Interdisciplinary Role Perceptions: Implications for Teamwork

by

David S. Ricketts

A thesis
presented to the University of Manitoba
in partial fulfillment of the
requirements for the degree of
Masters of Arts
in
Psychology

Winnipeg, Manitoba, 1982

INTERDISCIPLINARY ROLE PERCEPTIONS: IMPLICATIONS FOR TEAMWORK

BY

DAVID S. RICKETTS

A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

MASTER OF ARTS

I hereby declare that I am the sole author of this thesis.

I authorize the University of Manitoba to lend this thesis to other institutions or individuals for the purpose of scholarly research.

David S. Ricketts

I further authorize the University of Manitoba to reproduce this thesis by photocopying or by other means, in total or in part, at the request of other institutions or individuals for the purpose of scholarly research.

David S. Ricketts

The University of Manitoba requires the signatures of all persons using or photocopying this thesis. Please sign below, and give address and date.

Abstract

The purpose of this research was twofold; (1) to identify and compare the self-perceived role identities of social workers, psychologists and psychiatrists, and (2) to examine the degree of congruence between each profession's self-defined role and their role as perceived by the other two professions. All psychiatrists, clinical psychologists and a sample of mental health social workers residing and employed in the province of Manitoba were surveyed through mail-out questionnaires. The questionnaire consisted of 50 statements representing different activities, attitudes, and orientations. Each subject was asked to rate each statement on a seven point scale to indicate its relevancy to their professional role identity. They rated the same statements twice again, each time rating the statements on their relevancy to the professional role identity of the other two professions. Discriminant function analyses were used to compare each discipline's self perceived role and to assess the degree of congruence between each discipline's perceptions of one another. The results supported the hypothesis that each profession would define their role along significantly different dimensions. Although each profession had their own unique or characteristic activities, attitudes and

orientations, the findings also indicated that there was considerable overlap or role blurring between the professions. While inclined to broadly define their own roles, each profession tried to limit the extent or scope of the roles of other professions, especially in areas related to their own skills or traditional responsibilities. These findings confirmed the second hypothesis that each discipline's self-perceived role would be significantly different from their role as perceived by the other professions. As expected, interdisciplinary role perceptions tended to conform to the more traditional stereotypes of each profession. The findings were discussed in light of of their implications for interdisciplinary role relations and the functioning of interdisciplinary teams. The research highlighted the need for a more equitable distribution of power within the mental health field and suggested that legislative or institutional reform and increased interdisciplinary training might help to reduce the power imbalance and alleviate some aspects of the role strain and conflict between the professions.

Aknowledgements

It is customary, if not mandatory, to include in a thesis a list of aknowledgements of those people and organizations to whom the author is indebted. Whenever such a section becomes routine or expected, the sincerity of these words are sometimes lost. However, I hope those reading this section will recognize that my words of appreciation are not a product of duty but a sincere appreciation for the help so many have given me in this lengthy, and at times trying, endeavour.

First, I would like to thank my thesis advisor, Lillian Esses, for her continuous support and the many hours she has devoted to this project. Without her thoughtful advice and suggestions, the quality of this research could only have suffered.

My other committee members, Bruce Tefft and Ruth Rachlis also deserve a hearty thanks for taking the time to provide me with encouragement as well as their objective opinions and suggestions. Their ideas certainly strengthened the research design and clarified many cloudy issues.

I would also like to thank Mei Lam for her work as a research assistant. Without her valuable help, this research might still be an ongoing project. Lastly, but by no means

least, I would like to thank the Manitoba Mental Health Foundation for funding this research project. Their support greatly enhanced the comprehensiveness of this research as well as easing my own financial burden.

CONTENTS

ABSTRACT iv

AKNOWLEDGEMENTS vi

page

INTRODUCTION 1

Defining Professional Roles: Implications for Teamwork 5
Definition and Function of Teams 6
Need for Specialized Professional Roles 8
Role Relations: The Effects of Role Perceptions on Teamwork 11
Demographic Differences 12
Personality Differences 12
Ideological Differences 14
Status and Power Differences 15
Agreement on Interdisciplinary Role Definitions 19
Summary 26
Purpose of Research and Hypotheses 27

METHOD 29

Subjects 29
Survey Procedure 30
Questionnaire Design 31

RESULTS 35

Sample Return Rate 35
Description of Sample 35
Hypothesis One: Comparison of Each Profession's Self Perceptions 40
Data Analysis For Hypothesis One 40
Activities 44
Attitudes 57
Orientation 64
Hypothesis Two: Interdisciplinary Perceptions . . 68
Data Analysis for Hypothesis Two 68
Perceptions of Psychologists - Activities . . . 69
Perceptions of Psychologists - Attitudes . . . 72
Perceptions of Psychologists - Orientations . . 75
Perceptions of Psychiatrists - Activities . . . 77
Perceptions of Psychiatrists - Attitudes . . . 81
Perceptions of Psychiatrists - Orientations . . 85

Perceptions of Social Workers - Activities . . 87
Perceptions of Social Workers - Attitudes . . . 91
Perceptions of Social Workers - Orientations . 98
Hypothesis Three 100
Hypothesis Four 100

DISCUSSION 102

Implications of Role Definitions 103
Implications of Interdisciplinary Role Perceptions 111
Perceptions of Activities 111
Perceptions of Attitudes 115
Perceptions of Orientations 117
Summary 123
Recomendations 126
Limitations of this Research 132
Future Research 136

REFERENCES 137

Appendix page

A. DEFINING THE ROLES OF EACH DISCIPLINE: A LITERATURE REVIEW 141

B. ROLE PERCEPTIONS AND ROLE STRAIN: A LITERATURE REVIEW 150

C. A COPY OF THE COVERING LETTER 161

D. COVERING LETTERS FROM DEPARTMENT HEADS 162

E. A COPY OF THE REMINDER LETTER 165

F. ATTITUDE STATEMENTS 166

G. RESEARCH QUESTIONNAIRE 170

LIST OF TABLES

Table		page
1.	Breakdown of Each Profession by Age and Sex	36
2.	Percentage of Respondents with Specific Degrees	38
3.	Percentage of Respondents Engaged in Specific Activities	39
4.	Discriminant Function Coefficients Comparing all Professions on Self Perceptions of Activities	46
5.	Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Activities (four activities removed)	48
6.	ANOVAs Comparing Each Activity Between Professions	51
7.	Self Perceptions of Activities	54
8.	Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Attitudes	59
9.	Factor Loadings on Attitude Variables	61
10.	Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Attitudes based on F.A.	63
11.	Discriminant Function Coefficients Comparing all Professions on Self Perceptions of Orientations	66
12.	Discriminant Function Coefficients Comparing the Professions on their Perceptions of Psychologists' Activities	70
13.	Discriminant Function Coefficients Comparing all Three Profession on Their Perceptions of Psychologists' Attitudes	74
14.	Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychologists' Orientations	76

15. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Activities 78

16. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Attitudes 82

17. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Attitudes based on F.A. 84

18. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Orientations 86

19. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Social Workers' Activities 88

20. Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Social Workers' Attitudes 92

21. Discriminant Function Coefficients Comparing all Three Pofessions on Their Perceptions of Social Workers' Attitudes based on F.A. 94

22. Discriminant Function Coefficients Comparing Social Workers and Psychologists on Their Perceptions of Social Workers' Attitudes from F.A. 96

23. Discriminant Function Coefficients Comparing Social Workers and Psychiatrists on Their Perceptions of Social Workers' Attitudes from F.A. 97

24. Discriminant Function Coefficients Comparing Social Workers and Psychiatrists on Their Perceptions of Social Workers' Orientations 99

Introduction

Over the last thirty or forty years there have been dramatic changes in the composition and number of mental health care professionals. An ever expanding array of professionals and paraprofessionals have demanded and received a larger portion of the therapeutic pie. Not only have psychologists and social workers expanded their realm into traditionally psychiatric practices but nurses, teachers, clergymen and paraprofessionals are providing therapy and assuming therapeutic roles and responsibilities. Accompanying this new army of mental health professionals have been a profusion of new and often controversial approaches and therapies many of them based on the ever growing body of psychological, sociological and medical knowledge.

The rapid evolution and growth of mental health professionals has had far-reaching effects on the role relations between the various professions. Distinct role definitions have fallen by the wayside and roles have become more flexible and blurred. Role assignments are no longer sharp and the status of role relationships are unclear.

The blurring of professional roles has both advantages and disadvantages. Broadly defined roles encourage flexibility and allows each professional the freedom to choose

the most effective and appropriate treatment strategy. They are not constrained by traditional or outdated role definitions and can easily add to their repertoire of techniques. On the other hand, the blurring of professional boundaries has led to two major difficulties. Firstly, it is becoming increasingly difficult to accurately define the specific role or professional boundaries of each discipline. Often it is unclear as to what constitutes a discipline's area of specialty or expertise. This calls into question the need for distinctive professions such as psychology, social work, psychiatry, or nursing to name a few. Perhaps "mental health professional" or labeling according to area of expertise might be a better alternative. Similarily, the value of the interdisciplinary team is also questionable; perhaps an "interexpertise" team would be more effective. Secondly, each profession is finding it increasingly difficult to recognize or agree upon the roles of the other mental health disciplines (Davis and Underwood, 1966; Miles, 1977; Schofield, 1963; Tinsley, 1974; Zander et al , 1957). Blurred roles can lead to role confusion between the disciplines and result in disagreement over role assignments and responsibilities. These factors may intensify interdisciplinary rivalry and jealousy and serve to increase competition for prestigeous jobs. As roles continue to evolve, the traditional role differences in such areas as power and status or ideological orientation may become an increasing source of

conflict which can hamper or interfere with interdisciplinary teamwork. All these factors contribute to role strain between disciplines and interfere with interprofessional consultation, referral and collaboration; three processes which serve to describe the relationships between the different helping professions (Brill, 1976).

Consultation was traditionally a psychiatric service but today it is more complicated given the various areas of expertise in the different professions. Similarly, referral possibilities are greatly expanded with the various specialty and professional groups providing a wide range of services. The third process, collaboration, is clearly dependent upon good role relations and some have suggested that role strain may well have adverse affects on teamwork (Bassoff, 1970; Blanchard and Barlow, 1976; Brill, 1976; Horwitz, 1970).

Suprisingly though, there have been few empirical investigations of the role relations between the various professions. The reason for the paucity of interest in this area is difficult to determine but the various professions have tended to shy away from self examination or perhaps naturally prefer to investigate phenomena more clearly within their own professional boundary. This is amply illustrated not only in a lack of empirical research assessing the utility of interdisciplinary teamwork but also in the minor emphasis which formal training places on teamwork and interdisciplinary

nary collaboration. Kane (1975) for example reports that over eighty percent of social work schools report slight or no emphasis on teamwork. Bloom and Parad (1976) surveyed 67 professional training programs in psychiatry, social work, clinical psychology, and psychiatric nursing and found that only 36% reported that they offer interdisciplinary training. The lack of interdisciplinary training is contrasted with Bloom and Parad's (1976) finding that 87% of the workers in 55 community mental health centres reported that they were in an interdisciplinary setting. Sixty percent of each worker's interactions were with professionals in other disciplines. Most students first contacts with different professions is not until their first job position where they are expected to quickly adapt to an interdisciplinary approach.

Research studies which have addressed issues related to role relations have often been general discussion papers, opinions based on the author's own perceptions or the results of interviews with a sample of individuals from different professions (Meuller and James, 1972; Schofield, 1963; Wilder and Rosenblatt, 1977;Blanchard and Barlow, 1976; Zander, Cohen and Stotland, 1957). Most authors have tended to direct their attention to analysing power and status differences between the professions and Kane (1975) notes that there has been a fair body of research on group processes in the interprofessional team such as decision

making, efficiency, morale, leadership, and group norms. Few researchers have attempted to empirically define each discipline's unique strengths and competencies or to identify potential sources of friction and role strain. Examination of both these issues would seem necessary if the various professions hope to work together effectively.

The present study was designed to empirically identify and compare the self perceived roles of three mental health professions (psychiatry, psychology, social work). It also examined the degree of congruence between each profesion's self perceived role and the perceptions of their role by the other disciplines. The examination of self percieved roles and interdisciplinary perceptions leads to a greater understanding of the strengths and competencies of each profession and identifies possible sources of interdisciplinary role strain and conflict.

The following section examines in greater detail how the definition of each profession's role can have important consequences for the functioning and composition of interdisciplinary teams.

Defining Professional Roles: Implications for Teamwork

Blanchard and Barlow (1976) defines a role as "the expectations persons hold in common toward any person occupying a slot or position in a system" (p.96). Brill (1976) expands on this definition by noting that roles include not only ex-

pectations about how a person should act or behave but also other people's perceptions of what that role involves. Clearly, a role involves not only specific job activities but such related aspects as power, status, or personality attributes which are commonly associated with a given position. Furthermore, it has been pointed out that a person's role is not something static which can be viewed as a separate entity but rather the role prescribed for an individual is influenced by the role of other members of the system and is often the outcome of a more or less "spirited and protracted bargaining process" (Horwitz 1970, p.15). Nowhere are the effects of a discipline's role definition more important or more evident than in the context of interdisciplinary mental health teams. To fully understand the implications of role definition on teamwork, the concept of teamwork must first be defined.

Definition and Function of Teams. Brill (1976) offers what seems the best and most comprehensive definition of teamwork;

> That work which is done by a group of people who possess individual expertise, who are responsible for making individual decisions, who hold a common purpose and who meet together to communicate, share,and consolidate knowledge from which plans are made, future decisions influenced and actions determined (p.16).

The implications this may have for the client's being served are outlined by Bassoff (1977) who notes that a team practices a "holistic approach which stresses the total care

of the patient as opposed to a fragmented delivery of services from a number of different professionals" (p.220). Many others have lauded the team concept for a wide range of perceived advantages. Schofield (1963) feels teamwork can be an efficient and economical utilization of different disciplines and Pihl and Spiers (1977) point out that teamwork avoids redundancy and competition between professions. Furthermore, it has been argued that a team has a "strong sense of shared responsibility which can produce a synergistic effect; that is, the outcome of a well functioning team effort can be significantly greater than the cumulative effect of the discrete performance of individual practioners" (Bloom and Parad, 1976, p.670).

Some authors have also argued that another important aspect of a teamwork approach is that all workers should be of equal importance and value (Kane, 1978; Howard, 1974). Each discipline should be equally responsible for service delivery and decision making. This contrasts with the more traditional hierarchal model which often ensured that psychiatry dominated positions of power and authority. Others, however, might arge that a team works most effectively with a hierarchial structure of leadership.

Almost all authors agree that the greatest advantage of the teamwork approach is the opportunity for pooling the resources and skills of a wide variety of professional groups. Brill (1976) sums this up as follows:

> Service programs of the current magnitude and complexity require a wide variety as well as a significant degree of knowledge and skill. It is equally obvious that no one individual can encompass the needed range and depth, that no one person can be all things to even one other person...[We] are endeavoring to accomodate the demand for comprehensive service through the use of teams; people possessed of different specialized areas of knowledge and skill working together (p.18).

No one discipline possesses sole ownership of the wisdom and procedures for all mental health care. Traditionally, psychiatrists have contributed expertise in pharmacology, social workers have contributed their extensive knowledge of community resources and psychologists have contributed their psychological assessment skills. Others might argue that the psychiatrist's primary responsibility is to represent the patient's biological disorders, the social worker's responsibility is to ensure that social-enviromental factors are taken into account, and the psychologist's responsibility is to represent the patient's cognitive-emotional state. A team is expected to bring together the various disciplines to share and consolidate the expertise needed to efficiently provide the most comprehensive service possible.

Need for Specialized Professional Roles. If a team is designed as a vehicle for pooling and consolidating a wide range of skills and knowledge then it is vital that each team member has some "specialized knowledge; that concentrated differential know-how which qualifies the expert to fill his unique place on the team" (Brill, 1976, p.141).

Both Horwitz (1970) and Basoff (1977) note that the very reason for setting up an interdisciplinary team is to bring together professionals whose distinctive skills differ. It is important to keep in mind that simply bringing together professionals with various skills will not in itself guarantee an efficient, well functioning team. If team members are to work as a unit there must be sufficient commonality of language and knowledge as well as agreement regarding task definition and ideological approach. Nevertheless, each profession must have mastered a unique set of skills or else they are of little special value to the team.

The above discussion raises the question of how much specialized knowledge each discipline possesses and can contribute to a team. The few studies which have addressed this question (Davis and Underwood, 1966; Meuller and James, 1972; Schofield, 1963; Wilder and Rosenblatt, 1977; Zander et al 1957) tend to suggest that there is general consensus concerning each discipline's most obvious areas of competence. Most of these studies relied on interviews or questionaires asking each discipline to describe their own roles and occassionaly to describe the roles of the other disciplines. The general findings suggest that psychiatry has expertise in pharmacology, psychology has expertise in research, and assessment and social work has expertise in community liason, client advocacy, and knowledge of community resources. No study has attempted to specify a more compre-

hensive definition of each discipline's role. Almost all these studies have been either general discussion papers or surveys based on a limited sample and most utilized a very narrow range of responses which fail to adequately explore the similarities and differences between the various disciplines.[1]

If it can be demonstrated that the different professions do indeed have specific roles and unique areas of knowledge and skills, then the interdisciplinary team seems to be an ideal forum for combining the resources of each profession. If there are few or limited differences between the professions, then they likely function as a single profession and a combination of different professions is of limited use to a team. In that case a more viable and useful team would concentrate on combining individuals with unique skills and knowledge regardless of professional background. The "interexpertise" team might be more productive than an interdisciplinary group of individuals with similar skills and approaches. It is often assumed that grouping together different disciplines will automatically bring together people with different skills and talents; an assumption which may well be based on traditional roles since outdated. Furthermore, if the different disciplines do not possess unique skills or knowledge then one must seriously question the need for such distinct disciplines and the concomitant costs

---

[1] See Appendix A for a more extensive review of this literature.

of separate but parallel training facilities.

Thus, the nature of each professions' role definition has important implication for the composition and functioning of interdisciplinary teams. A teams effectiveness, however, is not soley a function of the skills and competencies of the individual team members. The current state of role relations between the disciplines is also an important variable determining the effectiveness of a team as a unit. This poses the second question of relevance to this research; namely which variables contribute to strained or ineffective role relations?

Role Relations: The Effects of Role Perceptions on Teamwork

Research on interdisciplinary role relations is limited and suffers from many of the same inadequacies which characterized the research on role definitions. Most of the literature consists of general discussion papers or descriptive results based on small scale surveys or interviews. Many studies are out of date while others suffer serious methodological flaws. Although conclusive findings are lacking the studies in general suggest that current role relations are at times characterised by animosity, lack of communication and competition and jealcusy between the disciplines[2] (Blanchard and Barlow, 1976; Miles, 1977; Veeder, 1974; Zander et al, 1956). The factors underlying this apparent

[2] See Appendix B for a more detailed review of this literature.

strain in role relations have not been conclusively identified but the literature suggests that the following five factors are primarily responsible for problems in interdisciplinary role relations:

1. Demographic differences
2. Personality differences
3. Ideological differences
4. Status and Power differences
5. Disagreement Over Role Definitions

Each of these factors will be briefly reviewed and their contribution to role strain discussed.

Demographic Differences. Each discipline differs in composition along such dimensions as sex, socioeconomic status, race and education. Although this researcher was unable to find any studies which examined the impact that composition differences have on team fucntioning, Malick and Johnson (1977) point out that such variables may well create barriers to effective collaboration. Sex stereotypes may colour the manner in which a predominantly male discipline such as psychiatry interacts with a predominantly female discipline such as social work or nursing. Economic, ethnic and educational differences may also serve to intensify problems based on power and status differences.

Personality Differences. This researcher was unable to find any studies which document the effects of personality differences on role relations but Pihl and Spiers (1977)

have demonstrated that such differences exist. They found significant differences between psychologists, social workers, physiotherapists, and occupational therapists on personality traits measured by the Dogmatism Scale and Personality Research Form. Social workers tended to have low achievment scores, were more affiliative, more concerned with the helplessness of mankind, and more reliant on authority. Psychologists tended to be low in succorance, unconcerned with the future, unconcerned with man's helplessness, intolerant of disbeliefs and authoritarian. Significant differences, however, are difficult to interpret and it has not been demonstrated that these differences do in fact effect role strain. Such differences may also be a result of sex-role stereotypes or the result of other demographic differences between the professions. It would have been helpful if the authors could have speculated more fully on the possible implications of the differences they found. The findings must be viewed cautiously as the results are based on only 85 subjects within one clinical setting. Nonetheless, this study does suggest that each discipline may attract workers with different personalities and it is possible that such differences may lead to personality clashes which may adversely affect collaboration. Even if differences are minimal or nonexistant, one profession may still develop or harbour stereotypes or expectations about another which may discourage interaction or limit communica-

tion. This research attempts to identify some of the attitudes which professionals attribute to one another and discuss their implications for role strain. Further research might investigate the effects of certain personality characteristics on the collaboration between teams (eg. the effects of competitiveness on cooperation, effects of interpersonal skills on agreement or communication etc.). Until further research is undertaken, the actual effects of personality differences will remain unclear.

Ideological Differences. Disciplines also differ in their ideological approach and value system. Disagreement over philosophical beliefs or orientation may create barriers to successful collaboration and makes teamwork difficult. Psychiatrists, for example, may be more likely to endorse a medical model and pharmacalogical approach whereas social workers might argue that a community orientation or psychosocial approach might be more appropriate. There are few studies which have attempted to identify the ideological differences between the disciplines. One exception to this rule is a small body of literature comparing the various disciplines on their endorsement of a community mental health ideology. Robin and Wagenfeld (1976) found that psychiatrists were less likely to endorse a community mental health approach than were psychologists and social workers. Social workers tended to be the most likely to endorse this ideology. Similar findings have been reported by Baker and

Schulberg (1967), and Langston (1970). Davison and Pattison (1978), however, failed to find significant differences between these disciplines but hypothesized that the psychiatrists in their study may have had more extensive training in interdisciplinary collaboration and more exposure to the principles and concepts of community mental health. It seems likely that ideological differences are a major source of friction between the mental health disciplines. This present research attempts to document the ideological differences between the disciplines and to investigate their contribution to role conflict and strain between the professions.

Status and Power Differences. The mental health disciplines differ substantially in their degree of power, authority, and status. These differences can lead to conflict, competition and resentment between the disciplines.

