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DISSERTATION

**THE STATUS OF TRAINING: TRAINING AGENCY
SERVICE PATTERNS COMPARED TO THOSE OF MANAGED BEHAVIORAL
HEALTH CARE ORGANIZATIONS**

Submitted by

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In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

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Fort Collins, Colorado

Summer 2002

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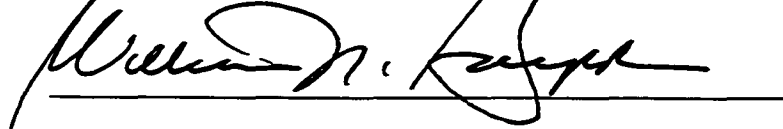
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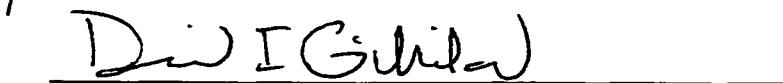
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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY JAMIE R. HORTON ENTITLED THE STATUS OF TRAINING: TRAINING AGENCY SERVICE PATTERNS COMPARED TO THOSE OF MANAGED BEHAVIORAL HEALTH CARE ORGANIZATIONS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Committee on Graduate Work










Adviser



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ABSTRACT OF DISSERTATION

THE STATUS OF TRAINING: TRAINING AGENCY SERVICE PATTERNS COMPARED TO THOSE OF MANAGED BEHAVIORAL HEALTH CARE ORGANIZATIONS

The dominance of managed behavioral health care in the mental health industry has led to concerns about the status of training for psychologists. The concern suggests that there are discrepancies between experiences in managed behavioral health care organizations (MBHOs) and pre-doctoral training agencies. This study examines discrepancies by comparing training agency service patterns to those of MBHOs. Service patterns included in the study are client demographic information, treatment length, diagnoses, and treatment events for years 1997-1999.

The results are consistent with earlier findings and indicate that there are significant differences between training agencies and MBHOs for all variables. The findings have important implications for the training of psychologists, and recommendations for training and future research are provided.

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TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
I. INTRODUCTION.....	1
Managed Mental Health Care.....	1
Implications of the Changes in the Industry for the Training of Psychologists.....	3
Discrepancy between Training and Managed Mental Health Care.....	5
Purpose of the Study.....	8
II. METHOD.....	9
Description of the Training Agency and the NOMP.....	9
Training Agency.....	9
NOMP.....	11
Procedure.....	12
Explanation of Analysis.....	14
III. RESULTS.....	18
Comparison of the Training Agency and ADPTC Training Agencies.....	18
Demographic Data.....	20
1997.....	20
1998.....	21
1999.....	23
Summary.....	24
Average Number of Therapy Sessions per Year.....	24
1997.....	24
1998.....	25
1999.....	25
Summary.....	25

DSM-IV Diagnoses at Intake.....	26
1997.....	26
1998.....	27
1999.....	29
Summary.....	30
DSM-IV Diagnoses at Termination.....	30
1997.....	30
1998.....	31
1999.....	32
Summary.....	34
Treatment Events.....	34
IV. DISCUSSION.....	36
Representativeness of the Training Agency and the NOMP.....	36
Summary of Results.....	37
Demographic Data.....	37
Average Number of Therapy Sessions per Year.....	39
DSM-IV Diagnoses.....	40
Treatment Events.....	43
Proposed Explanations for the Differences between Organizations and Across Years.....	44
Implications for the Training of Psychologists.....	48
Recommendations for the Training of Psychologists.....	52
Limitations of the Study and Recommendations for Future Research.....	57
Summary.....	59
REFERENCES.....	61
APPENDIX A: Letters of Cooperation.....	68
APPENDIX B: Tables.....	71

TABLES (APPENDIX B)

