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THE RELATIVE EFFECTIVENESS OF FACE-TO-FACE AND
TELEPHONE CONTACT BY COMMUNITY MENTAL HEALTH
WORKERS DURING PSYCHIATRIC INPATIENT
TREATMENT OF CHILDREN
AND ADOLESCENTS

A Dissertation

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

Bruce Patrick Hackworth

November 1996

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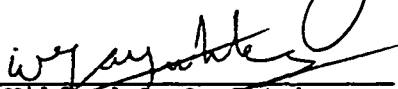
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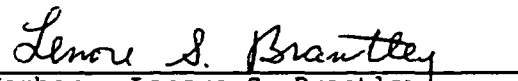
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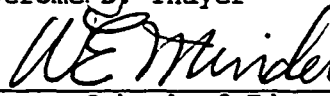

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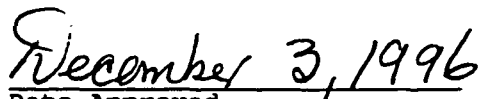

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ACKNOWLEDGMENTS

My father and mother were both born and raised in eastern Kentucky. Their formal education did not extend beyond the eighth grade. My father farmed crops and worked in a foundry to earn a living. When I was 8 my father died and my mother soon thereafter left me in the care of my oldest half-brother and his newly forming family. I was a poor-to-mediocre student throughout my elementary and secondary years and was further afflicted with small stature and pervasive shyness. During the intervening years my mother had become physically disabled. When I returned to live with her as a high-school sophomore, we were both dependent upon the welfare system to support us. It was during those years that I became acutely aware that little was expected of me in regard to my future. My high-school guidance counselor, upon reviewing my less than impressive academic record, discouraged me from pursuing a liberal arts education. Most of the adults with whom I came into contact had little reason to encourage an isolated, shy, impoverished, and generally unimpressive adolescent to expect anything very lofty from my future.

I have learned that it is sometimes our detractors as much as our supporters to whom we owe success. If I had

not experienced the pain of having so many adults expect so little from me I may not have channelled my energies so forcefully into proving them wrong. I was fortunate to have a few adults in my life who did believe that I had abilities and the support they provided to me could be likened to rain on parched earth. This was the second lesson I learned. No one achieves anything without someone else's encouragement and support. Probability theory would suggest that the achievement of my doctoral degree should not have happened. It can be explained only by the grace of God and the good fortune of having had some important people in my life who filled an important role at the right time. I am certain that many of them have no idea of the impact they have made upon me. This dissertation is dedicated to them.

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ABSTRACT

THE RELATIVE EFFECTIVENESS OF FACE-TO-FACE AND
TELEPHONE CONTACT BY COMMUNITY MENTAL HEALTH
WORKERS DURING PSYCHIATRIC INPATIENT
TREATMENT OF CHILDREN
AND ADOLESCENTS

by

Bruce Patrick Hackworth

Chair: Frederick A. Kosinski, Jr., Ph.D.

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: THE RELATIVE EFFECTIVENESS OF FACE-TO-FACE
AND TELEPHONE CONTACT BY COMMUNITY MENTAL
HEALTH WORKERS DURING PSYCHIATRIC INPATIENT
TREATMENT OF CHILDREN AND ADOLESCENTS

Name of researcher: Bruce Patrick Hackworth

Name and degree of faculty chair: Frederick A. Kosinski,
Jr., Ph.D.

Date completed: November 1996

Problem

With the advent of managed care has come the increasing necessity to provide effective and efficient services to children and families experiencing severe emotional disturbances. The use of cost-effective and therapeutically effective services is at the crux of an effective service delivery system. Few studies have considered the usefulness and comparative effectiveness of face-to-face versus telephone interventions in therapeutic situations. This study considered the clinical value of face-to-face community mental health worker involvement during and after psychiatric inpatient hospitalizations of children and adolescents ages 11-17. The study also

considered the comparative value of this follow-up when using master's-trained, mental health therapists versus bachelor's-trained mental health specialists.

Method

The 52 subjects in this study were 11-17-year-old children and adolescents who were screened and subsequently admitted to psychiatric inpatient units. They were assigned to either the face-to-face or telephone conditions and followed up by either mental health therapists or mental health specialists. Parents were administered the Personality Inventory for Children (PIC) in order to obtain scores on the depression subscale. Children and adolescents were administered the Children's Depression Inventory (CDI). Dependent variables included level of depression as determined by post-test scores and length of hospital stay.

Results

The results of this study indicated that there was no significant difference in the use of face-to-face versus telephone interventions or in the use of mental health therapists versus mental health specialists using the clinical outcome indicators identified in this study. An unanticipated finding of this study involved the relative stability of parents' scores between pre-test and post-test, indicating very little difference in parent assessment of improvement in depression compared with child

and adolescent self-reported improvement between pre-test and post-test.

Conclusions

There may be very little difference in major clinical outcomes using telephone contacts versus face-to-face contacts in some clinical situations. The use of more extensively trained and more highly educated staff may not be necessary in certain clinical situations. Further study should occur that investigates the disparity between parent assessment of their children's emotional and mental states versus child and adolescent self-report.

CHAPTER I

INTRODUCTION

In the 1978 President's Commission on Mental Health Report, mental health services to children and adolescents were described as "inadequate, poorly coordinated, and unavailable to a large proportion of children in need" (p. 36). The commission further recommended that making appropriate services more available be given a high priority in mental health care initiatives. In order to accomplish this goal, changes would be necessary in service planning and delivery, in human resource development, and in service financing (President's Commission on Mental Health, 1978). During the 1988-1989 school year, the public school system identified a total of 377,295 students as having severe emotional disturbances. Independent of the public school system, National Institute of Mental Health sample data indicated that in 1986, 164,024 adolescents (ages 10-17) were treated in either inpatient, partial hospital, or residential treatment centers (National Institute of Mental Health, 1990). The actual number of severely emotionally disturbed children is probably underestimated by these figures (Prange, et al., 1992).

There has been increasing interest in the service delivery system for children's mental health services as community mental health service systems in the State of Michigan prepare to assume responsibility for "Medicaid managed care". In the 1960s, 1970s, and 1980s community mental health centers were financially responsible for the state-hospitalized psychiatric population who were residents of their county or in some cases a multiple county catchment area. There was and continues to be a significant financial incentive for reducing state hospital usage. As utilization of the state hospitals decreased, those funds were diverted into development of local mental health programs. The net result of this financial incentive was to significantly decrease numbers of state psychiatric patients and create a number of state hospital closings. Local community mental health centers in turn developed very diverse and effective programs within their local communities to work with the former state-hospitalized adult mentally ill patients who were now in the community.

The State-hospitalized adult mentally ill population differs greatly from the child mentally ill population both in numbers and types of disorders. While the number of children in state hospitals has been reduced considerably, this appears to be more of a reflection of the

unwillingness of mental health service delivery systems to keep children in such settings for extended periods of time. In place of such an alternative, increasing numbers of children are hospitalized in private psychiatric facilities or less restrictive residential facilities (Jerrell & DiPasquale, 1984).

In an effort to reduce the growing numbers of admissions to private psychiatric facilities, which currently are reimbursed by Medicaid, an alternative system is being devised for children enrolled in Michigan's Medicaid program. The proposed system functions in a similar manner to the system previously mentioned. Local community mental health centers have not been involved in screening admissions of children into local, private psychiatric units. This "open door" process has led to admissions into local psychiatric units that may have been avoided if alternative services were initiated. Those admissions that could not be avoided may have been shortened if appropriate local mental health services had been initiated early on in the hospitalization. There may have been improved aftercare plans and post-hospitalization services had local mental health services been involved. These and other factors have led Medicaid to propose that local community mental health centers assume responsibility for screening and approving all Medicaid admissions.

In general, managed care programs are designed to stimulate the growth of a broader array of services, to promote quality and efficiency, to enhance service coordination, to target the most at-risk individuals, and to contain costs by controlling client access to services, especially high cost programs (Raiff & Shore, 1993). Those funds saved by the reduction of psychiatric hospital admissions could then be used to improve local mental health services and create a substantially improved service delivery system for children's mental health services (Yank, Hargrove, & Davis, 1992).

The continuum of children's mental health services has broadened in recent years to include numerous elements of service diversity. Service components such as case management services, school-based services, intensive home-based services, and respite services are becoming increasingly common. These elements to a degree have emulated the type of service continuum that has been developed for the adult chronically mentally ill population. There has also been an increasing focus on parent and family involvement in services. Programs working with "severely emotionally disturbed" children now address the family needs and receive parental input in partnership with mental health and community workers in developing treatment plans and service options. These programs in large part have been developed in an effort to

address the complex and critical needs of children who exhibit significant problems both at home, in school, and with their peers. Without resolution these problems often lead to the child's admission into psychiatric hospitals or in some cases extended out-of-home placement into residential care settings or foster care.

Traditional mental health service delivery systems employ master's-level mental health therapists, social workers, and psychologists to provide children and families with outpatient therapy including individual, family, play, and group therapy. When circumstances arise which precipitate a family crisis and the circumstances leading up to the crisis indicate a chronic child and family situation, characterized by family members who exhibit unmet basic needs and present with delinquent behavior, poor family relationships, substance abuse, and inadequate problem-solving skills, traditional treatment methods prove inadequate (Berlin, 1990). In order to meet this multiplicity of needs, many mental health systems have used bachelor's-level staff to provide case management services to their most chronic consumers. While this has been used most extensively with adults, some organizations have adapted this level of service into their children's mental health programs. In many of these cases, numerous community agencies are involved with the child and family including law enforcement agencies, juvenile justice

systems, schools, and social service agencies.

When psychiatric hospitalization is initiated, the importance of coordination of services is critical in order to ensure that the involved parties have the necessary information prior to making any treatment or service recommendations. Beyond the case management aspect of service needs lies the child's therapeutic need to adjust to a completely novel environment. A critical part of his or her adjustment process is the need for information regarding the course and type of treatment he or she will receive as well as the possible length of stay and aftercare plan.

Pfeiffer and Strzelecki (1990), in their review of child psychiatric outcome studies, state that in the "past 15 years only four papers have reported investigating the relationship of aftercare and the postdischarge environment to outcome" (p. 851). They indicate that all four studies "yielded a strong positive association" (p. 851). The studies looked at the importance of outpatient therapy (Gossett, 1988), the availability of foster home placements (Stewart, Adams, & Meardon, 1978), and the level of psychosocial stress in the postdischarge environment (Cohen-Sandler, Berman, & King, 1982; Koret, 1980).

The importance of aftercare planning and associated "bridging" activities is defined by Meyerson and Herman

(1983) as "maximizing continuity of care and minimizing geography, personnel, and temporal gaps between hospitalization and implementation of aftercare" (p. 65). This definition does not fully address the community mental health worker's responsibility to the child's adjustment process.

Aftercare planning addresses the organizational needs attendant to the hospitalization, but fails to provide for incorporating the child's ownership and responsibility for the aftercare plan. It has been suggested by Kanter (1991), that despite the need for collaboration between hospital and community workers,

case managers and other community caregivers often report that hospital staff rarely initiate contact and are unreceptive to community initiatives. If contact occurs, it often takes place near the end of hospitalization, when hospital staff encounter a discharge planning crisis or request an aftercare appointment. Conversely, hospital social workers frequently report that case managers and other community-based clinicians rarely seek contact with the hospital. When communication occurs, it is often between specially assigned liaisons who are not active members of the client's community and hospital treatment teams. (p. 35)

There is evidence in the literature that personal communication by telephone results in attaining greater levels of cooperation from respondents than does written material (Lowe, Windsor, & Post, 1987). A study by Fenig, Levav, Kohn, and Yelin (1993) found that telephone versus face-to-face interviewing in a community psychiatric survey yielded approximately equivalent results. These authors as

well as others (McCormick, Workman-Daniels, Brooks-Gunn, & Peckham, 1993) have cited the comparable effectiveness of telephone interviewing along with decreased costliness as important factors for using this communication modality. Anecdotal information in the literature has suggested that effective collaboration including face-to-face contact with the consumer by the community worker will have positive results (Doherty, Manderson, & Carter-Ake, 1987; Kanter, 1991). These findings as of yet have not been examined on an empirical basis that considers common psychiatric inpatient outcome variables.

Statement of the Problem

One of the fundamental concerns in the changing mental health environment is the development of a technology that utilizes the most efficient and effective methods possible in the treatment of mental health problems. With the presence of managed care as the socio-political entity governing health care and mental health care in this country, it is impossible to ignore the importance of empirical research in defining the parameters of appropriate mental health treatment. One important issue related to defining these parameters includes determining the appropriate level of staff training required to provide competent services to consumers. This issue has been long debated by clinicians and researchers. The mental health industry has clearly moved to a system in

public mental health which utilizes an ever-increasing number of bachelor's-level trained workers to provide mental health services to chronic mentally ill adults. This trend is expanding to other populations as well.

With the onset of increasing economic demands to provide the best possible services at the lowest possible cost, there will be increasing pressures to consider personnel who are available in greater numbers and who can be obtained at lower salaries. The key question will be whether or not the product is of comparable quality. This may not be a question which can be easily answered in any case. Rather than consider it as an all or none proposition, it may be helpful to define those elements in the therapeutic process which can be performed by bachelor's-level trained staff with equal or better outcomes, and which elements cannot. This study has attempted to contribute to this body of knowledge.

The second purpose of this study was to gain empirical data on the use of face-to-face visitations during hospitalization as an effective treatment intervention. It will become increasingly important to establish treatment interventions which will provide the greatest treatment effect with the least treatment effort. Hospitalization often represents a break in the continuity of community-based mental health services. In situations such as those in Berrien County, Michigan, the closest

adolescent psychiatric hospitals may be a distance involving an hour or more of travel time one way from local community mental health services. An important consideration in treatment follow-up concerns the frequency, length, and type of follow-up contact necessary to achieve positive outcomes during the child's hospitalization stay as well as maintenance of gains during the post-hospitalization period. The most time efficient type of follow-up is through the use of the telephone. The use of face-to-face contact, however, offers a level of personalization and relationship facilitation not typically achieved through the use of telephone or other mechanical means. What is not known at this time is whether or not face-to-face contact plays a significant role in achieving and maintaining outcomes during and after psychiatric hospitalization. This study has hopefully provided some clarification as to what impact these factors may have upon this problem.

Purpose of the Study

This study investigated the clinical outcomes of Berrien County, Michigan, children ages 11-17 who were screened by Riverwood Center (a local community mental health center) and subsequently admitted to psychiatric facilities during a 10-month period.

This study had three purposes. The first was to determine if there is an empirical reason for providing

face-to-face follow-up with Berrien County, Michigan, children, ages 11-17, who have been hospitalized in a psychiatric facility rather than merely maintaining telephone communication to maintain contact with the child or adolescent and to coordinate aftercare services. The second purpose was to determine if providing face-to-face follow-up would result in improvement on the depression clinical scale of the Personality Inventory for Children (PIC), a parent-rating scale, the Children's Depression Inventory (CDI), a self-rating scale for children, and hospital length of stay. The third purpose was to determine if there would be any significant difference between hospital follow-up when it was provided by master's-level therapists rather than bachelor's-level mental health specialists.

Need for the Study

With the increasing necessity to provide effective and efficient services to children and families experiencing severe emotional disturbances, it is imperative that cost-effective services be utilized. The effectiveness of service delivery systems at the community level is one of the most important questions in the field of mental health services at this time. Most practitioners and researchers agree that service system effectiveness is important and that it is multidimensional and, therefore, quite complex (Grusky & Tierney, 1989). Grusky and Tierney

(1989) suggest that there are no agreed-upon measures for assessing the functioning of these complicated human services delivery systems. It has been suggested that collaborative efforts in aftercare planning are important to the success of maintaining clinical outcomes. Grusky and Tierney (1989) have also suggested that face-to-face interactions and communications provide better results than telephone contact in obtaining positive outcomes.

Many psychiatric facilities for children are located in remote sites that are not conducive to community mental health worker contact. Providing face-to-face contact may consume a great deal of the worker's available time for service provision. While there may be an extremely valuable benefit to providing face-to-face contact it will not be possible to determine this without an empirical study. If there is great benefit to this type of service, it may be worth the investment of time. If, however, telephone interventions prove to be equally effective in achieving the same outcomes, a significant improvement in providing more efficient and economical services could occur (Fenig et al., 1993).

It has also been suggested that staff who have less education and training are not as equipped to provide the level of quality services needed by consumers of mental health services. It was hoped that this study would prove helpful in continuing to define the types of services and

activities that bachelor's-level and master's-level staff can perform with equivalent outcomes. If we can determine those functions and duties which bachelor's-level staff can perform as well as master's-level staff then it may be possible to redistribute those duties and responsibilities that do not require a master's degree and thereby improve the efficiency and cost-effectiveness of mental health services.

Research Questions

This study attempted to answer the following research questions:

Research Question 1

Did the depression clinical subscale PIC scores of those children who received face-to-face community mental health worker follow-up in a hospital setting improve differently from the depression clinical subscale PIC scores of those children who received telephone contact follow-up from community mental health workers?

Research Question 2

Did the depression CDI scores of those children who received face-to-face community mental health worker follow-up in a hospital setting improve differently than the depression CDI scores of those children who received telephone contact follow-up from community mental health workers?

Research Question 3

Did the length of hospital stay of those children who received face-to-face community mental health worker follow-up in a hospital setting differ from the length of hospital stay of those children who received telephone contact follow-up while in a hospital setting?

Research Question 4

Did the depression clinical subscale PIC scores improve differently based upon follow-up of cases by mental health specialists versus mental health therapists?

Research Question 5

Did the depression CDI scores improve differently based upon follow-up of cases by mental health specialists versus mental health therapists?

Research Question 6

Was there a significant difference between length of hospital stay based upon follow-up of cases by mental health specialists versus mental health therapists?

Delimitations

The study was limited to Berrien County, Michigan, children and adolescents ages 11-17 and their parents who were screened for admission into child and adolescent psychiatric units by Riverwood Center. Riverwood Center is a community mental health center with offices in Benton

Harbor, Michigan, and Niles, Michigan. The study examined only those children who were admitted to psychiatric facilities after screening.