Omark (1977) describes the traditionally tense rivalry between psychologists and psychiatrists for recognition by the public at large, as the most legitimate discipline for the practice of psychotherapy. Psychiatrists have often claimed that their background in medicine gives them a unitary view of mind and body as well as the "proper" service orientation. Psychologists have countered that "psychiatrists are rarely taught psychodynamics and given little extended supervision in psychotherapy" (Omark, 1977, p.2). Omark (1977) suggests that conflict should be expected be-

tween the two professions in areas of interpersonal relations, especially in areas related to status, authority, community prestige and the right to engage in private practice.

Sidenberg, Tyler and Taplin (1973) outlines essentially the same areas of potential conflict between psychology and psychiatry as did Omark (1977), but they also point out that psychiatrists often feel that the treatment of mental illness of all kinds has traditionally been the responsibility of medicine and that the appropriate utilization of psychological skills of the other professions are welcomed as long as they are under direct medical authority. Psychologists, on the other hand, argue that they are trained to deal with problems involving such processes as learning, motivation, personal development and interpersonal relations. They feel it is irrelevant and demeaning for them to be supervised by physicians with regard to psychological matters.

Miles (1977) also documented psychiatry's high status position by interviewing 51 psychiatrists, nurses, occupational therapists and social workers from three psychiatric hospitals. Forty-four of the respondents ranked the psychiatrists as making the most important contribution to patient care. Most felt that without the psychiatrist there would be no treatment as only they could diagnose patients and prescribe medications. Psychiatrists and nurses both felt that the nurses made the second most important contri-

bution since the hospital could not function without them (as no one would feed and care for patients on a day-to-day basis). Social workers and occupational therapists meanwhile ranked themselves as second in importance but equal to the nurses. Seven individuals (all from non-medical professions) refused to rank the professions in their order of importance as they thought all professions were of equal value. Further, they felt that "any of the groups could provide treatment and that it was only the undue pride of the medical profession that insisted on differential status" (Miles, 1977, p.86). They felt this attitude was the result of the medical profession's powerful position and the meek acceptance of this by many mental health workers.

Others such as Kane (1978) and Howard (1974) have also reported that even though teamwork implies equality of individuals, both the patients and team members accurately perceive significant differences in power and status. They also note that psychiatrists have traditionally dominated in positions of leadership and authority.

The psychiatrist's "claim to dominance" is amptly illustrated in an editorial by McConville (1978) who argued that psychiatry should be jealous of their clinical rights and that an assigned physician should be responsible for each patient and ensure that delegated clinical tasks are not beyond the competence of primary or secondary therapists. The author goes on to argue that psychiatry should outline the

areas where they should receive special status and that they should define their own identity and prove they are worthy of the very significant powers invested in them.

While psychiatry has traditionally dominated the mental health field, social work has traditionally been accorded a second class position to the more prestigeous professions. Such a status has obvious implications for the creation of role strain between professions. Connaway (1975) notes that it is "common talk that anything another profession does not want to do is passed along to the social worker who will always do it, even if grudgingly" (p.385). Clearly power and status differences between the professions may well serve to decrease morale and interfere with the clarity of communication and collaboration between the disciplines.

Professional pride can lead to jealousy and competition between disciplines and this can have serious consequences on interprofessional relations. Professional pride and status often rests on a claim to uniqueness and expertise within a certain field. Horwitz (1970), notes that this "notion of expertness...impinges upon role definition, task interrelations, and interprofessional communication and collaborative possibilities" (p. 143). Skill and knowledge becomes a valuable commodity to be carefully and jealously guarded from encroachment or suppression by the other professions. The amount of prestige and power which hinges on one's role definition makes it extremely difficult for the more presti-

geous professions to accurately accept or recognize the competencies of the traditionally lower status groups. Often it may enhance a profession's identity to deny others the rights and competencies which they may in fact possess. Horwitz (1970) points out that there is often competition for prestigeous jobs (especially when the job overlaps several disciplines) and Bloom and Parad (1976) found that respondents to a survey of mental health professions were preoccupied with problems of role blurring. Psychiatrists especially voiced their concern over the "vulnerable" professional identity of young physicians who might find themselves collaborating with other professionals with greater knowledge and skill in dealing with mental health problems. If competition and jealousy over clinical rights is as widespread as suggested then cooperation and communication between disciplines must be strained and teamwork seriously hampered. There has been little research, however, which has adequately investigated the nature and extent of power struggles between the disciplines. This present research identifies some of the power and status conflicts which do exist and examines their contribution to role strain between the disciplines.

Agreement on Interdisciplinary Role Definitions. Role perceptions are another of the major factors which may hamper communication and lead to a breakdown in collaboration. Robin (1977) notes that when several audiences of a role do

not agree upon its definition then role conflict or role strain occurs. Given the increased number of mental health professionals and the blurring of professional role boundaries it is increasingly difficult for professionals to define their own role let alone the role of the other disciplines. Rapid changes in task assignments and areas of competency makes it difficult to recognize when traditional roles or stereotypes are outdated. The lack of interprofessional interaction during training may be one of the major reasons for the continuing confusion over role definition. Often during their training, practitioners have very limited exposure to members of other disciplines or to alternative ideological and theoretical perspectives (Bloom and Parad, 1976; Kane, 1975). Often they enter the work place with a stereotyped and often inadequate understanding of what to expect or how to relate to professionals in other fields.

Blanchard and Barlow (1976) point out that the lack of accurate role perceptions and the resultant role strain leads to difficulties in interactions and makes cooperation between or amongst individuals difficult. Brill (1976) believes that hostility between the professions is common and that problems in role definition are great. Horwitz (1970) too believes that "confusion about role definition and the resultant debate, even recrimination cannot be regarded as unusual in interdisciplinary team practice" (p.17). Bassoff (1977) suggests that teamwork is hampered by a lack of trust

between professions and that one of the major factors in this lack of trust is a lack of knowledge about or appreciation for the philosophic values and professional competencies of other disciplines and occupations. To overcome these problems each profession must know what to expect from other professions and understand their role on the team both to make full use of their potential and to ensure a cooperative and smooth running relationship. Each practioner should "be able to communicate comfortably with members of other disciplines, this comfort stemming from some familiarity with the philosophic and functional frames of referance held by others" (Bassoff, 1977, p.322). This ensures that individuals can share their specialized knowledge and enhance their potential for effective problem solving. Brill (1976) also notes that team effectiveness depends on how clearly the boundaries of the various professions can be defined and explicated. She believes that major conflicts between team members are not the result of personality problems but a lack of role definition that is commonly understood and accepted.

Many would disagree with Brill on the desireability of such clearly defined role boundaries. Malick and Jordon (1977) notes that rule governed, inflexible behavior is often the dangerous result of too narrow a definition of a role. Practitioners on a team must be able to take on many roles and a wide variety of skills if they are to provide

comprehensive and efficient mental health care. New (1968) notes that teamwork

> does not necessarily mean a momentary suspension of task delineations according to the fields of competence, although it is highly necessary that each member of the team agree to instantaneous shifts of task boundaries. In one moment, some area of competence will have to submerge in favour of some other person's area of competence (p.329).

If team members are to cooperate and work in such harmony as New (1968) describes, there must be some fluidity of role boundaries and there will and should be a great deal of role overlap and the consequent blurring of role boundaries. At first, it appears there is a paradox: professionals must have flexible role definitions if they hope to be effective team members yet unless their role is clearly defined there may be role confusion and conflict with other team members. There is, however, a middle ground. Role confusion and conflict can be reduced if the professions could recognize and agree on each other's role definitions. This does not exclude the possibility that different roles will overlap or at times be blurred. What is important is that these "common responsibilities" (areas of blurred roles) as well as each profession's "unique skills" be recognized and agreed upon. Congruent role perceptions would simplify task allocation and make the division of labour more efficient.

The recognition or agreement on the actual role of a given profession does not ensure that each professional would agree that such a role definition is desireable. Each pro-

fession must not only perceive the other's skills and orientations but they need to agree that such a role is appropriate for the given profession. Disagreement over the appropriatness of a role is another factor which may create resentment and competition between members and make teamwork difficult. Disagreement over role responsibility is directly related to such issues as difference in orientation and power and makes it more difficult for the professions to mutually recognize each other's roles. Each discipline must not only recognize how each profession defines role but agree on the appropriateness of that role as well. Only then can they communicate effectively, cooperate with one another and make full use of one another's full potential.

Consultation and referral between disciplines are two other aspects of interdisciplinary role relations which also depend on role recognition and agreement. Not only must role strain be at a minimum for effective communication to take place but a knowledge and understanding of each others skills and capabilities is essential for accurate referral and appropriate consultation. Newman, Carney and Sharon (1978), suggest that if a client is to be referred to the most effective help, the practioner must have a "clear understanding of the competencies and limits of each professional group" (p.238). Powell (1978) asked a sample of different mental health professionals to make referrals based on six mock files about juveniles and found they agreed on

the appropriate referral only ten percent of the time. This suggests there is a great deal of variability in how we make referral decisions and this may possibly be the result of blurred or inaccurate role definitions. Unfortunately, there are few other studies of referral practices. Stream and Blatt (1973), note that "although the phenomenon of referral is a universal practice ....it has received scant attention and virtually no research has been done on the topic" (p.104). It seems quite likely, however, that inaccurate expectations about an individual's role may well lead to dissappointment, resentment, or failure to take advantage of available resources. This not only breeds duplication of services but fosters jealousy and ill feeling as well (Brill, 1976). Referrals depend upon an extensive network of communication and Horwitz (1970) reports that the efficiency of such a network is affected by such factors as role expectations.

To help reduce role strain, each discipline must recognize and agree upon the areas of competence and expertise of one another. This is obviously not an easy task but it might be encouraged through increased interdisciplinary training so that students have greater exposure to the methodologies and ideologies of the different disciplines and can better appreciate the differences in training and approach. Better communication and cooperation between professionals can also lead to a more agreement on and understand-

ing of each other's roles. Such cooperation is obviously made difficult by such factors as power and status or personality differences.

If the different professions fail to recognize or agree on one another's roles or are unaware of one another's competencies then there can be little hope for agreement over role assignments and responsibilities. Recognition or agreement on role definitions does not ensure that each discipline will agree that role responsibilities are appropriate or useful. Recognition of one another's role is merely the first step to reaching agreement over task assignments and role responsibilities.

It is possible that specific professional roles do not in fact exist. Intraprofessional diversity in such areas as ideology, specific skills or approaches may be so widespread that a specific role definition for any one profession may be impossible. Should this be true, then the rationale for different disciplines is seriously questioned. The possibility that role overlap is so extensive that specific role definitions are non-existent does not negate the importance of role recognition and role agreement. Attributing limited or stereotyped role definitions to a profession which encompasses a diverse collection of methods and ideologies only serves to make role agreement more difficult and serves to increase interdisciplinary conflict and rivalry. The diversity of each profession must be accurately perceived as well.

Summary. The literature examining interdisciplinary role relations is mainly composed of general discussion papers or opinions, most of which have been outlined or discussed in the preceeding sections. The few studies which have investigated this area tend to suggest that there is a fair degree of role confusion and role strain between the mental health care disciplines (Blanchard and Barlow, 1976; Tinsley, 1974; Veeder, 1974; Zander et al, 1957). A number of authors have speculated as to the causes of these difficulties and at least five factors have been postulated; namely 1) demographic differences, 2) personality differences, 3) ideological differences, 4) power and status differences, and 5) disagreement on role definitions. Not all of these factors have been empirically demonstrated to actually create interdisciplinary tension and conflict but all of the factors have a great deal of face validity. The first three factors are relatively stable in the sense that they represent possible differences in each profession's composition and beliefs and are likely the result of the type of selection and training which each professional receives. It is unlikely that there will be many changes in these areas until such time that one unified mental health approach is agreed upon by all the discipline.

The problems created by power and status differences are difficult to change and such issues will likely remain until such time that salaries, prestige and authority are equalized, a prospect which is unlikely in the near future.

The last factor, agreement on role definitions includes interdisciplinary recognition and agreement on each discipline's job activities and functions as well as each discipline's philosophical/ideological viewpoints, personality characteristics and any other attributes which are commonly associated with a role. Disagreement over role definitions is perhaps the one factor most amenable to change and consequently is the central issue that this research investigates. Increasing role recognition or agreement on one anothers's role is the first step in the reduction of role strain.

Purpose of Research and Hypotheses

The purpose of this research was twofold; (1) to identify and compare the self perceived role definitions of social work, psychology, and psychiatry, and (2) to investigate the degree of congruence between the professions' interdisciplinary perceptions. The following hypotheses were advanced:

Hypothesis One

Each profession would define their professional role along significantly different dimensions. This researcher expected differences in each disciplines' role definitions based on ideological orientation, specific job activities, and power and authority issues. Psychiatrists were expected to define their role as being relatively high in power and authority and revolving around a medical and psychoanalytic

orientation. In addition, it was expected that social workers would define their role as relatively low in power and revolving around a social/community orientation while psychologists would define their role as having moderate power and a more eclectic orientation.

Hypothesis Two

Each discipline's self perceived role would be significantly different from their role as percieved by the other mental health disciplines. It was also expected that each discipline would define their own role as including a wide range of activities and responsibilities but they would deny such broad roles to the other disciplines. Instead, each discipline was expected to assign other disciplines more circumscribed and limited roles which conform to the more traditional stereotypes of each profession.

Hypothesis Three

The self-perceived accuracy of role perceptions would be positively correlated with a respondent's satisfaction with role relations. In other words, those who were satisfied with interdisciplinary role relations would believe they had more accurate role perceptions.

Hypothesis Four

The self-perceived accuracy of role perceptions would be positively correlated with a respondent's degree of exposure to interdisciplinary team practice. In other words, practitioners in interdisciplinary settings would believe they had more accurate role perceptions than those in other settings.

Method

Subjects

This survey included all clinical and school psychologists who were residing and employed in Manitoba and listed in the 1981 membership lists of the Psychological Association of Manitoba (66 professionals in total). All 78 psychiatrists residing and employed in Manitoba who were listed in the membership lists of the Manitoba College of Physicians and Surgeons (1981) were also surveyed. In order to equate the sample sizes for each group, it was not necessary to survey all social workers. Instead, 91 social workers in the mental health care field were randomly selected from a list of social workers practicing in a mental health care role in Manitoba. This list was compiled by contacting all major hospitals and mental health centres as well as the Child Guidance Centre and requesting a list of social workers in these facilities. Lists were obtained from all but two hospitals. For one of the hospitals (Health Sciences Centre), the questionnaire was randomly distributed to social workers within the hospital by the secretary for the Department of Social Work. A list was also obtained of all social workers working for the provincial government in the mental health care field. Professors of Social Work at the University of

Manitoba were also included on the list. The final sample of 91 professionals represented approximately 70% of the social workers working in the above mentioned agencies.

The membership lists for each profession may not have included all mental health psychologists, psychiatrists and social workers in Manitoba (eg. psychologists working in exempt facilities might not be listed by P.A.M.). The possible bias introduced by a non-inclusive sample must be considered in interpreting both the meaning and generalizability of the results.

Survey Procedure

Each subject was mailed the questionnaire and a covering letter explaining the purpose of the research and requesting their cooperation.[3] A letter from the University Head of each profession's respective department was also included encouraging the respondent's cooperation.[4] A self-addressed, stamped return envelope was also included with the questionnaire. The return envelope was coded to facilitate follow-up and two weeks after the first mailing, a reminder letter was sent to all respondents who had not returned a questionnaire.[5] Although it would have been desirable to make each questionnaire completely anonymous this would have required

---

[3] See Appendix C for a copy of the covering letter.

[4] See Appendix D for copies of the Department Head letters.

[5] See Appendix E for a copy of the reminder letter.

that reminder letters be sent to all subjects (as there was no way to know who had returned their questionnaire). Nonetheless, subjects were assured of the confidentiality of their response.

Questionnaire Design

Each subject received a questionnaire and was asked to rate (on a seven point scale) a number of statements on their relevancy to the subject's own professional role identity. The statements were chosen to reflect possible differences in the following three areas of interest; 1) professional activities, 2) attitudes or characteristics, and 3) ideological orientation. There were 15 statements representing different professional activities which were derived by the researcher in consultation with two psychologists and one social worker. The statements were chosen as representative of the major functions of mental health professionals and reflected the researcher's and the consultant's personal experiences as well as a review of the activities which had been examined by previous research in this area (see Appendix A).

The questionnaire also listed 10 statements representing different "attitudes". These attitude statements were chosen by a procedure identical to that used in choosing the activity statements. These statements were combined a priori to represent three constructs; power, cooperation,

and degree of specialization. Appendix F lists the attitude statements which were believed to be characteristic of each of these constructs. Twenty-five statements were also included on the questionnaire which were chosen to represent five different orientations; biological, social-community, behavioral, humanistic, psychodynamic. Based on personal beliefs and the writings from the various mental health orientations, the researcher derived five lists of statements, each list representing one of the five orientations. Each list was given to one psychologist who ascribed to that particular orientation. Each psychologist was asked to choose five statements which best represented their own orientation, being free to reword statements or add those which they believed were more representative. Appendix F lists which statements were considered characteristic of each orientation. On the final questionnaire, the statements within each category were presented in random order.[6]

The validity and inclusiveness of these statements is of course open to interpretation. The statements may not include a full range of possible activities, especially as a psychiatrist was not consulted as to the representativeness of these statements for the psychiatric profession. The same criticism holds true for the attitude and orientation statements. The constructs measured by these statements depend mostly on face validity although factor analysis was

---

[6] See Appendix G for a copy of the questionnaire.

used to derive three other attitude constructs which consequently have more statistical validity.

After describing their own professional role identity each subject was asked to rate the statements twice again but in terms of their relevancy to the role identities of the other two professions. Each subject rated their own role first and the order of the rating of the other two professions was counterbalanced to control for the possibility that the order of presentation might influence the way each profession was rated.

It should be noted that this study was comparing role definitions as defined by the professionals themselves. As such, these self-defined roles may not reflect their roles as others might perceive them or as they might be determined by empirical observation. The focus of this research, however, is on the congruence of interdisciplinary role perceptions and their effects on teamwork. Consequently it was more appropriate to compare one profession's perceptions of another with that profession's own perceptions of their role.

Following rating of all items, respondents were asked to provide some background information. Questions here concerned demographic information, perceived accuracy of role perceptions ("own" and "others"), percentage of time spent consulting with other disciplines and current job description. Lastly, participants were asked to rate their degree

of satisfaction with current role relations between themselves and members of other mental health professions. These questions were chosen so that the sample of individuals who responded could be adequately described and that hypothesis three and four could be tested.

Results

Sample Return Rate

A total of 155 completed questionnaires were returned from the total of 235 questionnaires originally mailed. This represents an overall return rate of 61%. Psychologists as a group had the highest percentage of returns with 56 out of 66 subjects returning questionnaires for a group return rate of 85%. Social workers returned 62 out of 91 questionnaires for a group return rate of 63% and 38 questionnaires were returned from the 78 psychiatrists surveyed for an overall group return rate of 49%.

Description of Sample

Table 1 lists the mean ages of the respondents in each profession. The percentage of males and females in each profession is also shown. A one-way ANOVA indicated that the age difference between professions was statistically significant ($F(2) = 9.1$, $p = .0002$). A chi square test found significant differences between the professions on sex ($X^2(2) = 26.0$, $p = .0000$). The psychiatrists had the highest mean age (46.7 years) and were predominantly male (86%). Psychologists were slightly younger (42.5 years) and were also predominantly male (76%). Social workers were slightly younger still (39.1 years) and predominantly female (60%).

TABLE 1

Breakdown of Each Profession by Age and Sex

	Mean Age			Sex: number (%)		
Profession	Male	Female	Both	Male	Female	N
Social Work	39.1	37.3	38.1	25(40)	37(60)	54
Psychology	42.5	43.4	42.7	41(76)	13(24)	60
Psychiatry	47.2	43.8	46.7	31(86)	5(14)	36

Note. The sum of N for each group does not equal 155 as some questionnaires had missing values.

Table 2 shows the type of degrees held by the respondents in each profession. A chi square analysis found significant differences between all three professions (X^2 (12) = 273.3, p = 0.0). The majority of psychologists had a Ph.d (68%) while one quarter had obtained an M.A. as their highest degree. The majority of social workers (60%) had M.S.W. degrees and one-third had a B.S.W. degree only. All psychiatrists had a medical degree.

Table 3 shows the percentage of respondents in each profession who engaged in specific activities. A large proportion of psychologists and psychiatrists engaged in therapy (80% and 81% respectively) and served as consultants (83% and 70% respectively). Almost three-quarters of the psychiatrists also engaged in private practice, one-third were academic professors and 40% had administrative duties. Approximately one-half of the psychologists considered themselves psychometricians, researchers, or academic professors and 44% were in private practice. Three-quarters of the social workers were therapists and approximately one-half described themselves as consultants. A little less than one-half engaged in administrative work. Based on the activities listed on the questionnaire, social workers tended to restrict their activities to fewer areas. However, 13% listed "other" (usually adding "social worker") which suggest that the activities listed may not have been suffeciently oriented to social workers.

TABLE 2

Percentage of Respondents with Specific Degrees

Profession	B.Ed or B.A. or B.S.W.	M.A. or M.S.W.	Ph.d or M.D.
Psychiatry	00 (00)	00 (00)	36 (100)
Social Work	20 (35)	34 (60)	3 (05)
Psychology	2 (04)	13 (25)	36 (68)

Note: The first number represents the actual number of respondents holding at least one of the listed degrees. The number in brackets represents the percentage.

TABLE 3

Percentage of Respondents Engaged in Specific Activities

Job Description	Psychologists	Psychiatrists	Social Workers
Therapist	80	81	74
Private Practice	44	78	08
Psychometrician	48	00	02
Consultant	83	70	48
Administrator	27	41	43
Professor	47	32	16
Researcher	49	16	11
Other	09	00	13

Hypothesis One: Comparison of Each Profession's Self Perceptions

The following section identifies and compares the role definitions of the three mental health professions. Their specific role descriptions are presented as well as an outline of the role attributes which served to discriminate between the professions. It is important to remember that at times, a profession's ratings are discussed relative to the ratings of the other professions. A given profession may have rated a specific activity or attitude as more characteristic of their own discipline than another discipline even though that activity may have been rated as "slightly uncharacteristic" of themselves. In an absolute sense, it would be a mistake to interpret a variable which discriminates between professions as being necessarily characteristic of any given profession. Such a variable, however, may well be considered characteristic in a relative sense.

For clarity, the differences between the professions on their activities, attitudes and orientations will be examined seperately.

Data Analysis For Hypothesis One. Discriminant function analyses were used to compare each discipline's description of their professional role identity. Each analysis discriminated all three disciplines on either their activities, their attitudes or their orientations. Seperate analyses for

each set of variables reduced the number of dependent variables per analysis and simplified interpretation.