Table 1	Alphabetical Listing of Diagnostic Categories Used in the Study.....	72
Table 2	Demographic Variables for the Training Agency and the NOMP - 1997...	75
Table 3	Demographic Variables for the Training Agency and the NOMP - 1998...	77
Table 4	Demographic Variables for the Training Agency and the NOMP - 1999...	79
Table 5	Treatment Length (1997-1999).....	81
Table 6	Diagnoses for Axis I at Intake - 1997.....	82
Table 7	Diagnoses Included in the "Other" Category on Table 6 - 1997.....	83
Table 8	Diagnoses for Axis I at Intake - 1998.....	85
Table 9	Diagnoses Included in the "Other" Category on Table 8 - 1998.....	86
Table 10	Diagnoses for Axis I at Intake - 1999.....	88
Table 11	Diagnoses Included in the "Other" Category on Table 10 - 1999.....	89
Table 12	Diagnoses for Axis I at Termination - 1997.....	91
Table 13	Diagnoses Included in the "Other" Category on Table 12 - 1997.....	92
Table 14	Diagnoses for Axis I at Termination - 1998.....	94
Table 15	Diagnoses Included in the "Other" Category on Table 14 - 1998.....	95
Table 16	Diagnoses for Axis I at Termination - 1999.....	97
Table 17	Diagnoses Included in the "Other" Category on Table 16 - 1999.....	98
Table 18	Top Three Axis I Diagnoses at Intake (1997-1999).....	100
Table 19	Top Three Axis I Diagnoses at Termination (1997-1999).....	101

Table 20	Axis V for the Training Agency and NOMP (1997-1999).....	102
Table 21	Psychotropic Medications for 1999.....	103
Table 22	Treatment Events for 1999.....	104

CHAPTER 1

Introduction

Managed Mental Health Care

As a part of the overall revamping of the American health care system, the mental health care field has changed dramatically since the 1980s (Kent & Hersen, 2000). Some contend that managed care has more dramatically impacted the delivery of mental health services than other areas of medicine (Schuster, 1997). Managed behavioral health care organizations (MBHOs) were virtually nonexistent 15 years ago (Hamilton, 1994), and working in the industry today is radically different from that of just ten years ago (Zieman, 1998). In a short amount of time, the delivery of mental health services has radically changed from an indemnity, fee-for-service system to managed behavioral health plans.

The changes in the delivery of mental health services are so dramatic that they have been referred to as a paradigm shift (Cummings, 1986; Freeman, 1997) and a “mental health care revolution.” (Zimet, 1989). Examples of some of the service delivery changes include a shift from inpatient to outpatient care, an emphasis on brief and intermittent treatment in lieu of long-term treatment, and a focus on empirically-validated treatments with a solution focus (American Psychological Association, 1996,

1997; Schuster, 1997; Charous & Carter, 1996). Other changes include an emphasis on cost containment, increased accountability and quality control efforts, greater investment in the development and management of information systems (American Psychological Association, 1996; Schuster, 1997) and the need for psychologists to become knowledgeable about the administrative and business aspects of practice (Charous & Carter, 1996).

Changes in the industry are compounded by the pervasiveness of managed mental health care. Managed mental health care organizations are clearly the dominant provider of mental health services. Fisher (1996) reported that 120 million Americans were receiving mental health care and substance abuse services from MBHOs in 1996, and as of 1998, this number is over 170 million (Practice Strategies, 1998). In addition, two-thirds of Americans with health insurance are now covered by managed mental health care plans (Bodman, 1997). Bodman, citing data from Open Minds, a publication of Behavioral Health Industry News, also reports that the top ten managed care companies control approximately 80% of the mental health market share (Bodman, 1997). More recently, the number of top managed care companies has shrunk to about five or six due to mergers in the last couples of years. Current examples of some of the largest managed care companies include Magellan, ValueOptions, Blue Cross Blue Shield, and United (G. L. Ziemann, personal communication, July 1, 2001).

Although there is much controversy regarding the utility and benefit of managed care systems, few argue that these systems will go away (Kent & Hersen, 2000). Even a cursory review of the literature reveals that most authors presume that managed mental

health care will remain the status quo for some time. In summary, the managed mental health care system is pervasive, evolutionary, and here to stay (Kent & Hersen, 2000; Zieman, 1998).

Implications of the Changes in the Industry for the Training of Psychologists

Changes in the mental health care market have led to concerns about the training and education of professional psychologists. There are numerous commentaries that raise questions about the current status of training in light of the evolving mental health care industry. Charous and Carter (1996) highlight that neither The National Conference on Internship Training in Psychology (Belar, Bieliauskas, Larsen, Mensh, Poey, & Roelke, 1989; "Resolutions," 1987) nor the 1987 Conference on Graduate Education and Training in Psychology (Bickman and Ellis, 1990) mention the potential impact of health care reform upon curriculum development or internship training. Furthermore, these authors acknowledge that there are many unanswered questions regarding the "goodness of fit" between traditional graduate training and the effects of health care reforms. Similarly, Austad (1992) reports that there are incongruencies between traditional training and the clinical realities seen in managed care. Many authors indicate that the methods used to educate behavioral health care professionals must be reevaluated and restructured as to better prepare mental health professionals for the competencies needed in managed care (for example, Freeman, 1997; Lovell, 1997; Zieman, 1998).