Limitations

The limitations of this study included the following:

1. The study was limited to those children and parents who presented themselves to the local community mental health center for screening prior to hospitalization. It is possible that some children and parents were hospitalized without the knowledge or involvement of the local community mental health center. It is also possible that those parents and children who were not screened by community mental health are dissimilar to those parents and children who were screened by community mental health on such client characteristics as income, race, level of education, and family composition (Palmer, Smeeding, & Torrey, 1988).
2. The study was limited to those children between the ages of 11 and 17. The results may not be generalizable to children below the age of 11.
3. Comparing subtest scores between different instruments may not accurately reflect the same assessment. While both instruments used are well accepted as reliable and valid, comparison of scores cannot be considered equivalent due to the use of different instruments.

Assumptions

1. It was assumed that children and parents answered questions on the instruments truthfully and to the best of their ability. It is possible, however, that some children in an effort to avoid hospitalization responded to questions in a manner that would reflect their behavior in a more positive light. It is also possible that parents who felt desperate to have their children hospitalized responded to questions in a manner that reflected their children's behavior in a more negative light.

2. While some pre-test to post-test changes may have occurred due to other factors, it was assumed that these changes were equally distributed among both groups. It was assumed any differences between the pre-treatment and post-treatment measures of the PIC and CDI were due to the children's and parents' exposure to the treatment condition.

Definition of Terms

The following terms are defined as used in this study.

Parent: The person who is legal guardian, or in some cases the primary custodian of the child.

Child: A Berrien County resident age 11-17 who was the subject of hospital admission.

Hospital: There were five different inpatient psychiatric facilities for children and adolescents used in this study. These psychiatric facilities included: Pine

Rest Christian Hospital, Grand Rapids, Michigan; Borgess Hospital, Kalamazoo, Michigan; Pheasant Ridge Psychiatric Hospital, Kalamazoo, Michigan; Madison Hospital, South Bend, Indiana, and Charter Hospital, South Bend, Indiana.

Mental Health Therapist: Staff who have completed a minimum of a master's degree in social work, psychology, counseling, or a related field and possess state certification or licensure in either social work or psychology.

Mental Health Specialist: Staff who have completed a minimum of a bachelor's degree in social work, psychology, counseling, or a related field and possess a minimum of 1 year experience in the mental health field. These individuals work with clients, families, providers, and insurers to coordinate all services deemed necessary to provide the client with a plan of medically necessary and appropriate health care.

Case Management: Case management includes a number of essential functions: (1) Coordinating the comprehensive interagency assessment of the child's needs; (2) Planning for services to address the needs of the child and family; (3) Arranging for needed services; (4) Linking the various parts of the child's system, including family, agencies, school, and significant others; (5) Monitoring the adequacy and appropriateness of services; (6) Ensuring continuity of service provision; (7) Advocating for the child and family,

and (8) Establishing linkages with the adult service system to facilitate transition (Stroul & Friedman, 1986).

Managed Care: A method of "cost management" of mental health care services that is measured by standards for long-term cost-effectiveness, not one-time or short-term expenses. Managed care involves the determination of the amount, quality, and cost of mental health care services that will be offered to families (Haveman, 1992). A significant aspect of this system is the trend away from inpatient and toward outpatient strategies.

Medicaid: The federally financed, state-run health care program for the poor.

Community Mental Health Worker: An employee of Riverwood Center and defined as either a mental health therapist or a mental health specialist.

Hospital Worker: An employee of a psychiatric inpatient unit who is responsible for some part of a child's treatment program.

Organization of the Study

This study contains five chapters.

Chapter 1 includes the introduction, statement of the problem, purpose of the study, need for the study, research questions, delimitations of the study, limitations of the study, assumptions, and definition of terms.

Chapter 2 contains a review of the literature. The literature review focuses on literature concerning the

treatment of children historically including psychiatric hospitalization and depression as well as the role of paraprofessional mental health workers. The chapter also includes a review of face-to-face versus telephone contact.

Chapter 3 describes the population and sampling procedure, instruments, reliability, validity, procedures used for data collection, and the null hypotheses with methods of analysis.

Chapter 4 describes the demographic data, description of instruments, testing the hypotheses, results of the hypotheses, analysis of the data, and summary of hypothesis testing.

Chapter 5 describes a summary of the findings, conclusions, implications, and recommendations for future research. Appendices and a bibliography complete this report.

CHAPTER II

REVIEW OF THE LITERATURE

Historical Perspective of Child-Parent Relationships

It is impossible to illuminate the place psychiatric hospitalization has held for children in history without appreciation for the evolution that has taken place in the worldview concerning children. Even more remarkable in some respects is the relatively small progress that has been made in child treatment despite such enlightenment. de Mause (1988) has provided a fascinating account of the plight of children in world history. He wrote, "The further back in history one goes, the lower the level of child care, and the more likely children are to be killed, abandoned, beaten, terrorized, and sexually abused" (p. 1).

Ancient Times to Fourth Century

Cruelty toward children dates back to ancient Greek and Roman times when children lived in the atmosphere of sexual abuse. It must be remembered that widespread sexual abuse of children can occur only with at least the unconscious complicity of the child's parents. Children in the past were under the fullest control of their parents, who had to agree to give them over to their abusers. From

antiquity to the fourth century A.D. not only was sexual abuse of children rampant but parents routinely resolved their anxieties about taking care of children by killing them, which affected the surviving children profoundly (de Mause, 1988).

Fourth to 13th Centuries

From about the fourth to the 13th centuries A.D. parents began to accept the child as having a soul. While the child was still considered to be full of evil and always needed to be beaten, child sodomization was reduced. This period of child history was characterized by parental abandonment to either the wet nurse, the monastery or nunnery, foster families, the homes of other nobles as servants or hostages, or by severe emotional abandonment at home. The symbol of this period might be Griselda, who so willingly abandoned her children to prove her love for her husband (Griffith, 1931).

13th to 17th Centuries

The 13th to the 17th centuries A.D. represented the first period of history in which children were allowed to enter into the parent's emotional life. The parental view of child rearing was marked by the need to physically mold the child. Children were seen as soft wax, plaster, or clay to be beaten into shape. This period also marked the increase in the number of child instructional manuals. It

is interesting to note, however, that the provisions of the British poor law of 1601 were brought to America by the colonists. This law allowed local governments to: "a) set destitute children to work along with adult paupers if they were old enough, b) apprentice them to learn a trade, c) auction them off, if they were very young, to some person who would agree to care for them in his own home, or d) send them to the poorhouse" (p. 18). Some provisions of this law were not abandoned until passage of the Social Security Act of 1935, which provided for a modest level of financial aid to children in families that had no means of support (Glasscote, Fishman, & Sonis, 1972).

18th Century

The 18th century A.D. proved to be a transitional period in the parental views of children. The child was no longer perceived as so utterly reprehensible. Parents approached children more closely at an emotional level. They were nursed by the mother, not swaddled, not given regular enemas, toilet trained early, prayed with but not played with, hit but not regularly whipped, punished for masturbation, and made to obey promptly with threats and guilt as often as with other methods of punishment. The child was so much less threatening to parents that true empathy was possible and pediatrics was born. This, along with the general improvement in the level of care by parents, reduced infant mortality considerably (de Mause,

1988).

19th to Mid-20th Centuries

The 19th to mid-20th centuries A.D. continued the progress of children made in the 18th century and developed parenting objectives from conquering the child's will to training it, guiding it into proper paths, teaching it to conform, and socializing it. The recognition of physical abuse towards children as a repulsive action grew in popularity with publications such as the 1909 publication entitled The Ways of the Child Torturers Illustrated, which contained a harrowing picture gallery of confiscated weapons for beating children--a shovel, a soldering iron, a thick knotted rope, a poker, a heavy brass-buckled belt, a table lamp, and so on (Rose, 1991).

The unique development that originated in this period was the development and expanded role of fathers. It was during this period that they began taking more than an occasional interest in the child, training it, and sometimes even relieving the mother of child-care chores. Other important reforms took place in this era when the first juvenile court was created in the United States, by act of the Illinois legislature in 1899. Until that time it had been commonly assumed that children under age 7 were incapable of committing crimes, that those from 7 to 14 years of age might be responsible if it could be shown that they "understood" the nature and consequences of their

conduct, and that those over 14 years of age were fully accountable. By 1909, 20 states and the District of Columbia had adopted juvenile court acts. A later reform to limit the hours of employment of minors and to make school attendance compulsory gained momentum and resulted in the Fair Labor Standards Act in 1938 that signified the beginning of the end of child labor in the United States (Glasscote et al., 1972).

Mid-20th Century to Present

Despert (1965), in tracing the history of the treatment accorded to emotionally disturbed children, stated that she could not find records of the feelings, aspirations, and frustrations of children prior to the 20th Century. The mid-20th century to present era was proposed as the period in which the child knows better than the parents what it needs at each stage of life, and both parents were fully involved in the child's life as they worked to empathize with and fulfill the child's expanding and particular needs. The overall emphasis during this period was not placed upon attempts to discipline or form "habits." Generally, children were neither struck nor scolded, and were apologized to if yelled at under stress. The child was responded to, played with, tolerated in its regressions, and the parent in many ways was the servant of the child rather than vice versa. The parent interpreted the child's emotional conflicts and provided

the objects specific to the child's evolving interests.

This brief synopsis of the historical evolution of the child and his/her relationship with one's parents illustrates the societal evolution in parent-child relations and the progress that has been made. It also illustrates the lack of complete congruence even in contemporary society since some people still kill, beat, and sexually abuse children. Any attempt to confine child-rearing philosophies to specific periods of history must also address the reality that this evolution proceeds at different rates in different family lines, and that some parents may be "stuck" in earlier historical modes.

The parent-child relationship is the most significant relationship a child has during his or her development. Child-rearing practices are the basis for adult personality, and the evolution of parent-child relations constitutes an independent source of historical change (de Mause, 1988). de Mause proposed that there are three major reactions an adult has when faced with a child who needs something:

- (1) He can use the child as a vehicle for projection of the contents of his own unconscious (projective reaction);
- (2) He can use the child as a substitute for an adult figure important in his own childhood (reversal reaction);
- or (3) he can empathize with the child's needs and act to satisfy them (empathic reaction). (p. 6)

The empathic reaction is the adaptive adult response which involves the adult's ability to regress to the level of a

child's need and correctly identify it without including the adult's own projections. de Mause provided an excellent account of the projective reaction, the reversal reaction, and the predominant usage of these reactions in adult behavior in the past. He indicated that these two reactions frequently occurred simultaneously in parents in the past producing an effect he called "double image," where the child was seen as both full of the adult's projected desires, hostilities, and sexual thoughts, and at the same time as a mother and father figure. The further back in history one goes, the more one finds these projective and reversal reactions, producing progressively more bizarre attitudes toward children, similar to those of contemporary parents of battered and abused children. It is the existence of these ambivalent and contradictory attitudes on the adult's part that creates the pathological interactions that defy rational explanation. The child is loved and hated, rewarded and punished, all at the same time.

Children in Psychiatric Hospitals:
A Historical Perspective

The Syracuse State Institution for Feeble-Minded Children represented the first attempt in this country to establish an institution for the feeble-minded. The primary focus of this hospital, constructed in 1854, was the care and education, including occupational therapy, of

feeble-minded children. The patient population rose quickly to nearly 600 children by the 1870s. We have no definitive criteria on the diagnostic category "feeble-minded." It is likely this included a diverse group of children with problems ranging from developmental disabilities and psychoses to children who were abused, neglected, and abandoned. The gravity of this humanitarian event must be recognized in light of the fact that infanticide was continuing at such a rate in Europe that it was common in the 1890s to see dead babies lying in London streets (de Mause, 1988).

Robinson, Gardner, Greenwood, Hagen, and Richmond (1957) stated that the first inpatient psychiatric services for children in the United States were established to care for children with post-encephalitic behavior disorders following the encephalitis lethargic epidemic at the close of World War I. Three facilities were opened in the early 1920s to provide care for these children. Among these were the Franklin School of Philadelphia. Despite the word "school" in its name, the Franklin School's primary interest was treatment, and it appears to have been the first independent service to function under psychiatric direction (Robinson et al., 1957). During the 1920s and early years of the following decade, child psychiatry was practiced almost entirely in community child guidance clinics. The primary emphasis in these clinics was on

evaluation, rather than treatment. It was in the 1920s and 1930s that public assistance made it possible for many children who had previously been sent to orphanages and other child-care institutions to remain in their own homes. This was also the period in which child guidance clinics came on the scene. The first child guidance clinic began service in Chicago in 1920. This clinic was originally designed to coordinate a variety of social, child welfare, and educational organizations to handle the problems of children in a more effective manner (Grotberg, 1976).

The trend away from institutional care was further accelerated by findings on the effects of affective deprivation. Descriptive studies established that hospitalized infants and young children reared in an institutional setting showed developmental distortions of personality that interfered with their later adjustment. It was determined that foster care for infants and preschool children was preferable to institutional care, and that the latter should be avoided if possible. The social theories of the 20th century hold that institutionalization should be avoided, for it is really a form of social control completely devoid of benefits to the individual (Magaro, Gripp, McDowell, & Miller, 1978).

Children in Psychiatric Hospitals: The 1940s

By the 1940s a controversy was developing pertaining to whether adolescents were best treated on adult wards or on all-adolescent units. In 1946, at a symposium on inpatient treatment of psychotic adolescents, Cameron, Bardon, and MacKeith (1950) reported a 2-year experiment on adult wards in England. They advocated that adolescent units be developed in conjunction with general psychiatric hospitals.

A shift in the purpose of many child care institutions from providing care to providing psychiatric treatment was exemplified by the Children's Service Center of Wyoming Valley, Wilkes-Barre, Pennsylvania. Originally founded as the Home for Friendless Children, the Center put its resident facilities under psychiatric direction in 1941 and admitted children in order to provide individual psychotherapy with the goal of returning them to their own homes.

The first all-adolescent unit was organized along lines similar to the children's ward at New York Psychiatric Institute (Crespi & Ivey, 1987). Located at Bellevue in New York City, the program consisted of educational activities that were arranged through the New York City Board of Education, "music and art classes financed through federal programs, dramatic art activities, and a complement of clinical services including physical

and neurological examinations, psychological testing, and psychotherapy" (p. 48). This particular unit was composed of all boys who were referred primarily through the court system. Aggressive behavior on the part of the patients apparently was the chief presenting problem.

Despite the recognition that children require treatment that differs from that of adults, and that the environment of a children's service is in itself a therapeutic agent, children's psychiatric facilities operating expressly for this purpose were few and far between.

Children in Psychiatric Hospitals:
The 1950s and 1960s

During the late 1950s Hendrickson and his associates at the University of Michigan noted that mixed adult/adolescent units were not advantageous because of the marked differences between the groups (Hendrickson, Holmes, & Waggoner, 1959). Suess and Hoshino (1961) identified four reasons they felt adolescents were better treated on all-adolescent units: "(1) Disturbed adults are poor identification models; (2) Adolescents lack normal heterosexual social relationships in an adult ward; (3) Adolescent behavior would not be tolerated by adults or staff; (4) A state hospital facility lacks a structural program for adolescents" (p. 894).

In the early 1950s, Kalamazoo State Hospital in

Kalamazoo, Michigan had such an enormous influx of young patients that it was felt advisable to establish a separate unit for them. Up to this point, children had been treated within the adult population. A former tuberculosis unit, known as the Mary Muff TB hospital, was renovated at a cost of \$35,000 to be converted into a children's unit (Kalamazoo State Hospital, 1964). In 1961, a Children's Unit, known as the Tower Heights School, was established with accommodations for approximately 80 selected children and adolescent patients (Kalamazoo State Hospital, Undated). This unit is known today as Pheasant Ridge.

Historical attempts at using the disease process model for children proved to be much more difficult with children than adults. Despert (1965), in her account of the emotionally disturbed child, looked back at the labeling system used for children in the past and wrote: "Children affected with what we would describe today as neurotic and psychotic illnesses were variously labeled through the ages as 'possessed', 'wicked', 'guilty', 'insubordinate', 'incorrigible', 'unstable', 'maladjusted', and 'problem children', roughly in this order" (p. 12).

The diagnostic system used during the 1950s and most of the 1960s was the Diagnostic and Statistical Manual of Mental Disorders. It was geared to a description of the emotional illnesses of adults rather than children (English & Finch, 1957; Hernstat, 1961). While some

psychiatric maladies such as childhood schizophrenia lent themselves to comparable adult psychiatric disorders, many did not. Historically, the treatment for such problems was considered to be the equivalent treatment for adult problems of mental illness. Hernstat (1961) in her study of state-hospitalized children in Michigan reviewed the three State of Michigan children's psychiatric hospitals and found great discrepancies both within and between hospitals in the area of diagnosis. She concluded that "doctors within the same institution do not agree on terminology and tend to diagnose children in relation to their individual training or school of thought" (p. 32).

Historical information regarding admission rates and diagnostic information of children admitted to inpatient psychiatric units is difficult to obtain. Table 1, on admissions to the three operating children's psychiatric hospitals in Michigan, reports the diagnostic categories given to children admitted to these facilities.

It is not clear from the data contained in Table 1 what category such diagnoses as Conduct Disorder and Depression may have fallen into. One could speculate that such problems were subsumed under the Personality Disorders or Transient Situational Personality Disorders. Another difficulty in understanding more about the specific nature of these disorders was the grouping of all admissions since

Table 1

Distribution of Children Admitted to Ypsilanti (1931-1959), Northville (1952-1959), and Kalamazoo (1880-1959) State Hospitals as to Diagnosis

Diagnosis	<u>Ypsilanti</u>		<u>Northville</u>		<u>Kalamazoo</u>	
	Number	%	Number	%	Number	%
Brain Syndrome	144	16.70	8	3.08	69	18.55
Psychosis	351	40.72	143	55.00	187	50.27
Psycho-neurotic Disorders	72	8.35	15	5.77	6	1.62
Personality Disorders	200	23.20	55	21.15	41	11.02
Transient Situational Personality Disorders	95	11.03	39	15.00	69	18.54
Total	862	100	260	100	372	100

Note. From "A Comparison of Children Admitted to Ypsilanti, Northville and Kalamazoo State Hospitals," by G. Hernstat, 1961, unpublished master's thesis, University of Michigan (p. 49).

the opening of the facilities. This is particularly true since the hospitals have been in existence for various periods of time ranging from 7 to 79 years.