With three groups it was possible to derive up to two linear combinations of variables (functions), each of which maximally differentiated the three professions on each set of variables. The first function represented the combination of variables which accounted for the maximum amount of variance between all three groups. The second function accounted for the maximum amount of the residual variance which was not accounted for by the first function. Wilk's lambda was used to test the significance of the residual variance between groups after each discriminant function was removed. This provided a test of the significance of each seperate discriminant function (all were considered significant at $p < .05$). The test of the first discriminant function is identical to the Wilk's lambda test in a multivariate analysis of variance. Unlike repeated univariate tests, the multivariate test takes into account the correlations between variables and can identify common trends between a number of variables. Consequently, the multivariate analyses can identify differences between the professions which might not be significant with repeated univariate analyses.

A significant discrimiant function indicated that there were significant differences between the three professions on the way they rated a given set of variables. The discriminant function coefficients were then examined post-hoc

to determine which variables contributed to the discrimination between groups (ie. which variables were heavily weighted on each function). Those variables with large discriminant function coefficients were usually those variables which the three professions rated differently. In some cases, the cluster of variables contributing to a significant function seemed to represent a specific construct and was given an appropriate label (as one might label a factor in factor analysis).

Univariate ANOVAS were also calculated as a post-hoc procedure. Multiple univariate analyses, however, can easily inflate the experiment-wise and family-wise error rate so significant univariate results were interpreted cautiously. In examining the differences between each profession's self definition, a Bonferroni procedure was used with each set of variables (ie. the activity, attitude and orientation variables) which maintained the family-wise error rate at $p < .05$. The size of the differences between professions on their perceptions of one another tended to be smaller and for these analyses, the Bonferroni procedure seriously reduced the power of each test. Consequently, each univariate analysis was considered significant at $p < .05$.

The final interpretation of the results was based on both the multivariate and univariate analyses. If the two findings did not agree, the reader is reminded that variables which have high discriminant function coefficients but

clearly non-significant univariate results could have several interpretations. Such a variable may be one of a number of variables (all correlated) which all have a trend in the same direction which cannot be detected with repeated univariate tests of significance. Alternately, such a variable may represent a suppressor function rather than an actual difference between the professions. In a suppressor relationship, the supressor variable may account for some of the error variance in another predictor variable. This makes the second variable a better predictor. The suppressor variable is highly loaded on the discriminant function yet is not directly correlated with the criterion and hence does not actually differ across the groups. It does, however, improve the discriminating power of some other variable which does differ between the groups. If the direction of the effect in the univariate analysis is opposite that of the discriminant analysis, then a suppressor relationship likely exists. Variables with significant univariate results and low discriminant function coefficients were most likely highly correlated with another variable and therefore did not contribute any additional discrimination to the function. The possibility that such a variable was significant by chance alone (based on the univariate test) must also be considered (especially when it is one of many univariate tests).

Although the actual discriminant function analyses were conducted using relatively stringent alpha levels, on an ex-

periment-wise basis there were quite a number of repeated discriminant function analyses, each one tested at $p < .05$. This increases the overall Type I error rate such that one or two discriminant function analyses might be significant by chance alone. Most of the analyses, however, were highly significant and the probability that any of the major findings were false would have to be considered quite low, although an accurate probability level cannot be determined.

Activities. The first 20 items on the questionnaire described various professional activities. Each profession's self perceptions were compared to one another using a discriminant function analysis. Two linear combinations of variables (functions) were derived which significantlly discriminated between all three groups, $X^2(40) = 630.1$, $p < .0000$ for funtion one, $X^2(19) = 259.1$, $p < .0000$ for function two.

The discriminant function coefficients for both functions are presented in Table 4 . The psychiatrists clustered at one end of the function which was weighted most heavily on "pharmocological treatment" with lesser weightings on "psychological testing", and "treating organic disorders". The social workers clustered on the opposite end of the function which was heavily weighted by the variables "coordinating community services", "coordinating welfare", "offering emotional support and advice" and "home visits" with lesser weightings on "advocate" and "program planning, development

and evaluation". The psychologists tended to cluster in the middle of the function. Those variables weighted on the social work end of the function were generally rated as more characteristic by the social workers than by the psychologists and especially the psychiatrists. Those variables weighted on the psychiatrist's end of the function tended to be rated as more characteristic by the psychiatrists than by the psychologists and especially the social workers. Examination of the variables which had large discriminant function coefficients suggests that this function may represent "community" oriented activities involving the coordination and delivery of social services as well as individual client support and advice (social workers). The opposite end of this function represents a more institutional and medical orientation and was characteristic of the psychiatrists.

The psychologists clustered at one extreme of the second discriminant function which was weighted most heavily on "psychological testing". Both social workers and psychiatrists clustered on the opposite end of the function which was weighted most heavily on "pharmacological treatment", and "coordinating welfare". This function can best be considered a dimension representing the provision of psychological testing.

The results of this first analysis indicate that four activities were clearly unique to specific professions and were contributing most of the discriminating power between

TABLE 4

Discriminant Function Coefficients Comparing all Professions on Self Perceptions of Activities

Variable	Standardized Discriminant Function Coefficients	
	Function One	Function Two
Providing Therapy	-.19	-.03
Consulting	.11	-.11
Compiling Family Histories	-.06	.24
Coordinating Welfare	-.37	.37
Formulating/Coord. Treatment	.10	-.21
Treating Organic Disorders	.39	-.07
Home Visits	-.29	.08
Psychological Testing	.51	-.70
Coord. Community Services	-.40	-.14
Client/Patient Advocate	-.21	.23
Carrying Out Research	.04	-.08
Identifing Missing Needs	.05	.05
Providing Aftercare	.23	-.03
Pharmacological Treatment	.91	.46
Administrative Functions	.16	.11
Acting as a Referral Agent	-.09	-.17
Program Planning/Evaluation	-.24	-.13
ID/Classify Psychopathology	-.03	.06
Emotional Support and Advice	-.33	-.05

the groups. These four variables, "pharmacological treatment", "treating organic disorders", "psychological testing", and "coordinating welfare" were dropped and another discriminant function analysis was performed in order to more clearly distinguish between the groups on the remaining activities. Two discriminant functions were derived both of which significantly discriminated between the professions, X^2 (32) = 293.6, $p < .0000$ and X^2 (15) = 57.0, $p < .0000$. Table 5 presents the discriminant function coefficients for both these functions. The social workers clustered at one end of the function which was weighted most heavily on "compiling social or family histories", "home visits", and to a lesser extent "coordinating community services", "alvocate", and "offering emotional support and advice". Psychiatrists clustered at the opposite end of the function which was characterized by the variables: "identifying and classifying psychopathology" "formulating and coordinating treatment", and "consultant". Psychologists clustered in the middle of the function but closer to the psychiatrists (ie. their perceptions were more similar to the psychiatrists than the social workers). The variable loadings suggest that the function might best be considered a dimension encompassing a "community assessment" or "information gathering" activity (social workers) as opposed to a diagnostic and treatment planning function (psychiatrists and to some degree psychologists).

TABLE 5

Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Activities (four activities removed)

Variable	Standardized Discriminant Function Coefficients	
	Function One	Function Two
Providing Therapy	-.05	.04
Consultant	-.26	.13
Compiling Family Histories	.51	.35
Crisis Intervention	-.08	.17
Formulate/Coord. Treatment	-.26	.05
Home Visits	.42	-.14
Coord. Community Service	.28	-.10
Client/Patient Advocate	.27	-.10
Carrying Out Research	-.13	-.60
Identifing Missing Needs	.05	.16
Providing Aftercare	-.10	-.65
Administrative Functions	-.10	.45
Acting as a Referral Agent	.14	-.20
Program Planning/Evaluation	.21	-.68
ID/Classify Psychopathology	-.39	.17
Emotional Support and Advice	.23	-.12

Psychologists clustered on one end of the second function which was weighted most heavily on "program planning, development and evaluation" and "research". Both social workers and psychiatrists clustered at the opposite end which was weighted by the variables "aftercare" and to a lesser degree "administration" and "compiling social or family histories". This dimension appears to represent an indirect service - research oriented function for psychologists.

The discriminant function analyses identified some of the variables and the possible dimensions on which the three professions differed. To further clarify the differences between the professions and in order to identify each profession's role definition, the activity variables were each tested with a univariate ANOVA. Table 6 presents the univariate ANOVA results for each activity. The variables in the table are arranged to illustrate which variables each profession rated themselves highest on. Psychiatrists for example, gave the highest ratings to the first seven activities and the social workers gave the highest ratings to the following 10 variables. Psychologists had the highest ratings on only the last three activities. In order to prevent the extreme inflation of alpha which would occur if each variable were tested at $p < .05$, a Bonferroni procedure was used to test each variable at $p < .0025$ (familywise $\alpha = .05$). Using this criterion, 18 of the 20 activity variables significantly differentiated the groups. A modified least

significant difference procedure (LSD) was used to make post-hoc comparisons between each pair of professions on each variable with a significant F ratio. This information is also presented in Table 6. A "*" is used to identify significant differences between each pair of disciplines. Note that the two extreme or outer groups are considered significantly different if the overall ANOVA test was significant at $p < .0025$. The LSD procedure ensured that the overall error rate for the three comparisons per ANOVA remained at $p < .10$. Table 6 shows which groups were significantly different from one another on each variable. Generally, the univariate results were consistent with the discriminant function analyses.

To summarize, there were several activities which clearly differentiated the roles of the three professions; psychological testing was unique to psychologists, treatment of organic disorders and pharmacological treatment was unique to psychiatrists and the coordination of welfare and economic resources was clearly in the social workers' domain. Although all three professions tended to list a similar variety of activities as "characteristic" or "very characteristic" of their professions, there were differences in which areas or activities were emphasized versus those which were downplayed. Social workers were best discriminated from the other professions (especially the psychiatrists) by their emphasis on a community orientation involv-

TABLE 6

ANOVAs Comparing Each Activity Between Professions

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p	Grp. X Grp. Comparisons
Therapy	6.0	6.6	5.4	10.6	2,150	.0000	pi * py * sw
Consultant	5.8	6.4	5.1	11.8	2,151	.0000	pi * py * sw
Coord Treat.	5.5	6.3	5.2	8.7	2,150	.0003	pi * py sw
Organic	3.1	6.4	1.5	147.0	2,151	.0000	pi * py * sw
Drug Treat.	1.2	6.6	1.1	775.0	2,152	.0000	pi * py sw
ID Pathology	5.1	6.8	2.8	92.2	2,151	.0000	pi * py * sw
Aftercare	3.8	5.3	5.0	9.1	2,148	.0002	pi sw * py
Family Hist.	3.4	4.1	6.5	67.4	2,149	.0000	sw * pi * py
Welfare	1.8	1.8	6.0	212.0	2,151	.0000	sw * pi py
Crisis Int.	4.7	5.6	6.2	16.0	2,151	.0000	sw * pi * py
Home Visit	2.9	2.0	6.3	151.0	2,151	.0000	sw * py * pi
Coord. Com. Services	3.7	2.9	6.4	84.4	2,151	.0000	sw * py * pi
Advocate	3.9	3.2	6.1	55.1	2,150	.0000	sw * py * pi
ID Com Needs	4.1	4.1	5.8	25.4	2,150	.0000	sw * py pi
Admin.	4.5	4.6	4.8	.6	2,151	.5569	
Referral	4.6	3.8	6.1	32.7	2,150	.0000	sw * py * pi
Em. Support	5.7	5.8	6.6	11.0	2,151	.0000	sw * pi py
Psych Test.	6.3	1.7	1.4	254.0	2,150	.0000	py * pi * sw
Research	5.1	4.8	3.2	22.9	2,150	.0000	py pi * sw
Prog Planning/ Evaluation	5.3	4.4	5.0	4.1	2,151	.0184	

Py = psychologists; Pi = psychiatrists; Sw = social worker
* indicates statistically significant differences between two professions using a modified LSD procedure: overall alpha $p < .0025$.
If ANOVA $p < .0025$ then the two outer groups were considered significantly different.

ing the coordination of social services as well as individual client support and advice. This was in contrast to the psychiatrists' medical and institutional orientation. The social workers could also be discriminated from the psychologists and especially the psychiatrists by a more traditional community assessment or "information gathering" role as opposed to the psychiatrists' emphasis on diagnosis and treatment planning (expert-consultant). This last dimension represents the more traditional roles, the first represents a stronger ideological difference (community versus medical).

Psychologists ascribed to a mixture of orientations and attitudes which were characteristic of both the psychiatrists and social workers. Nontheless, they could be discriminated from these professions by their emphasis on indirect services related to research and program planning, development and evaluation as well as the provision of psychological testing.

Although 18 of the 20 variables were statistically significant, statistical significance alone does not indicate how large the differences between the profession were nor does it clearly indicate which variables were considered charactacteristic or uncharacteristic of each profession. Table 7 describes the self-perceived roles of each profession. For clarity, the term "very characteristic" represents mean ratings greater than six on the seven point

scale; variables with ratings between five and six were considered "characteristic" and ratings greater than 4.2 and less than 5 were considered "slightly characteristic". Ratings less than 3.8 are labelled in a similar fashion only these variables were considered to be "slightly uncharacteristic", "uncharacteristic" and "very uncharacteristic". These labels are used in Table 7 and throughout the remaining text.

Table 7 also indicates which activities were unique to each profession, which were perceived as specialized and which were somewhat specialized (signified by ***, **, and *, respectively). A profession's unique activities were defined as those activities on which both other professions ranked at least three categories or levels lower based on Table 7 (eg. to be a unique function an activity rated very characteristic by one profession would have to have a mean rating of uncharacteristic or very uncharacteristic by both of the other professions). A profession's specialized functions were defined as those activities on which both the other professions ranked two levels lower and somewhat specialized functions were those activities which both the other professions ranked one level lower.

To summarize, Table 7 illustrates which activities were considered characteristic or uncharacteristic of each profession and also shows which activities might be considered unique, specialized or somewhat specialized functions. Al-

TABLE 7

Self Perceptions of Activities

Profession		
Psychology	Psychiatry	Social Work
Activities Rated Very Characteristic		
***Testing	*ID Pathology	*Emotional Support
Therapy	***Drug Treatment	**Family Histories
Consulting	Therapy	**Client Advocate
	***Organic Disorders	**Coord. Services
	Consulting	***Home Visits
	*Coord. Treatment	*Crisis Int.
		***Welfare
		**ID Missing Needs
		*Referral Agent
Activities Rated Characteristic		
Emot. Support	Emot. Support	Aftercare
Coord Treatment	Crisis Int.	Consulting
Prog. Develop.	Aftercare	Administration
*Research		Therapy
Referral		Coord. Treatment
Crisis Int.		Prog. Dev.
ID Pathology		
Activities Rated Uncharacteristic		
Organic Treat.	Coord. Services	ID Pathology
Home Visits		
Activities Rated Very Uncharacteristic		
Welfare	Welfare	Organic Treat.
Drug Treat.	Home Visits	Psych Testing
	Psych. Testing	Drug Treatment

Note: *** = Unique functions (Both other groups three levels below).
** = Specialized function (Both other groups at least two levels below).
* = Somewhat specialized function (Both other groups at least one level below).

though these categories were somewhat arbitrary, they are designed to illustrate meaningful differences between the professions. It should be remembered that there were statistically significant differences on 18 of the 20 variables and that all the activities (except research) which are listed as unique, specialized or somewhat specialized had mean ratings statistically different between all three professions based on the a posteriori contrasts between the groups.

The results of these analyses indicate that social workers listed the broadest range of activities as characteristic or very characteristic of their profession. All the activities rated very characteristic by social workers were somewhat unique to their profession and tended to represent services ranging from the coordination of community services and resources ("coordinate welfare and economic resources", "act as a referral agent", "advocate", "identify missing needs") to the direct provision of "front-line" support and intervention ("emotional support and advice", "home visits", "crisis intervention", "compiling social and family histories").

A second group of activities which social workers rated as characteristic of their profession tended to represent a more indirect service or "expert" role ("consulting", "administration", "coordinating treatment programs", "program development and evaluation") and the provision of formal

treatment programs ("therapy", "aftercare"). The only activities rated uncharacteristic or very uncharacteristic of the social workers' role related to "diagnosis", "organic" and "pharmacological" treatments and "psychological testing".

The psychiatrists rated as very characteristic those activities which tended to represent both the provision of formal therapy and an "expert" or "authority" role ("formulate and coordinate treatment", "consultant", "therapy", identify and "classify psychopathology"). The "treatment of organic disorders" and the "provision of pharmacological treatment" was also rated as very characteristic of their role. More direct service activities ("emotional support and advice", "crisis intervention", "aftercare") were rated by the psychiatrists as characteristic. "Coordination of community services", "coordination of welfare", "home visits" and "psychological testing" were the only activities rated uncharacteristic or very uncharacteristic of the psychiatrists' role.

Psychologists rated only three activities as very characteristic of their profession; namely "psychological testing", "consulting", and "therapy". They rated a number of activities as characteristic which reflected an indirect service-research orientation ("research", "program development and evaluation", "formulate and coordinate treatment", "referral") as well as a more direct service approach

("emotional support and advice", "crisis intervention", "identify and classify psychopathology"). In general, the psychologists only unique areas of expertise were in "psychological testing" and a tendency towards "research" and "program development/evaluation". Their other activities tended to be a mixture of both the "expert-authority" roles and the direct provision of services. "Organic" and "pharmacological treatments" as well as "home visits" and the "coordination of welfare/economic resources" were the only activities rated as uncharacteristic or very uncharacteristic of the psychologists' role.

Attitudes. Items 21 to 30 on the questionaire depicted various professional activities. As indicated in the method section, these variables were combined a priori to derive three scores representing "power", "cooperation", and "degree of specialization". A discriminant function analysis was used to compare the three professions on these three variables. Table 8 presents the discriminant function coefficients and ANOVA results. One function was derived which accounted for a significant amount of the variance between the three professions, $X^2(6) = 104.4$, $p < .0000$. Examination of the discriminant function coefficients suggest that the function which best differentiated between the three groups was weighted most heavily on "power" at one end (psychiatrists) and on "cooperation" at the other end (social workers). Psychologists clustered on the function half-way

between the other two professions. Inspection of the univariate ANOVA's indicates that there were significant differences between the professions on "power", "cooperation", and "degree of specialization". All three ANOVA tests were significant at $p < .017$ ensuring that the family-wise error rate for all three tests was $p < .05$. A posteriori contrasts (modified LSD procedure) indicated that each profession's response were significantly different from one another's for "power" and "cooperation" ($p < .10$ for each of the three contrasts). There was a statistically significant difference only between psychiatrists and social workers on "degree of specialization".

The variables "power", "degree of specialization" and "cooperation" were calculated based on a priori beliefs about what each of the attitude variables were measuring. It was highly probable that these variables might discriminate other dimensions or factors as well. Consequently, the ten attitude variables were factor analysed (principal components analysis with varimax rotation) to identify these possible factors. Three factors emerged, each with an eigenvalue greater than one and together accounting for 58% of the variance within the 10 variables. Examination of the factor loadings for Factor I (Table 9) suggest that the variables most heavily weighted were "no unique area of expertise", "unsure of own role", "defer to more prestigeous professions" and a negative loading on "have specialized

TABLE 8

Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Attitudes

Variable	Standardized Discriminant Function Coefficients: Function One
Degree of Specialization	.30
Cooperation	-.80
Power	.77

ANOVA

	Mean Ratings						Grp. X Grp.
Variable	Py	Pi	Sw	F	D.F.	p	Comparisons
Cooperation	5.3	4.4	5.8	17.9	2,150	.0000	sw * py * pi
Power	4.3	5.1	3.7	40.0	2,147	.0000	pi * py * sw
Specialized	5.5	5.7	5.1	4.4	2,146	.0135	pi py sw

Py = psychologists; Pi = psychiatrists; Sw = social workers
* indicates that statistically significant differences between two professions using a modified LSD procedure: overall alpha $p < .10$. If ANOVA $p < .017$ then the two outer groups were considered significantly different.

training and skill". This factor was named "lack of role clarity". Factor II loaded highly on four variables, namely; "rigid and unyielding", "dominates and controls team decisions", "assumes expertise in areas they are unfamiliar with", and a high but opposite weighting on "cooperative and easy to work with". This factor was named "authoritarian". Although similar to the a priori variable "power", this factor more clearly represented a more dominating and controlling position (leadership for example has been dropped). Factor III loaded highly on three variables, namely; "leadership ability", "desire greater responsibility for mental health care" and "cooperative and easy to work with". Based on these variables, this factor was named "desire more leadership".

A discriminant function analysis was used to compare the three professions on the three transformed variables derived from the factor analysis. One function was found to discriminate between the groups, $X^2(6) = 101.6$, $p < .0000$. Examination of the discriminant function coefficients (Table 10) indicates that the variables which best discriminated between the professions were "lack of role clarity" and "authoritarian". Psychiatrists clustered on the "authoritarian" end of the function and social workers on the opposite end ("lack of role clarity"). Psychologists clustered half-way between the other two professions. Table 10 also shows the univariate ANOVA tests between the three groups on

TABLE 9

Factor Loadings on Attitude Variables

Variable	Factor Loadings		
	Factor I	Factor II	Factor III
Leadership ability	-.37	.00	.77
Assume expertise	.26	.56	.24
Cooperation	.05	-.67	.48
No unique expertise	.74	.13	.14
Unsure of own role	.76	.09	.09
Dominates and controls	.21	.77	.23
Specialized training	-.72	.04	.23
Defer to others	.65	-.27	-.01
Rigid and unyielding	.01	.78	-.14
Desire more responsibility	.24	.05	.54

each of these three variables. Large statistically significant differences were found between the professions on "lack of role clarity" and "authoritarian" ($p < .05$ for all three comparisons). There was a smaller difference between the professions on "desire more leadership" but the difference was significant at only $p = .03$ and hence must be interpreted cautiously. Psychologists appeared to have the greatest desire for leadership; psychiatrists had the lowest.

To summarize, psychologists' attitudes were similar to their activities in the sense that they too were a mixture of the social workers' and psychiatrists' viewpoints. On five of the six attitude variables, the psychologists rated themselves almost exactly half-way between the social workers' and psychiatrists' self perceptions. Psychologists rated themselves as slightly "powerful", slightly "non-authoritarian" , "cooperative", "specialized" and having a "clear role". The psychologists also characterized their profession as desiring a "greater leadership role". This was the only attitude on which they did not rate themselves between the other two professions. This "desire for more leadership" is reflected in their perceptions of themselves as having some "power" but still being "cooperative" and "non-authoritarian" (perhaps in order to increase their chances of expanding their role). Psychiatrists rated themselves as "powerful", "specialized", "having a very clear role" and believed that a "desire for more leadership" and

TABLE 10

Discriminant Function Coefficients Comparing all Three Professions on Self Perceptions of Attitudes based on F.A.