In response to concerns about training, the American Psychological Association (APA) created a task force to study changes in the health care delivery system and to identify implications for the education, training, and continuing professional education of

psychologists (American Psychological Association, 1997). The assumption of the task force was that all professional psychologists need to be better prepared to work with managed care issues. The goal of the task force was to address specific training needs for professional psychologists who will likely work within a managed care setting (American Psychological Association, 1997).

The APA's task force report (American Psychological Association, 1997) makes training recommendations for several domains, such as multidisciplinary practice, clinical skills, research, business information, and technology. The report cites Cummings (1995), who's comments seem to embody the overall recommendation of the task force: Cummings states that the psychologist should be trained as "...an innovative clinician, a creative researcher, an inspired supervisor, a knowledgeable health psychologist, a caring skilled manager, and an astute business person."

The 1997 task force is one of many initiated by the APA in response to changes in the mental health care delivery system and concerns about training (also see, American Psychological Association, 1996, 1998). Although the APA is focused on training concerns and is currently allocating resources to the issue of training and managed care, there are many who believe the efforts of the APA, as well as other responsible parties in the industry, are alarmingly delayed (for example, Charous & Carter, 1996; Cummings, 1995; Mesh, 1998). Cummings (1986, 1995) provides an elegant summary of the issue: "there has been a lethargic response to the arrival of managed care, and training has failed to evolve at the same rate as the industry."

Discrepancy between Training and Managed Mental Health Care

Such an effort by the APA and others to review and document training concerns suggests that many in the field believe there is a discrepancy between current training experiences and experiences in managed care settings. In fact, a review of the literature reveals evidence to support this. For example in 1992, a pilot survey indicated that 75% of the responding psychologists stated that graduate school training did not adequately prepare them for work in an HMO (Austad, Sherman, Morgan, & Holstein, 1992). In addition, 63% of the respondents initially had little or no knowledge of managed care. An expanded survey (Austad, Sherman, & Holstein, 1993) replicated these earlier findings. The findings suggest that, at least in 1992, psychologists perceived that their training programs did not adequately prepare them for work in managed care.

In his survey of 233 psychology interns, Kent (1995) found that only 15% reported receiving instruction about managed care (Cummings, 1998). In addition, according to the APA's 1995 Doctorate Employment Survey (Wicherski & Kohout, 1997), new graduates said that they needed training to help them deal with the present realities of health care delivery. Similarly, in a recent study concerning brief therapy training and managed care, only half of graduate school educators reported that they "cover managed care" (Levenson & Evans, 2000).

Providing a perspective from the managed care environment, surveys concerning the percentage of providers possessing the skills necessary for managed care and perceptions of training needs were sent to 38 MBHOs. Overall, the results indicate that clinical managers of MBHOs experience dissatisfaction with the competence of

behavioral health professionals working in managed care and “report a discrepancy between existing training and actual training needs” (Shueman & Shore, 1997). Thus, there is converging evidence from trainees, educators, and managed care managers that there is a discrepancy between the knowledge and skills needed in managed care and those received during pre-doctoral training.

As there is little systematic examination of the issue of a discrepancy between training and managed care, the studies reviewed above are a veritable contribution to the literature. However, there are limitations with respect to making a comment about the current status of pre-doctoral training and managed care. One is that the Austad studies were published in 1992-1993; therefore, the data are most likely at least eight years old. In addition, the participants, psychologists who were actively in the work force at the time, may have received their training any number of years prior to 1992-1993, possibly before changes in the mental health care market occurred. As a result, these findings may not hold true for today. In addition, all of the studies fall prey to the inherent limitations and biases of self-report.

Horton (2000) did not use self-report to examine the question of disparate training/managed care experiences. Instead, her study analyzed training agency service patterns and compared them to those of MBHOs. Service patterns included in the study are client demographic information, length of treatment, and diagnoses. The results indicate that there are significant differences between training agency and MBHO service patterns for all of the service patterns examined. For example, the average length of

treatment for the Training Agency was 10 sessions; whereas, the average treatment length for MBHOs was four sessions.

