantly.

A full range of social work services was available to patients admitted to wards 3N and 4S of Lafayette Clinic over the study period. Of the seven social work foci only individual focussed social work intervention was found to be significantly associated with re-admission. The association here was seen to be with higher re-admission rates. From the data collection and analysis, it cannot be concluded that in this sample social work intervention was associated with lower re-admission rates. Neither can it be concluded, however that social work therapy was associated with higher recidivism for patients in this sample.

Recommendations

Future Research

The researchers identified a number of areas in which further investigation could be carried out. To facilitate further research, the following recommendations are made.

- 1/ That future research studies incorporate

components designed to test for the quality of involvement of the patient and his family over successive admissions. The present study was unable to define the quality of family interaction with the psychiatric patient.

2/ That future researchers consider the area of family member experiences around the hospitalization of the psychiatric patient as an area of investigation. This study did not allow for investigation in this area.

3/ That future researchers dealing with re-admissions track re-admissions to facilities other than the host institution. This project studied only re-admissions to Lafayette. Information on re-admissions to other facilities was not available.

4/ That future researchers investigate association between age and re-admission. Research results from this study indicated a significant association between age of patients and re-admission.

5/ That future researchers examine the psychiatric issues of diagnostic and prognostic change, and the relationship of these to re-admission.

6/ That future researchers include data on the time between consecutive psychiatric admissions. This would allow study of the question of whether social work

intervention with psychiatric patients is associated
— with longer periods between hospitalizations.

Social Policy Considerations

The following recommendations regarding policy in the area of hospitalization for psychiatric patients are made.

1/ The importance of the family in the rehabilitative process of the psychiatric patient has been well documented in the literature. Results from this study indicate a high degree of involvement of patient's families on first psychiatric admission, and a severe decline on subsequent admissions. It is recommended that policy initiatives in future incorporate a strong emphasis on involvement of the family in social work treatment.

2/ Emphasis is found in the literature on the importance of discharge planning and community advocacy on behalf of discharged psychiatric patients. It is suggested that discharge planning and community advocacy on behalf of patients receive high priority in policy planning and implementation. Action taken might include more work in the area of advocating for patient's rights to adequate living arrangements; including adequate physical surroundings as well as available support services. In addition, employment opportunities

need to be more vigorously attended to on behalf of discharged psychiatric patients.

3/ Research results indicate a high (39%) recidivism rate. This number of re-admissions suggests the need for attention to a shift in policy concerning serial re-admissions. Emphasis needs to be placed on developing services and facilities that will aid the psychiatric patient in remaining out of hospital longer and returning less often.

Social Work Practice

The findings in this study argue for changes in the system of delivery of social work services at Lafayette. Following is a list of recommendations compiled relevant to social work practice.

1. Statistics indicate that social work practice at Lafayette forms an important treatment base. Two hundred, thirteen patients of two hundred thirty-four in the sample received some form of social work contact. Although many patients were seen by social workers, contacts tended not to be extensive. All identified social work foci showed relatively few contacts. It is suggested that the intensity of social work practice at Lafayette be explored, with a view to providing more extensive treatment for patients and families seen.

2. Relevant to the low number of social work contacts per family and patient, it is suggested that the social work complement at Lafayette be reviewed, to discern whether staffing levels are adequate to provide comprehensive treatment. From statistics comparing the ward with full-time social work staff (3n) and that with part-time (4S) it appears that social work practitioners are making good attempts to see patients and families. Without adequate staffing, however, comprehensive treatment is not possible.

3. It appears at present that social work treatment at Lafayette is an optional field of therapy. It is suggested that consideration be given to changing the status of social work treatment from optional to mandatory. Such a change may prove of strong benefit to patients and families seen at Lafayette. Additionally, mandatory social work services may prove of valuable assistance to treating physicians in the difficult task of gathering information, upon which diagnostic and prognostic statements are founded.

4. Great difficulty was encountered identifying social work contacts in patient files. This stems from the placement of social work treatment notes in the general file. It is recommended, that to facilitate treatment planning and multidisciplinary cooperation that social

workers have separate case note forms, similar to those seen in the department of psychiatry, psychology, and occupational therapy.

APPENDIX A

A Copy of The Case Review Schedule Devised for The
Collection of Data In This Study

APPENDIX A
CASE REVIEW SCHEDULE

Schedule #: _____

Ward: _____

Age: _____

Sex: 1. male
2. female

Race: 1. White
2. Black
3. Other

Religion: 1. Protestant
2. Roman Catholic
3. Jewish
4. Other

Marital Status: 1. single
2. married
3. separated
4. widowed
5. divorced
6. common-law

Education: _____

Number of Children: _____

Number of Siblings: _____

Living Arrangements at Time of Admission:

1. self
2. with parent(s)
3. with spouse
4. with friend(s)
5. siblings/relatives
6. boarding home
7. nursing home
8. adult foster care home
9. medical hospital
10. state hospital
11. other

- Referral Source:
1. self
 2. spouse
 3. family
 4. private psychiatrist
 5. medical agency
 6. police
 7. court
 8. social agency
 9. Lafayette Outpatient Department
 10. other

Relationship of Responsible Relative: 1. self
2. spouse
3. parent(s)
4. Child(ren)
5. sibling(s)
6. friend(s)
7. other

Occupation: 1. unemployed
2. unskilled
3. skilled
4. management
5. professional
6. homemaker

Source of Income: 1. self
2. husband's income
3. wife's income
4. both contribute (husband & wife income)
5. unemployment benefits
6. social security insurance
7. supplementary income
8. pension/disability
9. general assistance
10. aide to families of dependent children.
11. other
12. unknown

Date of first Admission to Lafayette Clinic: _____

Date of most Recent Admission to Lafayette Clinic: _____

Date of Previous Admission to Lafayette Clinic: _____

Number of Readmissions to Lafayette Clinic: _____

Mode of Admission: 1. voluntary
2. involuntary
3. other

Number of Months Between Admissions: _____

Psychiatric Diagnosis on First Admission:

1. neuroses
2. personality disorders
3. brain damage/mental retardation
4. schizophrenia
5. other psychoses
6. other _____

Change in Diagnosis in Subsequent Readmissions: 1. no
2. yes

If Yes Nature of Change: _____

Type of Discharge: 1. on medical advice
2. against medical advice

Prognosis on First Discharge: 1. good
2. fair
3. guarded
4. poor
5. none

Change in Prognosis in Subsequent Readmissions: 1. no
2. yes

If Yes Nature of Change: _____

Type of Follow-up Planned: 1. none
2. private psychiatrist
3. other medical
4. nursing
5. social agency
6. vocational rehabilitation
7. out-patient, Lafayette Clinic
8. other _____

Number of Social Work Contacts on First Admission: _____

Number of Social Work Contacts on Last Admission: _____

Living Arrangements at Time of Discharge:

1. self
2. with parent(s)
3. with spouse
4. with friend(s)
5. siblings/relatives
6. boarding home
7. nursing home
8. adult foster care home
9. medical hospital
10. state hospital
11. other.

Date First Seen by Social Work After First Admission: _____

Date First Seen by Social Work After First Discharge: _____

Date First Seen by Social Work After Last Admission: _____

Date First Seen by Social Work After Last Discharge: _____

Nature of Social Work Contact(s): (group, individual,
family, team, marital,
community, discharge
planning, etc.):

Number of Family Visits During First Admission: _____

Number of Family Visits During Last Admission: _____

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