Variable	Standardized Discriminant Function Coefficients Function One
Lack of Role Clarity	.90
Authoriatarian	-.86
Desire More Leadership	-.04

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Lack of Role Clarity	2.5	1.9	3.4	25.8	2,136	.0000
Authoritarian	3.1	4.0	2.6	21.5	2,136	.0000
Desire More Leadership	5.3	4.8	5.2	3.7	2,136	.0278

Py = psychologists; Pi = psychiatrists; Sw = social workers

"cooperation" were slightly characteristic of themselves. "Authoritarianism" was neither characteristic nor uncharacteristic of their role.

The social workers' self perceptions of low "power" and the tendency to defer to other professionals is consistent with their downplaying of the "expert" or "authority" activities (in comparison to the other professions). Social workers also "desired a greater leadership role", rated themselves as "cooperative" and perceived themselves as having "specialized skills", although they believed that a "clear role" was only slightly characteristic of their profession.

The results indicate that the professions were significantly discriminated from one another by their ratings of the attitude variables. Psychiatrists were distinguished from psychologists and to an even greater degree social workers, by their higher ratings of the variables "powerful", "authoritarian", having a "clear role" and "uncooperative". Psychologists were distinguished from psychiatrists by their higher ratings on "desire more leadership" while psychiatrists could be distinguished from social workers by their higher ratings on "degree of specialization".

Orientation. Questions 31 to 55 on the questionaire were statements representative of different orientations. As outlined in the method section, these statements were combined to derive five scores representing five orientations. A

discriminant function analysis was used to identify which orientations discriminated between the three professions. Two functions were derived which significantly differentiated between the groups, $X^2(10) = 150.6$, $p < .0000$, and $X^2(4) = 35.0$, $p < .0000$. Examination of the discriminant function coefficients (Table 11) suggest that the orientations most heavily weighted in the first function were "biological" and to a lesser degree, "psychodynamic" with opposite and lower weightings on humanistic, "behavioral" and "community" This function differentiated the psychiatrists (high on "biological" and "psychodynamic") from the psychologists and social workers (higher on "humanistic", "behavioral" and "community").

The second function also differentiated each profession from one another; the psychologists clustered on the "behavioral" and "psychodynamic" end of the function and social workers clustered on the "community", "humanistic" and "biological" end. Psychiatrists clustered around the middle of this function.

Examination of the univariate ANOVA results indicates that there were statistically significant differences between the professions on all five orientations (Table 11), $p < .0000$ for each comparison for a family wise error rate of $p < .05$. Psychiatrists considered a "psychodynamic" orientation as highly characteristic of their profession, "community" and "biological" orientations as slightly characteris-

TABLE 11

Discriminant Function Coefficients Comparing all Professions on Self Perceptions of Orientations

Variable	Standardized Discriminant Function Coefficients: Function One	Function Two
Biological	.82	-.32
Psychodynamic	.30	.57
Community	-.20	-.85
Humanistic	-.37	-.26
Behavioral	-.23	.75

ANOVA

Variable	Mean Ratings: Py	Pi	Sw	F	D.F.	p
Biological	2.3	4.2	2.6	59.7	2,121	.0000
Psychodynamic	3.9	5.3	3.7	19.1	2,121	.0000
Community	4.8	4.5	5.5	16.0	2,121	.0000
Humanistic	4.0	3.5	4.3	7.4	2,121	.0009
Behavioral	4.4	3.2	4.0	16.6	2,121	.0000

Py = psychologists; Pi = psychiatrists; Sw = social workers

tic and a "humanistic" or "behavioral" approach as slightly uncharacteristic of their profession. Consistent with their ratings of activities, the social workers saw their profession as adopting a "community" approach and rejecting a "biological" approach. A "humanistic" approach was considered slightly characteristic, while a "behavioral" orientation was neither characteristic nor uncharacteristic. A "psychodynamic" orientation was slightly uncharacteristic of the social worker's role. The psychologists' orientations reflected the broad mix of activities which psychologists engaged in. They were clearly "non-biologically" oriented and although ascribing to a slight "community" and "behavioral" orientation, the profession apparently perceived themselves as eclectic and/or that they had no common orientation; each practitioner adopting their own approach.

Combining the discriminant function and ANOVA results it appears that compared to the other professions, psychiatrists can generally be characterized as having a strongly "biological" and "psychodynamic" orientation. Social workers, compared to the other professions have a stronger "community" orientation combined with a "humanistic" approach. Psychologists, compared to the other professions, were characterized by a stronger "behavioral" orientation. It should be noted that these differences in orientation serve solely to distinquish between the professions. The psychologists in fact did not rate any orientation as very charactacteris-

tic of their profession suggesting that the profession may include a diverse number of orientations or a generally eclectic approach.

Hypothesis Two: Interdisciplinary Perceptions

The following section examines the degree of congruence between the interdisciplinary role perceptions of each profession. For clarity, the perceptions of each profession are examined seperately and are broken down by activities, attitudes, and orientations.

Data Analysis for Hypothesis Two. Discriminant function analyses were used to identify those variables which discriminated between the groups on their ratings of one another. Variables with high loadings on a function were generally rated differently by the three groups and represented an incongruence between a profession's self perceived role and their role as perceived by the other professions. Generally, if one group clustered on one end of a function then that profession rated highly those variables which were weighted heavily on that end of the function. Those variables loading highly on the opposite end of the function would tend to be rated more highly by the groups clustered at that end. The univariate results also need to be taken into account.

Perceptions of Psychologists' Activities. A discriminant function analysis was used to compare each profession's perceptions of the activities characteristic of psychologists. As indicated in Table 12, one function was found which significantly differentiated between the three groups, $X^2(40) = 66.9$, $p = .0048$. The social workers clustered at one end of the function which was weighted most heavily by "psychological testing" and "pharmacological treatment" with lower weightings on "treating organic disorders", "research", and "administration". Psychiatrists clustered towards the centre of the function but closer to the social workers. The psychologists clustered on the opposite end of the function which was weighted by the variables "coordinating community services", and "program planning, development and evaluation" with a lower weighting on "crisis intervention".

Univariate ANOVAs indicated that there were statistically significant differences between the groups on five variables; "coordinating community services", "formulating and coordinating treatment", "crisis intervention", "provision of therapy" and "home visits". In each case the psychologists rated these variables as more characteristic of their role than did the other professions.

The results of both analyses suggest that there were several differences between the professions on their perceptions of which activities were characteristic of a psycholo-

TABLE 12

Discriminant Function Coefficients Comparing the Professions on their Perceptions of Psychologists' Activities

Variable	Standardized Discriminant Function Coefficients Function One
Providing Therapy	-.27
Consultant	.06
Compiling Family Histories	.19
Coordinate Welfare	.25
Crisis Intervention	-.33
Formulate/Coord. Treatment	.13
Treating Organic Disorders	.29
Home Visits	-.14
Psychological Testing	.61
Coord. Community Service	-.69
Client/Patient Advocate	-.13
Carrying Out Research	.28
Identifing Missing Needs	.18
Providing Aftercare	-.02
Pharmacological Treatment	-.46
Administrative Functions	.30
Acting as a Referral Agent	.19
Program Planning/Evaluation	-.63
ID/Classify Psychopathology	-.20
Emotional Support and Advice	-.15

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Therapy	6.2	5.3	5.4	4.2	2,96	.0182
Consultant	6.0	5.9	5.4	2.6	2,96	.0783
Family History	3.5	2.7	3.3	1.8	2,96	.1728
Welfare	1.8	2.1	1.9	0.5	2,96	.6133
Crisis Intervention	5.0	3.7	4.2	5.5	2,96	.0056
Coord Treat.	5.7	4.4	5.3	5.5	2,96	.0054
Organic	2.9	3.0	3.6	1.7	2,96	.1814
Home Visits	3.0	1.9	2.5	3.9	2,96	.0233
Psych. Testing	6.4	6.4	6.8	2.2	2,96	.1181
Coord. Com. Services	3.9	3.2	2.7	5.6	2,96	.0050
Client Advocate	4.1	3.4	4.0	1.4	2,96	.2494
Research	5.4	6.1	6.0	2.1	2,96	.1260
I.D. Missing Needs	4.4	4.0	4.0	0.7	2,96	.4732
Provide Aftercare	4.1	3.5	3.3	2.7	2,96	.0680

	Mean Ratings					
	Py	Pi	Sw	F	D.F.	p
Pharmacological	1.1	1.2	1.6	2.7	2,96	.0726
Administration	4.6	4.7	4.3	0.8	2,96	.4337
Referral Agent	4.6	3.8	4.3	1.6	2,96	.2160
Program Plan/Dev.	5.6	5.3	4.9	2.0	2,96	.1374
I.D. and Classify Psychopathology	5.1	5.3	5.3	0.2	2,96	.7942
Emotional Support	5.7	4.6	5.1	4.5	2,96	.0138

Py = psychologists; Pi = psychiatrists; Sw = social workers

gist's role. Psychiatrists and especially social workers tended to emphasize psychology's more traditional and indirect service roles ("testing", "research", "administration") while psychologists downplayed these roles and ascribed to themselves a more direct service and active leadership role in patient or client care ("coordinating community services and resources", "program planning development and evaluation", "formulating and coordinating treatment", "crisis intervention", and "provision of therapy"). There was also a tendency for social workers to perceive psychologists as somewhat medically oriented ("pharmacological treatment" and "treating organic disorders").

Perceptions of Psychologists - Attitudes. Two discriminant function analyses were used to compare each profession's perceptions of the attitudes characteristic of psychologists The first analysis included the variables "cooperation", "degree of specialization" and "power" (which were determined a priori). No functions were found to significantly discriminate between the three groups. Univariate ANOVAs also failed to find statistically significant differences between the professions on these three variables. These results indicated that the perceptions of all three professions were congruent on these particular variables.

The second discriminant analysis included the factor analytically derived variables of "lack of role clarity", "powerful and dominating" and "desire more leadership". One dis-

criminant function was derived (Table 13), which significantly discriminated between the three groups, $X^2(6) = 13.4$, $p = .03$. Social workers clustered on the "lack of role clarity" end of the function and psychologists and psychiatrists clustered on the other extreme ("desire more leadership" and "powerful"). The ANOVA results indicated significant differences between the professions only on the "desire more leadership" variable. The psychologists rated themselves higher on this variable.

Based on the results of both these analyses, it appears that both psychiatrists and social workers had generally accurate perceptions of the attitudes which psychologists ascribed to themselves. Social workers, however, tended not to recognize or downplay the psychologists' "desire for leadership" and tended to characterize the psychologists as having a somewhat less clear role.

TABLE 13

Discriminant Function Coefficients Comparing all Three Profession on Their Perceptions of Psychologists' Attitudes

Variable	Standardized Discriminant Function Coefficients Function One
Lack of Role Clarity	-.56
Authoriatarian	.53
Desire More Leadership	.86

ANOVA

Variable	Mean Ratings Py	 Pi	 Sw	 F	 D.F.	 p
Lack of Role Clarity	2.5	2.6	2.7	0.7	2,147	.5109
Authoritarian	3.1	3.3	3.2	0.7	2,144	.4943
Desire More Leadership	5.3	5.2	4.9	5.5	2,148	.0050

Py = psychologists; Pi = psychiatrists; Sw = social workers

Perceptions of Psychologists - Orientations. A discriminant function analysis was used to compare each profession's perceptions of the orientations characteristic of psychologists. The discriminant function coefficients are presented in Table 14 . One discriminant function was derived which significantly differentiated the three groups, $X^2(10) = 43.19$, $p < .0000$. Psychologists clustered at the "behavioral"-"community" end while social workers clustered at the "biological" end. Psychiatrists were half-way in between. Examination of the ANOVA results indicates that there were large statistically significant differences between the groups on "biological" and "psychodynamic", with smaller but significant differences on "behavioral" (Table 14).

Based on both of these analyses it would appear that social workers perceived psychologists as much more "biologically" oriented and somewhat more "psychodynamically" oriented than psychologists perceived themselves. Psychiatrists' perceptions were similar to those of the social workers but the differences between the psychiatrists' and psychologists' perceptions were smaller. Psychologists also tended to perceive themselves as somewhat more "behaviorally" and "community" oriented than did both the social workers and psychiatrists.

Discriminant function analyses were also computed to compare the perceptions of each profession on a pairwise basis (ie. psychologists and psychiatrists; psychologists and so-

TABLE 14

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychologists' Orientations

Variable	Standardized Discriminant Function Coefficients: Function One
Biological	.86
Psychodynamic	.10
Community	-.23
Humanistic	.09
Behavioral	-.34

ANOVA

Variable	Mean Ratings: Py	Pi	Sw	F	D.F.	p
Biological	2.3	2.8	3.5	20.4	2,96	.0000
Psychodynamic	3.8	4.0	4.6	7.2	2,96	.0013
Community	4.9	4.5	4.6	1.7	2,96	.1807
Humanistic	4.1	3.8	4.2	1.3	2,96	.2659
Behavioral	4.5	4.0	4.0	3.3	2,96	.0396

Py = psychologists; Pi = psychiatrists; Sw = social workers

cial workers). These results are not reported here as much of this information is redundant with that already presented. Suffice to say that the pairwise discriminant function analyses did not elicit or illuminate any additional information but did confirm the results as derived from the three group analyses presented here.

Perceptions of Psychiatrists - Activities. A discriminant function analysis was used to compare each profession's perceptions of the activities characteristic of psychiatrists. One function (Table 15) was derived which significantly discriminated between each subject's perceptions of the three professions, $X^2(40) = 78.94$, $p = .0002$. The psychologists clustered on one end of this function which was most heavily weighted on "crisis intervention", "providing therapy", "administration", "coordination of community services" with lesser weightings on "psychological testing", "consultant", "advocate", and "pharmacological treatment". Social workers clustered on the opposite end of the function which was characterized by high loadings on "research", and somewhat smaller loadings on "formulating and coordinating treatment", "offering emotional support and advice",and "program planning, development and evaluation". The psychiatrists were clustered in the middle of the function but somewhat closer to the social workers.

The ANOVA results are also reported in Table 15. Significant differences between the professions were found on the

TABLE 15

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Activities

Variable	Standardized Discriminant Function Coefficients Function One
Providing Therapy	.61
Consultant	-.27
Compiling Family Histories	-.17
Coordinate Welfare	.12
Crisis Intervention	.63
Formulate/Coord. Treatment	-.45
Treating Organic Disorders	.13
Home Visits	-.03
Psychological Testing	-.25
Coord. Community Service	.51
Client/Patient Advocate	-.28
Carrying Out Research	-.64
Identifing Missing Needs	.01
Providing Aftercare	-.08
Pharmacological Treatment	-.21
Administrative Functions	.59
Acting as a Referral Agent	.19
Program Planning/Evaluation	-.30
ID/Classify Psychopathology	-.06
Emotional Support and Advice	-.46

ANCVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Therapy	6.3	6.4	5.7	3.2	2,96	.0432
Consultant	5.6	6.4	5.7	2.4	2,96	.0912
Family History	3.3	3.5	3.7	0.4	2,96	.6808
Welfare	2.0	1.9	1.5	1.7	2,96	.1873
Crisis Intervention	5.5	5.4	4.7	3.0	2.96	.0543
Coord Treat.	5.5	6.3	5.7	3.6	2,96	.0312
Organic	6.4	6.3	6.0	0.6	2,96	.5170
Home Visits	1.6	2.0	1.7	0.9	2,96	.4128
Psych. Testing	1.5	1.7	2.2	2.9	2,96	.0606
Coord. Com. Services	2.9	3.0	2.0	5.3	2,96	.0067
Advocate	3.3	3.3	3.4	0.5	2,96	.9529
Research	3.1	4.7	4.2	8.5	2,96	.0004
I.D. Missing Needs	3.3	4.0	3.3	1.6	2,96	.2095

	Mean Ratings					
	Py	Pi	Sw	F	D.F.	p
Provide Aftercare	4.1	5.0	4.4	1.3	2,96	.2736
Pharmacological	6.9	6.6	6.7	0.7	2,96	.4805
Administration	5.0	4.9	4.5	0.8	2,96	.4677
Referral Agent	4.1	3.7	3.8	0.6	2,96	.5429
Program Plan/Dev.	3.4	4.6	3.8	3.3	2,96	.0424
I.D. and Classify Psychopathology	6.4	6.7	6.6	0.4	2,96	.6622
Emotional Support	5.3	5.6	5.5	0.3	2,96	.7432

Py = psychologists; Pi = psychiatrists; Sw = social workers

following variables ($p < .05$ per comparison): "providing therapy", "crisis intervention", "formulating and coordinating treatment", "coordinating community services", "research", and "program planning, development and evaluation". In all cases, except "crisis intervention", the psychiatrists rated these activities as more characteristic of their role than did the other professions. The univariate results must be viewed cautiously as the familywise error rate for the 20 F tests approaches one.

Careful inspection of these results in combination with the multivariate test suggest that the overall perceptions of the psychiatrists' activities were reasonably congruent between the professions. Psychologists ,however, downplayed the role of psychiatrists in those activities which the psychologists had rated as very characteristic of their own role ("research", "acting as a consultant", "formulating and coordinating treatment", "program planning, development and evaluation", "psychological testing").

Social workers tended to perceive psychiatrists somewhat differently from the psychologists although their perceptions of psychiatrists were generally accurate. Those activities which represented a leadership or authority role as well as direct service, however, tended to be downplayed. The social workers characterized the psychiatrists as being less active in "coordinating community resources", "providing therapy", "consultant", "formulating and coordinating treatment", "aftercare" and "crisis intervention".

Perceptions of Psychiatrists - Attitudes. Two discriminant function analyses were used to compare each profession's perceptions of the attitudes characteristic of psychiatrists. The first analysis included three variables "cooperation", "degree of specialization" and "power". One function was found to significantly discriminate between the groups, $X^2(6) = 14.97$, $p = .02$ (Table 16). Psychiatrists clustered at one end of this function which was heavily weighted by the variables "degree of specialization" and "cooperation". Social workers clustered at the opposite end which was moderately weighted by the variable "power". Psychologists also clustered at this end of the function but closer to the middle than the social workers. The ANOVA results indicate that there were statistically significant differences on "degree of specialization" and "cooperation". In both cases, the psychiatrists rated these variables as more characteristic of themselves than did the other professionals.

The results of both analyses suggest that both psychologists and social workers tended to perceive psychiatrists as less "specialized" than the psychiatrists perceived themselves to be. Both psychologists and, to a greater extent the social workers, perceived psychiatrists as less cooperative than the psychiatrists described themselves.

The second discriminant function utilized the variables "lack of role clarity" , "authoritarian" and "desire more

TABLE 16

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Attitudes

Variable	Standardized Discriminant Function Coefficients Function One
Cooperation	-.54
Degree of Specialization	-.69
Power	.34

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Cooperation	3.7	4.3	3.3	4.5	2,136	.0138
Specialization	5.0	5.7	5.1	4.0	2,136	.0211
Powerful	5.3	5.1	5.1	0.4	2,136	.6903

Py = psychologists; Pi = psychiatrists; Sw = social workers

leadership". One function was found to significantly discriminate between the professions, $X^2(6) = 14.92$, $p = .02$ (Table 17). This function served to discriminate the psychiatrists who clustered on one end of the function ("desire more leadership") from the psychologists and social workers who clustered on the opposite end of the function ("authoritarian"). The ANOVA results indicate that there were significant differences between the groups on both these variables, the psychiatrists giving "authoritarian" a lower rating than the other two professions did and giving "desire more leadership" a higher rating.

The results of both of these analyses suggest that the psychologists and social workers perceived psychiatrists as more "authoritarian" than psychiatrists perceived themselves to be. Psychiatrists described themselves as desiring more leadership but this was not clearly recognized by the other two professions.

TABLE 17

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Attitudes based on F.A.

Variable	Standardized Discriminant Function Coefficients: Function One
Lack of Role Clarity	.11
Authoriatarian	-.70
Desire More Leadership	.57

ANOVA

Variable	Mean Ratings: Py	Pi	Sw	F	D.F.	p
Lack of Role Clarity	1.9	1.9	2.0	0.3	2,149	.7174
Authoritarian	4.7	4.0	4.5	3.2	2,147	.0424
Desire More Leadership	4.4	4.8	4.2	4.4	2,150	.0143

Py = psychologists; Pi = psychiatrists; Sw = social workers

Perceptions of Psychiatrists - Orientations. A discriminant function analysis was used to compare each profession's perceptions of the orientations characteristic of psychiatrists. One discriminant function was derived which significantly discriminated between the three professions, $X^2(10) = 28.44$, $p = .0015$, (Table 18). Psychiatrists clustered on one end of the function ("community"), whereas psychologists clustered towards the opposite end and the social workers at the extreme opposite end of the function ("humanistic", "biological"). The ANOVA results indicate that there were large statistically significant differences between the groups on four variables. The psychiatrists rated "community" higher than did the other professions and believed that "biological", "humanistic" and "psychodynamic" orientations were less characteristic of their profession than did the others.

The results of both these analyses suggest that psychiatrists were generally characterized as "biologically" and "psychodynamically" oriented whereas the psychiatrists viewed themselves as more "community" oriented. There was also a trend for social workers to perceive psychiatrists as being more "humanistic" than the psychiatrists believed themselves to be. psychiatrists believed they had a more "psychodynamic" approach.

Discriminant function analyses were also computed to compare the perceptions of each profession on a pairwise basis

TABLE 18

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Psychiatrists' Orientations

Variable	Standardized Discriminant Function Coefficients Function One
Biological	.63
Psychodynamic	.17
Community	-.51
Humanistic	.61
Behavioral	-.07

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Biological	5.2	4.3	5.1	26.9	2,96	.0016
Psychodynamic	5.6	5.2	5.8	3.5	2,96	.0337
Community	3.7	4.3	4.0	3.0	2,96	.0547
Humanistic	3.4	3.3	3.8	4.9	2,96	.0088
Behavioral	3.1	3.3	3.3	1.0	2,96	.3761

Py = psychologists; Pi = psychiatrists; Sw = social workers

(ie. psychiatrists and psychologists; psychiatrists and social workers). These results are not reported here as much of this information is redundant with that already presented. Suffice to say that the pairwise discriminant function analyses did not elicit or illuminate any additional information but did confirm the results as derived from the three group analyses presented here.