A contribution of the study is the presentation of detailed, MBHO service patterns. Although “report cards”, such as the Health Plan and Employers Data and Information Set (HEDIS, National Committee for Quality Assurance, 1996), represent national efforts at collecting standardized data for managed behavioral health care, the unfortunate fact is that data included in report cards are quite limited. In sum, either the report card includes too few mental health data points or does not include data in sufficient detail. For example, HEDIS was designed for managed care services in general, and although there has been some expansion of mental health data points, HEDIS does not make available information such as demographic data or treatment length. There is another reason why presentation of MBHO service patterns is a contribution to the literature: even though MBHOs are collecting data, they are not sharing it publicly, as the information is considered proprietary (G. L. Zieman, personal communication, February 3, 1999).

Unfortunately, there are limitations in the Horton (2000) study. The study only examined one training agency; therefore, it is difficult to generalize the results to other training agencies. In addition, the study only examined one year (1996); therefore, it is not possible to conclude that there is a trend, or that the findings would be consistent across years.

Purpose of the study

The study is a secondary data analysis, comparing training agency service patterns to those of MBHOs, as represented by the National Outcomes Management Project (NOMP) described below. Service patterns include demographic variables, length of treatment, treatment events (1999 only), and diagnoses for years 1997-1999.

The study examines the discrepancy between pre-doctoral training experiences and work experiences in managed care settings, similar to Horton (2000), and extends the Horton (2000) study by 1) addressing the limitations noted above, 2) determining and analyzing trends, and 3) adding another service pattern, treatment events. Treatment events include receiving a prescription for psychotropic medications, attempting or completing suicide, and threatening to harm or harming others.

CHAPTER 2

Method

Description of the Training Agency and the NOMP

Training Agency. The study was conducted at a psychology training agency, which is a service, research, and training facility of a Counseling Psychology Doctoral Program in the Department of Psychology, in a medium-sized university in the western United States. The agency functions as a community mental health center and provides various forms of outpatient treatment including initial assessment, individual therapy, family therapy, couples counseling, psychological testing, group therapy, and consultation. Typically, individuals requiring services not provided by the agency, such as the treatment of severe psychosis, are referred to the county mental health center. Fees for services are determined using a sliding scale based on income and family size, and the agency is not engaged in any managed care contracts. As there is a university counseling center for students, the client population is primarily from the community and neighboring towns; however, the agency also provides services to some students from the university as well as students from the local community college.

All clients are seen by advanced doctoral students in the Counseling Psychology Ph.D. Program. Students start seeing clients in this agency at the beginning of their third

year, with all students having had practica experience prior to seeing clients. The clinic staff consists of a director, a graduate student assistant director, an administrative assistant/office manager, the graduate students who conduct the therapy, faculty supervisors, and a part-time undergraduate work study. On average, there are approximately 15 student therapists each year and nine faculty supervisors. A full-time or adjunct faculty member, who is a doctoral level psychologist, supervises each case. Each therapist is required to have at least 120 direct client hours for the academic year. This requirement can be met through various combinations of the services provided by the agency.

As noted above, a limitation of the Horton (2000) study is that only one training agency was examined. There is a practical reason for this: data were not readily available from other training agencies because most do not regularly maintain databases. There is little need for most training agencies to track service patterns because they are not-for-profit and generally small enough to manage with less sophisticated approaches.

Although training agency data are difficult to access, it is important to provide some guidance about the Training Agency's representativeness. Fortunately, the Association of Directors of Psychology Training Clinics (ADPTC) surveyed training agencies when they were developing a directory for the organization's members in 1997. The ADPTC database is composed of information from 79 pre-doctoral, practicum training agencies located across the U.S. Key elements needed to determine the representativeness of the Training Agency under study are included in the database. For example, the ADPTC database includes the number of student therapists, faculty

supervisors, the services offered at the clinic, the size of the clinic, the three most common presenting problems, the agency's relationship with managed care, fee structure, and the funding sources of the clinic. The information in the ADPTC database was compared to the Training Agency to determine whether or not the Training Agency is representative of other training agencies.

NOMP. Comparable MBHO data are provided by the NOMP. The NOMP, housed in the Department of Psychiatry at the University of Cincinnati, is designed to provide a system of evaluation for the outpatient mental health care of adults and adolescents over the age of 13 for MBHOs. Further, the NOMP aims to empower MBHOs to develop and maintain an evolving database for the examination of clinical practice patterns and the measurement of the efficacy and effectiveness of providers. By reporting quarterly in compliance with procedures and protocol established by the NOMP, participating sites work together to build a nonproprietary database that provides a benchmark for comparison.