After World War II, the use of neuroleptic drugs became very important in the field of psychiatry and changed the nature of treatment for the seriously mentally ill. These drugs also played an important role for children. In Segenreich's (1958) discussion of children's "social maladjustment and misbehavior," he stated,

No discussion of maladjustment can be complete without an inclusion of a consideration of chemotherapy. One must realize that this is palliative and, as such, does not relieve the factors which produce the problem. Chlorpromazine (Thorazine) or similar drugs may be used to reduce the overactivity, which may have become obnoxious. (p. 69)

It is important to take note of the significance of Segenreich's comments because the administration of psychotropic medication to child and adolescent patients has increased significantly during recent decades.

Children in Psychiatric Hospitals: The 1970s and 1980s

The President's Commission on Mental Health (1978) determined that between 5% and 15% (or 3.0 to 9.6 million) of all children were in need of mental health services.

Very little information is available about children who were hospitalized for psychiatric disorders in earlier periods. The 1970s and 1980s represented a time in which

much more interest and much better systems were in place to record and track information about these children, despite the lack of systematic studies documenting the effectiveness of psychiatric hospitalization for the treatment of childhood mental disorders (Petr & Poertner, 1989).

The 1970 White House Conference on Exceptional Children occurred soon after the landmark report of the Joint Commission on the Mental Health of Children (1969). The commission brought together the leaders in children's mental health at a time of optimism concerning social change on behalf of children. Members of the commission described vividly the plight of emotionally disturbed and handicapped children, as well as children at risk because of poverty, and envisioned a multi-tiered system of child advocacy. The commission described the close connections between prevention and early intervention for children at risk and treatment for those already burdened with disabilities.

Table 2 provides a breakdown of the general characteristics of the 441,429 children hospitalized in various psychiatric facilities in 1975. Note the difference in diagnostic information compared to the 1961 study by Hernstat. This information included children admitted to or discharged from private mental hospitals, state and county mental hospitals, non-Federal public

Table 2

Selected Characteristics of Children and Youth Admitted to
Psychiatric Services in the United States, 1975

Characteristics	Percent
<u>Age</u>	
Under 5.....	4
5-9.....	26
10-14.....	36
15-17.....	34
<u>Sex</u>	
Male.....	61
Female.....	39
<u>Race</u>	
White.....	72
Black.....	19
Hispanic.....	6
All other races.....	2
<u>Primary Diagnosis</u>	
Adjustment reactions of children and youth.....	43
Behavior disorders of children and youth.....	14
Personality disorders and neuroses.....	7
Schizophrenia.....	5
Depressive disorders.....	4
Mental Retardation.....	4
Other diagnosis.....	23
Total.....	100

Note. From "Use of Psychiatric Facilities by Children and Youth, United States 1975" (p. 39), by National Institute of Mental Health, 1981, Washington, DC: U.S. Government Printing Office.

and nonpublic general hospitals, and outpatient psychiatric services in 1975.

It should be noted that these figures are based upon the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders II (DSM-II) and, therefore, represent what was considered at that time a controversial diagnostic system that was based more upon adult diagnostic groups than children. Of the 441,429 children who received psychiatric care, 83,368 of these children were in inpatient psychiatric settings.

Table 3 indicates the median days of inpatient stay by diagnosis for children and youth in 1975.

Table 3

Median Days of Stay by Primary Diagnosis for Children and Youth Admitted to Selected Inpatient Psychiatric Services in U.S.

Primary Diagnosis	Median Days of Stay
Depressive Disorders.....	20.9
Schizophrenia.....	33.9
Adjustment reactions of children and youth..	25.1
Behavior disorders of children and youth....	50.5
Personality disorders and neuroses.....	22.4

Note. From "Use of Psychiatric Facilities by Children and Youth, United States 1975" (p. 114), by National Institute of Mental Health, 1981, Washington, DC: U.S. Government Printing Office.

The decrease in the population of children in state and county mental hospitals between 1971 and 1975 may partially be explained by the increased incentive of community mental health centers to become involved in reducing hospital census. Such a reduction shifts the financial burden for children's admissions from public hospitals, which are funded by community mental health centers, to private facilities which would primarily be funded by private insurance and/or Medicaid payors. Sowder (1981) reported a 140% increase in the use of private hospitals between 1971 and 1975. During the period between 1971 and 1975, the number of inpatients under age 18 in state and county mental hospitals declined by 29%. During the same period, the number of admissions of persons under age 18 to all types of inpatient facilities actually increased slightly more than 8%, and the admission rate per 100,000 population under age 18 increased by approximately 15%.

Children in Psychiatric Hospitals: The 1990s

During the 1988-1989 school year, the public school system identified a total of 377,295 students as having a severe emotional disturbance. Based upon survey data in 1986, 164,024 adolescents (ages 10-17) were treated in either inpatient, partial hospital, or residential treatment centers. The actual number of children with severe emotional disturbance is considered to be much higher (Prange et al., 1992).

Pfeiffer and Strzelecki (1990) suggest there is a growing concern that inpatient psychiatric treatment of children may be antitherapeutic. In their review of outcome studies of inpatient psychiatric hospitalization from 1975 to 1990, the authors found that psychiatric hospitalization was often beneficial, particularly if a specialized treatment program and aftercare were available and if the child presented with a less pathological clinical picture.

Shaw and Schelkun (1965) set forth some of the advantages of temporarily hospitalizing the child:

- 1) It provides a breathing spell for both child and family; 2) it removes the child from all stressful or anxiety-provoking situations; 3) it allows the child to be observed and evaluated; 4) it indicates to the child that he is being helped, and that his problems are being taken seriously; and 5) it enables the child to accept a therapeutic relationship more easily. (p. 162)

Some clinicians continue to cling to the hope that long-term hospitalization for children will continue to be an available option (Perry et al., 1992). Many hospitals have recognized the impact that managed care companies are having on psychiatric inpatient units and have made the necessary changes to maintain psychiatric hospitalization as a competitive and viable treatment option (Gold, Heller, & Ritorto, 1992). The demand for psychiatric facilities to become more short-term and outcome oriented is illustrated by the Charter Medical Corporation (1995a) published report

which compiled data for 219 child inpatients and 222 adolescent inpatients admitted to Charter Hospital in South Bend, Indiana, from January 1994 to November 1994. The report indicated that the discharge diagnosis of depression accounted for 54% of the total discharges of children and 60% of the total discharges of adolescents. The second largest discharge diagnosis for children was anxiety disorders, which accounted for 7.5% of the total discharges of children. The second largest adolescent discharge diagnosis was bipolar disorder at 5.1%. This report indicates the preponderance of depressive diagnoses given to children and adolescents in psychiatric hospital settings.

Mason and Gibbs (1992) reviewed demographic and institutional patterns of children and adolescents in California. Their report indicated that affective disorders accounted for 56.1% of admissions into psychiatric hospitals. This is consistent with the Charter Medical Corporation report. The Charter Medical Corporation report also revealed that 74% of children had a hospital length of stay between 8 and 21 days, with the average being 17.4 days. Sixty-two percent (62%) of the adolescents had a hospital stay between 8 and 21 days with an average of 17.4 days. The Mason and Gibbs (1992) study found that patients were likely to stay significantly longer on the average (30.4 days) in private psychiatric

hospitals than in state and county hospitals (20.13 days). They also found that the length of stay was clearly closely associated with source of payment. Publicly funded patients were likely to spend significantly fewer days in the hospital than were most privately insured patients.

The outcome measure used by Charter Hospital in South Bend for children was a Clinical Outcome Monitoring System (COMS) questionnaire which is completed by parents upon admission and discharge. The question used for statistical analysis purposes was, "How well would you say your child is doing now with regard to this problem?" The average rating at admission was 1.6 on a 5-point scale. The average rating at discharge was 3.0 on a 5-point scale. The resulting improvement was statistically significant at the .01 level.

The outcome measure used by Charter Hospital in South Bend for adolescents was the Brief Symptom Inventory (BSI) which reflects Severity of Illness. The BSI was administered to adolescents upon admission and discharge. Results showed statistically significant improvement in all categories as evidenced by lower average symptom levels reported by respondents upon discharge. Adolescents were also administered the COMS questionnaire upon admission and discharge. The question used for statistical analysis purposes was, "How well would you say you are doing now with this problem?" The average rating upon admission was

2.9 on a 5-point scale. The average rating upon discharge was 3.7 on a 5-point scale. The resulting improvement was statistically significant at the .01 level.

Depression in Children and Adolescents

Depression represents one of the major diagnoses given to children and adolescents who are hospitalized. Reinherz, Frost, and Pakiz (1991) suggest that "a major challenge of the 1990's for health professionals is the accurate assessment and identification of those adolescents who are at risk of depression in order to ensure prompt, early intervention" (p. 53).

Many of the symptoms of depression in adolescence, such as sad affect, low self-esteem, suicidal ideation, and hopelessness are similar to adult symptoms of depression. Unlike adults, adolescents often have additional age-specific behaviors related to their depression such as "socially maladaptive behaviors, sexual promiscuity, risk-taking behaviors, and lowered academic performance" (p. 53).

Holinger, Offer, Barter, and Bell (1994) indicated that schizophrenia, bipolar affective illness, and primary unipolar depression in adolescence were associated with astonishingly high rates of suicide. Pfeffer (1986) cited numerous sources that confirm the importance of depression as a specific risk factor for suicidal behavior. The 1995 Charter Hospital study (Charter Medical Corporation, 1995b)

confirmed the relatively low incidence of children and adolescents hospitalized with the diagnoses of schizophrenia or bipolar affective disorders. Of the 414 patients admitted in 1994, a total of 6 were diagnosed with schizophrenia and a total of 15 were diagnosed with bipolar disorders. These numbers pale in comparison to the 237 children and adolescents diagnosed with a depressive disorder during the same period.

A common presenting problem leading to the hospitalization of children and adolescents is the concern on the part of mental health professionals of the child's suicide risk. It is standard operating procedure to take immediate precautions with children who may be considered "high risk" for suicide based upon either verbal threats or suicide gesturing (Cimboric & Jobes, 1990; Mirkin & Koman, 1985; Seiden, 1969).

As one might expect, suicidal ideation increases in intensity with an increase in severity of the overall depression, although completed suicide rarely occurs before the age of 10 (Hersen & Last, 1990). The reasons for the relative absence of suicide in the prepubertal years remains obscure. Children's knowledge and ability to imagine committing suicide increases with age, as does their ability to act on their fantasies (Carlson, Asarnow, & Orbach, 1987). Kline, Lachar, and Gdowski (1987) reported that children and adolescents with "elevated

scores on the PIC depression and withdrawal scales reported significantly high rates of concurrent internalizing symptomatology, including sadness, sleep disturbance, mood lability, and previous suicide attempts" (p. 231).

The clinical picture of depressed children is further complicated by the relatively common presence of aggressive and other conduct symptoms in the context of a major depression, as well as a full conduct disorder developing along with a depressive episode (Prange et al., 1992). Dalton, Bolding, Woods, and Daruna (1987) in their study of short-term hospitalization of children reported on 87 children and adolescents admitted to their unit over 2 years. They described 34 of their patients admitted due to having behavioral problems. Of these 34, 14 were diagnosed with conduct disorder alone, 14 with conduct disorder and attention deficit disorder, and 6 with oppositional disorder. They also described 36 of the 87 children as having some type of depressive disorder. The relationship between disordered conduct and depression appeared to be more frequent in boys (Dalton et al., 1987; Hersen & Last, 1990). Kashani, Vaidya, Soltys, Dandoy, and Reid (1990) noted that depressed children had a significantly greater number of coexisting DSM-III diagnoses than did nondepressed subjects. Harris (1983) found that while moderately to severely depressed adolescents consciously

acknowledged their depression in response to the Beck Depression Inventory, their overt behavior did not necessarily lead to a diagnosis of depression. Fitzpatrick (1993) stated that research clearly shows the importance of considering depression a viable outcome of negative life experiences. LaCombe, Kline, Lachar, Butkus, and Hillman (1991) found that children who attained a PIC profile indicating significant depression and anxiety had high levels of family-related problems.

Livingston, Taylor, and Crawford (1990), in a study of 95 hospitalized children, reported that the "most common reasons for admission were failure of outpatient treatment (33 percent), suicidal behavior (23 percent), and serious danger to others (31 percent)" (p. 194). Ruffin, Spencer, Abel, Gage, and Miles (1993) suggested that some children are hospitalized inappropriately due to the fact that it would be even more inappropriate to leave them in an inadequate community placement.

Crespi and Ivey (1987), in their review of adolescent psychiatric treatment, identify seven factors affecting long-term treatment outcome: "(1) severity of psychopathology, (2) process versus reactive onset of symptomatology, (3) intelligence, (4) family's level of functioning, (5) presence of a specialized treatment program, (6) completion of hospital treatment, and (7) continuation of psychotherapy following discharge" (p. 54).

Community Approaches in Children's Mental Health

The community worker who provides the case management represents the key person to integrate services a child and family receives. Pecora and Conroyd (1982) stated that effective treatment programs require a close working relationship among the treatment center, other social service agencies, parents, and various community supports. Quaytman and Sharfstein (1990) suggested that hospital employees and community workers "need to move from an adversarial-conflictual posture to a more comprehensive assessment of individual patient needs" (p. 1298). In a study by Solomon, Evans, and Delaney (1993), the authors concluded that relying predominantly on the establishment of linkages to services after discharge is not sufficient to ensure that families will participate in and support their child in receiving services. The authors suggested that hospital staff develop strategies to engage the parents as well as the child in aftercare services prior to release. What the authors failed to address is the relative lack of incentive for hospitals to assume primary responsibility for this role, if, as they assert, one-third of children who do not receive adequate aftercare are rehospitalized within a year of discharge!

The positive benefit of case management services has not always been borne out in the research. Fisher, Landis, and Clark (1988) found that less than 3% of the variance in

overall client change was explained by the initiation of case management services to adult chronically mentally ill clients.

Hospital Length of Stay

Barber, Allen, and Coyne (1992) have suggested that hospital length of stay is related to the severity of problems such as depression in teenagers. They stated that while "a typical acutely depressed patient may need only brief inpatient treatment, a teenager with a long-standing history of moderate to severe depression is likely to require intermediate or extended treatment to stabilize sufficiently for safe discharge to community treatment" (p. 463).

With the focus upon decreasing the numbers of children being hospitalized in psychiatric settings and the concomitant emphasis on reduction of hospital length of stays has come an ever-growing mental health technology. This technology has focused upon strengthening community-based resources and programs to enable children and families to remain intact. The array of services offered to children and families varies from state to state and from community to community. Some catchment areas may offer programs such as respite services, case management services, crisis stabilization, foster care, partial hospitalization, outpatient therapy, summer camp programs, various residential programs, crisis intervention services,

and inpatient programs (Knitzer, 1982).

The provision of case management services in particular has increased significantly in recent years. Federal funding under the Medicaid program allows for reimbursement of case management services that provide for specialized home-based and community-based services to help deinstitutionalize or divert clients (Raiff & Shore, 1993).

Mental Health Professional Qualifications

The case manager's qualifications have been an issue that has been debated by many researchers over a number of years. Some experts argue for staff with advanced degrees (Anthony, Cohen, Farkas, & Cohen, 1988; Lamb, 1980) and others (Cowen, Gardner, & Zax, 1967; Kurtz, Bagarozzi, & Pollane, 1984; Witheridge, 1989), who believe individual characteristics outweigh academic degrees, think such jobs can be performed by superior people with less formal training. Proponents of a graduate degree have argued that a graduate program provides a better knowledge base, ethical basis of practice, and an ability to synthesize disparate case management activities into an integrated whole (Raiff & Shore, 1993). Bachrach (1989) pointed out that the qualifications of case managers vary from state to state, with some requiring bachelors degrees, with others requiring master and doctoral degrees. Dietzen and Bond (1993) noted that effective outcomes with clients may be affected by the quality of the contact with the case

manager and the skill of the case manager in establishing a relationship and in problem solving. Bryan (1990) stated that the case manager collects data from a wide variety of sources and can develop the most in-depth and comprehensive knowledge and understanding of a patient. Bryan emphasized the importance of the case manager's role to provide continuity for the patient and help minimize the patient's feelings of abandonment when hospitalized. England and Cole (1992) state that "case management is the glue that will hold all efforts together under one clinical plan over time" (p. 43). Kanter (1991) has suggested that hospital staff may view community workers as naive and unprofessional particularly if they are less well trained than themselves. Kanter stated that hospital staff may use these prejudices as an excuse not to reach out to community workers and impart valuable information to those providers they perceive to have deficient clinical backgrounds.

There are other studies which have shown that case managers with very different levels of background education can effectively acquire job-related competencies through in-service, agency-based, or postemployment training (Bromberg, Starr, Donovan, Carney, & Pernell-Arnold, 1991; Intagliata, 1982). In some cases para-professionals have been used to provide services because of their status as "members of their community" who can provide the services needed in the form of emotional support and act as a

"trusted link between the disadvantaged client and the sometimes impersonal agency, as an interpreter and advocate" (Tageson & Corazzini, 1974; p. 198). There seems to be a general consensus that prior experience, rather than educational background, is a major hiring consideration.

Face-to-Face Versus Telephone Contact

The importance of aftercare follow-up of children and adolescents who enter psychiatric hospitals has been noted in the literature (Meyerson & Herman, 1983; Pfeiffer & Strzelecki, 1990). The methods for attaining optimal coordination with hospital staff have traditionally been through the use of either written or verbal telephone communication. In many cases, personal telephone conversations with the hospitalized child or adolescent directly do not occur at all. Kanter (1991) suggested that hospital staff are unreceptive to community initiatives, and that if contact occurs, it often takes place near the end of the hospitalization. In these cases the contact is typically a telephone communication to arrange aftercare appointments.