Perceptions of Social Workers - Activities. A discriminant function analysis was used to compare each profession's perceptions of the activities characteristic of social workers. One discriminant function (Table 19) was derived which significantly discriminated between the professions, $X^2(40) = 80.44$, $p = .0002$. Social workers clustered at one end of the function represented by high loadings on "formulating and coordinating treatment", "crisis intervention", "acting as a consultant", and "referral agent" with lower weightings on "treating organic disorders", and "advocate". Psychologists and psychiatrists clustered on the opposite end of the function which had high loadings on "identifying and classifying psychopathology" and lower loadings on "administration", "compiling social or family histories", "welfare", and "identifying missing needs".

The ANOVA results indicate that there were significant differences between the professions on ten variables; "providing therapy", "consultant", "crisis intervention", "formulating and coordinating treatment", "advocate", "re-

TABLE 19

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Social Workers' Activities

Variable	Standardized Discriminant Function Coefficients Function One
Providing Therapy	-.09
Consultant	-.38
Compiling Family Histories	.23
Coordinate Welfare	.25
Crisis Intervention	-.45
Formulate/Coord. Treatment	-.61
Treating Organic Disorders	-.36
Home Visits	.17
Psychological Testing	-.03
Coord. Community Service	.17
Client/Patient Advocate	-.25
Carrying Out Research	-.19
Identifing Missing Needs	.23
Providing Aftercare	.10
Pharmacological Treatment	-.15
Administrative Functions	.37
Acting as a Referral Agent	-.42
Program Planning/Evaluation	.05
ID/Classify Psychopathology	.60
Emotional Support and Advice	-.03

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Therapy	4.5	4.4	5.4	6.5	2,96	.0021
Consultant	3.8	4.2	5.2	8.6	2,96	.0004
Family History	6.6	6.4	6.5	0.5	2,96	.6071
Welfare	6.4	6.7	6.2	2.2	2,96	.1216
Crisis Intervention	5.3	5.4	6.3	6.9	2.96	.0016
Coord Treat.	3.8	3.9	5.4	18.1	2,96	.0000
Organic	1.3	1.1	1.6	2.6	2,96	.0805
Home Visits	6.2	6.1	6.5	1.5	2,96	.2284
Psych. Testing	1.3	1.1	1.3	1.0	2,96	.3742
Coord. Com. Services	6.2	6.2	6.5	1.2	2,96	.3079
Advocate	6.0	5.5	6.4	6.3	2,96	.0027
Research	2.2	3.1	3.4	6.9	2,96	.0016
I.D. Missing Needs	5.2	5.6	5.8	3.3	2,96	.0417

	Mean Ratings					
	Py	Pi	Sw	F	D.F.	p
Provide Aftercare	5.6	5.7	5.5	0.1	2,96	.8756
Pharmacological	1.0	1.0	1.0	0.4	2,96	.6396
Administration	4.3	4.7	5.0	1.6	2,96	.2024
Referral Agent	5.6	5.5	6.2	3.7	2,96	.0271
Program Plan/Dev.	3.8	4.5	5.0	5.9	2,96	.0040
I.D. and Classify Psychopathology	2.4	2.5	2.7	0.3	2,96	.7399
Emotional Support	6.0	6.2	6.6	4.6	2,96	.0119

Py = psychologists; Pi = psychiatrists; Sw = social workers

search", "program planning, development and evaluation", "identifying missing needs and resources", "referral agent" and "offering emotional support and advice". The social workers rated each of these variables as more characteristic of their profession than did the other two professions.

Careful inspection of both these analyses suggest that many of the psychiatrists' and psychologists' perceptions of the social workers' activities were not congruent with the social workers' perceptions of themselves. Social workers rated 17 of the 20 variables, as being more characteristic of their own role than did the other professions (10 were significantly different between groups). The other professions clearly tried to limit all aspects of the social workers' role or conversely, the social workers tended to define their role very broadly. The discriminant function analysis indicated that there was one group of variables which the social workers tended to rate as much more characteristic of their role than did the other professions. These variables represented a more direct and active leadership role in patient or client care ("formulating and coordinating treatment", "crisis intervention", "acting as a consultant", "treating organic disorders" as well as "providing therapy", providing emotional support and advice", and "program planning development and evaluation"). There was a second group of variables which were also generally rated higher by the social workers but to a lesser extent (ie. their was a

greater degree of agreement between the professions on these variables). This group of variables represented more traditional and somewhat indirect or assessment services ("administration", "identifying and classifying psychopathology", "taking family histories", "coordinating welfare and economic resources", "identifying missing needs and resources"). Relatively speaking, the psychologists and psychiatrists limited the social workers in most areas but to the greatest extent in active treatment and leadership and to a lesser extent in their traditional roles.

Perceptions of Social Workers - Attitudes. Two discriminant function analyses were used to compare each profession's perceptions of the attitudes characteristic of social workers. The first analysis included the variables "cooperation", "power" and "degree of degree of specialization". One function was found to significantly discriminate between the profesions, $X^2(6) = 16.56$, $p = .01$. Table 20 presents the discriminant function coefficients for this function. Social workers clustered at one end of the function which had high loadings on "cooperation" and lower weightings on "degree of specialization" and "power". Psychiatrists and psychologists clustered at the other end of the function on which no variables were loaded. Univariate ANOVAs indicated that there were significant differences between the groups on "cooperation" and "degree of specialization", both of which the social workers rated higher than did the other professions.

TABLE 20

Discriminant Function Coefficients Comparing all Three Professions on Their Perceptions of Social Workers' Attitudes

	Standardized Discriminant Function Coefficients
Variable	Function One
Cooperation	.83
Degree of Specialization	.24
Power	.20

ANOVA

	Mean Ratings					
Variable	Py	Pi	Sw	F	D.F.	p
Cooperation	5.4	5.0	5.9	5.0	2,136	.0083
Specialization	4.2	4.7	5.0	3.8	2,136	.0250
Powerful	3.5	3.4	3.7	1.1	2,136	.3456

Py = psychologists; Pi = psychiatrists; Sw = social workers

The results of both these analyses indicated that social workers rated themselves as more "cooperative" and more "specialized" than did either the psychologists or psychiatrists. Psychiatrists were more likely to downplay the social workers' "cooperativeness" whereas the psychologists downplayed the social workers' "degree of specialization".

The second discriminant function analysis included the variables "desire more leadership", "authoritarian", and "lack of role clarity". One function was derived which significantly discriminated between the three groups, $X^2(6) = 15.23$, $p = .018$ (see Table 21). The variable heavily weighted on one end of the function (on which the social workers were clustered) was "desire more leadership". The variable "authoritarian" was heavily weighted and the variable "lack of role clarity" had smaller weighting on the opposite end of the function (on which the psychiatrists and psychologists were clustered).

The ANOVA results indicate that there were significant differences between the professions on "authoritarian" and "desire more leadership" (see Table 21).

Discriminant function analyses were also calculated to discriminate between the professions in a pairwise fashion. In this instance, these analyses contributed to the further clarification of the results and thus will be reported. A discriminant function analysis utilizing psychologists and social workers derived one significant function which dis-

TABLE 21

Discriminant Function Coefficients Comparing all Three Pofessions on Their Perceptions of Social Workers' Attitudes based on F.A.

Variable	Standardized Discriminant Function Coefficients Function One
Lack of Role Clarity	.32
Authoriatarian	.54
Desire More Leadership	-.35

ANOVA

Variable	Mean Ratings Py	Pi	Sw	F	D.F.	p
Lack of Role Clarity	3.9	3.5	3.4	2.8	2,147	.0644
Authoritarian	3.1	3.2	2.7	3.8	2,145	.0258
Desire More Leadership	4.7	4.9	5.1	3.8	2,148	.0252

Py = psychologists; Pi = psychiatrists; Sw = social workers

criminated between the two groups, $X^2(3) = 15.02$, $p = .0018$ (see Table 22). The variable heavily weighted on one end of the function (on which the social workers clustered) was "desire more leadership". Both "lack of role clarity" and "authoritarian" were moderately weighted on the opposite end (on which the psychologists clustered). Univariate analyses indicated significant differences between the two groups on all three variables. Social workers rated themselves highest on "desire more leadership" whereas the other professions emphasized their "lack of role clarity" and "authoritarianism".

These analyses suggest that psychologists failed to predict the extent of social workers "desire for greater leadership" and described the social workers as being more "authoritarian" and having a "less clear role".

A second discriminant function analysis was calculated using psychiatrists and social workers (Table 23). One discriminant function was derived which significantly discriminated between the two groups, $X^2(3) = 9.47$, $p < .024$. The only variable heavily weighted was "authoritarian" which characterized the psychiatrists. Univariate analyses revealed significant differences between the two professions only on "authoritarian" (rated higher by the psychiatrists).

The results suggest that psychiatrists perceived social workers somewhat differently than did the psychologists. Psychiatrists' ratings of social workers on "desire more

TABLE 22

Discriminant Function Coefficients Comparing Social Workers and Psychologists on Their Perceptions of Social Workers' Attitudes from F.A.

Variable	Standardized Discriminant Function Coefficients Function One
Lack of Role Clarity	-.41
Authoriatarian	-.44
Desire More Leadership	.69

ANOVA

Variable	Mean Ratings Py	 Sw	 F	 D.F.	 p
Lack of Role Clarity	3.9	3.4	4.9	1,111	.0281
Authoritarian	3.1	2.7	4.9	1,112	.0296
Desire More Leadership	4.7	5.2	6.9	1,112	.0100

Py = psychologists; Sw = social workers

TABLE 23

Discriminant Function Coefficients Comparing Social Workers and Psychiatrists on Their Perceptions of Social Workers' Attitudes from F.A.

Variable	Standardized Discriminant Function Coefficients: Function One
Lack of Role Clarity	.19
Authoriatarian	-.98
Desire More Leadership	.15

ANOVA

Variable	Mean Ratings: Pi	Sw	F	D.F.	p
Lack of Role Clarity	3.5	3.4	0.1	1,94	.7490
Authoritarian	3.2	2.7	6.7	1,93	.0113
Desire More Leadership	4.9	5.2	1.7	1,96	.2007

Pi = psychiatrists; Sw = social workers

leadership" and "lack of clear role" were congruent with the social workers own beliefs, however, they tended to believe that social workers were more "authoritarian" than the social workers believed themselves to be.

Perceptions of Social Workers - Orientations. A discriminant function analysis using all three professions found no function which significantly discriminated between the groups. Similarily, a discriminant function analysis using only social workers and psychologists was also non-significant. A discriminant function analysis using only social workers and psychiatrists, however, derived one function which significantly discriminated between the two professions, $X^2(5) = 13.15$, $p = .022$. These results are presented in Table 24 The orientation heavily weighted in one direction was "behavioral" (on which the psychiatrists clustered) and in the opposite direction "humanistic" (on which the social workers clustered). Univariate analyses indicated statistically significant differences only on "humanistic" which was given a higher rating by social workers.

These results suggest that the psychologists' perceptions were congruent with the social workers' perceptions of which orientations were characteristic of themselves. Psychiatrists' perceptions of the orientations characteristic of social workers were also reasonably congruent although there was a tendency for psychiatrists to perceive social workers as more "behaviorally" oriented and less "humanistically"

TABLE 24

Discriminant Function Coefficients Comparing Social Workers and Psychiatrists on Their Perceptions of Social Workers' Orientations

Variable	Standardized Discriminant Function Coefficients: Function One
Biological	-.04
Psychodynamic	.10
Community	.04
Humanistic	.81
Behavioral	-1.09

ANOVA

Variable	Mean Ratings: Pi	Sw	F	D.F.	p
Biological	2.5	2.6	.8	1,94	.3592
Psychodynamic	3.3	3.8	2.7	1,92	.1040
Community	5.7	5.4	2.4	1,92	.1273
Humanistic	4.0	4.3	1.5	1,91	.2257
Behavioral	4.6	4.0	10.5	1,93	.0016

Pi = psychiatrists; Sw = social workers

oriented than the social workers described themselves. This difference, however, was small and might best be considered a trend.

Hypothesis Three

It was hypothesized that "self-perceived accuracy of role perceptions" would be positively correlated with a subject's satisfaction with role relations. Each respondent's satisfaction score was correlated with their "self-perceived accuracy of perceptions" score. This Pearson correlation equalled .42, $p < .0000$, indicating that satisfaction with role relations was moderately correlated with perceived accuracy of role perceptions.

Hypothesis Four

It was hypothesized that "self-perceived accuracy of perceptions" would be positively correlated with the respondent's degree of exposure to interdisciplinary team practice. A variable "team" was derived which ranged in value from one to six and represented a measure of the degree of interdisciplinary interaction for each respondent. A "team" score of six was assigned to respondents who reported that they spent 25% or more of their time consulting with both of the other two professions. A score of 5 represented spending 25% or more of their time consulting with one profession (other than their own) and 5-24% of their time consulting with the

other. Four represented 25% or more and less than 5%; three represented 5-24% with both professions; two represented 5-24% and less than 5% and one represented less than 5% with both the other professions. Team scores were correlated with perceived accuracy of role perceptions. A Pearson correlation of .22, $p = .003$, was obtained representing a small positive correlation between perceived accuracy of role perceptions and degree of interdisciplinary interaction. Although statistically significant, the magnitude of this correlation does not support hypothesis four.

Discussion

The results of this research supported the hypothesis that each profession would define their role along significantly different dimensions. Although each profession had their own unique or characteristic activities, attitudes and orientations, the findings also indicated that there was considerable overlap or role blurring between the professions. This reflected each discipline's tendency to perceive a wide variety of activities and responsibilities as characteristic of their role.

While inclined to broadly define their own roles, each profession also tried to limit the extent or scope of the roles of other professions, especially in areas related to their own skills or traditional responsibilities. These findings confirmed the second hypothesis that each discipline's self-perceived role would be significantly different from their role as perceived by the other professions. As expected, interdisciplinary role perceptions tended to conform to the more traditional stereotypes of each discipline.

The third hypothesis was also confirmed; "perceived accuracy of role perceptions" was found to have a moderate positive correlation with satisfaction with role relations. The fourth hypothesis was not supported; only a weak correlation

was found between "perceived accuracy of role perceptions" and degree of interdisciplinary interaction.

Implications of Role Definitions

With the exception of a few unique areas of expertise, there was considerable overlap between the professions on the activities each considered "characteristic" or "very characteristic" of their role. Nonetheless, there were still differences in terms of which activities were considered "very characteristic" as opposed to simply "characteristic". There were also differences between the professions in orientation and along a number of attitude dimensions. Many authors have argued that a team's major advantage is its ability to bring together professionals with distinctive skills or expertise (Basoff, 1977; Brill, 1976; Horwitz, 1970). Based on this research it would appear that a teamwork approach should be an ideal model of service delivery. Each profession has a complement of specialized skills which combined would create a well rounded and comprehensive system of service delivery. There is also enough "blurring of roles" such that each profession includes within their boundaries a range of skills and responsibilties which enable them to provide treatment oriented services; other team members would simply broaden the resources and viewpoints available to a given professional and his/her clients and patients. As Malick and Jordon (1977) noted, practitioners

on a team must be able to take on a wide variety of skills if they are to provide comprehensive and efficient mental health care.

That each profession can make a specialized contribution to the functioning of a team does not ensure, however, that a team will function efficiently and maximize their potential. As discussed in the introduction, if team members are to work as a unit, there must be sufficient commonality of language and knowledge as well as agreement regarding task definition and ideological approach. Kane (1978) and Howard (1974) have stressed that a proper teamwork approach requires that all workers be of equal importance and value. The present research highlights the significant differences between the professions in terms of orientation and especially power. Social works' community orientation is contrasted to psychiatry's biological and psychodynamic approach, while the psychologists strongly rejected a biological orientation and gave their strongest endorsement to a behavioral orientation. This may reflect psychology's stronger interest in research and the role which psychologists have traditionally had in the growth of behaviorism in laboratory and applied settings. These differences in orientations could lead to divisions within a team or across disciplines which might lead to conflict or disagreement over appropriate role assignments.

The psychiatrists' higher ratings on power and authoritarianism were contrasted with the low power and authoritarianism and higher ratings of cooperativeness by psychologists and to an even greater degree by social workers. These findings confirm the many studies which have documented psychiatry's high status/power position in the mental health field (Kane, 1978; Miles, 1977; Howard, 1974; Sudenberg et al, 1973, Zander et al 1957). Miles (1977) interviewed six psychiatrists and found that they defined their area of exclusive competence in diagnosis, prescribing treatment, administering treatment and assessing patient reaction. The present study found a similar role definition, with psychiatrists rating highly those activities related to an expert or authority role. As in the Miles study, psychiatrists also believed strongly that the medical profession should provide or supervise all service delivery (This specific statement had a mean rating of 5.6 for the psychiatrists and 2.2 and 1.6 by the social workers and psychologists respectively; a difference significant at $p < .0000$). Given such large differences in power, combined with all three professions desire for a greater leadership role, it would seem unlikely that a more equitable sharing of power is likely in the near future. As long as such power differences remain, the prospects for a truly non-hierarchial team would seem dim indeed. Such power differences may not only interfere with the efficiency of team functioning but could

create rivalry, resentment, and demoralization amongst team members.

Another major differentiation between the professions was based on orientations; the psychiatrists being biologically and psychodynamically oriented and the social workers community oriented (psychologists had a slight behavioral orientation although in general they ascribed to a mix of orientations or favoured an eclectic approach). Rather than enhancing the effectiveness of a teamwork approach, such differences in orientation could lead to disagreement and dissension over appropriate team goals and again reflects the differences in power; the medical orientation clearly representing the power which has been traditionally and legally associated with it.

Even the differences in job activities which make the teamwork approach attractive are, in fact, often related to the power differential or differences in orientation. The major discrimination between the professions based on job activities were not so much specific skills as differences in power and orientation. Psychiatrists were discriminated by their high ratings of those activities related to a biological orientation and an expert or authority role. Social workers were discriminated from the other professions by a dimension of activities related to a community orientation and a community assessment or community "legwork" function. The psychologists had few unique skills other than psycho-

logical testing and research, which corresponds to their perceptions of themselves as having moderate power (more powerful and more authoritarian than social workers, less so than psychiatrists) and a diverse or eclectic orientation.

Social workers perceived themselves as having specialized skills and they had the broadest spectrum of role responsibilities with the greatest number of unique skills or activities. They also had a clearly defined community orientation. Somewhat contradictory was the finding that social workers believed that a clear role was only slightly characteristic of their profession and that they had low power. At the same time the other professions perceived social workers as more authoritarian than they perceived themselves. There are several interpretations of these findings. The low scores on role clarity may reflect the breadth of activities in which social workers engaged; there being no clear role or function easily identifiable. Examination of the variables making up this construct (role clarity) suggests, however, that this factor represents more of a negative self image (unsure of own role, defer to more prestigeous professions, lack specialized training/skill, no unique areas of expertise).

One could speculate that the social workers lacked confidence or an appreciation for their own skills. It is not as other research implied that social workers lack a specialized role (Connaway, 1975) only that the social workers did

not seem to recognize this role as valuable or as very specialized. One possibility is that the social workers' role is and has been traditionally defined for them by the psychiatric profession and the social workers have come to see themselves as powerless to take responsibility for defining their own role. Instead, their role may be assigned to them which likely increases feelings of powerlessness and decreases the sense of professional identity or role.

A more likely alternative is that social workers have incorporated the attitudes of the other professions, especially psychiatry, who have not valued the social workers skills or role responsibilities. Although social workers have a wide range of skills, these skills are seldom considered important by the other professions. Many of the social workers' activities are related to coordinating services and staff resources or improving the efficiency of a team effort. These roles are often similar to the traditional sex roles of women and may be overlooked or ignored by the male dominated psychiatric profession.

The actual provision of therapy or active decision making are usually the areas of skill considered important and represent roles of power and influence in the mental health field (areas in which all three professions tried to limit one another). Social workers ascribed to a community and humanistic approach yet neither of these orientations specify a specific treatment modality and hence may be perceived

by all three professions (including social work) as being less important, less powerful and less clear. Such an interpretation would be consistent with Meuller and James (1972) findings that social workers desired a greater role in direct treatment yet felt a responsibility to improve coordination betwen agencies. They also reported (as did Davis and Underwood, 1966) that non-MSW social workers accepted a status as ancillary to psychiatry and welcomed guidance or had their role defined for them by individuals outside the field of social work. Others such as Zander et al (1957) and Connaway (1975) also reported that social workers were not clear about what they had to offer but desired greater responsibility.

A sense of role strain or the lack of a clear role may also be a result of the social work profession ascribing to a broad community orientation while being dominated by the psychiatric profession whose approach (medical and analytical) is inconsistent if not contrary to a community orientation. The social workers community beliefs may often be suppressed as their activities are often dictated by the desires of the more powerful psychiatric profession. It seems impossible for the social work profession to fully adopt a community orientation or fully utilize their skills, when their actual practice is controlled by psychiatry. As long as treatment decisions and other aspects of power and authority are controlled by psychiatry, the social workers

will find it difficult to fully utilize their skills or have their contribution clearly recognized or considered important.

Social workers appeared to value cooperation as part of their role definition which is consistent with their role activities related to the coordination of services and team support. Role confusion may also result from social workers' desire to be cooperative while at the same time desiring greater responsibilities and resisting psychiatric domination. As long as social workers perceive themselves as cooperative, it will be difficult to actively challenge the dominance of the psychiatric profession. It is also possible that social workers do not actually have a strong desire to be cooperative but rather believe they have no alternative but to cooperate as their profession has little power. The results, however, do not suggest that social workers simply comply with all the expectations of the other professions. Both psychologists and psychiatrists rated social workers as more authoritarian and less cooperative than did the social workers themselves. Perhaps these professions interpreted social workers resistance to their domination or orientation as non-compliance or non-cooperative behavior.

Up to this point the discussion has been based on each professions' self definition of their own role. The extent of the differences in power and ideological approach are even greater when one examines the perceptions of each profession of one another.

Implications of Interdisciplinary Role Perceptions

Perceptions of Activities. This study confirms that all three professions perceived one another's roles as being limited to more traditional stereotypes. Both psychologists and social workers limited the role of psychiatrists although, psychologists were more likely to downplay the psychiatrists' role in areas related to the psychologists' own specialties (research, testing, program development, formulating and coordinating treatment) whereas the social workers limited psychiatrists' activities related to leadership and power. These results, combined with both social work's and psychology's desire for a greater leadership role, leads to speculation that the psychologists were more interested in increasing their own share of power (ie. increasing their share of the psychiatrists' authority) whereas the social workers may have been more interested in an equal distribution of power between all three disciplines. This would be congruent with the social workers' perceptions of themselves as having low power and being cooperative.