The NOMP is unique in several ways. The first rests with the NOMP's commitment to research. The philosophy of the NOMP is that data sharing is a valuable tool for the improvement of the quality of behavioral health care. The second is the level of detail that is available in the NOMP database. For example, the NOMP database includes detailed demographic and diagnostic information, that is difficult to access elsewhere. Although other standardized data collection efforts may have such information in their databases, the NOMP is the only source that makes this information

readily available, and therefore, the NOMP represents the only MBHO database that is available for studies like this one.

The data included in the NOMP database are from MBHOs in the midwestern and southwestern parts of the U.S. Unfortunately data from other regions are not available; however, the database is large, with approximately 11,000 client records. Examples of the information available include the percentage of clients with certain diagnoses and the number of treatment sessions with the greatest reduction in symptoms (Zieman, Kramer, & Daniels, 1997). More specifically, the database includes the variables of interest in this study: demographic information, number of sessions, treatment events (1999 only), and diagnoses at intake and termination for 1997-1999. The data were delivered to the Training Agency in accordance with a Letter of Cooperation (see Appendix A), signed by an officer of the NOMP. In summary, the letter indicates that the officer is familiar with the project, is satisfied with data security measures, and commits to providing data for the study.

Procedure

Prior to data collection for the Training Agency, the study was reviewed and approved by the Human Research Committee of the University's Office of Regulatory Compliance. Training Agency data were collected by reviewing all case files for clients who initiated treatment in 1997-1999. As a regular part of operations, clients were asked to complete various forms at intake that included demographic and background information. Student therapists assessed and documented diagnostic information at various points in the treatment course, including intake and termination. A record for

each client file was created and includes the following data: demographic information, number of sessions, treatment events, and diagnoses at intake and termination.

Demographic variables include gender, ethnicity, marital status, educational level, income level, and age. Clients under the age of 14 are not included in the Training Agency database because the NOMP data do not include children less than 14. In order to protect the confidentiality of client case records, no identifying information is linked to any client record.

Therapists determined diagnoses in accordance with the criteria in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV, American Psychiatric Association, 1994). A multiaxial system for assessment, which consists of five axes, is used to determine DSM-IV diagnoses. Axis I is for reporting clinical disorders and other conditions that may be a focus of clinical attention. Axis II is provided to document the existence of a personality disorder and/or mental retardation. Axis III is for reporting general medical conditions experienced by the client, and Axis IV provides information about psychosocial and environmental problems.

The last axis, Axis V, is for reporting the client's global assessment of functioning (GAF), which is the clinician's judgment of the client's overall level of functioning. The GAF is based on a numerical scale from zero to 100, with a low value suggesting that the client's overall functioning is mentally unhealthy, and a high value indicating that the client's overall functioning is mentally healthy (American Psychiatric Association, 1994).

DSM-IV Axes I, II, III, and V are included in the study. Axis IV is not included because the descriptive nature of this axis does not lend itself to quantitative analysis.

Explanation of Analysis

Descriptive statistics were performed for the service patterns of both organizations, and inferential statistics were performed to compare service patterns and analyze trends. Frequencies were obtained for all demographic variables (except for age), and significance testing for demographic variables was performed using the chi-square statistic. Adjusted residuals (Haberman, 1978) were reviewed for each chi-square statistic to determine which level(s) of the demographic variable account for the difference. The effect size for each of the demographic variables (except for age) was determined using the Cramér's V statistic. The following ranges for the behavioral sciences were used for the interpretation of the Cramér's V statistic: .1 - .30, small effect; .30 - .50, moderate effect; and, .50 - 1.00, large effect (Cohen, 1998). The same form of analysis was used for treatment events.

The Training Agency and the NOMP were consistent in their designations for the levels of ethnicity or racial background (e.g., White/nonHispanic, Hispanic, Asian-American, African-American, Native-American, and Other); however, the NOMP source documents referred to these designations as "racial background," and the Training Agency referred to the same designations as "ethnicity." The term "ethnicity" will be used to report the results for this study. Similarly, because the source documents for both the Training Agency and the NOMP data include the use of the term "Hispanic," this designation will be retained to most accurately reflect the data.

Means were calculated for age and number of sessions. Significance testing for the differences in means between the Training Agency and the NOMP was performed using t-tests. Effect size was measured using the eta-squared statistic. The following ranges for the behavioral sciences were used for the interpretation of the eta-squared statistic: 0 - .06, small effect; .06 - .14, moderate effect; and, .14 - 1.00, large effect (Cohen, 1998).