Lowe, Windsor, and Post (1987) have reported the greatly increased effectiveness of telephone communication versus written communication in achieving participation in a quit smoking program. Several authors (Fenig et al., 1993; McCormick et al., 1993) have found telephone

interviews to be nearly equivalent to face-to-face interviews in respondent surveys. Fenig, et al., (1993) also suggested that there may have been a "therapeutic" component involved in the face-to-face interviews as evidenced by the lower symptom expression of respondents. While Fenig's research suggested the lack of "therapeutic" value in telephone communication, DeSalvo (1988) offered family phone therapy as a viable option for overcoming the obstacle of geographic distance. Stelzer and Elliott (1990) encouraged personal meetings at intake and discharge which included the child, family, school, and relevant agencies involved. They suggested that the personal delivery of the team recommendations allows a unified and more compliant follow-up, particularly when dealing with issues of placement, school, and psychotherapeutic management.

Summary

There have been a number of studies that suggest psychiatric hospitalization of children and adolescents may be beneficial. There have been many fewer studies that have considered the actual therapeutic benefits of appropriate follow-up to hospitalization by those who will provide aftercare treatment. There have been no studies which focus upon actual therapeutic outcomes based upon face-to-face follow-up versus telephone contact follow-up by community mental health workers or other treatment

professionals responsible for aftercare services. Bickman (1996) states, "No controlled studies report on the cost, quality, and mental health outcomes for any of the varieties of mental health systems for children and adolescents" (p. 689).

CHAPTER III

METHODOLOGY

Population and Sampling Selection

Many children in Berrien County, Michigan, require hospitalization for various types of mental disorders. All of the children insured through the Medicaid program are required to be screened prior to their admission into psychiatric hospitals by local community mental health centers. Children and families who have other types of insurance may also be screened by the local community mental health center, although it is not mandatory at this time. The local community mental health center in Berrien County, Michigan, provides numerous types of services for children including respite services, prevention services, outpatient treatment, case management services, intensive in-home services, and inpatient treatment. Those children and families who participated in this study fell into one of two different groups. The first group were those children and families who were currently receiving services from the local community mental health center and had an assigned worker responsible for their treatment plan and services. The second group consisted of those children and

families who were not presently receiving services from the local community mental health center and were requesting an emergency evaluation for hospitalization. The purpose of evaluating and screening children prior to admission into psychiatric hospitals was to determine if there were less restrictive treatments that might be effective. Efforts were made to reduce the number of admissions into psychiatric hospitals. Efforts were also made to reduce the overall length of hospitalizations. While there are hospitalizations of younger children (10 and under), these tend to be less frequent than hospitalizations of children who are pre-teen and teenage. The older group also tends to be able to influence their own behavior to a greater extent than the younger group as they are more mature in both their cognitive and physical development.

One of the most prominent symptoms of children who are hospitalized in the 11-17 age group is that of depression. While depression may be expressed in many forms, it is usually the most prominent diagnosis given to children who are hospitalized. Depression is manifested in other psychiatric disorders including conduct disorder, adjustment reactions, manic-depressive disorder, and borderline personality. The typical presenting problem for which these children are hospitalized is suicidal thoughts, attempts, or gestures. Associated with this problem are the problems of homicidal thinking, self-mutilation,

truancy, aggression, and incorrigibility. These problems invariably involve some level of depression coupled with feelings of parental abandonment, abuse, neglect, or indifference.

The admission rates to child and adolescent psychiatric units are quite variable. The number of admissions may be influenced by a myriad of factors including the availability of alternative community therapeutic programs and services, hospital admission criteria, parental choice, and other factors.

Winer (1971) stated that the power of a test "is the probability that the decision rule rejects H_1 when a specified H_2 is true" (p. 13). He argued that "too much emphasis has been placed upon the level of significance of a test and far too little emphasis upon the power of a test" (p. 13). The stated hypothesis was tested with $\alpha = .05$. For any specified difference between μ_1 and μ_2 , and any α , the probability of Type II error is a function of sample size N . In order to achieve a power of .80, this study required a sample size of 26 cases per mean for a total $N = 52$. This study had a fairly small sample size due to time constraints and the generally low number of total psychiatric hospitalizations. A frequency of 26 cases per mean was achieved for face-to-face versus telephone comparisons. However, for the comparisons between type of worker the frequencies were not equal;

hence the power would be somewhat lower than the desired power of .80.

Intervention

This study covered a 10-month period. During that time, the parent/guardian of children who were evaluated for admission into a psychiatric hospital were asked to sign the consent forms to participate in this study.

Parents or guardians were asked to complete the Personality Inventory for Children (PIC) at the time of admission screening. Their children were asked to complete the Children's Depression Inventory (CDI) at the same time. In some cases it was not possible for the child and/or parent to complete the questionnaires immediately prior to the hospitalization. In these cases, they were completed within 48 hours of admission, with the assistance of hospital staff.

The results of these instruments were not necessarily used in the determination of admission into psychiatric facilities. The determination regarding which of five psychiatric facilities the child might be admitted to was also not necessarily determined by the results of the completed questionnaires.

All children and families who agreed to participate in this study, and were subsequently hospitalized, were assigned alternately (every other child) to either the treatment or control group. When multiple admissions

occurred on the same day, assignment to the treatment or control group was based upon notifying the researcher of actual admission into the psychiatric unit. If a child already had an assigned worker, that worker continued to provide case follow-up. If a child did not already have an assigned worker, a worker was assigned on the basis of his/her availability to accept a new case assignment. The assigned worker was notified that his/her client had been assigned to either the treatment group or the control group and instructed to maintain the following procedures.

For those subjects in the treatment group, the assigned worker made a personal visitation at the psychiatric facility within the first week of admission. During these visits the assigned community mental health worker (i.e., mental health therapist; mental health specialist) met personally with the assigned hospital worker. The purpose of this meeting was to obtain information about the client's mental status, treatment issues, progress, and planned course of treatment during the hospitalization. The community mental health worker shared information with the hospital worker related to the client's history (if available) and present circumstances in the community such as living arrangement, school status, and likely aftercare plans. The length of this meeting involved a period of approximately 15-20 minutes. The community mental health worker then reviewed the hospital

chart with particular attention paid to the nursing notes and physician's notes sections. The length of this review involved a period of approximately 10-15 minutes.

Following the chart review, the community mental health worker met face to face with the client to discuss his/her adjustment process to the hospital, concerns, complaints, and questions regarding aftercare plans. During this discussion the client or community mental health worker could initiate discussion of therapeutic issues. The length of this meeting involved a period of approximately 10-20 minutes. The community mental health worker addressed any issues or questions raised during his/her review of the hospital chart and subsequent discussion with his/her client with the hospital worker prior to his/her departure. The community mental health worker made face-to-face visits to the psychiatric facility and performed the functions noted above at a minimum of once per week throughout the course of the child's hospital stay.

For those subjects in the control group, the assigned community mental health worker telephoned the assigned hospital worker during the first week of admission. During that contact the community mental health worker obtained information regarding his/her client's mental status, treatment issues, progress, and planned course of treatment during the hospital stay. The community mental health worker shared information related

to the client's history (if available) and present circumstances in the community such as living arrangement, school status, and likely aftercare plans. The length of this conversation involved a period of approximately 10-20 minutes. Following the conversation with the assigned hospital worker, the community mental health worker requested to speak with the client by telephone. The purpose of this contact was to discuss the adjustment process to the hospital, concerns, complaints, and questions regarding aftercare plans. During this discussion the client or community mental health worker may have initiated discussion of therapeutic issues. The length of this conversation involved a period of approximately 10-20 minutes. The community mental health worker followed up with the assigned hospital worker on any issues or questions raised during their conversation with their client. The community mental health worker initiated telephone contact with the hospital worker and their client at a minimum of once per week throughout the course of the child's hospital stay.

Parent/guardians and children in both the treatment and control groups were asked to complete the Personality Inventory for Children (PIC) and the Children's Depression Inventory (CDI) during the third week post-discharge. The same parent who completed the pre-admission PIC was asked to complete the post-discharge PIC. The hospitalized child

who completed the pre-admission CDI was asked to complete the post-discharge CDI. Records were maintained on total length of hospitalization.

Instruments

Children's Depression Inventory

The Children's Depression Inventory (CDI) is a self-rating assessment of children's depression. The instrument is designed for use by children ages 8-17. It is a 27-item instrument that assesses the cognitive, affective, and behavioral signs of depression (Schroeder & Gordon, 1991). The CDI covers fully or partially all nine of the DSM-III-R symptom categories for diagnosing depression in children. The reading level for the CDI is estimated at between the first-grade and third-grade levels. According to the author of the Children's Depression Inventory (CDI) manual (Kovacs, 1992), the instrument "quantifies a range of depressive symptoms including disturbed mood, hedonic capacity, vegetative functions, self-evaluation, and interpersonal behaviors. Several items concern the consequences of depression in contexts that are specifically relevant to children (e.g., school)" (p. 1).

The CDI has been used primarily as a research instrument rather than a diagnostic instrument although the author does provide cutoff scores for determining depression. The subject is administered the CDI by handing him or her a copy of the scale and asking them to read along

silently, marking the appropriate response as the administrator reads the items aloud. According to the CDI manual,

each CDI item consists of three choices, keyed 0, 1, or 2, with higher scores indicating increasing severity. For each item, the meaning of each choice can be summarized by the following: 0 = absence of symptom; 1 = mild symptom and 2 = definite symptom. (Kovacs, 1992; p. 1)

The child or adolescent is asked to rate the degree to which the statement describes him/her for the past 2 weeks. The CDI Total score can range from 0 to 54. A self-rated symptom measure such as the CDI quantifies a clinical phenomenon. It is best used as a severity measure in appropriately selected samples.

Kovacs (1992) suggests that:

test users may also wish to use the CDI to screen for depressive symptomatology among nonselected groups of children and adolescents. To determine the CDI score that can best meet such a goal, tentative cut points have been examined that would provide the best rule of thumb for selecting children who are likely to exhibit depressive symptoms. (p. 40)

CDI scores above the cut point of 20 correspond to standardized T-scores above 60. According to the CDI manual (1993), "T-scores greater than 65 may generally be regarded as clinically significant" (p. 40). Fristad, Weller, Weller, Teare, and Preskorn (1991) and Fitzpatrick (1993) have agreed that the CDI appears to be a useful instrument in assessing depressive symptomatology in special populations. del Barrio (1993) has praised the CDI for its psychometric qualities and its usefulness. Hodges and

Craighead (1990) reported in their study that the three CDI factor scores Dysphoric Mood, Loss of Personal and Social Interest, and Self-Deprecation were clearly related to clinical depression.

Reliability

The unpublished manuscript (Kovacs, 1992), which accompanies the CDI, provides 1-week test-retest reliability coefficients ranging from .71 to .89 with a diagnostically heterogeneous, psychiatrically referred sample of children. One-month test-retest data on 29 recently diagnosed children with diabetes were .43 (when two outlying subjects were dropped in subsequent analysis, reliability improved to .82). Nine-week test-retest data on a subsample of 90 school children were .84. Saylor, Finch, Spirito, and Bennett (1984) found 1-week test-retest reliability to be .87 in 28 emotionally disturbed children and .38 in 69 normal fifth-grade and sixth-grade children. del Barrio (1993) states:

It is evident that the .38 coefficient indicates low reliability, but it is also true that Saylor's study is the only case where this finding appears. The mean of all the coefficients related to the test-retest reliability of the CDI is .70, and if the mean is obtained from studies with a 1-week test-retest interval, then the figure increases to .80. (p. 52)

Since the CDI allegedly measures a state rather than a trait, the selection of an appropriate test-retest interval is problematic. From a clinical perspective, a symptom-oriented instrument such as the CDI may be evaluated

best by using a 2-week test-retest interval (Kovacs, 1992). Using this standard, the CDI would appear to have an acceptable level of stability.

Validity

Concurrent validity of the CDI was determined as compared to two self-rating instruments that assess constructs related to depression. CDI scores were found to correlate positively with scores from the Revised Children's Manifest Anxiety Scale and to correlate negatively with scores from the Coopersmith Self-Esteem Inventory. Carlson and Cantwell (1979) and Cantwell and Carlson (1981) examined the relationship between CDI scores and independent psychiatric diagnoses in 102 children ages 7 to 17 who were undergoing inpatient or outpatient psychiatric treatment. Their findings indicated that patients with higher self-rated depression as measured by the CDI received higher global severity ratings of depression on the basis of a semistructured interview administered without knowledge of the patients' CDI results. The high-scoring patients were also more likely to receive a formal diagnosis of major depressive disorder.

Personality Inventory for Children

The Personality Inventory for Children (PIC) is the childhood equivalent of the Minnesota Multiphasic Personality Inventory. It is an objective, multiscale

instrument measuring behavior, affect, ability, and family function used to assess children from preschool ages through adolescence. Parents respond to statements by answering "true" or "false" as the statements apply to their child. It is typically completed by an adult informant, usually the child's or adolescent's mother. The PIC can be completed in 15-60 minutes, depending upon the inventory length selected. This study utilized a shortened 280-item version of the PIC which provided a score for the depression subscale. Responses to the first 280 items of the Revised Format Administration Booklet provide: the 20 scales of the Revised Format Profile Form, the four factor scales, three measures of informant response style, a general screening scale, and 12 scales that measure child ability, behavior, affect, and family status.

PIC scale T -scores and other indices can provide an objective basis for rapidly establishing a focus for treatment or disposition. " T -scores represent a linear, non-normalized transformation of raw scores into a standardized distribution with a mean of 50 and a standard deviation of 10" (Wirt, Lachar, Klinedinst, & Seat, 1990, p. 82). The interpretive significance of specific T -scores, is variable according to the particular scale. Wirt et al. (1990) also state that it should be recognized that "a given scale has its own ideal range for clinical interpretation" (p. 82). While the purpose of this study was not to utilize

PIC scores in an interpretive manner, it should be noted that T-scores of 70 or above are significant for clinical depression.

Lachar and Gruber (1993) in their review of the PIC state:

The pattern of parent and child agreement/disagreement has often been found to vary by dimension assessed or diagnostic group studied. Parent report is often positive and child report negative for characteristics of the child that adults find annoying or troublesome (distractibility, hyperactivity, noncompliance, oppositionalism). Child report is often positive and parent report negative in the identification of behavior problems that are unknown to the parent (such as substance abuse or antisocial behaviors), as well as internal emotional states that may not be consistently represented by child or adolescent behavior (anxiety, depression, somatic concern, peculiarities of experience or thought). All other things being equal, parents and children tend to be more in agreement when the child is older and when the evaluation focuses on observable behaviors that do not require subjective interpretation. (pp. 82-83)

PIC informants answer "True" or "False" to the items presented and record these answers on a hand-scoreable or optically scannable answer sheet. The dimensions represented by the scales on the PIC do not reflect a specific theoretical perspective in regard to childhood personality, psychopathology, or development. The item selection for each scale was determined using factor analysis, empirical keying, and rational/content methodologies.

Reliability

The PIC Depression scale (D) contains 46 items. A

summary of the internal consistency correlation estimates for the 13 clinical scales ranged from .57 for Intellectual Screening to .86 for Depression, with a mean alpha of .74 (Wirt et al., 1990).

According to the PIC manual (Wirt et al., 1990), the PIC was completed on two separate occasions by mothers of children being evaluated as outpatients by the Preadolescent Service of Lafayette Clinic. The interval between test administrations ranged from 4 to 72 days with an average interval of 15.2 days. The test-retest correlations revealed an average reliability coefficient of .86. In another study, the test-retest reliability correlation extracted from two sources was .94 (Lachar & Wirt, 1981).

Validity

A criticism of the PIC has been its reliance upon the parent (usually the mother) for information. The criticisms have been that PIC results reflect maternal perceptions and that PIC results are a reflection of maternal individual psychopathology (Sylvester, Hyde, & Reichler, 1987). Lachar, Kline, and Gdowski (1987) conducted a study to examine these issues. Their results indicated "the magnitude of PIC scale covariations with independent behavior ratings from parents, teachers, and clinicians was similar in two samples differing in degree of maternal psychopathology" (p. 174). Their conclusion

was that "mothers who ascribed a variety of personal problems to themselves via self-report appeared to be no more likely to do the same in the description of their problem children" (p. 171). While the respondent for the PIC is usually the mother, Clark (1987) found that fathers prove to be "equally useful informants," and that PICs completed by either parent can be interpreted similarly.

The PIC Depression Scale has significantly separated children independently labeled depressed according to DSM-III criteria, on the basis of maternal interview from children who did not meet these criteria (Lachar, Kline, & Boersma, 1986). In Lobovits and Handal's (1985) study, the comparable classification performance of the Children's Depression Inventory proved similar to the PIC Depression Scale. The Children's Depression Inventory correlated significantly with parental report on the PIC Depression Scale ($r = .33$, $p < .05$).

Since personality assessment is usually intended to reveal the unknown, sole reliance upon the parent's or child's report cannot provide a complete picture. It has been suggested that information about personality be obtained from multiple sources (Lachar & Gruber, 1993; Long, Forehand, & Wierson, 1992). Several researchers (Hersen & Last, 1990; Lipovsky, Finch, & Belter, 1989) have suggested that numerous depression rating scales such as the CDI and PIC along with behavioral observations be used

as additions to a comprehensive collection of data. Combining data from multiple sources is advantageous since discrepant information is often obtained from the child and his or her parents. It has been suggested that the child is a better informant on inner, subjective feelings, and the parent is better at providing an accurate picture of observable behavior and history of symptoms. Crowley and Worchel (1993) have stated that "when one is integrating information from several sources about depressive symptomatology (e.g., the child and the parent), the emotional status of each individual must be considered" (p. 247).

A general survey of the effectiveness and psychometric properties of the PIC suggests that informant distortion has a minimal impact on profile validity (Wirt et al., 1990).