Social workers and psychologists also assigned each other much more limited and traditional roles than they assigned to themselves. Social workers over-emphasized psychologist's indirect services (testing, research) and downplayed their behavioral and community orientations (a sign of guarding one's own territory?). Psychologists downplayed the social workers' role in almost all areas, especially in

more direct service or "expert" roles which social workers rated themselves higher on (formulate and coordinate treatment, crisis intervention, consultant). The psychologists downplayed to a lesser extent (emphasized in a relative sense) the social workers' traditional community assessment and service function (home visits, administration, identify psychopathology, family histories, welfare).

Psychiatrists also limited psychologists and social workers to their more traditional roles. Like the social workers, psychiatrists emphasized psychology's indirect services and like the psychologists they believed that the social workers' role was more of a traditional community assessment function. Both these professions had assigned themselves a greater role in more direct therapy and leadership roles. These findings support Meuller and James (1972), who found that social workers wanted a more direct role in treatment. They also confirm that at least some aspects of the more traditional role perceptions still exist. Zander et al (1957) reported that social workers were regarded by social workers and psychiatrists alike as the helpers or assistants to the psychiatric profession and Davis and Underwood (1966) found that nurses regarded social work's unique function as being a resource person to other staff. Schofield (1963) believed that social work's major function should be the collection and collation of data and the appraisal and integration of family and community resources. The traditional

role of of the social worker as "helper" still serves to most clearly differentiate the professions, although it is clear that the social workers' definition of their own role has broadened considerably and many of psychiatry's and social work's roles now overlap. Other authors have also found that the psychologists' role is often perceived as being limited to a testing or research function (Blanchard and Barlow, 1976; Davis and Underwood, 1966; Rushing, 1960). There is still a tendency for other professions to over-emphasize this role in comparison to psychologists's self-perceptions.

There is clear evidence that each profession assigned the other disciplines a more circumscribed role while assigning a much more diverse role to themselves. Miles (1977) reported a similar finding; non-medical respondents to her survey denied psychiatrist's claim to have general competence to perform all aspects of patient care. Assigning other professions a limited or traditional role may be part of a normal tendency to help organize or conceptualize the role differences between one another. However, there is a methodological issue which could explain some of this stereotyping. Rather than rating each profession seperately, as requested, many subjects may have rated all three professions simultaneously on each statement. Such a procedure might inflate the percieved differences between the disciplines. The extent of this problem is unknown, nonetheless

the results do seem to support the contention that skill and knowledge are a valuable commodity to be carefully and jealously guarded from encroachment or suppression by other professions (Horwitz, 1970). It certainly enhances a profession's own identity to deny others the rights and competencies they actually might possess. By limiting one another's roles, it becomes more and more difficult for a team to function effectively. Practitioners may resent it if their skills are not recognized or if they are not given an opportunity to utilize them. Many authors have expressed their belief that disagreement over roles can lead to role strain and problems in interdisciplinary collaboration (Robin, 1977; Brill, 1976; Blanchard and Barlow, 1976).

The desire by all the groups for a greater leadership role also suggests that each profession does not feel they are working to their full potential, which is in general agreement with the findings of Miles (1977) that 13 of the 16 social workers they interviewed felt their skills were not made use of in treatment and were dissatisfied at not being allowed to participate in the treatment plan. Competition and jealousy for prestigeous roles as well as stereotypical perceptions could lead to anger and resentment between the professions and the failure of a team to fully utilize the potential available to them.

Perceptions of Attitudes. In this study, there was general agreement between the professions that power was characteristic of the psychiatric profession. However, psychologists and social workers characterized the psychiatric profession as much more authoritarian and less cooperative than the psychiatrists perceived themselves to be. One might speculate that the psychiatrists perceived their power and domination as well as low cooperation as leadership abilities whereas the other professions saw these attributes as domination, control and rigidity. The tendency of psychologists and especially social workers to limit the psychiatrists' role was further demonstrated by their perceptions of the psychiatrists as less specialized than the psychiatrists perceived themselves to be. With both professions (especially social work) trying to limit the psychiatrists' power, it is interesting that neither recognized the psychiatrists' continued desire for a greater leadership role.

Much has been written about the rivalry and conflict between psychiatrists and psychologists in areas related to status, authority and community prestige (Miles, 1977; Omark, 1977) but few have investigated this issue in terms of interdisciplinary perceptions of the various professions. One exception is Blanchard and Barlow (1976), who found that psychologists stressed the lack of differences between themselves and psychiatrists and attributed any conflict to individual differences (ie. they perceived themselves as equal

or similar to the psychiatrists). Psychiatrists on the other hand, attributed conflict to differences in training and orientation and stressed their medico-legal responsibilities for patient care (ie. they believed they had different training and more power). That other professions perceived psychiatry as authoritarian can only lead to resentment and hostility between the disciplines.

Psychologists' and social worker's perceptions of one another's attitudes were somewhat incongruent. Both professions perceived the other as having less clear roles than they assigned themselves and neither recognized the other's desire for more leadership. Psychologists also saw social work as having fewer specialized skills and being more authoritarian. These results lead to the conclusion that these two professions did not have accurate perceptions of one another's attitudes. Such a finding is consistent with Tinsley (1974) who reported that there was considerable confusion between interdisciplinary team members on what duties their colleagues were or should be carrying out. Given that both social work and psychology desired a greater leadership role, it seems possible that both disciplines may have been concentrating their attention on the psychiatrists (both had very similar perceptions of psychiatrists) and were unaware of each other's goals and desires. As psychologists downplayed the social worker's degree of specialization, one might also hypothesize that the psychologists might prefer

to see or keep the social workers as "assistants" to themselves.

It is interesting that not only psychologists but psychiatrists as well characterized social workers as being more authoritarian and less cooperative than the social workers believed themselves to be. This suggests that the social workers may have underestimated the power and influence which they actually have, which is consistent with the earlier discussion that the social workers seemed to lack confidence or an appreciation for their own skills.

Psychiatrists' perceptions of the attitudes characteristic of psychologists and social workers were generally congruent with both those profession's self perceptions. The major exception was the belief that social workers were more powerful and dominating and less cooperative than the social workers believed themselves to be.

Perceptions of Orientations. Both psychologists and social workers tended to downplay psychiatry's community orientations and over-emphasized the psychiatrists' biological-medical and to a much lesser degree psychodynamic orientations. Again, the psychologists and social workers attempted to emphasize psychiatry's more traditional orientations. This may be another attempt to protect one's own areas of expertize or conversely, it may represent the psychiatrists' attempts to broaden their role definitions to include all areas of mental health. There may well be a

general disagreement between the professions on what constitutes a biological/psychodynamic approach, the other professions identifying more of the psychiatrist's role as medical or psychodynamic, while the psychiatrists believed their role was more community and less medically oriented.

Interestingly, the psychiatrists rated a community orientation as "slightly characteristic", a finding somewhat inconsistent with a biological and psychodynamic orientation. In fact, the community orientation was considered slightly more characteristic of their profession than was a biological approach. It may be that psychiatrists endorsed some of the concepts of a community approach while maintaining a more traditional practice or it may be indicative of split in the profession, some psychiatrists strongly endorsing a community approach while others endorsed the medical and psychodynamic model. Either possibility seems likely given that the psychiatrists' ratings of the community orientation had only a small negative correlation with a biological approach ($r = -.14$, $p = .041$). Another explanation is that the endorsement of a community approach may be seen as a socially desireable response or may represent a misunderstanding of the community orientation. It is also possible that this finding reflects the select sample of psychiatrists who responded to the survey. Those adopting a community orientation may be more interested in responding to a survey of interdisciplinary role perceptions. Further research would need to be done to clarify this issue.

Social workers characterized psychologlists as being more biologically and psychodynamically oriented than the psychologists characterized themselves and they over-emphasized the degree to which psychologists rated the variables related to treating organic disorders and providing pharmacological treatment. This suggests that social workers may have seen psychologists as "mini-psychiatrists". Psychiatrists also had a tendency to over-emphasize psychologists' biological and psychodynamic orientations, while downplaying their behavioral and community approach. Most psychologist-psychiatrist and psychologist-social worker interaction likely takes place within a hospital setting where a biological-psychodynamic model is more likely to be the norm. This may account for the psychiatrists' and social workers' general perception of psychologists as adopting such an orientation; a view not held so strongly by the general population of psychologists. Their perceptions may also reflect a endency by many psychologists to actually try and adopt a "mini-psychiatrist" role. In trying to carve out a niche for themselves, many psychologists have tried to adopt the psychiatrists' role, perhaps hoping to gain a share of the power and authority related to that profession.

Psychiatrists had much more accurate perceptions of psychologists' and social workers' attitudes and orientations than those professions had of one another or of the psychiatrists. These findings may reflect psychiatry's role in as-

signing job responsibilities for the other two professions, at least in a hospital setting where most psychiatrist - social worker and psychiatrist - psychologist interaction takes place. Within this setting, psychiatrists not only interact with these professions but directly influence the task assignments and even the orientation they adopt. The results suggest that it is not merely the amount of interdisciplinary interaction which is important but rather the degree of influence one profession has in determining the other's role. Social workers and psychologists in this study spent a greater proportion of their time consulting with one another than with psychiatrists yet their perceptions of one another were the least congruent. This may reflect the fact that neither of the professions have a significant influence over the roles adopted by one another.

This study has found a lack of congruence between the interdisciplinary role perceptions of each profession. This seems to reflect both a misunderstanding of one another's competencies as well as an active attempt by professionals to protect one's own territory and preserve their power and status. The latter statement represents a disagreement over the appropriateness of each other's roles as opposed to simple ignorance of each other's competencies which is implied by the former statement. Both of these issues lead to incongruent role perceptions and can be expected to increase interdisciplinary role strain and conflict. The respon-

dents' satisfaction with role relations was, in fact, generally low. All three professions saw themselves as either "slightly satisfied" or "neither satisfied nor disatisfied" with role relations between the professions. There were no significant differences between the professions (X (12) = 19.8, p = .08).

One question raised by this research is whether interdisciplinary role relations can be improved by increasing the understanding of one another's role definitions. The answer depends on how much of the incongruency in role perceptions is a result of faulty perceptions and how much is a reflection of the power differences or disagreement over the appropriateness of one another's roles. Correcting misperceptions, or ignorance about each professions competencies will improve role relations but only to a limited extent. This research suggests that most incongruencies in interdisciplinary perceptions reflect the attempts of each profession to guard their territory and preserve the power differential. These specific issues need to be remedied before one could expect substantial improvements in role perceptions and role relations.

Hypothesis three was intended to test the assumption that more accurate (congruent) perceptions would correlate with satisfaction with role relations. Although a moderate correlation was found, the variable actually correlated with satisfaction was "perceived accuracy of role perceptions" which

was not a measure of the "actual" congruency of an individual's interdisciplinary perceptions. If one interprets "perceived accuracy" as representative of the "actual" congruency of role perceptions then this finding supports the contention that increasing congruency of role perceptions leads to improved role relations. More realistically, however, high scores on "perceived accuracy" could mean many things. It might be representative of an individual who has limited understanding of each discipline's actual roles or it might represent someone who recognizes the roles of the other professions but does not agree on the approapriateness of the role. It seems impossibe to define the meaning of this score, which makes it unfeasible to reach any conclusion about why it is correlated with satisfaction with role relations.

This research also found that the degree of interdisciplinary contact was not correlated with "perceived accuracy of role perceptions". In interdisciplinary settings, professionals may find increased role blurring and begin to recognize that roles are not easy to distinguish. Again the confusion over the meaning of "perceived accuracy of role perceptions" makes it difficult to interpret this result. It may well be that interdisciplinary exposure increases the understanding of one another's roles (by forcing professionals to abandon simplified or traditional roles) even though they may end up being less sure of specific role boundaries.

If interdisciplinary interaction does increase the understanding of one another's roles it does not seem to improve role relations. Degree of exposure to interdisciplinary settings was not correlated with satisfaction with role relations ($r = .12$, $p = .06$). These findings tend to support the belief that most role conflict may not reflect a lack of knowledge about the other professions but a disagreement over the appropriateness or value of one another's roles.

Summary

To put these results into perspective, an analogy is useful. If one pictures a large grassy field, then the psychiatrists work in a tall tower in the centre and the social workers work out in the field on one side of the tower. The psychologists are in the process of building their own tower but on the opposite side of the field (partially out of view of the social workers). There is general disagreement amongst the psychologists on just how tall their tower should be and what ground it should cover. The social workers aren't sure if they want a tower of their own, most are still trying to decide how they should fence in their property. Most would like to convince the psychiatrists to come down from the tower and join them in the field.

The psychiatrists are not interested in leaving the tower. From their vantage they can keep an eye on what is happening in all parts of the field just as the other profes-

sions have a pretty good view of what's happening at the top of the tower (although a tower always looks taller from below than from above). The psychiatrists keep a wary eye on the progress of the psychologists' tower, always ensuring it doesn't encrouch on their own property or cast a shadow across their concerns. So far they have found it easy to ignore the social workers' demands to abondon the tower, after all the social workers have little influence without a tower of their own. To be on the safe side, they do their best to stop any further towers from sprouting up.

The psychologists and social workers are on opposite sides of the field and really can't see what each other is up to. Neither realizes just how much of the field the other one claims and the social workers haven't noticed that the psychologists are trying to build their own tower. Likewise, the psychologists who have kept their eyes on the psychiatrists' tower have never appreciated (nor are they concerned with) the social workers' desire to get the psychiatrists down from the tower and into the field.

This analogy and research has painted an overall picture of the mental health care field which raises a number of questions relating to the feasibility of a truly interdisciplinary teamwork approach. When examining each profession's self perceptions of their own activities and orientations it is apparent that a teamwork approach should be an ideal forum for combining each profession's skills and talents.

Each profession shares a great number of activities yet each profession has certain skills and orientations which they emphasize or even dominate in. Closer inspection of interdisciplinary role perceptions, however, suggests that there are a number of factors which may interfere with a team's effective functioning.

The differences in power between the professions as well as disagreement over the extent of the power differential (ie. disagreement over role definitions) may be a major handicap to a well functioning team. A major component of a team approach is an equitable sharing of power or a non-hierarchial structure which does not seem likely given the current role definitions and role perceptions. Compounding these differences in power is the fact that all three professions desired a greater leadership role which may only intensify rivalry and conflict created by these differences in power.

The professions also ascribed to significantly different orientations which do not seem to be highly compatible. There were also differences between the professions in the attitudes which each profession believed characteristic of one another. These differences can also leal to dissension and disagreement over the appropriate team goals and individual responsibilities.

Disagreement over role definitions can also hamper teamwork. This research indicates that all three professions'

tended to assign limited or traditional roles to one another which might lead to role confusion and the failure to utilize one another's full potential. Resentment and competition can also increase if one profession does not feel their competencies or diversity is recognized.

A lack of familiarity with another profession's skills or orientation can also hamper communication and understanding between the professions. Social workers, for instance, tended to see psychologists as "mini-psychiatrists" (in terms of orientation) even though their own orientations were not so dissimilar; both social workers and psychologists ascribed a stronger biological orientation to the psychiatrists than did the psychiatrists themselves. Such misperceptions of roles may lead to inaccurate expectations or discourage communication. Bassoff (1977) believes that one of the major causes of a lack of trust between the professions is a lack of knowledge about or appreciation for the philosophic values and professional competencies of other disciplines.

Recommendations

This research highlights some of the differences between the professions and the possible effects of interdisciplinary role perceptions on role relations and teamwork. It has been suggested that disagreement over role definitions and the differences in power and orientation are leading factors

in the creation of role conflict and the disruption of teamwork efforts. This naturally raises the question of what alternatives or action could be taken to remedy or reduce these problems. Working to educate professionals so that they more accurately perceive the role definitions of the other professions may help to reduce some role strain but this would not alleviate the differences in power, status and orientation which have been found to be major components of role disagreement and role strain.

One alternative is a radical change in the training of mental health professionals. Some have argued that the traditional professions be phased out and replaced with "mental health professionals" who would specialize in different areas while still retaining various levels of educational training within each specialty. Such an approach would require the removal of the traditional power differential which contributes to role disagreements and ineffective cooperation. Professionals within each specialty would still represent their own orientations or attitudes towards mental health care but power differences would be based on the levels of training or skill within a specialty rather than between professional bodies. Given that there is a great deal of role blurring between the professions (no profession listed more than four activities as uncharacteristic of their role) such a proposal might lead to more efficient teamwork. If "interexpertise" teams became a reality, team

members would be chosen from different specialties (eg. a family therapist, a specialist in psychotic disorders etc.) and the training of specialists could be more thourough and avoid the costs of redundant training in the seperate professions. Differences in power and training would remain but within rather than between specialty areas. This has begun to occur in specific areas (eg. the emergence of family therapy institutes where discipline status is irrelevant) but it does not seem realistic to expect such specialization in more traditional areas. To expect any professional group to give up their own power and identity is certainly naive.

The differences in power between the professions are rooted in the medico-legal responsibilities traditionally and legislatively associated with the medical profession. The requirement that a medical doctor supervise all service delivery and have sole responsibility for operating hospitals and prescribing drugs ensures that psychiatrists maintain their position of power and status in the mental health field.

As long as institutional support remains for this power imbalance, one must expect continued disagreement over roles and continued role strain and conflict. It is also clear that psychiatrists do not intend to give up their power and the related income, prestige and influence. It would appear that only active lobbying and efforts at institutional and political change can be expected to result in any changes in

the power structure. Such radical changes could only occur slowly and would require the combined efforts of psychologists and social workers. It may be questionable, however, how well these two professions could coordinate their efforts.

This research has indicated that social work and psychology have not accurately perceived one another's roles, tending instead to focus their attention on the more powerful psychiatrists. Both, however, tend to share somewhat similar orientations and skills (at least they're not so far apart as the social workers and psychiatrists) and believe the psychiatrists are powerful and dominating while they themselves desire a greater share of power. Better communication and collaboration between these two professions would seem possible given their commonalities and only through their combined lobbying efforts might a more equitable power distribution (such as a non-hierarchial team structure) be negotiated. First, however, the psychologists would have to modify their own ambitions, which this research suggests may be linked to increasing their own power as opposed to working with social workers to equalize the power distribution. Social workers may have to abandon their cooperative role and take a more active role, first in defining and recognizing their own skills and secondly, by taking a more active role with psychologists in lobbying for the institutional and legislative changes which might reduce the power and

status differential between the professions or more clearly define which profession has power in which areas.

Power and status differences and rivalry or competition for prestigeous activities appear to be the root cause of incongruent role perceptions. Nonetheless, some of the incongruency and role strain may result from a lack of understanding of the competencies of the other professions. A possible solution is to encourage more interdisciplinary interaction and collaboration especially at the training level. Such interaction would increase each profession's understanding of one another's strengths and weaknesses and would help to soften the stereotypes and perhaps diffuse some of the power issues before they have become "set in concrete". Blanchard and Barlow (1976), found that psychology interns and psychiatric residents suffered greater role conflict between themselves and felt their roles were less clearly defined than did the established psychiatrists and psychologists at the same institution. This supports the contention that role definitions and role relations are in a state of change during the early years of training. Truly interdisciplinary training would expose each trainee to a broader spectrum of orientations or approaches which might also encourage the evolution of one broader but common orientation or at least improve each profession's understanding of the other's approach. As Bassoff (1977) pointed out, each profession must know what to expect from other profes-

sions and understand their role on the team both to make full use of their potential and to ensure a cooperative and smooth running relationship.

One might argue that further interdisciplinary training would lead to further role blurring, which may well be true. This research suggests that a team environment (or interdisciplinary training environment) may not actually lead to clearer boundaries or role perceptions but at least the blurring of boundaries would be more clearly recognized. In fact, several authors have argued that a blurring of roles is a necessity if a team is to work together effectively (Malick and Jordon, 1977; New, 1968). The recognition of the blurring of roles might also lead to the recognition that stereotypes or traditional roles are no longer appropriate nor do they do they do justice to the diversity within each profession. The long term effect might be a move towards a common orientation which could be shared by all professions. Such an idea is supported by Davison and Patterson (1978) who, contrary to Robin and Wagenfeld (1976), found no significant differences between social workers, psychologists and psychiatrists on their endorsement of a community mental health ideology. The authors hypothesized that the psychiatrists in their study had more extensive training in interdisciplinary collaboration and more exposure to the principles and concepts of community mental health. Such a training program would ideally require the

acceptance of various professionals as teachers/supervisors with equal responsibilities within the various teaching departments. Unfortunately, power and status differences as well as professional jealousy would tend to discourage such cooperation.

Limitations of this Research

This research was based on a questionnaire survey and the limitations of such research must be considered when interpreting the results. The return rates for psychologists and social workers were relatively high and the responses for these professions can be considered as generally representative of the total population of these professions in Manitoba. Note that the term social worker represents those working in the mental health field and do not necessarily represent the profession of social work in general.

A 50% return rate from psychiatrists makes it somewhat questionable how representative this sample is of the psychiatric profession in general. It is quite possible that those who returned questionnaires may have different perceptions of the mental health care field than do those who did not return. It is this researcher's opinion that psychiatrists who responded were those most interested in interdisciplinary role relations and, consequently, their role perceptions might be expected to be unusually accurate. Differences between the professions would likely be reduced

rather than artificially inflated. There is no way to confirm what effect the smaller sample size has on the final results, one must simply take this limitation into consideration.

It is also difficult to speculate on the generalizability of these findings to professionals outside of Manitoba. There are considerable differences between provinces and countries in terms of the mental health models or practices which are emphazsized. Given that the majority of these findings tend to confirm previous research and beliefs which are prevalent in the literature, this researcher is inclined to believe that the results can be generalized to practitioners outside of Manitoba, especially to those areas with a similar mental health care philosophy or system.

This research was limited to psychologists, psychiatrists and social workers. Obviously other major mental health professionals (especially psychiatric nurses) were not surveyed and, consequently, as an overall "picture" of the mental health care field this research in somewhat incomplete. The time and resources of this researcher did not make it feasible to include more than three professions in the survey, which limits the results to an analysis of the relationships between only these three professions.

Questionnaire research presents a number of difficulties. The respondent can only respond to the questions presented and there is no opportunity to qualify one's response. Views

or questions not listed cannot be responded to and hence it is a certainty that there are many areas of agreement or disagreement between the professions in areas not identified by this research. Similarily, the role definitions are limited to the categories provided; there may be many other dimensions along which a profession defines their role. Future research might utilize more extensive pilot work, possibly using interviews or questionnaires, to obtain a listing of what professionals believe to be their role activities or perhaps having professionals document the tasks they are involved in over a three or four week period. This research makes no claim to be a comprehensive description of each profession's role but this does not imply that the descriptions/perceptions which were presented are inaccurate or false. Given the role descriptions available on the questionnaire, the overall findings can be considered accurate but not necessarily complete.