Because there are over 300 Axis I diagnoses included in the DSM-IV, categories of diagnoses were developed for the study, consistent with those used in Horton (2000). The diagnostic categories for the study closely resemble the classifications of diagnoses provided in the DSM-IV (American Psychiatric Association, 1994). Deviations from the DSM-IV classification system relate to combining several DSM-IV classifications of low frequency into one diagnostic category. The diagnostic categories used in the study are reported on Table 1 (Appendix B). In addition, the DSM-IV classifications that were combined into one diagnostic category are listed below the diagnostic category on Table 1. For convenience, diagnostic categories are referred to as “diagnoses,” unless otherwise stated.

Frequencies were determined for Axis I diagnoses at intake and termination, and significance testing for Axis I diagnoses was performed using the chi-square statistic. Similar to the demographic variables, the Cramér’s V statistic was performed to measure effect size. Adjusted residuals were reviewed to identify the diagnostic categories that contribute to the differences between the Training Agency and the NOMP.

Frequencies were also determined for the diagnoses for Axes II and III at intake and termination. The chi-square statistic was used for significance testing, and the Cramér's V statistic was performed to measure effect size. Means were calculated for Axis V data at intake and termination, and t-tests were used for significance testing. Effect size for Axis V data were measured using the eta-squared statistic. Finally, analysis of variance (ANOVA) was used to analyze trends, and the effect size was measured by performing the eta-squared statistic.

Different sample sizes were used for some variables. In general, this is due to the fact that not all records include all data points for both the Training Agency and the NOMP databases. The main reason that sample sizes vary for the NOMP data is that diagnostic information was collected via chart audits every six months; whereas, demographic information was collected daily, as individuals accessed the NOMP agencies. As a result, the sample sizes for the demographic variables for the NOMP exceed the sample sizes used for the diagnostic variables.

The sample sizes used for the average number of sessions and diagnoses for the Training Agency are less than the sample sizes used for the demographic variables for the Training Agency. The reduced sample sizes reflect the exclusion of clients who received assessment services, but did not receive therapy services. Excluding assessment-only clients is necessary to ensure that the Training Agency data are consistent with the NOMP data, which does not reflect assessment services. Given the relatively large sample sizes for all variables, the fluctuation in sample sizes was not a concern for the interpretation of the results.

Finally, descriptive statistics were performed for the ADPTC training agencies for presenting problems, services, funding, and size, and compared to 1997 information for the Training Agency. The comparison is necessarily qualitative because there is only one “record” for the Training Agency, which preempts performance of inferential statistics. This is unlike the comparisons made between the Training Agency and the NOMP, where numerous client records were the unit under study, instead of the agency itself.

CHAPTER 3

Results

Comparison of the Training Agency and the ADPTC Training Agencies

The ADPTC database includes information about presenting problems for each training agency. Presenting problems are similar to, and sometimes the same as, diagnoses at intake. The three highest presenting problems for the ADPTC agencies are Depressive Disorders, Relational Problems, and Anxiety Disorders. The top three diagnoses for the Training Agency at intake (not including “Other”) are Relational Problems, Anxiety Disorders, and a tie between Adjustment Disorders and No Diagnosis/Diagnosis Deferred (Table 3). Although there are some differences in presenting problems/diagnoses, there are more similarities, as both data sets include high numbers for Relational Problems and Anxiety Disorders in 1997.

The ADPTC agencies provide one or more of the following services: individual/family therapy, group therapy, consultation, and assessment. Almost all of the ADPTC training agencies provide individual/family therapy services (98%) and assessment services (94%). The figures are lower for group therapy services (67%) and consultation (32%). The services that are performed most routinely at the Training Agency are individual/family therapy and assessment services; however, as mentioned

earlier, the Training Agency provides all of the services noted above. These data suggest that the Training Agency's services are comparable to the services provided by other training agencies.

Almost all (91%) of the ADPTC training agencies have university-affiliations that provide financial assistance to the clinics. In addition, over 89% of ADPTC agencies generate their own funds, most often via sliding scale fee arrangements (93%). Only 15% of training agencies participate in managed care contracts, and about half receive reimbursement from third party payers. As noted earlier, the Training Agency in the study is affiliated with a university and utilizes a sliding scale for fees. In addition, the Training Agency is not involved in managed care contracts and does not receive reimbursements from third party payers (clients file insurance claims on their own). As nearly all of the ADPTC agencies are affiliated with a university, use a sliding scale for fees, and few are involved in managed care contracts, funding practices of the Training Agency appear to be much like those of other agencies.