Data Collection

The subjects for this study were obtained through the local community mental health center, Riverwood Center, with offices located in Benton Harbor, Michigan, and Niles, Michigan. Riverwood Center staff were provided with an overview of the study and a detailed description of their responsibilities in conforming to the procedures previously outlined. Either the assigned staff person, the emergency services worker, or hospital staff person requested from the parent/guardian authorization to participate in this

study and obtained the necessary consent forms. The community mental health worker also was responsible for obtaining the results from the assessment instruments and delivering them to the researcher. The results of the instruments were collected, scored, and maintained along with the child's identifying information, date of birth, date of admission, and place of admission. If the child had an assigned community mental health worker (therapist or specialist), that worker was informed of which condition, treatment group or control group, their client had been assigned to and was reminded of the procedures for that condition. If the client had not been assigned a worker, a worker was assigned within 72 hours of admission and informed of which condition his/her client had been assigned to and reminded of the procedures for that condition.

A summary sheet outlining the necessary elements required in each condition was provided to the community mental health worker and included worker confirmation of conditions being met for each hospital contact made. Upon their completion, I collected and maintained the summary sheets. I maintained a log which recorded and tracked client-identifying information, instrument scores, worker name, date of admission, discharge dates, and dates of pre-test and post-test data gathering. I provided prompts to workers regarding upcoming hospital contacts in order to

assist them in this process.

Null Hypotheses and Methods of Analysis

Nine null hypotheses were tested.

Null Hypothesis 1

The adjusted mean PIC depression subscale post-test score of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the adjusted mean PIC depression subscale posttest score of those children who received telephone contact follow-up from community mental health workers, when the pretest score is used as covariate.

Null Hypothesis 2

The adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

Null Hypothesis 3

There will be no significant interaction (using PIC scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

Hypotheses 1 through 3 were tested by using a two-way analysis of covariance, with the pre-test as covariate and the post-test as the criterion (dependent) variable.

Null Hypothesis 4

The adjusted mean CDI post-test score of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the adjusted mean CDI post-test score of those children who received telephone contact follow-up from community mental health workers, when the pre-test score is used as covariate.

Null Hypothesis 5

The adjusted mean CDI post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean CDI post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

Null Hypothesis 6

There will be no significant interaction (using CDI scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

Hypotheses 4-6 were tested the same way as

hypotheses 1-3.

Null Hypothesis 7

The mean length of hospital stay of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the mean length of hospitalization of those children who received telephone contact follow-up while in a hospital setting.

Null Hypothesis 8

The mean length of hospital stay of those children who were followed up by mental health specialists will not be significantly different from the mean length of hospital stay of those children who were followed up by mental health therapists.

Null Hypothesis 9

There will be no significant interaction between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists), with respect to length of hospital stay.

Hypotheses 7 through 9 were tested by using a two-way analysis of variance. For all hypotheses, alpha was set at .05.

CHAPTER IV

RESULTS

Introduction

This research study examined the possible differences in outcomes for children who had been hospitalized in a psychiatric inpatient unit based upon whether their follow-up was performed by telephone or face-to-face contact. The research study also examined the potential differences in outcomes based upon worker qualifications, whether a master's-level trained therapist or a bachelor's-level trained mental health specialist had provided follow-up care.

This chapter presents the analysis of the data gathered from the Personality Inventory for Children (PIC), the Children's Depression Inventory (CDI), and the length of stay of hospitalized children. The information presented includes demographic data concerning the sample, descriptive statistics of the population, an explanation of the variables studied and the instruments used, and results from the testing of each hypothesis.

Demographic Data

Table 4 presents the frequency distribution of age, race, and gender for the 52 subjects. The age of the subjects ranged from 11 to 17 (mean = 14.8). The sample consisted of 22 females and 30 males. The racial background consisted of 13 African Americans and 39 Caucasians. The subjects were assigned to the face-to-face or telephone follow-up groups at the time of hospitalization on an alternating basis. Table 5 indicates the frequency distribution of subjects assigned to face-to-face versus telephone condition by age, race, and gender. Table 6 shows the frequency distribution of subjects by age, race, gender, and worker assignment (mental health therapist or mental health specialist).

Table 4

Frequency Distribution of Age, Race, and Gender for Sample

Age	African American Male	African American Female	Caucasian Male	Caucasian Female	Total
11	1		2		3
12		1	1		2
13			2	2	4
14	1		4	6	11
15	2		7	3	12
16	3	2	2	6	13
17	3		2	2	7
Total	10	3	20	19	52

Table 5

Frequency Distribution of Subjects by Age, Race, Gender, and Treatment Condition (Face-to-Face and Telephone)

Age	Condition	African American Males	African American Females	Caucasian Males	Caucasian Females	Tot.
11	Face to Face	1		1		2
	Telephone			1		1
12	Face to Face			1		1
	Telephone		1			1
13	Face to Face			1		1
	Telephone			1	2	3
14	Face to Face	1		3	3	7
	Telephone			1	3	4
15	Face to Face	1		3	1	5
	Telephone	1		4	2	7
16	Face to Face	2	1	1	5	9
	Telephone	1	1	1	1	4
17	Face to Face				1	1
	Telephone	3		2	1	6
Total		10	3	20	19	52

Table 6

Frequency Distribution of Subjects by Age, Race, Gender, and Worker Assignment (Mental Health Therapist or Mental Health Specialist)

Age	Condition	African American Male	African American Female	Caucasian Male	Caucasian Female	Total
11	Therapist			2		2
	Specialist	1				1
12	Therapist		1	1		2
	Specialist					0
13	Therapist				1	1
	Specialist			2	1	3
14	Therapist			3	3	6
	Specialist	1		1	3	5
15	Therapist	1		4	2	7
	Specialist	1		3	1	5
16	Therapist	1	1	2	4	8
	Specialist	2	1		2	5
17	Therapist	1		2	2	5
	Specialist	2				2
	TOTAL	10	3	20	19	52

Instruments

The instruments used in this study included the Personality Inventory for Children (PIC) and the Children's Depression Inventory (CDI). Length of hospital stay was also used as a dependent variable. Tables 7 to 11 provide a brief summary of the data including means, ranges and standard deviations from each of the instruments and from hospital length of stay. In most cases, the actual range of scores covers a relatively narrow part of the possible range. Tables 7 and 8 provide data on the PIC. Tables 9 and 10 present data on the CDI. Table 11 presents data on hospital length of stay.

Table 7

Ranges, Means, and Standard Deviations of Pre-Test PIC Scores by Condition and Worker Type

Condition	Worker Type	Range-Possible	Range-Actual	Mean	Standard Deviation
Face-to-Face <u>n=26</u>	Therapist <u>n=16</u>	0-42	10-33	25.938	5.772
	Specialist <u>n=10</u>	0-42	16-32	25.400	5.038
Telephone <u>n=26</u>	Therapist <u>n=15</u>	0-42	9-29	20.333	7.575
	Specialist <u>n=11</u>	0-42	13-27	21.364	4.455
Total <u>n=52</u>		0-42	9-33	23.077	6.260

Table 8

Ranges, Means, and Standard Deviations of Post-Test PIC Scores by Condition and Worker Type

Condition	Worker Type	Range-Possible	Range-Actual	Mean	Standard Deviation
Face-to-Face <u>n</u> =26	Therapist <u>n</u> =16	0-42	9-37	23.313	6.311
	Specialist <u>n</u> =10	0-42	7-31	22.400	7.168
Telephone <u>n</u> =26	Therapist <u>n</u> =15	0-42	5-29	19.600	6.749
	Specialist <u>n</u> =11	0-42	10-28	19.818	5.269
Total <u>n</u> =52		0-42	5-37	21.327	6.450

Table 9

Ranges, Means, and Standard Deviations of Pre-Test CDI Scores by Condition and Worker Type

Condition	Worker Type	Range-Possible	Range-Actual	Mean	Standard Deviation
Face-to-Face <u>n</u> =26	Therapist <u>n</u> =16	0-54	10-48	24.063	11.835
	Specialist <u>n</u> =10	0-54	12-32	22.600	6.835
Telephone <u>n</u> =26	Therapist <u>n</u> =15	0-54	11-37	22.933	9.617
	Specialist <u>n</u> =11	0-54	3-36	19.481	11.614
Total <u>n</u> =52		0-54	3-48	22.481	12.422

Table 10

Ranges, Means, and Standard Deviations of Post-Test CDI Scores by Condition and Worker Type

Condition	Worker Type	Range-Possible	Range-Actual	Mean	Standard Deviation
Face-to-Face n=26	Therapist n=16	0-54	2-33	16.813	9.928
	Specialist n=10	0-54	7-30	17.000	7.483
Telephone n=26	Therapist n=15	0-54	4-24	15.600	6.197
	Specialist n=11	0-54	1-21	13.727	7.564
Total n=52		0-54	1-33	15.846	7.885

Table 11

Ranges, Means, and Standard Deviations of Hospital Length of Stay by Condition and Worker Type

Condition	Worker Type	Range-Possible	Range-Actual	Mean	Standard Deviation
Face-to-Face n=26	Therapist n=16	1-?	7-22	13.063	5.221
	Specialist n=10	1-?	7-95	25.600	26.937
Telephone n=26	Therapist n=15	1-?	6-27	13.600	5.902
	Specialist n=11	1-?	4-49	12.727	12.610
Total n=52		1-?	4-95	15.558	14.141

Table 11 illustrates that there were several outlier scores relative to hospital days. The three outlier scores in these cases were all obtained by mental health specialists. The three outlier scores also came from state-hospitalized children. Due to the nature of mental health specialists job function, they tend to work with children and adolescents who exhibit more intense behavioral problems than do mental health therapists. Since it is not possible to eliminate this element of difference between the two worker types, it was determined that these scores should not be removed from the data analysis.

Testing the Hypotheses

Each of the nine hypotheses was stated in the null form. The first six hypotheses were tested by the use of analysis of covariance and the last three hypotheses were tested using analysis of variance.

Hypotheses 1-3

Statement of Hypothesis 1

The adjusted mean PIC depression subscale post-test score of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the adjusted mean PIC depression subscale post-test score of those children who received telephone contact follow-up from community mental

health workers, when the pre-test score is used as covariate.

Statement of Hypothesis 2

The adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

Statement of Hypothesis 3

There will be no significant interaction (using PIC scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

Hypotheses 1 through 3 were tested by using a two-way analysis of covariance, with the pre-test as covariate and the post-test as the criterion (dependent) variable.

The results from hypothesis 3 are considered first as this hypothesis addresses the potential of interaction between worker type and follow-up type.

Table 12 provides the PIC post-test and pre-test means for the worker types (mental health therapist; mental health specialist) and the follow-up condition (face-to-face; telephone). Table 13 provides the adjusted means.

Table 12

Pre-test PIC and Post-test PIC Means by Follow-up Type and Worker Type

Method	Therapist	Specialist	Total
Face-to-Face Pre	25.3750	25.4000	25.3846
Post	23.3125	22.4000	22.9615
Telephone Pre	20.3333	21.3636	20.7692
Post	19.6000	19.8182	19.6923
Total Pre	22.9355	23.2857	23.0769
Post	21.5161	21.0476	21.3269

Table 13

Adjusted Means for PIC Post-test by Follow-up Type and Worker Type

PIC - Adjusted Means

Method	Therapist	Specialist	Total
Face-to-Face	21.4219	20.4889	21.0630
Telephone	21.8571	21.2277	21.5908
Total	21.6325	20.8759	21.3269

Results of Hypothesis 3

Results from the two-way ANCOVA are presented in Table 14. The covariate, PIC pre-test, was determined to be significant ($F = 68.43$, $p = 0.000$) which adjusted the dependent variable means. There was no significant interaction using PIC scores between type of follow-up (face-to-face versus telephone) and follow-up provider

type, mental health therapists (master's) and mental health specialists (bachelor's) ($F = 0.02$, $p = 0.8974$).

Therefore, hypothesis 3 was retained. As no significant interaction was present, it was legitimate to study the main effects, as tested in hypotheses 1 and 2.

Table 14

Two-Way ANCOVA Table for Follow-up Type by Worker Type with Covariate Pre-test PIC

Source	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Pre-Test PIC	1	1170.87	1170.87	68.43	0.0000
Follow-up(F)	1	3.75	3.75	0.22	0.6419
Worker(W)	1	7.61	7.61	0.44	0.5080
FxW	1	0.29	0.29	0.02	0.8974
Error	47	804.20	17.11		
Total	51	1986.71			

Note. Level of significance (α) = .05.

Results of Hypothesis 1

There was no significant difference between the PIC post-test scores based upon whether hospitalized children received face-to-face or telephone follow-up ($F = 0.22$, $p = 0.6419$). Therefore, hypothesis 1 was retained.

Results of Hypothesis 2

There was no significant difference between the PIC post-test scores based upon whether hospitalized children received follow-up from a mental health therapist (master's) or a mental health specialist (bachelor's) community mental health workers ($F = 0.44$, $p = 0.5080$). Therefore, hypothesis 2 was retained.

Hypotheses 4-6

Statement of Hypothesis 4

The adjusted mean CDI post-test score of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the adjusted mean CDI post-test score of those children who received telephone contact follow-up from community mental health workers, when the pre-test score is used as covariate.

Statement of Hypothesis 5

The adjusted mean CDI post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean CDI post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

Statement of Hypothesis 6

There will be no significant interaction (using CDI

scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

Hypotheses 4-6 were tested using two-way ANCOVA as were hypotheses 1-3.

The results from hypothesis 6 are considered first as this hypothesis addresses the potential of interaction between worker type and follow-up type. Table 15 provides the CDI post-test and pre-test means for the worker (mental health therapist; mental health specialist) types and the follow-up condition (face-to-face; telephone). Table 16 provides the adjusted means.

Table 15

CDI Pre-test and Post-test Means by Follow-up Type and Worker Type

Method		Therapist	Specialist	Total
Face-to-Face	Pre	24.0625	22.6000	23.5000
	Post	16.8125	17.0000	16.8846
Telephone	Pre	22.9333	19.4545	21.4615
	Post	15.6000	13.7273	14.8077
Total	Pre	23.5161	20.9524	22.4808
	Post	16.2258	15.2857	15.8462

Table 16

Adjusted Means for CDI Post-test by Follow-up Type and Worker Type

Method	Therapist	Specialist	Total
Face-to-Face	16.0199	16.9402	16.3739
Telephone	15.3732	15.2437	15.3184
Total	15.7070	16.0516	15.8461

Results of Hypothesis 6

Results from the two-way ANCOVA are presented in Table 17. The covariate, CDI pre-test, was determined to be significant ($F = 33.95$, $p = 0.000$) which adjusted the dependent variable means. There was no significant interaction using CDI scores between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health therapists versus mental health specialist) ($F = 0.09$, $p = 0.7656$). Therefore, hypothesis 6 was retained, and it was legitimate to study main effects as tested in hypotheses 4 and 5.

Table 17

Two-Way ANCOVA Table for Follow-up Type by Worker Type With Covariate Pre-Test CDI

Source	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Pre-Test CDI	1	1296.91	1296.91	33.95	0.0000
Follow-up(F)	1	16.97	16.97	0.44	0.5084
Worker(W)	1	1.93	1.93	0.05	0.8233
FxW	1	3.44	3.44	0.09	0.7656
Error	47	1795.31	38.20		
Total	51	3114.56			

Note. Level of significance (alpha) = .05.

Results of Hypothesis 4

There was no significant difference between the CDI post-test scores based upon whether hospitalized children received face-to-face or telephone follow-up ($F = 0.44$, $p = 0.5084$). Therefore, hypothesis 4 was retained.

Results of Hypothesis 5

There was no significant difference between the CDI post-test scores based upon whether hospitalized children received follow-up from a mental health therapist (master's) or a mental health specialist (bachelor's)

community mental health workers ($F = 0.05$, $p = 0.8233$). Therefore, hypothesis 5 was retained.

Hypotheses 7-9

Statement of Hypothesis 7

The mean length of hospital stay of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the mean length of hospitalization of those children who received telephone contact follow-up while in a hospital setting.

Statement of Hypothesis 8

The mean length of hospital stay of those children who were followed up by mental health specialists will not be significantly different from the mean length of hospital stay of those children who were followed up by mental health therapists.

Statement of Hypothesis 9

There will be no significant interaction between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists), with respect to length of hospital stay.

Hypotheses 7 through 9 were tested by using a two-way analysis of variance.

The results from hypothesis 9 are considered first as this hypothesis addresses the potential of interaction between worker type and follow-up type. Table 18 provides the mean hospital days for the worker (mental health therapist; mental health specialist) types and the follow-up condition (face-to-face; telephone).

Table 18

Mean Hospital Days by Follow-up Type and Worker Type

Staff	Face-to-Face	Telephone	Total
Therapist	13.0625	13.6000	13.3226
Specialist	25.6000	12.7273	18.8572
Total	17.8846	13.2308	15.5577

Results of Hypothesis 9

Results from the two-way ANOVA are presented in Table 19. As shown, there was no statistically significant interaction found between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health therapists versus mental health specialists), with respect to length of hospital stay ($F = 2.99$, $p = 0.0902$). Therefore, hypothesis 9 was retained and main effects were studied.

Results of Hypothesis 7

As shown in Table 18, the length of hospital stay

was not significantly different based upon whether hospitalized children received face-to-face or telephone follow-up ($F = 2.53$, $p = 0.1182$).

Results of Hypothesis 8

As shown in Table 19, the length of hospital stay was not significantly different based upon whether hospitalized children were followed up by mental health therapists (master's) or mental health specialists (bachelor's) ($F = 2.26$, $p = 0.1391$).

Although the F -test indicated that there was no statistically significant interaction, a study of Table 18 reveals the presence of interaction. Therefore, the simple effects were tested. None of the four simple effects proved to be significant.

Table 19

Two-Way ANOVA Table for Hospital Days by Follow-up Type and Worker Type

Source	DF	SS	MS	F	P
Follow-up(F)	1	475.38	475.38	2.53	0.1182
Worker(W)	1	425.11	425.11	2.26	0.1391
FxW	1	561.85	561.85	2.99	0.0902
Error	48	9017.12	187.86		
Total	51	10479.46			

Note. Level of significance (α) = .05.