In developing a questionnaire, the questions will reflect the biases of the researcher and the variables which are examined are usually related to the research hypotheses. These biases may well lead to certain questions or issues being ignored but does not in itself serve to influence the actual responses of each professional. The results are still based on the beliefs or perceptions of each profession to specific questions.

One further source of bias is the possibility that different professions may define the same words or concepts in a somewhat different manner. The result can be a comparison of "apples and oranges" as though they were identical. For example, consider, "therapy must focus on the here and now". One profession might have a tendency to interpret this as representing a humanistic orientation, while another might regard it as a behaviorally oriented statement. It is impossible to determine the extent of this problem, although every effort has been made to use common wordings and to avoid terminology characteristic of or unique to one profession. All the attitude or orientation variables were composite scores based on a number of questions which more clearly defined the meaning of the attitude or orientation. A related problem was the possibility that some respondents may have misread the instructions and completed the questionnaire based on what they think was characteristic of their "own" role (not their profession's role) or what they thought was the "ideal" role (not the actual role) of their profession.

There is one final caution which must be heeded. Research on role perceptions obviously examines the general or group perceptions, not the perceptions of individuals. In other words, this research examines the stereotypes or perceptions which already exist within the mental health field. To assume that these perceptions are characteristic of any

given individual would not only be misleading but counter to the purpose of this research, which has tried to uncover false perceptions in the hope they can be eliminated or role relations improved. Within each profession individual variation is large and few individuals would match the stereotype or perceptions which each profession holds of one another.

Future Research

Future research in this area might include more detailed examination of specific role activities and especially interdisciplinary perceptions of attitudes which were not examined in this research. The effects of these perceptions on role relations could also be subjected to a more empirical examination. This research has delineated what perceptions exist but only speculated on their actual effects on role relations. Future research should also include other professions not included in this survey (eg. psychiatric nurses, the clergy, etc.) and might concentrate more specifically on the differences in perceptions of interdisciplinary team members versus those who have little interdisciplinary interaction. The perceptions of trainees versus experienced professionals would also indicate whether role perceptions have "set" at an early stage and might suggest how useful interdisciplinary training can be. If teams are to be maximally effective, further understanding of role differences and interdisciplinary perceptions must be a priority.

References

Baker, F. & Shulberg, D. The Development of a Community Mental Health Ideology Scale. Community Mental Health Journal, 1967, 3, 216-225.

Bassoff, B. Interdisciplinary Education for Health Professionals: Issues and Directions. Social Work in Health Care, 1977, 2, 219-32.

Biddle, B. & Edwin, T. Role Theory Concepts and Research, N.Y., Wiley, 1966.

Blanchard, C., & Barlow, D. Psychologists and Psychiatric Social Workers in a Department of Psychiatry. Professional Psychology, 1976, 7, 331-338.

Bloom, B., & Parad, H. Interdisciplinary Training and Interdisciplinary Functioning: A Survey of Attitudes and Practices in Community Mental Health. American Journal of Orthopsychiatry, 1976, 46, 669-677.

Brill, N. Teamwork: Working together in the Human Services. Toronto, J. B. Lippincott Co., 1976.

Connaway, R. Teamwork and Social Work Advocacy: Conflicts and Possibilities. Community Mental Health Journal, 1975, 32, 263-266.

Davies, M. Health Visitors and Social Workers - Is There a Place for Both? Nursing Mirror, 1965, 22.

Davis, A., & Underwood, P. Role Function and Decision Making in Community Mental Health. Nursing Research, 1976, 25, 256-258.

Davis, E. & Pattison, M. Comparitive Staff Values on the Community Health Ideology Scale. Journal of Community Psychology, 1978, 6, 151-156.

Dunbar, C., Miner, L., Tripett, J. Social Workers Look at Public Health Nursing. Nursing Outlook, 192, 57, 5.

Ford, L. Health and Welfare Workers - Watch those Peripheries! Nursing Outlook, 1958, 10, 6.

Goering, P. Nurse - Doctor Relationships in a Psychiatric Setting. Canada's Mental Health, 1973, 6, 3-5.

Gorlick, H. Nurse and Social Worker: Friends or Enemies? Registered Nursing, 1967, 8, 30.

Hesse, K. The Paraprofessional as a Referral Link in the Mental Health Delivery System. Community Mental Health Journal, 1976, 12, 252-258.

Holden, C. Nader on Mental Health Centres: A Movement that got Bogged Down. Science, 1972, 177, 413-415.

Horwitz, J. Team Practice and the Specialist. Springfield Ill., Charles C. Thomas, 1970.

Howard, S. Attitudes Towards Roles in a Psychiatric Hospital. Dissertation Abstracts International, 1974, 35-B, 1049.

Kane, R. The Interprofessional Team as a Small Group. Social Work in Health Care, 1975, 1, 19-32.

Langston, R. Community Mental Health Centres and Community Mental Health Ideology. Community Mental Health Journal, 1970, 6, 387-392.

Lieberman, R., & Crisp, A. A Survey of Consultant Psychiatrist's Attitudes to their Work with Particular Reference to Psychotherapy. British Journal of Psychiatry, 1977, 131, 415-419.

Lopota, H. Expertization of Everyone and the Revolt of the Client. The Sociological Quarterly, 1976, 17, 435-447.

Mailick, M., & Jordon, P. A Multimodal Approach to Collaborative Practice in Health Settings. Social Work in Health Care, 1977, 41, 336-340.

McConville, B. Where has the Patient Gone? Canadian Psychiatric Association Journal, 1978, 23, 134-135.

Miles, A. Staff Relations in Psychiatric Hospitals. British Journal of Psychiatry, 1977, 130, 84-88.

Morrison, T., & Thomas, D. Educators and Child Care Workers Perceptions About the Competencies of Child Mental Health Professionals. Journal of Community Psychology, 1975, 3, 266-269.

Meuller, B., & James, B. Social Work Practice and Community Mental Health. Community Mental Health Journal, 1972, 8, 178-188.

Nelson, R. Evaluation of a Team Approach. Psychological Reports, 1973, 32, 263-266.

New, P. An Analysis of the Concept of Teamwork. Community Mental Health Journal, 1968, 4, 326-333.

Newman, R., & Carney, R., & Sharon, I. Referral Preferences Among the Mental Health Professions. Community Mental Health Journal, 1978, 14, 233-238.

Nunally, J. Popular Conceptions of Mental Health. N.Y., Holt, Rhinehart, and Winston, 1961.

Omark, R. Diffusion of a Mental Health Ideology. Psychology, 1977, 14, 20-40.

Osmond, H. The Medical Model in Psychiatry. Hospital and Community Psychiatry, 1970, 9, 215-281.

Pihl, R., & Spiers, P. Some Personality Differences among the Multidisciplinary Team. Journal of Community Psyhcology, 1977, 33, 269-272.

Powell, D. Dimensions of Intraagency Referral Processes. Dissertation Abstracts International, 1976, 36-A, 4348.

Powers, G. Role Conflict and its Relationship to the Social Worker's Satisfaction with Their Role on the Interprofessional Child Guidance Team. Dissertation Abstracts International, 1974, 34-A, 2036.

Rae-Grant, Marcuse, D. The Hazards of Teamwork. American Journal of Orthopsychiatry, 1968, 38, 4-8.

Robin, S. A Procedure for Securing Returns to Mailed Questionnaires. Sociology and Social Research, 1965, 50, 24-36.

Robin, S., & Wagenfeld, M. The Community Mental Health Worker: Organizational and Personal Sources of Role Discrepancy. Journal of Health and Social Behavior, 1977, 18, 16-27.

Robin, S. & Wagenfeld, M. The Nature and Correlates of Community Mental Health Centres. Journal of Community Psychology, 1976, 4, 335-346.

Schofield, W. Psychotherapy and the Purchase of Friendship. N.J., Prentice Hall Inc., 1963.

Smith, N. Interdisciplinary Training for Community Mental Health Service Journal of Education for Social Work, 1974, 10, 106-113.

Spray, S. Mental Health Professionals and the Division of Labour in a Metropolitan Community. Community Psychiatry, 1968, 31, 51-60.

Steuks, A. Working Together Collaboratively with Other Professions. Community Mental Health Journal, 1965, 1, 316-318.

Stream, H., & Blatt, A. Some Psychodynamics in Referring Patients for Psychotherapy. Psychoanalytic Review, 1973, 60, 101-110.

Sudenberg, N., & Tyler, L., & Taplin, J. Clinical Psychology: Expanding Horizons. N.Y., Appleton Century Crofts, 1973.

Tinsley, M. Interdisciplinary Role Perceptions and Job Satisfaction: A Study of Missouri's Nine Multi-Discipline Diagnostic Clinics. Dissertation Abstracts International, 1975, 35-A, 3533.

Veeder, N. A Stress-Strength Model for Nurse-Social Worker Collaboration. Mental Retardation, 1974, 12, 39-42.

Wilder, J., & Rosenblatt, A. An Assessment of Accountability Areas by Psychiatrists, Psychologists, and Social Workers. American Journal of Orthopsychiatry, 1977, 41, 336-340.

Zander, A., & Cohen, A., & Stotland, E. Role Relations in the Mental Health Professions. University of Michigan, Ann Arbor, 1957.

Appendix A

Defining the Roles of Each Discipline: A Literature Review

The following section reviews survey and interview studies which have attempted to define the roles of the various disciplines. The literature is generally limited to discussion papers, opinions, and small scale interviews or surveys. Often results are unclear or based on a very limited selection of global job descriptions. This makes any accurate conclusions difficult if not impossible to formulate.

Morrison and Thomas (1975) used a questionnaire to survey 258 educators and child-care personnel who were attending a workshop on mental retardation. Each respondent was asked to rate the relative competencies of social workers, psychiatrists, and pediatricians in assessing and treating childhood behavioral disorders. The findings are highly biased by the lack of a random sample and a low return rate of only 75 of the 258 individuals surveyed but they did find that the respondents perceived significant differences between the professions. In providing play therapy, behavior management, parent counseling, intellectual assessment and consultation, the competency ratings in ascending order were; social worker, pediatrician, psychiatrist, and psychologist. Each difference was significant except the difference be-

tween the social worker and pediatrician in the category of play therapy and consultation. For family therapy the ascending order was; pediatrician, social worker, psychiatrist, psychologist with each difference significant except the difference between the social worker and pediatrician. For drug treatment the order was; social worker, psychologist, psychiatrist, and pediatrician with each difference significant except the difference between psychiatrists and pediatricians.

These results suggest that psychologists were perceived as being the most competent profession in dealing with children except for drug oriented treatment which was clearly in the domain of the pediatrician and psychiatrist. Morrison and Thomas (1975) note that the social worker was perceived as the least competent in dealing with childhood disorders but speculate that the respondents may have been unaware of the competencies of a well trained psychiatric social worker or were influenced by the stereotyped image of a harried and untrained caseworker whose working conditions make competence almost impossible.

In the above study, roles were examined by paraprofessionals outside of the actual professions of interest. Meuller and James (1972) investigated the role of social workers as perceived by the workers themselves. The authors interviewed 73 social work practitioners from 12 randomly selected counties in Wisconsin. They found that 41% of

non-MSW social workers spent 75% or more of their time doing casework and that 34% utilized psychoanalytic theory, 15% learning theory, and 31% used no theoretical frame of reference because they felt casework is based largely on intuition and common sense. Most social workers felt their field had special competencies in the referral and use of community resources, casework with patients and families and the interpretations of neighborhood subcultures, -that is, ethnic groups and community attitudes. Fifty percent of non-MSW's spent 30% or more of their time doing paper work. The three most frequent community contacts involved welfare departments (45%), home visits (41%), and other mental health agencies (33%). Meuller and James (1972) concluded that many non-MSW's operate by loose rules of thumb and possess little real understanding of their role within a complex system. They desire direct involvement in treatment yet feel a responsibility to assume a more energetic liason function with families and communities and to improve coordination between agencies. The authors felt that non-MSW's seemed to accept a status ancillary to psychiatry and did not seek professional responsibility. Further, they appeared to welcome guidance and often had their role defined for them by individuals outside the field of social work. MSW's on the other hand assumed more autonomy, worked less with teams and rejected psychiatric domination. These authors interpret their findings as evidence for considerable role strain

within the social work profession, however, this conclusion is speculative as no specific measure or definition of role strain was employed.

Meuller and Jame's (1972) findings are very similar to those of Zander, Cohen and Stotland (1957) did extensive interviews with 159 psychiatric social workers and found that they wanted more responsibility but accepted their status as ancillary to psychiatry. In a similar vein, the Report of the Medical and Psychiatric Social Work Sections of the Joint Committee on Participation in Medical Education (Holden, 1960), also found that social workers were not clear about what they have to offer nor was the medical profession clear about what they wanted from them. Connaway (1975), in a more recent article, suggests that social workers have been assigned the task of consumer advocate which often is in direct conflict with other team members and often their role is ambiguous due to a lack of clear standards about what set of activities constitutes appropriate advocacy. She questions whether a social worker can be a client advocate, be perceived as equal, aggressively use their knowledge and competence across various tasks and still function and be accepted as part of a team. Connaway (1975) goes on to question whether social workers are able to demonstrate unusual knowledge, availability or competence and notes that their position on a team may be threatened by the marginality of their profession.

Schofield (1963) interviewed 140 psychiatrists, 149 psychiatric social workers and 80 psychologists. He reports that psychiatry is considered the ultimate social agency for the disposition of and dispensation to the psychologically disturbed. Clinical psychology and psychiatric social work are "late on the scene and their tacit island mandate is the simpler maladjustments and family conflicts" (Schofield 1963, p.31). Schofield (1963) argues that the major professions should leave therapy to paraprofessionals. Psychiatrists should concentrate on utilizing their medical knowledge, the psychologists their research, evaluative, teaching, and observational tools and the psychiatric social workers their skills in collection and collation of data and the appraisal and integration of family and community resources. Schofield (1963) also found that psychiatrists saw predominantly female patients over forty with a high level of education (over 50% of their clients had college degrees). Psychologists and social workers saw equal numbers of both sexes but psychologists also tended to see clients with higher levels of education (35% of their clients had college degrees) and they saw a higher percentage of children than the other two professions (20% of psychologists concentrated on clients under 15 years of age). Social workers tended to see clients with lower levels of education (20% of their clients had less than grade eight) and rarely worked with college graduates (only 5% of their clients had college degrees).

Schofield's (1963) analysis of appropriate professional roles is somewhat dated, but his general view was also reccomended by the Nader Report on Mental Health Care (Holden, 1972). This report states that psychiatrists should be assigned the more circumscribed function of treating serious psychiatric disorders such as psychosis and that those whose training is oriented to the community (social workers, psychologists, paraprofessionals) should be concerned with more global and sociogenic problems in living.

Davis and Underwood (1966) surveyed 44 nurses in community mental health centres in California and investigated both their role in the centre and their view of the function of various community mental health personnel. They found that the nurse's major role was doing therapy, especially group therapy, which was mentioned twice as often as individual or family therapy. One third mentioned home visiting and less than one quarter mentioned crisis intervention, program planning or coordination and community involvement (adult education, consultation, etc). The authors concluded that nurses had a limited view of their overall role and function which was based more on what they did rather than the possibilities in the field. The significance of this finding is questionable as one would expect nurses to define their role in terms of their actual activities and job functions.

In terms of how the nurses viewed the other disciplines, Davis and Underwood (1966) found that one third said that

psychiatrists are the only ones who write orders and one third viewed the psychiatrist as team leader. One quarter saw the psychiatrist as an administrator with responsibility for the coordination of treatment programs.

The psychologist's role was unclear to the nurses; two thirds believed the psychologist's only unique role involved psychometric testing. Over 50% of the nurses felt that social workers had no unique function but one quarter reported that the social worker did have expertise in assisting patients with financial matters, especially the completion of financial forms. Another quarter of the nurses also saw the social worker's unique function as serving as a resource person to other staff.

Wilder and Rosenblatt (1977) asked 21 psychologists, 17 psychiatrists, and 31 social workers to rate 15 studies on their usefulness. The topics of the studies were divided into three topic areas and it was hypothesized that psychologists would show a preference for studies of effectiveness, psychiatrists, a preference for studies of diagnosis, and social workers, a preference for consumer studies. Results failed to find significant differences between the professional groups. All three disciplines responded as members of a similar profession, namely clinician. All rated studies of effectiveness and amount of time spent with patients as most useful. Wilder and Rosenblatt's (1977) study suggests there is some role blurring between the disciplines and that

the stereotyped or expected roles may not exist in reality. Any conclusions must be made cautiously, however, as a professional's rating of what research he or she finds useful may not reflect on how they perceive their role.

On the other hand, Robin and Wagenfeld (1977) investigated the discrepency between a professional's perceptions of their own professional role versus their perceptions of the appropriate role of a community mental health worker. Each subject was presented with a number of vignettes illustrative of action situations which a worker might encounter. Each subject was then asked to rate each vignette on the digree of activism and community involvement they themselves would believe appropriate and again on the degree of degree of activism and community involvement they felt was representative of a community mental health approach.

Each subject's role discrepancy score was calculated as the sum of the differences between their two ratings and represented a measure of role strain for each subject. They surveyed all community mental health workers working at 20 community mental health centres throughout the U.S. (60% of the subjects responded for a total sample of 595 subjects). The authors found significant differences between professions on the amount of role discrepency each profession reported. Psychiatrists showed the least role discrepancy whereas social workers, paraprofessionals, and psychologists (in that order) believed their personal approach was gener-

ally more oriented towards activism than was that of the usual percieved community mental health worker. The authors concluded that community mental health centres have "not succeeded in creating a generic category of community mental health worker. Rather the community mental health worker may be a congeries masking markedly different role definitions stemming - at least in part - from different professional socialization experiences" (Robin and Wagenfeld, 1977, p.23).

Summary and Conclusions The literature attempting to define each profession's role is quite limited both in quantity and quality. Most of the literature comprises either general discussion papers or the results of surveys or interviews often based on a very limited sample or utilizing a very narrow range of possible responses. Existing studies do not adequately explore the issue of the similarities and differences between the various disciplines in regard to their roles and job activities. The literature does suggest that there is some general consensus about each profession's most obvious areas of unique competence such as psychiatry - drug treatment; psychology - research, assessment; and social work - knowledge of community resources, community liason, and client advocacy. There appears to be much greater confusion between the disciplines when each tries to specify a more comprehensive definition of each others' roles and areas of competence.

Appendix B

Role Perceptions and Role Strain: A Literature Review

Although the quality of role relations and the accuracy of role perceptions have important consequences for teamwork and collaboration, there have been few empirical investigations of these concepts. Several authors have concluded that role strain is prevalent within the mental health care field and contributes to a breakdown in interdisciplinary collaboration but many of these conclusions are based on methodologically flawed studies or represent the general opinion of the authors based on limited interviews or surveys.

Blanchard and Barlow (1976) interviewed 8 psychiatrists, 9 psychologists, 8 psychiatry residents and 6 psychology interns who worked at the University of Missisipi Medical Centre. They asked them to describe their perceptions of both their own role and that of the other discipline and to delineate areas of conflict and role strain. The authors found that psychologists stressed the lack of differences between themselves and psychiatrists and attributed any conflict (which both groups reported to be minimal) to differences in individual personalities. Psychiatrists on the other hand attributed conflict to differences in training and orientation and stressed the differences in functioning especially

in terms of their own medicolegal responsibility for inpatient care. They also suggested that the psychologist's role centred on testing and research. The authors concluded that both groups had good intraposition agreement (members of each discipline agreed upon the role of their discipline) but their interposition agreement was much lower (there was less agreement between the disciplines on the roles of the other discipline). These results are certainly suggestive of a continuing struggle by lower status psychologists to be accepted as equals by psychiatrists, who in turn appear eager to preserve their higher status roles by denying psychologists any responsibility for treatment.

Blanchard and Barlow (1976) also surveyed trainees and found that half of each group of interns and residents felt their roles were not well defined. Both interns and residents reported role conflicts but only one half of each group ever felt they were resolved. The others simply endured the conflict until they left the program. Interns reported that the residents were threatened by their knowledge of therapeutic techniques and felt the residents retreated to a medical or pharmacological approach. The residents on the other hand felt the psychology interns did not have sufficient medical knowledge, were laboratory and research oriented and had failed to develop a sense of patient responsibility. These results are difficult to interpret as the authors never clearly defined what was meant by the term

role conflict. Apparently, respondents were simply asked what role conflicts they perceived and the reasons for the conflict. Nonetheless, the results certainly suggest that different disciplines have at least some difficulty understanding each other's roles and responsibilities. They also sound remarkably similar to a much earlier survey by Rushing (1960) who concluded that too often psychiatrists tended to expect a testing function from psychologists and a welfare function from social workers and that these role definitions were unacceptable to high calibre professionals. Blanchard and Barlow's (1976) findings are of course tempered by the small and non-representative sample and the open-ended format of the interviews.

Role conflict between social workers and nurses is one area which has received a great deal of attention in the literature. Although most of the articles in this area are in essence discussion papers, they do serve to exemplify the role strain between these two professions. Veeder (1974) notes that articles such as; Health Visitors and Social Work - Is There a Place for Both? (Davies, 1965); Health and Welfare Workers - Watch those Peripheries (Ford, 1965); and Nurse and Social Worker: Friends or Enemies? (Gorlick, 1967), all serve to clearly demonstrate some of the conflict and role strain between these two professions. Veeder (1974) points out that nurses and social workers at the masters level receive very similar training in counseling, psy-

chopathology, use of community resourses, family dynamics etc. She notes that this leads to duplication in services, and conflict over who has jurisdiction in each area. Steuks (1965) also explored the role of nursing in collaboration with other mental health professionals and concluded that nurses "must define a nonexistent role in an agency devoid of nursing structure and tradition.....The nurses role is still ambigous, incompletely defined and to a certain degree indifferently accepted by the other mental health disciplines" (p.316).

Although none of the above studies have empirically demonstrated the existence of a high degree of role conflict they certainly suggest that role conflict is very real and not limited the the three more commonly documented professions.

Zander et al (1957) was one of the first major studies of role relations between different disciplines. They interviewed 156 psychiatrists, 165 clinical psychologists, and 159 psychiatric social workers (PSW) who worked in a variety of settings in six large American cities. They hoped to identify role relationships and related factors such as power, prestige and interole attitudes and behaviors.

Zander et al (1957) found that PSWs and psychiatrists were generally satisfied with the relations between them but the crucial basis for this satisfaction was the acceptance by both professions that PSWs should function in the role of

helpers and/or assistants. Psyhologists generally saw PSWs as being equal in power to themselves and this perception was shared by the PSWs. Psyhologists also appeared to be more eager to be liked and respected by PSWs than the other way around. Psychologists however, tended to see the PSWs as "currying" the favour of psychiatrists and generally accepting of their ancillary status. In general, the PSWs had neither strong negative nor strong positive feelings toward psychologists. Both groups felt that the psychiatrists had the greatest power, authority, status and skills; a view shared by the psychiatrists themselves. The psychiatrists were found to believe both psychology and social work were subordinate groups and although they reported closer and more cordial relations with social work they believed psychologists had greater competence. This suggests that the psychiatrists found the psychologists a threat to their position.