Finally, two measures of size are provided, which are the number of clinical staff (student therapists and faculty supervisors) and the number of rooms in the clinic. The median number of student therapists for the ADPTC is 24, and is seven for faculty supervisors. The Training Agency typically has about 15 student therapists per year and nine faculty supervisors. Based on these figures, the Training Agency may be somewhat smaller than other training agencies; however, the opposite conclusion can be made after reviewing data for the number of rooms. The median number of individual therapy rooms for the ADPTC agencies is five and is 13 for the total of all rooms in the clinic.

The Training Agency has six therapy rooms, and a total of 15 rooms. Based on these data, it is difficult to make a general statement about size; however, it appears that the Training Agency is not meaningfully different in size from other training agencies.

Demographic Data

1997. With the exception of gender (chi-square = .30, $p > .05$; Cramér's $V = .01$), demographic data for the Training Agency are significantly different from demographic data for the NOMP. The differences between the Training Agency and the NOMP are significant for ethnicity (chi-square = 11.03, $p < .05$), marital status (chi-square = 30.33, $p < .05$), educational level (chi-square = 13.08, $p < .05$), income level (chi-square = 179.02, $p < .05$), and age ($t = 11.47$, $p < .05$). See Table 2 for a summary of 1997 demographic data. All tables are included in Appendix B.

Due to low frequencies in some categories for ethnicity, the following categories were combined: Asian-American, Native-American, and Other. A review of the adjusted residuals indicates that the difference in ethnicity for 1997 is accounted for by differences in the "Other" category. The "Other" category is primarily composed of clients who identify as bi-ethnic. The Training Agency has a higher percentage of clients in the "Other" category as compared to the NOMP (e.g., 7.6% and 3%, respectively). The effect size for ethnicity is Cramér's $V = .06$, which is less than the floor for a small effect size.

The adjusted residuals for marital status indicate that the "married" and "never married" categories account for the difference in marital status in 1997. Approximately one-third of the Training Agency clients are married, and over half of the Training

Agency clients are “never married.” It is roughly the opposite for NOMP clients. The effect size for marital status is small, Cramér’s $V = .10$.

For 1997, the difference in educational level is primarily accounted for by differences in the “some college” and “college graduate” categories. The Training Agency reported a higher percentage of clients in the “some college category”, and the NOMP reported a higher percentage of clients in the “college graduate” category. The size of the effect for educational level is Cramér’s $V = .07$, which is less than the floor for a small effect size.

Based on the review of adjusted residuals, the difference in income level in 1997 is accounted for by differences in all income categories. Almost 75% of the Training Agency clients earn less than \$20,000 per year, compared to roughly 15% of the NOMP clients. A majority of the NOMP clients fall in the “20,000-39,000” and the “40,000-59,000” income brackets. The effect size for income is small, but approaches the moderate range, Cramér’s $V = .25$.

The mean age for Training Agency clients was 27.94 years ($SD = 9.91$, $N=106$) in 1997. This is significantly lower than the mean age for NOMP clients, 37.20 years ($SD = 8.10$, $N=2,947$). The effect size for age is small, $\eta^2 = .04$.

1998. Like 1997, the Training Agency was not significantly different from the NOMP for gender ($\chi^2 = .88$, $p > .05$; Cramér’s $V = .02$). In addition, there is not a significant difference for ethnicity ($\chi^2 = 11.35$, $p > .05$), and the effect for ethnicity is negligible (Cramér’s $V = .07$). The differences between the Training Agency and the NOMP are significant for marital status ($\chi^2 = 55.51$, $p < .05$), educational

level (chi-square = 22.15, $p < .05$), income level (chi-square = 298.81, $p < .05$), and age ($t = 11.69$, $p < .05$). 1998 demographic data are summarized on Table 3.

Similar to 1997, the adjusted residuals for marital status indicate that the “married” and “never married” categories account for the difference in marital status. Approximately 20% of the Training Agency clients are married, compared to over 50% of the NOMP clients. Two-thirds of the Training Agency clients are “never married”; whereas, only 30% of NOMP clients fall into the “never married” category. The effect size for marital status is small, Cramér’s $V = .16$.