Additional Statistical Tests

While not part of the hypothesis testing, an analysis of the PIC and CDI pre-test and post-test was performed. The purpose of performing the analysis was to determine if there were significant differences between the pre-hospitalization scores and the post-hospitalization scores for parents who completed the PIC and the child/adolescent who completed the CDI. The results of that analysis are shown below.

Analysis of PIC and CDI
Pre-test and Post-test

The t -test of the difference between two dependent means was used to test the differences between the pre-test and post-test for both the CDI and PIC. Table 20 shows the results of the t -tests performed on the PIC and CDI pre-test and post-test.

Results of t -test on PIC and
CDI Pre-test and Post-test

The t -test of the PIC pre-test and post-test means indicated that the PIC pre-test and post-test were not significantly different, $t_{.95} = 1.98$, $t = 1.40$, $p > .10$. The t -test of the CDI pre-test and post-test means indicated that the CDI pre-test and post-test were significantly different, $t_{.95} = 1.98$, $t = 3.73$, $p < .001$. These results indicate that there was little evidence of improvement of depression post-hospitalization observed by parents as measured by PIC scores, while the children and adolescents themselves reported significant improvement of depression post-hospitalization as measured by CDI scores.

Table 20

Results of t-test on PIC and CDI Pre-test and Post-test

Variable	Pre-test	Post-test	t	Probability
PIC	23.08	21.33	1.40	> .10 N.S.
CDI	22.48	15.85	3.73	< .001 *

Note. * Indicates significance at alpha = .05. N.S. indicates non-significance.

Summary of Hypothesis Testing

In this study, analysis of variance and analysis of covariance were used to test a total of nine hypotheses. All nine hypotheses were retained. For both the PIC and the CDI, there was no significant interaction between worker type and follow-up procedure; there was no significant difference between the effectiveness of the two kinds of workers; there was not a significant difference between the effectiveness of the two types of follow-up procedures.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary

Problem and Purpose

With the advent of "managed care" there is a concomitant focus upon the value of implementing the most efficient and effective treatment interventions available. Empirical studies are necessary to determine the efficacy of various interventions in order to confirm or disconfirm conventional wisdom regarding treatment practices. Bickman (1996) suggests that "the cost-effectiveness of the continuum of care has been challenged, as has, more generally, the effectiveness of services as delivered in community settings" (p. 699). This author goes on to say that "recent studies have found that changes in the service delivery system (e.g. case management) do result in different services being received, but no study has reported a significant consistent enhancement in clinical outcomes" (p. 699).

This study examined the effectiveness and impact of the type of follow-up (face-to-face versus telephone) and the significance of worker qualifications in performing

follow-up care to children hospitalized in psychiatric inpatient units. Other researchers (Fenig et al., 1993) have found that telephone versus face-to-face interviewing in a community psychiatric survey yielded approximately equivalent results.

The purpose of this study was to investigate the differential value of follow-up by community mental health workers using face-to-face versus telephone contact during the inpatient psychiatric phase of treatment for children and adolescents ages 11-17.

The second purpose of this study was to determine if significant differences could be attributed to the benefit of therapeutic contact with master's-level trained counselors versus bachelor's-level trained staff. There has been extensive debate (Anthony et al., 1988; Bachrach, 1989; Cowen et al., 1967; Dietzen & Bond, 1993; Kurtz et al., 1984; Lamb, 1980; Raiff & Shore, 1993; Witheridge, 1989) regarding the value of hiring staff with advanced degrees to perform therapeutic work. What has not been explored very well to this point is the importance of evaluation of differential client outcomes with respect to staff qualifications, academic credentials, and advanced training. It is worthwhile to know which therapeutic tasks may be performed by either master's-level or bachelor's-level staff with approximately equivalent client outcomes and which tasks cannot. This study focused upon the

discrete task of worker follow-up to children in hospital settings. The dependent variables were length of hospital stay and measures of improvement in depression as measured by the depression clinical scale of the Personality Inventory for Children (PIC), a parent-rating scale, and the Children's Depression Inventory (CDI), a self-rating scale for children.

Sampling, Design, and Instrumentation

The sample for this study included 11-17-year-old children in Berrien County, Michigan, who were screened and admitted to psychiatric inpatient units. There were 52 children involved in this study who were admitted to various psychiatric hospitals during the course of a 10-month period. There were various presenting problems associated with the admissions although the most typical problem involved depressive symptomatology with concomitant danger to self or others.

All children ages 11-17 and their parents, who were screened by the Berrien County Community Mental Health Board for appropriateness of hospitalization and subsequently hospitalized, were asked to participate in this study. Those parents and children who agreed to participate were asked to sign a release consenting to be involved in this study. Children were assigned to either the face-to-face or telephone group on an alternating admission basis. Assignment to the mental health therapist

versus mental health specialist was based upon one of the following factors. If the child and family were actively receiving services prior to the hospitalization, the assigned worker performed the follow-up care. If the child and family were not actively receiving services, the case was assigned to either a mental health therapist or mental health specialist depending upon the child and family's need and the availability of staff. No efforts were made to randomly assign children to the worker type (therapist or specialist) group as this would have potentially resulted in disruption of ongoing treatment programs.

There were eight different mental health therapists who participated in this study and seven different mental health specialists. Parents were asked to complete the Personality Inventory for Children (PIC), and the children were asked to complete the Children's Depression Inventory (CDI) prior to or within 48 hours of hospitalization. They were asked to complete the same instruments approximately 3 weeks after discharge from the hospital. The PIC and CDI were chosen due to their relatively strong research history and relative ease of administration.

Discussion of Findings

The findings of this study are summarized by considering each of the nine null hypotheses. The first three hypotheses dealt with using PIC scores to determine

the effectiveness of face-to-face versus telephone follow-up and mental health therapist (master's-trained) versus mental health specialist (bachelor's-trained) community mental health workers. The PIC pre-test was used as the covariate with the PIC post-test as the criterion variable for these hypotheses. These three hypotheses were tested using a two-way analysis of covariance.

The second three hypotheses dealt with using the CDI scores to determine the effectiveness of face-to-face versus telephone follow-up and mental health specialist community mental health workers. The CDI pre-test was used as the covariate with the CDI post-test as the criterion variable for these hypotheses. These three hypotheses were also tested using a two-way analysis of covariance.

The final three hypotheses considered differences in length of hospital stay based upon face-to-face versus telephone follow-up and mental health therapist versus mental health specialist worker. These three hypotheses were tested using a two-way analysis of variance. In addition, t-tests were performed on the PIC pre-test and PIC post-test and the CDI pre-test and CDI post-test. The .05 level of significance was used as the level of confidence for all tests.

For purposes of discussion regarding common findings in this study, it may be helpful to consider Hypotheses 1 and 4 together.

Hypothesis 1

The adjusted mean PIC depression subscale post-test score of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the adjusted mean PIC depression subscale post-test score of those children who received telephone contact follow-up from community mental health workers, when the pre-test score is used as covariate.

This hypothesis was retained. Testing via analysis of covariance for the face-to-face versus telephone groups evidenced a probability level of .642, indicating that there were no significant differences among the means.

The PIC is an instrument which is a parent rating of the child's personality. Contact by the community mental health worker was primarily directed toward hospital personnel and the child. As parents may not have had direct contact with the community mental health worker during the course of the hospitalization, it might be anticipated that scores from the PIC were not sensitive to the impact that contact by the worker may have had in general, or specifically due to differences between face-to-face and telephone contact.

Hypothesis 4

The adjusted mean CDI post-test score of those children who received face-to-face community mental health

worker follow-up in a hospital setting will not be significantly different from the adjusted mean CDI post-test score of those children who received telephone contact follow-up from community mental health workers, when the pre-test score is used as covariate.

This hypothesis was retained. Testing via analysis of covariance for the face-to-face versus telephone groups evidenced a probability level of .508, indicating that there were no significant differences among the means. The CDI is a self-rating of depression which the child completed. The expectation would have been that the CDI would be more likely to identify improvements in depression than the PIC, given that the children had received either personal contact (face-to-face) or technological contact (telephone) interventions by community mental health workers. An additional expectation that personal contact would be more likely to improve depression scores than telephonic contact was also surmised.

However, the evidence in this study does not reveal any significantly different outcomes based on the use of telephone contact versus face-to-face contact. This lack of significance also brings to light interesting possibilities related to the importance of traditional sorts of therapeutic interventions which focus almost entirely upon the use of face-to-face contact. It may be that telephone contact offers a broader range of

therapeutic possibilities than has been previously thought. The paucity of studies on phone interventions and concomitant outcome studies is remarkable. Those articles which indicate that phone interventions are comparable to face-to-face interviews (DeSalvo, 1988; Fenig et al., 1993; McCormick et al., 1993) fail to adequately address reasons why such interventions including telephone therapy are not utilized more often. DeSalvo (1988) cites four problematic issues relating to performing telephone family therapy: "(1) confidentiality, (2) triangulation, (3) diversionary conversation, and (4) mixed communication processes" (p. 72).

While the complexity of performing telephone therapy in the context of family therapy is outlined by DeSalvo (1988), the use of the telephone for individual therapy would appear to resolve most, if not all, of DeSalvo's concerns. Perhaps the reasons for the relative disuse of telephone therapy lie in the arena of organizational and professional limitations rather than outcome efficacy. If issues of professional liability and difficulty in obtaining reimbursement for such services were resolved, there would likely be a multitude of studies focusing upon the comparability of clinical outcomes utilizing telephone versus face-to-face interventions.

For purposes of discussion regarding common findings in this study, it may be helpful to consider hypotheses 2

and 5 together.

Hypothesis 2

The adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean PIC depression subscale post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

This hypothesis was also retained. The analysis of covariance yielded a probability level of .508 verifying that there were no significant differences between the type of worker (mental health therapist versus mental health specialist) who performed the follow-up activities and PIC post-test scores.

Hypothesis 5

The adjusted mean CDI post-test score of those children who were followed up by mental health specialists will not be significantly different from the adjusted mean CDI post-test score of those children who were followed up by mental health therapists, when the pre-test score is used as covariate.

This hypothesis was also retained. The analysis of covariance yielded a probability level of .508 verifying that there were no significant differences between the type of worker (mental health therapist versus mental health

specialist) who performed the follow-up activities and CDI post-test scores.

Because there were no significant differences in post-test PIC or CDI scores between therapists and specialists, there is no support in this study for the notion that either worker type (i.e. mental health therapist) is more effective than the other worker type (i.e. mental health specialist).

The retention of this hypothesis upholds the view by those who would suggest that there are a number of therapeutic activities which can be performed very well by bachelor's-level or even paraprofessional workers (Ryan, Sherman, & Judd, 1994; Tageson & Corazzini, 1974; Walfish, 1983).

The unfortunate reality is that there are very few well-controlled studies which compare outcomes when particular therapeutic activities are performed by both bachelor's-level, master's-level, and doctoral-level staff. Jerill and DiPasquale (1984) report that in their study, bachelor's-level staff "reported doing almost twice as much diagnostic and assessment work . . . intake interviews and diagnostic assessments" (p. 217) as graduate-level-trained clinicians. The authors did not conduct any comparative outcome study. The motivation to investigate such distinctions may not always be in the professional interests of researchers, who typically have reached the

highest level of educational achievement and training.

In the particular case of follow-up to hospitalization, it would seem that there are many aspects of the function which may be as much "person" defined as "training" defined. The ability to communicate information effectively, problem-solve, and to generally relate well to others may be equally or more relevant to being effective in some therapeutic activities as specialized therapeutic training and/or educational level. While there is general consensus that professionals must have appropriate "graduate"-level education and training to perform certain therapeutic activities, there is a significant lack of empirical evidence which focuses upon clinical outcomes that would justify such a position.

For purposes of discussion regarding common findings in this study, it may be helpful to consider Hypotheses 3 and 6 together.

Hypothesis 3

There will be no significant interaction (using PIC scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

This hypothesis was retained. The analysis of covariance yielded a probability level of .897 verifying that there was no significant relationship between worker type and follow-up type as revealed in PIC post-test scores. This

indicates that the differences in the resulting PIC post-test scores (when a mental health specialist used face-to-face or telephone follow-up and when a mental health therapist used face-to-face or telephone follow-up) are similar.

Hypothesis 6

There will be no significant interaction (using CDI scores) between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists).

This hypothesis was retained. The analysis of covariance yielded a probability level of .766 verifying that there was no significant relationship between worker type and follow-up type as revealed in CDI post-test scores. This indicates that the differences in the resulting CDI post-test scores when a mental health specialist or mental health therapist used face-to-face follow-up were similar to the differences when they used telephone follow-up. These results are consistent with the findings from hypotheses 1, 2, 4, and 5.

For purposes of discussion regarding common findings in this study, it may be helpful to consider hypotheses 7, 8, and 9 together.

Hypothesis 7

The mean length of hospital stay of those children who received face-to-face community mental health worker follow-up in a hospital setting will not be significantly different from the mean length of hospitalization of those children who received telephone contact follow-up while in a hospital setting.

This hypothesis was retained. Testing via two-way analysis of variance for the face-to-face versus telephone groups evidenced a probability level of .118, indicating that there were no significant differences among the means.

Hypothesis 8

The mean length of hospital stay of those children who were followed up by mental health specialists will not be significantly different from the mean length of hospital stay of those children who were followed up by mental health therapists.

This hypothesis was retained. The two-way analysis of variance yielded a probability level of .139 verifying that there were no significant differences between the type of worker (mental health therapist versus mental health specialist) who performed the follow-up activities and length of hospital stay.

Hypothesis 9

There will be no significant interaction between follow-up procedure type (face-to-face versus telephone) and follow-up provider type (mental health specialists versus mental health therapists), with respect to length of hospital stay.

This hypothesis was retained. The two-way analysis of variance yielded a probability of .090 verifying that there was no significant interaction between worker type and follow-up type as revealed in length of hospital stay.

While there was evidence of interaction in the data suggesting a trend for greater improvement in post-test scores by children and adolescents who received face-to-face follow-up by mental health specialists, an analysis of the simple effects failed to produce significance. This result is consistent with the findings from hypotheses 7 and 8. The retention of these hypotheses supports the notion that the use of face-to-face follow-up contact may have very little impact upon the length of hospital stay. As Pfeiffer and Strzelecki (1990) reported in their review of outcome studies, there are disparate views regarding hospital length of stay with some experts suggesting that:

a longer length of hospitalization bears a relationship to the likelihood that treatment goals will be more fully realized; other writers assume that a brief hospitalization increases the probability of a less traumatic, more successful reintegration of the patient into the family, school, and community.
(p. 851)

Regardless into which camp experts may fall, several researchers confirm the commonly held belief that length of hospitalization is associated with funding. Borchardt and Garfinkel (1991) stated, "Hospitalization funding was associated with length of stay" (p. 996). Likewise, Mason and Gibbs (1992) state, "Length of stay was clearly closely associated with source of payment" (p. 450).

In a managed care system, the managed care organization determines authorization for funding of hospital days. While hospitals may choose to maintain a child or adolescent in the hospital beyond the period of payment authorization, they are at risk of losing reimbursement for "non-authorized" days. The authorization of payment for hospital days is likely to be a very strong indicator of total number of days hospitalized. In this study, most of the hospitalized were Medicaid recipients and, therefore, were subject to the authorization system. Therefore, the use of hospital days as a clinical indicator may not be warranted due to the likely insensitivity of this outcome to differences in treatment conditions (face-to-face versus telephone) or worker types (mental health therapist versus mental health specialist).

The length of hospital stay is presumed to be influenced by factors such as psychiatric stabilization, readiness of aftercare treatment, and appropriate placement

arrangement. While there were no statistical differences in hospital days due to type of contact or worker type, it is interesting to note that the mean number of hospitalization days for the group was 15.56 days. When the three cases that utilized the state hospital were removed, the mean number of hospitalization days for the remaining 49 cases was 12.49 days. This length of stay is substantially lower than the reported lengths of stay in the literature, which range from 4 to 6 weeks and upward (Borchardt & Garfinkel, 1991; Dalton et al., 1987; Livingston et al., 1990; Mason & Gibbs, 1992; Perry et al., 1992; Pfeiffer & Strzelecki, 1990). The average length of stay for the three cases which were hospitalized at the state hospital was 49.33. Analysis of the data after removing the state hospital outliers failed to achieve statistical significance for condition or worker type.

Summary of PIC and CDI Pre-test and Post-test

Analysis of PIC pre-test and post-test means via t-test resulted in a probability level exceeding the level of significance, $\alpha = .05$. Analysis of the CDI pre-test and post-test via t-test resulted in a probability level indicating significance at the $\alpha = .05$ level. The significance of this finding involves the apparent failure of parents to observe significant improvements in the clinical outcome of their children's hospitalization 3

weeks after discharge while their children notice significant changes in their own levels of depression as evidenced by their scores on the CDI. This finding provides an opportunity for some interesting discussion regarding the difference between the parent's evaluation of their child's depression prior to admission and later evaluation of their child's depression and the child's evaluation of his/her own depression prior to admission and later evaluation of their depression post-hospitalization.

It is interesting to note that parents judged their child's or adolescent's level of depression to be less severe prior to admission than their children did in contrast to reports by some authors. Sylvester et al., (1987) report several studies which cite low correlations between parents ratings of child psychopathology and their child's self-ratings. In reference to results using the PIC, Lachar and Gruber (1993) state that "child report is often positive and parent report negative for . . . internal emotional states that may not be consistently represented by child or adolescent behavior," such as depression. They state that "all other things being equal, parents and children tend to be more in agreement when the child is older and when the evaluation focuses on observable behaviors that do not require subjective interpretation" (pp. 82-83). Likewise, Fristad et al.

(1991), reporting on CDI results, state: "Parents in both inpatient samples reported significantly higher scores than did their children" (p. 344).

Parents also reported that their children's level of depression had improved very little post-hospitalization, while the children and adolescents themselves judged their level of depression to have improved considerably! This presents further evidence that suggests parents may be poor at assessing their children's level of depression. The relative stability of PIC scores suggests that parents may be assessing depression based upon certain "trait" characteristics versus assessment of more "state" characteristics, which could explain the minimal variability of scores.