In terms of more specific role perceptions, Zander et al (1957) found that 85% of psychiatrists felt that psychometrics was psychology's only unique function whereas psychologists felt they could offer to psychiatry knowledge and abilities in psychological theory, diagnostic skills and research. Only 18% of the psychologists felt that psychiatrists made use of the resources they had to offer. Both psychologists and psychiatrists agreed that psychiatrists had unique knowledge of psychopathology, clinical approach

and attitudes and clinical skills. Psychologists also believed psychiatrists had special knowledge of neurology, therapeutic theory and methods but psychiatrists disagreed. The PSWs held views similar to the psychologists regarding the psychiatrist's role.

Both psychiatrists and PSWs believed that social workers had unique knowledge of a patient's family, use of community resources, and an understanding of enviromental factors whereas PSWs and psychologists both saw the PSW's role as including unique skills in clinical approach, attitude, interviewing, writing case histories, and therapeutic knowledge.

The authors also note that both PSWs and psychiatrists agreed that psychiatrists would often fail to make use of information from a PSW due to situational factors such as lack of time or opportunity but they felt the reason for a PSW not following through on a psychiatrist's advice was indicative of problems in interprofessional relations such as defensiveness or status conflict.

The results of the Zander et al study (1957) must be viewed cautiously both because the findings are quite out of date and because the statistical findings are somewhat suspect as they are based on a large number of t tests which make chance findings quite likely. Bearing these limitations in mind, the study does suggest a fairly high degree of status and role conflict between psychologists and psy-

chiatrists with both social work and psychiatry having a very limited view of psychology. Social workers and psychiatrists seemed to suffer less role strain but this appeared to stem from acceptance by both professions of very traditional role orientations. Given the rapid changes in these traditonal roles over the past decade it is questionable whether such "tranquility" still exists.

Miles (1977) did extensive, semi-structured interviews with 6 psychiatrists, 16 nurses, 17 social workers, and 12 occupational therapists. Psychiatrists defined their area of exclusive competence in diagnosing illness, prescribing treatment, administering certain treatments, and assessing patients' reactions. They also felt that they had general knowledge and competence in all aspects of treating and caring for patients and could perform all jobs and supervise all aspects of patient care. In fact, "the psychiatrists denied the possibility of exclusive competence for any health occupations other than the medical profession in any part of the treatment process" (Miles, 1977, p.86). All non-medical respondents agreed that psychiatrists held exclusive rights to diagnosis , prescription and assessment of treatment effects and even some therapeutic skills, but emphatically denied their second claim to general competence to perform or supervise all aspects of patient care. Nurses defined their exclusive role as caring for the sick and the day to day management, feeding and bathing of patients yet they resent-

ed that they were not given a chance to use their therapuetic skills during their daily routine. They often felt the doctor's prescription for bed rest was quite inappropriate. Social workers reported their exclusive domain was knowledge of a patients family and home enviroment and the use of community resources. Thirteen of 16 social workers felt, however, that these skills were not made use of in the treatment process and claimed disatisfaction at not being allowed to participate in the treatment plan.

Miles (1977) concludes that there is a great deal of conflict between the disciplines in regards to what was considered to be their areas of specialty. Almost all non-medical professionals desired closer contact with psychiatrists and seldom if ever consulted any other members of another non-medical profession. These results again suggest a great deal of role strain between the professions based on a lack of agreement about one another's role. Again however, the results are based mostly on the judgements of the researcher interpreting interview data gathered from a sample of professionals limited to three psychiatric hospitals. The generalizability of these findings outside of these hospitals is somewhat in question.

Tinsley (1974) asked mental health professionals in Missouri's nine multidiscipline diagnostic clinics to rate each of 40 statements of job responsibilities as being either applicable to one of nine possible disciplines. They had to

rate the statements twice, once as they should be ideally assigned and secondly as they are actually performed. A role discrepancy score was then calculated for each individual and correlated with a general index of job satisfaction. Tinsley (1974) concluded that job satisfaction was highly correlated with the degree of role discrepancy which one perceived (the less the discrepency the higher the job satisfaction). He also found considerable confusion about the duties which workers felt their colleagues were or should be carrying out. He reports that 57% of the job responsibilities overlapped disciplines while 37% were assigned to single disciplines, suggesting both a great deal of role blurring as well as some distinct role differences. Unfortunately, the details and the exact rational for the methodology and findings are not clear from the data reported.

Spray (1968) used a questionnaire to survey all therapeutic personnel working in the Chicago Metropolitan Community (151 psychiatrists, 103 psychoanalysts, 268 psychologists, and 213 psychiatric social workers responded). The questionnaire was designed to examine the division of labour amongst these professions based on profession, ideology, and institutional setting. Spray (1968) found that the majority of psychoanalysts and psychiatrists listed therapy as their major job activity (85% and 70% respectively). Psychologists were relatively evenly divided between therapy, counseling,

casework, administration-supervision, and teaching-research. Close to 50% of the PSWs listed administration-supervision as their major activity; the rest being divided between counseling and casework. Spray (1968) concluded that there was little overlap in the functions performed by the various disciplines but the limited number of very global job descriptions which Spray (1968) investigated makes it difficult to formulate any definitive conclusions.

Summary and Conclusions The review of the literature relating to role strain and role perceptions illustrates the lack of adequate research in this area. Most of the literature consists of general discussion papers or occasionally descriptive reports based on small scale, limited surveys. These findings are often suceptible to experimenter bias, lack of external validity, misleading statistical results (multiple t tests are common), or conclusions based on a very limited selection of the many factors which contribute to role formation. Many of the studies are also so out of date as to be of questionable relevance to current role relations. The concept of role strain is itself seldom defined within the literature, the subjects and readers alike, both left to define it in their own terms. It appears to be a general term for any situation (eg. disagreement over job responsibility or ideological approach) which leads to conflict (eg. resentment, competition, hostility) or a breakdown in communication (eg. lack of cooperation or exchange

of information). The only clearly operational definition of role strain was formulated by Robin and Wagenfeld (1977) who defined it as the discrepancy between an individual's personal degree of activism and the degree of activism they felt was representative of the average worker. Note that this definition represents a measure of the "strain" felt by individuals who perceived conflict between their own behavior and that behavior expected of them and is not the same as the more general definition relating to the "strain" felt as result of conflict or disagreement between disciplines over appropriate role definition or task assignment.

The studies in general, suggest a great deal of role confusion, both intraprofessional as well as interprofessional. A great deal of this confusion seems to stem from disagreement over role definitions with both social work and psychology feeling that their areas of competence and expertise are seldom appreciated or recognized by psychiatry. This leads to resentment and hostility which does little to foster communication and cooperation between the disciplines. This role confusion seems to be fuelled by many issues related to prestige, personality, and ideological differences. Both social work and psychology also appear to have a somewhat limited appreciation for each others skills. The data in all these areas is however very limited and conclusions difficult to formulate.

Appendix C - A Copy of the Covering Letter

THE UNIVERSITY OF MANITOBA PSYCHOLOGICAL SERVICE CENTRE Winnipeg, Manitoba
Canada R3T 2N2
(204) 474-9222

Dear (Name of Respondent),

I am presently conducting research at the University of Manitoba on interdisciplinary role relations and role perceptions. As you are aware, interdisciplinary teamwork is becoming increasingly popular, yet suprisingly, few researchers have investigated the utility and efficacy of a teamwork approach. Teamwork depends on good role relations between the various disciplines yet empirical studies in this area are rare. The limited research which has been done is often hampered by inadequate samples and low response rates.

The enclosed research questionnaire is designed to assess the interdisciplinary role relations and role perceptions of professionals working in the Province of Manitoba. The outcome of this research will help to define each discipline's role and aid in identifying common misperceptions which have adverse effects on teamwork. This information can contribute to the development and functioning of interdisciplinary teams and aid in the training of students in interdisciplinary settings.

I'm sure you can appreciate the need for a very high return rate for research of this nature. Although I recognize the difficulties in finding time to respond to mail surveys, I would be very grateful if you could spare the time and effort to complete the enclosed questionnaire.

I can assure you that your results are anonymous although the return envelopes have been numbered in order that I can follow-up on any missing returns. Once your questionnaire is returned the envelope and number is destroyed and your individual responses cannot be identified. Your name and position will not appear in any of the results of this study.

Thank you for taking the time to read this letter and I hope you can find the opportunity to complete the enclosed questionnaire. I have included a stamped, addressed envelope for your convenience. Should you desire a summary of the results of this research, please enclose with your return a note to that effect. I sincerely appreciate your assistance with this research.

Your's truly,

David Ricketts
Department of Psychology
University of Manitoba

THE UNIVERSITY OF MANITOBA DEPARTMENT OF PSYCHOLOGY Winnipeg, Manitoba
Canada R3T 2N2

November 2, 1981

Dear Colleague,

This research that Mr. Dave Ricketts is conducting for his M.A. Thesis in the Department of Psychology may provide some very interesting data on how we see our own professional roles and the roles of other mental health professionals. If these results are to be interpretable and meaningful, however, it is important that as many of us as possible who are in these mental health professions in Manitoba provide data. I would like to encourage your cooperation.

Sincerely yours,

John R. Schallow, Ph.D
Director of Clinical Training
Department of Psychology

The University of Manitoba
School of Social Work
Winnipeg, Canada, R3T 2N2

Office of the Director

October 28th, 1981.

To Whom it may Concern:

The research on "Interdisciplinary Role Perceptions" in the field of Mental Health, as proposed by Dave Ricketts of the Psychology Department, University of Manitoba, is an enterprise that ought to yield information useful to all practitioners. It is an area of current interest to interdisciplinary teams, and one in which more research is needed.

I would encourage support of and cooperation with the researcher, so that he can obtain the clearest results possible.

Sincerely,

Adam Penner,
Director.

AP/sj

THE UNIVERSITY OF MANITOBA

FACULTY OF MEDICINE
Department of Psychiatry

770 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0W3

November 5, 1981

Dear Colleague:

Mr. David Ricketts, graduate student in the Department of Psychology, University of Manitoba is conducting research for his M.A. Thesis on the subject "Interdisciplinary Role Perceptions: Implications for Teamwork" in the field of mental health. The project is supported by Dr. John Schallow, Director of Clinical Training in the Department of Psychology and Addie Penner, Director of Social Work. I would like to urge all psychiatrists who receive copies of the questionnaire to cooperate in its completion and return. You will note that it is possible for you to receive a copy of the results.

Sincerely yours,

HP/mp

Harry Prosen, M.D.
Professor and Head

Appendix E - A Copy of the Reminder Letter

THE UNIVERSITY OF MANITOBA

PSYCHOLOGICAL SERVICE CENTRE

Winnipeg, Manitoba
Canada R3T 2N2

(204) 474-9222

Dear (Name of Respondent),

Several weeks ago I mailed out a questionnaire to all psychiatrists, clinical social workers, and clinical and school psychologists working in the Province of Manitoba. My records indicate that you were mailed a copy but have not had an opportunity to respond. I recognize that questionnaires are often lost in the mail, misplaced, or perhaps forgotten and I hope this letter will serve as a reminder that your response can be a valuable contribution to this research and will be greatly appreciated.

I have enclosed a copy of the questionnaire in case you did not receive the original or have misplaced it. Another stamped, addressed envelope is also enclosed. Should you have any questions or concerns regarding this research please feel free to telephone me at 474-9222 (Psychological Services Centre, University of Manitoba).

Your's sincerely,

David Ricketts
Department of Psychology
University of Manitoba

Appendix F

Attitude Statements

Power

Leadership ability

Defer to more prestigeous professionals

Unsure of own role

Dominates and controls team decisions

Desire greater responsibility for mental health care.

Often assume expertise in areas they are unfamiliar with.

Cooperation

Cooperative and easy to work with on teams

Rigid and unyielding

Degree of Specialization

Have no unique area of expertise

Have specialized training and skill in their specific area.

Orientation Statements

Biological-Medical

Service delivery should be provided or supervised by medically trained professionals.

A hospital is the only setting which provides the comprehensive services necessary for the treatment of mental health problems

Maladaptive behaviors are usually symptoms of underlying organic pathology

Pharmocological treatment greatly enhances the effects of psychotherapy

Our research efforts should focus on uncovering the organic defects responsible for mental disorders

Humanistic

Maladjustment occurs when a person's sense of self is incongruent or in opposition to his/her's perceptions and experiences

All individuals strive towards growth and self-actualization

Therapy must focus on a client/patient's subjective experience of the here and now

People are largely what they make of themselves

Altered states of consciousness can be a positive, growth oriented experience

Community

Stress resulting from social and economic inequities are a major cause of problems in living

Where necessary, mental health professionals should lobby for political, social or institutional change

Wherever possible, mental health professionals should emphasize indirect services such as consultation and education

Mental health professionals should focus on the development of preventive programs designed for "at risk" populations

The primary focus of treatment is helping a patient/client achieve social integration, not overall personality change

Psychodynamic

The major determinants of behavior are unconscious

Exploration of childhood development is necessary for patients/clients to develop insight into internal conflicts

Significant personality change usually requires long term individual therapy

Maladaptive behavior is frequently a symptom of internal or intrapsychic conflict

Transferance is an essential aspect of the therapeutic relationship

Behavioral

Enviromental and situational factors are the main determinants of behavior

Social-learning theory can be used to successfully change maladaptive behavior

An individual is best understood by how he/she behaves in specific situations

The maladaptive behavior (or symptom) is the disorder

The therapist must take reponsibility for a patient/client's failure to improve during therapy

Your Discipline		Social Workers	Psychiatrists
1 2 3 4 5 6 7	Maladaptive behavior is frequently a symptom of internal or intrapsychic conflict	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Mental health professionals should focus on the development of preventive programs	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Maladaptive behaviors are usually symptoms of underlying organic pathology	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	All individuals strive towards growth and self-actualization	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Enviromental and situational factors are the main determinants of behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Service delivery should be provided or supervised by medically trained professionals	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Therapy must focus on a client/patient's subjective experience of the here and now	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The therapist must take responsibility for a patient/client's failure to improve	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Pharmocological treatment greatly enhances the effects of psychotherapy	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Stress resulting from social and economic inequities are a major cause of maladaptive behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Exploration of childhood development is necessary for patients/clients to develop insight into internal conflicts	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	A hospital is the only setting which provides the comprehensive services necessary for the treatment of mental health problems	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The maladaptive behavior (symptom) is the disorder	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Transferance is an essential aspect of the therapeutic relationship	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Wherever possible, mental health professionals should emphasize indirect services such as consultation and education	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The primary focus of treatment is helping a patient/client achieve social integration, not overall personality change	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Social-learning theory can be used to successfully change most maladaptive behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	People are largely what they make of themselves	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Research efforts must focus on uncovering the organic deficits responsible for mental disorders	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	A client/patient's behavior is mostly determined by their perception of future events, not by past experience	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Using the MIDDLE column, please rate the above beliefs a second time but this time rate each statement in terms of the extent to which you believe it is characteristic of social workers.

Using the FAR RIGHT column, please rate the above beliefs a third time but this time rate each statement in terms of the extent to which you believe it is characteristic of psychiatrists.

BACKGROUND INFORMATION

Profession: _____ Age:____ Sex:____ Work Place:_____(optional)

Over the last three years, approximately what proportion of your time was spent consulting and collaborating with:

1) Psychologists
- less than 5% of my time ( )
- 5-25% of my time ( )
- 25-50% of my time ( )
- 50-75% of my time ( )
- more than 75% of my time ( )

2) Psychiatrists
- less than 5% of my time ( )
- 5-25% of my time ( )
- 25-50% of my time ( )
- 50-75% of my time ( )
- more than 75% of my time ( )

3) Social Workers
- less than 5% of my time ( )
- 5-25% of my time ( )
- 25-50% of my time ( )
- 50-75% of my time ( )
- more than 75% of my time ( )

Job description: (please check all appropriate categories)

Therapist ( ); Consultant ( ); Professor ( )
Private Practice ( ); Administrator ( ); Researcher ( )
Psychometrician ( ); Other (please specify)_____

How accurate are your perceptions of the daily role and job activities of mental health professionals in other disciplines? Very Accurate 1 2 3 4 5 6 7 Very Inaccurate

How accurate are other mental health professional's perceptions of your profession's daily role and job activities? 1 2 3 4 5 6 7

How satisfied are you with the role relations between yourself and professionals in other disciplines? Very Satisfied 1 2 3 4 5 6 7 Very Unsatisfied

University Degree: _____

Appendix G

QUESTIONNAIRE

PROFESSIONAL ACTIVITIES

Below are a list of activities which may be engaged in by mental health professionals of various disciplines. In the LEFT HAND column, please rate each statement in terms of the extent to which you believe the activity to be characteristic of professionals in YOUR DISCIPLINE. Use the following scale:

NOT CHARACTERISTIC 1 2 3 4 5 6 7 VERY CHARACTERISTIC

Your Discipline		Social Workers	Psychiatrists
1 2 3 4 5 6 7	Providing therapy	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Acting as a consultant for other professionals	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Compiling social or family histories	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Co-ordinating welfare and economic resources	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Crisis intervention	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Formulating and co-ordinating treatment programs	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Diagnosing and treating organic disorders	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Visiting a patient or client's home	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Providing psychological testing	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Co-ordinating community services and resources	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Acting as a client/patient advocate	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Carrying out research	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Identifying missing needs and and resources	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Providing aftercare	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Prescription of pharmocological treatment	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Performing administrative functions	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Acting as a referral agent	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Program planning, development and evaluation	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Identifying and classifying psychopathology	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Offering emotional support and advice	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Using the MIDDLE column, please rate the above activities a second time but this time rate each statement in terms of the extent to which you believe the activity to be characteristic of Social Workers.

Using the FAR RIGHT column, please rate the above activities a third time but this time rate each statement in terms of the extent to which you believe the activity to be characteristic of Psychiatrists.

CHARACTERISTICS

Below are a list of characteristics which may describe mental health professionals of various disciplines. In the LEFT HAND column, please rate each statement in terms of the extent to which you believe it is characteristic of professionals working in YOUR DISCIPLINE.

Your Discipline		Social Workers	Psychiatrists
1 2 3 4 5 6 7	Leadership ability	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Often assume expertise in areas they are unfamiliar with	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Co-operative and easy to work with on teams	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Have no unique area of expertise	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Unsure of own role	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Dominates and controls team decisions	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Have specialized training and skill in their specific area	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Defer to more prestigeous professionals	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Rigid and unyielding	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Desire greater responsibility for mental health care	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Using the MIDDLE column, please rate the above characteristics a second time but this time rate each statement in terms of the extent to which you believe it is characteristic of Social Workers.

Using the FAR RIGHT column, please rate the above characteristics a third time but this time rate each statement in terms of the extent to which you believe it is characteristic of Psychiatrists.

ORIENTATION

Below are a list of beliefs which may be subscribed to by mental health professionals of various disciplines. In the LEFT HAND column, please rate each statement in terms of the extent to which you believe it is characteristic of professionals working in YOUR DISCIPLINE.

Your Discipline		Social Workers	Psychiatrists
1 2 3 4 5 6 7	Where necessary, mental health professionals should lobby for political, social or institutional change	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The major determinants of behavior are unconscious	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	An individual is best understood by how she or he behaves in specific situations	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Altered states of consciousness can be a positive, growth oriented experience	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Significant personality change usually requires long term individual psychotherapy	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Your Discipline		Social Workers	Psychiatrists
1 2 3 4 5 6 7	Maladaptive behavior is frequently a symptom of internal or intrapsychic conflict	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Mental health professionals should focus on the development of preventive programs	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Maladaptive behaviors are usually symptoms of underlying organic pathology	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	All individuals strive towards growth and self-actualization	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Enviromental and situational factors are the main determinants of behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Service delivery should be provided or supervised by medically trained professionals	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Therapy must focus on a client/patient's subjective experience of the here and now	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The therapist must take responsibility for a patient/client's failure to improve	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Pharmocological treatment greatly enhances the effects of psychotherapy	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Stress resulting from social and economic inequities are a major cause of maladaptive behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Exploration of childhood development is necessary for patients/clients to develop insight into internal conflicts	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	A hospital is the only setting which provides the comprehensive services necessary for the treatment of mental health problems	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The maladaptive behavior (symptom) is the disorder	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Transferance is an essential aspect of the therapeutic relationship	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Wherever possible, mental health professionals should emphasize indirect services such as consultation and education	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	The primary focus of treatment is helping a patient/client achieve social integration, not overall personality change	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Social-learning theory can be used to successfully change most maladaptive behavior	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	People are largely what they make of themselves	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Research efforts must focus on uncovering the organic deficits responsible for mental disorders	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1 2 3 4 5 6 7	A client/patient's behavior is mostly determined by their perception of future events, not by past experience	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Using the MIDDLE column, please rate the above beliefs a second time but this time rate each statement in terms of the extent to which you believe it is characteristic of social workers.

Using the FAR RIGHT column, please rate the above beliefs a third time but this time rate each statement in terms of the extent to which you believe it is characteristic of psychiatrists.

BACKGROUND INFORMATION

Profession: _____ Age:____ Sex:____ Work Place:_____(optional)

Over the last three years, approximately what proportion of your time was spent consulting and collaborating with:

1) Psychologists
less than 5% of my time ( )
5-25% of my time ( )
25-50% of my time ( )
50-75% of my time ( )
more than 75% of my time ( )

2) Psychiatrists
less than 5% of my time ( )
5-25% of my time ( )
25-50% of my time ( )
50-75% of my time ( )
more than 75% of my time ( )

3) Social Workers
less than 5% of my time ( )
5-25% of my time ( )
25-50% of my time ( )
50-75% of my time ( )
more than 75% of my time ( )

Job description: (please check all appropriate categories)

Therapist ( ); Consultant ( ); Professor ( )
Private Practice ( ); Administrator ( ); Researcher ( )
Psychometrician ( ); Other (please specify)_____

How accurate are your perceptions of the daily role and job activities of mental health professionals in other disciplines? Very Accurate 1 2 3 4 5 6 7 Very Inaccurate

How accurate are other mental health professional's perceptions of your profession's daily role and job activities? 1 2 3 4 5 6 7

How satisfied are you with the role relations between yourself and professionals in other disciplines? Very Satisfied 1 2 3 4 5 6 7 Very Unsatisfied

University Degree: _____