As noted earlier, comparing scores between different instruments must be avoided. In this instance, it must be recognized that the PIC and the CDI may be measuring depression in different ways and the two instruments may be variably sensitive to assessing "state" versus "trait" characteristics of depression. Examples from the PIC that may illustrate a greater focus upon "trait" characteristics include items such as: "my child has a good sense of humor"; "my child has little self-confidence"; "my child is easily embarrassed"; "my child takes criticism easily," etc. Examples from the CDI which illustrate a greater focus upon "state" characteristics include items such as:

"I am sad all the time"; "I like myself"; "I feel like crying every day"; "I can never be as good as other kids," etc. The results from this study would suggest that the reported level of intensity of depression as reflected in the scores from the PIC and CDI reflect markedly different perceptions by both parents and children/adolescents regarding the symptoms which are characteristic of depression.

While the purpose of this study was not to examine the differences between perceptions of child pathology by parents versus children, the results lead to some interesting questions.

The first question relates to the validity of relying too heavily upon the assessments of parents in regard to their children's pathology. If parental assessments of depression have limited usefulness in accurately evaluating level of depression in their children as these results may indicate, does this have meaning for the psychological profession at large as they provide therapeutic services to children? At the very least we may wish to be cautious in accepting the assessments of parents at face value without ensuring that we have given sufficient credence to the reports of the child/adolescent upon which the report is based. Lachar and Gruber (1993) seem to agree when they say that:

Multisource assessment that incorporates the responses from the child or adolescent being evaluated and the

observations of their guardians is therefore likely to prove superior over a series of assessments of heterogeneous clients to assessment derived from only one source of information. (p. 83)

It seems prudent to suggest that the use of instruments such as the PIC in making decisions regarding the treatment of children and adolescents be doubly questioned unless there is adequate support based upon other assessment information including child/adolescent interview material.

Another question relates to the relatively small degree to which the PIC scores changed from pre-test to post-test. While there was evidence of some improvement, it was negligible. Most of the research performed on the PIC has been related to its usefulness in diagnosis. I could not locate other studies which have used it as a dependent variable for post-hospitalization outcome. Given the severity of the depression upon admission into the hospital and the small improvements in scores post-hospitalization, it would suggest that there were very few therapeutic benefits from the hospitalization. While this tenet may not be completely implausible, if true it presents itself as somewhat of an indictment of the therapeutic benefit of psychiatric inpatient services. If, however, the self-report of the children and adolescents, as reported via the CDI, is a more accurate assessment of their level of depression, it would appear that there is some benefit to receiving psychiatric inpatient services.

Lipovsky et al. (1989) have suggested that the CDI may not be a specific measure of depression, but rather may be thought of as an index of general distress. This would explain some of the discrepancy in parent-child scores, but would not explain the relative stability of scores from the PIC since it would be anticipated that there would have been a recognizable improvement in the child's thoughts, feelings, and behavior following hospitalization and these improvements would have been reflected in post-test PIC scores.

Conclusions

From an analysis of the findings, the following conclusions were drawn:

1. There is no difference in the efficacy of telephone or face-to-face contact when considering clinical outcomes (level of depression and length of hospitalization) associated with psychiatric inpatient follow-up of children and adolescents.
2. There is no difference in the efficacy of mental health therapists (master's-level) or mental health specialists (bachelor's-level) when considering clinical outcomes (level of depression and length of hospitalization) associated with psychiatric inpatient follow-up of children and adolescents.
3. There are differences in parent reports of level of depression in their children/adolescents and

self-reports of depression in children and adolescents.

4. Children/adolescents report significantly decreased depression post-hospitalization, while parental reports of their child's depression are not significantly different than reports made prior to hospitalization.

Implications

This study utilized "clinical outcomes" identified as psychometric measures (scores on CDI and PIC) and hospital length of stay (LOS) as determinants of "success." Numerous other "outcomes" might have been studied. In Bickman's (1996) comparative study referred to as the Fort Bragg Demonstration Project, their project was shown to have:

(a) a more systematic and comprehensive assessment and treatment planning approach, (b) more parent involvement, (c) case management, (d) more individualized services, (e) fewer treatment dropouts, (f) a greater range of services, (g) enhanced continuity of care, (h) more services in less restrictive environments, and (i) better match between services and needs as judged by parents. Still, better clinical outcomes were not found. (p. 699)

Given the above indicators, conventional wisdom would lead many to believe that it is not possible that a program with so many obvious positive qualities would not produce a greater effect in positive clinical outcomes than a program with lesser attributes. It is precisely this "paradigm shift" in our thinking that seems to be the greatest barrier to examining and scrutinizing our beliefs about treatment practices and therapeutic outcomes.

Three implications emerge from the findings of this study. First, that while there may be value to performing some therapeutic activities face-to-face, there may be many therapeutic activities that may be performed with equal clinical efficacy through the use of the telephone. This finding suggests that the necessity of requiring staff to travel distances to perform follow-up activities while children are in the hospital may not be the most efficient or economical use of their time based upon improvements in major clinical outcomes.

Second, certain therapeutic tasks may be performed equally well by master's-degree-trained staff or bachelor's-degree-trained staff without negative consequences to clinical outcomes. While the range of activities for which this is true needs further evaluation, it appears that in terms of follow-up to inpatient care, bachelor's-trained staff can be utilized as effectively as master's-trained staff.

Finally, it appears that parents and children do not report similar assessments regarding level of children's depression. It appears that parents may tend to focus upon more behavioral symptoms (external) in order to derive information regarding the severity of their child's depression. These external symptoms may also be assessing "trait" characteristics as opposed to internal "state" characteristics. This would explain why parental

assessments in this study tended to remain relatively stable even after hospitalization.

Children and adolescents tend to report their level of depression more seriously prior to hospitalization and report significant relief after hospitalization. Their self-assessments may reflect greater focus upon their feelings (internal) as opposed to their behavior (external). This focus is likely to be detected by the CDI which seems to be oriented toward "state" characteristics. It is also reasonable to suggest that a brief hospitalization is more likely to impact "state" characteristics than "trait" characteristics. These differences may have serious implications if this pattern is true across different types of problem areas and across different types of therapeutic settings.

The implications include suggesting caution to practitioners in the implementation of treatments which may overestimate the importance of parental assessment and de-emphasize the self-report of the child/adolescent.

Recommendations for Further Study

The following recommendations for further study are proposed, based on the findings and conclusions of this research:

1. Future research should be conducted that evaluates the efficacy of telephone counseling versus face-to-face therapy using clinical outcome indicators to

evaluate the extent to which telephone contact is an effective strategy in therapeutic work.

2. Future research that focuses upon additional types of therapeutic activities for which bachelor's level staff may be as effective as master's-level staff should be performed.

3. Additional research to evaluate the differences between parental assessment of their children's emotional and/or psychological state and children's self-report could be useful. There was no standardized instrument available at the time of this study that could be utilized by both parents and children to assess depression. Had such an instrument been available it may have assisted in clarifying some of the questions raised as a result of this study.

4. Other studies that would seem important include evaluation of parental expectations of psychiatric hospitalization versus children and adolescent's expectations of psychiatric hospitalization.

APPENDICES

APPENDIX A

AUTHORIZATION TO PERFORM STUDY



ANDREWS
UNIVERSITY

July 25, 1995

Bruce Hackworth
1620 Niles Avenue
St. Joseph MI 49805

Dear Bruce:

On behalf of the Human Subjects Review Board (HSRB) I want to advise you that your proposal, "The Effectiveness of Face-to-Face Community Mental health Worker Involvement During Psychiatric Inpatient Treatment of Children and Adolescents," has been reviewed under the Full Review Category. You have been given clearance to proceed with your research plans.

All changes made to the study design and/or consent form after initiation of the project require prior approval from the HSRB before such changes are implemented. Feel free to contact our office if you have any questions. The duration of the present approval is for one year. If your research is going to take more than one year, you must apply for an extension of your approval in order to be authorized to continue with this project.

Some proposals and research designs may be of such a nature that participation in the project may involve certain risks to human subjects. If your project is one of this nature and in the implementation of your project an incidence occurs which results in a research-related adverse reaction and/or physical injury, such an occurrence must be reported immediately in writing to the Human Subjects Review Board. Any project-related physical injury must also be reported immediately to the University physician, Dr. Loren Hamel, by calling (616) 473-2222.

We wish you success as you implement the research project as outlined in the approved protocol.

Sincerely,

James R. Fisher, Director
Office of Scholarly Research


c: Frederick Kosinski



RIVERWOOD CENTER

P.O. Box 547 • 1485 M-139
Benton Harbor, MI 49023-0547
(616) 925-0585 • (800) 336-0341
Fax (616) 925-0070

MEMO

TO: Allen Edlefsen
County Director
FROM: Bruce Hackworth 
Programs Manager, Outpatient Programs
RE: Dissertation Proposal
DATE: January 6, 1995

As we discussed, I am concluding the final stages of my doctoral work in Counseling Psychology. The major remaining effort involves completion of my dissertation.

I have selected a dissertation topic which I think will provide valuable information to the agency as well as satisfy my degree requirements. The topic is "The effectiveness of face-to-face community mental health worker involvement during inpatient treatment of children and adolescents". Parents of children who are screened for admission to local inpatient units will be asked to complete a parent questionnaire regarding their child's functioning/mental status immediately prior to admission. The child will also be asked to complete a self-administered questionnaire immediately prior to admission. The same questionnaires will be completed immediately prior to discharge from the hospital and again at a three week follow-up.

The subjects of the study will be all 11-17 year old children seen at Riverwood for screening of admission into local inpatient psychiatric units. I will be contacting the local units we typically admit to in order to obtain their cooperation in this study.

The testing instruments used will be the Personality Inventory for Children (P-I-C) and the Children's Depression Inventory (C-P-I).

The methodology will be as follows: the children and parents presenting for admission into child and adolescent psychiatric units will be screened for admission and asked to complete the testing instruments prior to admission. The results of the instruments

will not necessarily affect the admission decision. If a child is admitted into a psychiatric unit, a therapist or mental health specialist will be assigned if a worker is not already assigned to the case, within 48 hours of admission. Children will be randomly assigned to either the experimental or control group. In the experimental group, the worker will meet face to face with the client, the hospital social worker and other hospital personnel within 72 hours of admission. During that meeting, the community mental health worker will obtain information about the client's mental status, treatment issues, progress and related issues. The community mental health worker will share information related to client's history, present circumstances in the community and likely aftercare plans. The community mental health worker provide face to face visits at least weekly during the hospitalization until discharge. In the control group, the worker will phone the client and hospital worker within 72 hours of admission. The community mental health worker will obtain information about the client's mental status, treatment issues, progress and related issues. The community mental health worker will share information related to the client's history, present circumstances in the community and likely aftercare plans. The assigned worker will phone the client and hospital worker at least weekly during the hospitalization until discharge.

The primary evaluator will request the child and parents to complete the self-administered questionnaires. These typically take 15-25 minutes to complete. They will collect the completed questionnaires and forward them to me for scoring. The information we learn could prove useful in the prediction of hospital outcomes and therapeutic benefit based upon various clinical factors as we move towards managed care.

Please let me know if you have any questions.

cc: Joe Johnston



RIVERWOOD CENTER

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Fax (616) 925-0070

June 1, 1995

Bruce Hackworth
Riverwood Center
1485 M-139
Benton Harbor, MI 49023

Dear Bruce:

You have requested permission to perform a research study to fulfill your doctoral dissertation requirements. Your study will involve follow-up with children and adolescents who are hospitalized after being screened by our Agency.

This letter will serve as authorization to perform this study subject to approval by Andrews University. You will be expected to maintain all policies and procedures of Riverwood Center during the course of your research.

Sincerely,

A handwritten signature in cursive script that reads "Allen R. Edlefsen".

Allen R. Edlefsen
County Director of Mental Health

AE:dm



Pine Rest Christian Hospital
300 68th Street, S.E.
P.O. Box 165
Grand Rapids, Michigan 49501-0165
616/455-5000

Restoring lives, renewing spirits

Mr. Bruce Hackworth, M.A., A.C.S.W
Program Manager
Riverwood Center
P.O. Box 547
Benton Harbor, MI 49023-0547

June 12, 1995

Dear Bruce:

I am responding to your letter to me dated May 17, 1995 regarding your work towards your doctoral dissertation at Andrews University. I would be happy to assist you with your study of aftercare follow-up. You may utilize me as your contact when questionnaires and consent forms need to be completed for your patients at Pine Rest. My direct number is 616-281-6315.

Good luck with this project!

Sincerely,

A handwritten signature in cursive script that reads "Kerri Stallmer".

Kerri Stallmer, RN, BSN
Program Manager
Child and Adolescent Services

STATE OF MICHIGAN



JOHN ENGLER
Governor

DEPARTMENT OF MENTAL HEALTH

JAMES K. HAVEMAN, JR., Director

**PHEASANT RIDGE CENTER
OF KALAMAZOO REGIONAL PSYCHIATRIC HOSPITAL**

1312 Oakland Drive, Kalamazoo, MI 49008
Telephone — (616) 337-4098
FAX—(616) 337-4065

June 8, 1995

To Whom It May Concern:

This is to certify that Mr. Bruce Hackworth, MA, ACSW, has the clinical privileges to evaluate children/adolescents from Berrien County who are admitted to Pheasant Ridge Center for inpatient psychiatric treatment.

Yours truly,

Lan H. P. Bui, M.D.

Lan H. P. Bui, M.D.
Clinical Director
Diplomate, American Board of
Child Psychiatry

LPHB:11a





MADISON CENTER and HOSPITAL

ON THE RACE
403 EAST MADISON STREET
SOUTH BEND, INDIANA 46617
219/234-0061
FAX: 219/288-5047

AT EDISON LAKES
435 PARK PLACE CIRCLE
MISHAWAKA, INDIANA 46545
219/271-1000
FAX: 219/271-4900

June 9, 1995

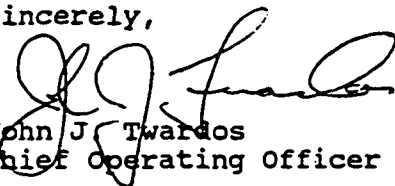
Bruce Hackworth, MA, ACSW
Programs Manager
Outpatient and Prevention Services
Riverwood Center
P.O. Box 547
1485 M-139
Benton Harbor, MI 49023-0547

Dear Bruce:

Madison Hospital would be pleased to cooperate with your aftercare follow up project in conjunction with Riverwood Center and Andrews University. I enjoyed discussing the proposed project during our recent meeting.

Please let me know when you would like to begin the project.

Sincerely,



John J. Twardos
Chief Operating Officer

JJT/clk



**Charter South Bend
Behavioral Health System**

June 5, 1995

Mr. Bruce Hackworth, Programs Manager
Riverwood Center
P.O. Box 547
1485 M-139
Benton Harbor, MI 49023-0547

Dear Mr. Hackworth:

I am writing to inform you that the staff at Charter Behavioral Health System are prepared to assist you with your project. We are aware that in some instances your staff member will meet face-to-face with a patient on the unit. In other cases, your staff will make telephone follow-up calls to the patient on the unit. Within the first 48 hours, a Child Depression Inventory and the Personality Inventory for Children will be administered by our staff if these questionnaires have not been completed prior to hospitalization. We will also assist with having appropriate releases of information signed by the patient's legal guardian.

Once again, we look forward to working with you on this project, and are very interested in the findings of your study. Please let me know if there is anything else we need to know before we begin. Thank you.

Sincerely,

John Stratigos
Community Liaison



RIVERWOOD CENTER

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(616) 925-0585 • (800) 336-0341
Fax (616) 925-0070

**Mr. John Stratigos
Charter Hospital
6704 N. Gumwood Dr.
Granger, IN.
46530**

May 20, 1995

Dear Mr. Stratigos:

I am writing to request your assistance in a project I am working on. Aside from my duties as program manager for outpatient services at our facility, I am working on my doctoral dissertation at Andrews University in Berrien Springs, Michigan. My Ph.D. will be in Counseling Psychology and my dissertation involves the study of two different types of aftercare follow-up. I will be asking my staff to provide (in some cases) face-to-face follow-up in the hospital for Berrien County children hospitalized at various psychiatric units. In other cases I will be asking staff to provide telephone follow-up for Berrien County children hospitalized at various psychiatric units.

Two of the measures I will be using to perform this study will be the Children's Depression Inventory (CDI) and the Personality Inventory for Children (PIC). In most cases, we will have these questionnaires completed prior to the hospitalization. In some cases, however it may be necessary to wait until the child and/or parent has a brief stabilization period (24-48 hours) before asking them to complete the questionnaires.

If you are agreeable to cooperating with me on this study, I would be most appreciative. I would provide the questionnaires and consent forms and would only ask for your assistance in those situations in which it was not possible to get the questionnaires completed prior to hospitalization.

If you agree to participate in this project, I would appreciate it if you could send a letter to me stating your agreement to participate and cooperate with me in this project.

If you have any questions I would be most happy to answer them for you. You may contact me at (616) 925-0952.

Thank you in advance for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Hackworth', with a long horizontal flourish extending to the right.

Bruce Hackworth, M.A.; A.C.S.W.
Programs Manager
Outpatient and Prevention Services



RIVERWOOD CENTER

P.O. Box 547 • 1485 M-139
Benton Harbor, MI 49023-0547
(616) 925-0585 • (800) 336-0341
Fax (616) 925-0070

Mr. John Twardos
Madison Hospital
403 East Madison Street
South Bend, IN.
46617

May 20, 1995

Dear Mr. Twardos:

I am writing to request your assistance in a project I am working on. Aside from my duties as program manager for outpatient services at our facility, I am working on my doctoral dissertation at Andrews University in Berrien Springs, Michigan. My Ph.D. will be in Counseling Psychology and my dissertation involves the study of two different types of aftercare follow-up. I will be asking my staff to provide (in some cases) face-to-face follow-up in the hospital for Berrien County children hospitalized at various psychiatric units. In other cases I will be asking staff to provide telephone follow-up for Berrien County children hospitalized at various psychiatric units.

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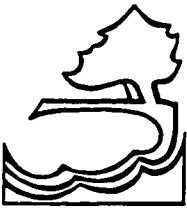
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Bruce Hackworth, M.A.; A.C.S.W.
Programs Manager
Outpatient and Prevention Services



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P.O. Box 547 • 1485 M-139
Benton Harbor, MI 49023-0547
(616) 925-0585 • (800) 336-0341
Fax (616) 925-0070

Ms. Kerri Stallmer
Pine Rest Christian Hospital
300 68th St.
Grand Rapids, MI
49501-0165

May 20, 1995

Dear Ms. Stallmer:

I am writing to request your assistance in a project I am working on. Aside from my duties as program manager for outpatient services at our facility, I am working on my doctoral dissertation at Andrews University in Berrien Springs, Michigan. My Ph.D. will be in Counseling Psychology and my dissertation involves the study of two different types of aftercare follow-up. I will be asking my staff to provide (in some cases) face-to-face follow-up in the hospital for Berrien County children hospitalized at various psychiatric units. In other cases I will be asking staff to provide telephone follow-up for Berrien County children hospitalized at various psychiatric units.

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Bruce Hackworth, M.A.; A.C.S.W.
Programs Manager
Outpatient and Prevention Services



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P.O. Box 547 • 1485 M-139
Benton Harbor, MI 49023-0547
(616) 925-0585 • (800) 336-0341
Fax (616) 925-0070

Dr. Lan Bui
Pheasant Ridge Hospital
1312 Oakland Dr.
Kalamazoo, MI.
49008

May 20, 1995

Dear Dr. Bui:

I am writing to request your assistance in a project I am working on. Aside from my duties as program manager for outpatient services at our facility, I am working on my doctoral dissertation at Andrews University in Berrien Springs, Michigan. My Ph.D. will be in Counseling Psychology and my dissertation involves the study of two different types of aftercare follow-up. I will be asking my staff to provide (in some cases) face-to-face follow-up in the hospital for Berrien County children hospitalized at various psychiatric units. In other cases I will be asking staff to provide telephone follow-up for Berrien County children hospitalized at various psychiatric units.

Two of the measures I will be using to perform this study will be the Children's Depression Inventory (CDI) and the Personality Inventory for Children (PIC). In most cases, we will have these questionnaires completed prior to the hospitalization. In some cases, however it may be necessary to wait until the child and/or parent has a brief stabilization period (24-48 hours) before asking them to complete the questionnaires.

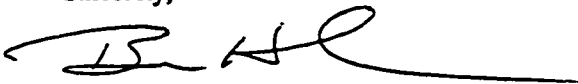
If you are agreeable to cooperating with me on this study, I would be most appreciative. I would provide the questionnaires and consent forms and would only ask for your assistance in those situations in which it was not possible to get the questionnaires completed prior to hospitalization.

If you agree to participate in this project, I would appreciate it if you could send a letter to me stating your agreement to participate and cooperate with me in this project.

If you have any questions I would be most happy to answer them for you. You may contact me at (616) 925-0952.

Thank you in advance for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. H.', with a long horizontal line extending to the right.

Bruce Hackworth, M.A.; A.C.S.W.
Programs Manager
Outpatient and Prevention Services

APPENDIX B

CORRESPONDENCE FROM HOSPITALS



**Charter South Bend
Behavioral Health System**

April 4, 1995

Mr. Bruce Hackworth
Riverwood Center
1485 M-139
Benton Harbor, MI 49023-0547

Dear Mr. Hackworth:

I am writing in regards to your request for information about inpatient admissions from Berrien County, Michigan.

Between October 1, 1993 and September 30, 1994, there were sixty-six Michigan Medicaid inpatient admissions. There was a noticeable increase in admissions during the spring and summer months. During the months of July and August of 1994 there were twenty admissions. During the months of October, November and December of 1994 there were eight admissions, while during the same period in 1995 there were fifteen admissions. Approximately 70% of the child and adolescent admissions were referred by one or more of the following organizations: Riverwood, Link Crisis Center, Berrien County Department of Social Services, and Berrien County Probation Department. Less than 10% were referred directly from Berrien Schools and Berrien Health Department.

I hope this information will be helpful in the implementation of a system for managing Michigan Medicaid clients. I look forward to working with you to develop a protocol for the after hours and emergency calls.

Please feel free to call if you have any further questions or concerns.

Sincerely,

John Stratigos
Community Liaison

JS:sk



Pine Rest Christian Hospital
300 68th Street, S.E.
P.O. Box 165
Grand Rapids, Michigan 49501-0165
616/455-5000

Restoring lives, renewing spirits

Mr. Bruce Hackworth, ACSW, LLP
Riverwood Center
P.O. Box 547
1485 M-139
Benton Harbor, MI 49023-0547

December 15, 1994

Dear Bruce:

I am following-up with you regarding your inquiry about Berrien County admissions into our programs. I had our Data Processing staff run a report which showed admission from your county into our hospital from October 93-September 94. There were a total of 11 Medicaid admissions. Six patients were admitted to our Adolescent Unit and five patients were admitted to the Childrens Unit. The average length of stay was 21 days. There were a total of 234 patients days with the 11 patients. I can access this information whenever you might need it so please feel free to contact me at any time.

You also asked about any psychological instruments or questionnaires that our program uses consistently for all admissions. There is no standard protocol for automatically doing psych testing with each admission. We do use some tests more routinely than others such as the MMPI, Rorschach, and WISC. Each patient is assessed for the need for psychological testing at the time of admission. I am aware that our Older Adult Program does routinely use some instrument to assess dementia at the time of admission into their program. You may contact Ron Rozema, MSW at 455-5000 ext 2130 for further information regarding this. I believe the Adult Program uses the Beck Depression Inventory at the time of admission.

There are a couple of non-standardized instruments that we use for intake purposes (inpatient and outpatient have separate instruments) as well as a form for patients to complete at the time of a routine medication review. I am also aware of an instrument we have developed in assessing substance abuse. I will gather these instruments and forward them to you.

I have enclosed an application for Medical Staff Privileges. When you have completed it you may mail it to Barb Holmen in our Medical Staff Office.

Please let me know if I can be of further assistance to you as you track hospital usage of your patients or as you entertain topics for your dissertation.

Have a Happy Holiday Season and send greetings from our staff to yours!

Sincerely,

Kerri Stallmer

Kerri Stallmer, RN, BSN
Program Administrator,
Child and Adolescent Services


MADISON CENTER and HOSPITAL

ON THE RACE
403 EAST MADISON STREET
SOUTH BEND, INDIANA 46617
219/234-0061
FAX: 219/288-5047

AT EDISON LAKES
435 PARK PLACE CIRCLE
MISHAWAKA, INDIANA 46545
219/271-1000
FAX: 219/271-4900

January 10, 1995

Bruce Hackworth, ACSW
Program Manager
Outpatient and Prevention Services
Riverwood Center
P.O. Box 547
1485 M-139
Benton Harbor, MI 49023-0547

Dear Bruce:

In response to your request for information regarding admission of Berrien County children and adolescents to Madison Hospital, please find summarized below a breakdown of these admissions.

	<u>Medicaid</u>	<u>All Payors (Incl. Medicaid)</u>
Child Admissions:	12	13
Adolescent Admissions:	16	30
Total Admissions:	28	43

The above data is for the time period 1/1/94 to 11/30/94.

With regard to utilization of psychological testing for hospital admissions, the type of psychological testing varies per physician order, and the discretion of the testing psychologist. Our assessment area utilizes a consistent child/adolescent intake assessment. Our intake protocol consists of completion of a child/adolescent intake assessment form as well as completion of the Achenbach assessment by the child, as well as the parent. I have enclosed copies of these forms for you.


For adults, our intake assessment includes completion of the SCL-90R and our Madison Center/Hospital crisis assessment form. I have also attached copies of these forms.

Letter to Bruce Hackworth, ACSW
January 10, 1995
Page Two

As I mentioned on the telephone, Madison Hospital permits area providers to apply for and obtain staff privileges. I have enclosed two social worker application packets and two psychologist application packets. If you require any additional applications, please let me know. Processing of the application materials takes several months, however, it is possible to obtain temporary privileges during the processing time.

I would be happy to provide any additional information you may require. I will contact you in a week or so to discuss the above in additional detail.

Sincerely,


John J. Twardos
Chief Operating Officer

JJT/clk
Enclosures

APPENDIX C

COPY OF CONSENT FORM

Andrews University
Research Release Form

Client _____ Date of Birth _____

The staff at Riverwood Center is committed to providing the best possible mental health services to each person coming to us. One of the ways we do this is to subject our programs, diagnostic procedures, and treatment methods to study and analysis through ongoing research activity. We ask your cooperation in this activity by agreeing to make available to staff, data which will develop in the course of your treatment. These data will be treated as confidential material and your own identity, or that of your family, will not be revealed. The collection of this data will not alter your treatment program in any significant way.

I understand that this current research project represents an attempt to assess the effectiveness of community mental health workers in providing follow-up treatment while my child is receiving services in a psychiatric hospital. I further understand that my child and I will be asked to complete a paper and pencil questionnaire at the time of hospitalization and again approximately three weeks after my child's discharge from the hospital. I understand this is a data gathering project and in no way affects treatment planning or my ability to receive ongoing services.

I understand that the results of the study may be shared through publication and/or oral presentation and that anonymity is guaranteed for those clients and families who participate. I understand that the results of the study will be kept in strict confidence and that the identity of my child or adolescent and our family will remain anonymous. Within these restrictions the results of the study will be made available to me at my request and that I can receive additional explanation of the study after my child or adolescent's participation is completed.

I understand that participation or non-participation in this research will not change or alter my child or adolescent's treatment program in any way. I also understand that my child or adolescent is not required to participate and that he/she or I may discontinue such participation in the project at any time without effecting the treatment program. Moreover, I am aware that participation in the study does not guarantee any additional benefit to my child, adolescent or me.

Andrews University

Research Release Form

I hereby agree to allow my child or adolescent to participate in this research project being conducted by Bruce Hackworth, M.A.; M.S.W. under the supervision of Frederick Kosinski, Ph.D.; Associate Professor, Andrews University.

If you have any questions you may contact Bruce Hackworth at (616) 925-0952 or Dr. Frederick Kosinski at (616) 471-3113.

Signed _____ Date _____

Parent/Guardian of _____

Child _____ Date _____

Witness _____ Date _____

APPENDIX D

DATA FILE

FORMAT FOR SAMPLE OF 52 SUBJECTS

Columns 1 and 2	=	Case Number
Column 3	=	Gender of the Subject (1-male, 2-female)
Columns 4 and 5	=	Age of the Subject
Column 6	=	Race of the Subject (1-African-American, 2-Caucasian, 3-Other)
Column 7	=	Treatment Condition (1-Face-to-Face, 2-Telephone)
Column 8	=	Worker Type (1-Mental Health Therapist, 2-Mental Health Specialist)
Column 9	=	Psychiatric Inpatient Unit (1-Pheasant Ridge, 2-Charter, 3-Madison, 4-Pine Rest, 5=Borgess)
Columns 10 and 11	=	Length of Stay (Number of Days in Hospital)
Columns 12 and 13	=	PIC Pre-test Scores
Columns 14 and 15	=	PIC Post-test Scores
Columns 16 and 17	=	CDI Pre-test Scores
Columns 18 and 19	=	CDI Post-test Scores

0121421219531313211
0211522121621233723
0311421121324162713
0421622142715161614
0511421122122172233
0621522130823293704
0711411222232212822
0821612221425213621
0921621232023182307
1011712131509151819
1111611214622071412
1211512220420153021
1311521231822262630
1411121122217203408
1511722110705053424
1621721121425233527
1711612214918100301
1811421121228242415
1911522132227203623
2011521230926263026
2111322221227281509
2221621121327261212
2321611130829372120
2421722121924242922
2511511121424221802
2611622121727242117
2721621121824231303
2821212121223231814
2921421240824201713
3021522231321200404
3121621131030301414
3221422230927253221
3311321231027271911
3411122121129211713
3511611120724231616
3621322121220141811
3711111232116181217
3811722131027261110
3911521130728243431
4011422250518190505
4111621151233274829
4211522220826252118
4311712220421212619
4421521130510091008
4511712231413141815
4621322220819202417
4721621220731302521
4821422130819210706
4921421122128234427
5011522131427252519
5111221141233291311
5221422120609082015

APPENDIX E

PROTOCOL FOR WORKER CONTACTS

PROTOCOL FOR HOSPITALIZED CHILDREN

Make contact within first week of hospitalization. Make follow-up contacts at least once per week thereafter. Follow the procedure outlined below.

FACE-TO-FACE VISITS:

During contact, discuss with assigned hospital worker information regarding client's mental status, treatment issues, progress and planned course of treatment during the hospitalization. Share information with the hospital worker related to client's history, present circumstances in the community such as living arrangement, school status, and likely aftercare plans.

Also, review the hospital chart with particular attention to the nursing notes and physician notes sections.

Meet with your client to discuss their adjustment process to the hospital, concerns, complaints and questions regarding aftercare plans, etc. If any problems or issues arise after this discussion, review them with the assigned hospital worker.

TELEPHONE CONTACTS:

During contact, discuss with assigned hospital worker information regarding client's mental status, treatment issues, progress and planned course of treatment during the hospitalization. Share information with the hospital worker related to client's history, present circumstances in the community such as living arrangement, school status, and likely aftercare plans.

Speak with your client by phone to discuss their adjustment process to the hospital, concerns, complaints and questions regarding aftercare plans, etc. If any problems or issues arise after this discussion, review them with the assigned hospital worker.

After each contact, complete the **PROTOCOL FOR HOSPITALIZED CHILDREN - DATA SHEET** and submit it to Bruce Hackworth.

**PROTOCOL FOR HOSPITALIZED CHILDREN
DATA SHEET**

Weekly contacts will be made throughout the hospitalization: Please complete the following information after each contact and submit to Bruce Hackworth.

Name of Child: _____

Hospital: _____

Date of Contact: _____

Riverwood Worker Name: _____

Please place an X next to all of the criteria that were met during you contact.

- Face to Face Visit**
 Met with hospitalized client
 Met with assigned worker
 Reviewed the hospital chart

- Telephone Contact**
 Spoke with assigned worker
 Spoke with hospitalized client

APPENDIX F

A COPY OF THE CHILDREN'S DEPRESSION
INVENTORY (CDI)

PLEASE NOTE

Materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

**Appendix F
CDI
Pages 153-157**

UMI

APPENDIX G

A COPY OF THE PERSONALITY INVENTORY
FOR CHILDREN (PIC)

PLEASE NOTE

Materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

**Appendix G
PIC
Pages 159-172**

UMI

APPENDIX H

DEPRESSION SUBSCALE ITEMS

Items From First 280 Items of PIC That Make Up Depression Subscale

1. My child often plays with a group of children.
2. My child hardly ever smiles.
3. My child worries about things that usually only adults worry about.
4. My child has a good sense of humor.
5. My child is worried about sin.
6. My child has little self-confidence.
7. My child often asks if I love him (her).
8. My child doesn't seem to care to be with others.
9. My child seems too serious minded.
10. My child really has no real friend.
11. My child is as happy as ever.
12. My child often complains that others don't understand him (her).
13. My child usually plays alone.
14. My child is usually in good spirits.
15. My child is easily embarrassed.
16. My child is almost always smiling.
17. My child has as much pep and energy as most children.
18. My child often talks about death.
19. Everything has to be perfect or my child isn't satisfied.
20. My child often will cry for no apparent reason.
21. My child will worry a lot before starting something new.
22. My child usually looks at the bright side of things.
23. My child often has crying spells.
24. My child seems tired most of the time.
25. My child tends to pity himself (herself).
26. I often wonder if my child is lonely.
27. Usually my child takes things in stride.
28. Little things upset my child.
29. My child keeps thoughts to himself (herself).
30. My child has usually been a quiet child.
31. My child broods some.
32. My child takes criticism easily.
33. It is likely that my child will stay in the house for days at a time.
34. My child is afraid of dying.
35. My child doesn't seem to care for fun.

36. My child often stays in his (her) room for hours.
37. Several times my child has threatened to kill himself (herself).
38. My child seems unhappy about our home life.
39. Others often remark how moody my child is.
40. My child seldom talks.
41. My child whines a lot.
42. My child speaks of himself (herself) as stupid or dumb.

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Andrews University, Berrien Springs, MI.
- M.S.W.** Social Work. June 1983, Michigan State University,
East Lansing, MI. Minor: Administration and Program
Evaluation.
- M.A.** Family Studies. June 1979, Michigan State University,
East Lansing, MI. Minor: Developmental Psychology.
- B.A.** Psychology. March 1978, Michigan State University,
East Lansing, MI. Minor: Sociology and Education.

RELATED EDUCATIONAL EXPERIENCE

- Ingham Community Mental Health Center**, Lansing, MI. September
1982 - June 1983. Internship with director of the agency.
- Catholic Social Services of Oakland County**, Royal Oak, MI.
October 1981 - June 1982. Internship performing outpatient
services.
- Wayne State University**, Detroit, Mi. Fall, 1980. Supervised
psychological assessment.

PROFESSIONAL EMPLOYMENT EXPERIENCE

- Programs Manager, Outpatient and Prevention Services**,
Riverwood Center, Benton Harbor, MI. February, 1992 -
Present.
- EAP Counselor**, Personal Performance Consultants, Chicago, IL.
1992-1994.
- Long Term Services Supervisor**, Riverwood Center, Benton
Harbor, MI. February, 1988 - February, 1992.
- Clinical Team Supervisor**, Riverwood Center, Benton Harbor,
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- Mental Health Therapist**, Riverwood Center, Benton Harbor, MI.
April, 1984 - January, 1985.
- Mental Health Therapist**, Clinton-Eaton-Ingham Community
Mental Health Center, Lansing, MI. May, 1983 - April, 1984.

ORGANIZATIONS, AWARDS AND CREDENTIALS

- B.A. with Honors**, Michigan State University, East Lansing,
MI. March, 1978.
- Presenter**, "Citizen Participation in Community Mental Health
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- Member**, Academy of Certified Social Workers.
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