The difference in educational level for 1998 is accounted for by differences in the “8th grade or less”, “some college”, and “any postgraduate work” categories. The Training Agency reported higher percentages of clients in the “8th grade or less” and “some college” categories, and the NOMP reported a higher percentage of clients in the “college graduate” category. The size of the effect for educational level is Cramér’s $V = .10$, which is in the small range.

Based on the review of adjusted residuals, the difference in income level for 1998 is accounted for by differences in all income categories. The “less than \$20,000” bracket reflects the largest difference: over 80% of the Training Agency clients earn less than \$20,000 per year, compared to 12% of the NOMP clients. Like 1997, a majority of the NOMP clients fall in the “20,000-39,000” and the “40,000-59,000” income brackets. The effect size for income level is moderate, Cramér’s $V = .39$.

The mean age for Training Agency clients in 1998 is 28.60 years ($SD = 8.25$, $N=93$). This is significantly lower than the mean age for NOMP clients, 37.57 years (SD

= 7.18, $N=1,956$). This pattern of results is consistent with 1997 data. The effect size for age is moderate, $\eta^2 = .06$.

1999. The pattern of results for demographic data in 1999 is similar to 1998. The Training Agency is not significantly different from the NOMP for gender ($\chi^2 = .31, p > .05$; Cramér's $V = .01$). In addition, there is not a significant difference for ethnicity ($\chi^2 = 2.31, p > .05$), and the effect is negligible (Cramér's $V = .03$). The differences between the Training Agency and the NOMP are significant for marital status ($\chi^2 = 27.78, p < .05$), educational level ($\chi^2 = 24.68, p < .05$), income level ($\chi^2 = 227.39, p < .05$), and age ($t = 5.86, p < .05$). 1999 demographic data are summarized on Table 4.

The adjusted residuals for marital status indicate that the "married" and "never married" categories account for the difference in marital status for 1999. Approximately 25% of the Training Agency clients are married, and over 50% of Training Agency clients are "never married." This is roughly the opposite for the NOMP, a general pattern that is consistent with prior years. The effect size for marital status is small, Cramér's $V = .12$.

The difference in educational level in 1999 is accounted for by differences in the "8th grade or less", "some high school", and "college graduate" categories. The Training Agency reported a higher percentage of clients in the "8th grade or less" and "some high school" categories, and the NOMP reported a higher percentage of clients in the "college graduate" category. The size of the effect for educational level is in the small range, Cramér's $V = .11$.

Based on the review of adjusted residuals, the difference in income level for 1999 is accounted for by differences in all income categories, except for "20,000--\$39,000." The pattern of results is similar to prior years, such that the "less than \$20,000" bracket accounts for most of the difference. For example in 1999, 75% of the Training Agency clients earn less than \$20,000 per year, compared to 11% of the NOMP clients. Also like prior years, a majority of the NOMP clients fall in the "20,000-39,000" and the "40,000-59,000" income brackets. The effect size for income level is moderate, Cramér's $V = .35$.

In 1999, the mean age for Training Agency clients in 1999 is 27.87 years ($SD = 10.45$, $N=70$). This is significantly lower than the mean age for NOMP clients, 39.80 years ($SD = 16.90$, $N=1,922$). The effect size for age is in the small range, eta-squared = .02. This pattern of results is consistent with 1997 and 1998.

Summary. The differences between the Training Agency and the NOMP for gender are not significant for all three years. For ethnicity, the difference is significant for 1997, but not for 1998 or 1999. For all years, there are significant differences for the remaining demographic variables, including marital status, educational level, income level, and age. In general, effect sizes are small, except for income for 1997-1999 and age in 1998. The effect sizes for both are moderate, or approach the moderate range.

Average Number of Therapy Sessions per Year

1997. The Training Agency provided a significantly higher number of individual/family therapy sessions per client than the NOMP ($t = -10.64$, $p < .05$). The mean number of sessions for the Training Agency was 10.13 ($SD = 10.86$, $N = 75$), and

the mean number of sessions for the NOMP was 4.19 (SD = 4.17, N = 1,467). The effect size for the number of individual/family therapy sessions is in the moderate range, eta-squared = .07.

1998. As in 1997, the Training Agency provided a significantly higher number of individual/family therapy sessions per client than the NOMP ($t = -8.50, p < .05$). The mean number of sessions for the Training Agency is 9.00 (SD = 11.95, N = 64), and the mean number of sessions for the NOMP is 4.13 (SD = 3.74, N = 1,271). The effect size for the number of individual/family therapy sessions is in the small range, eta-squared = .05.

1999. As in prior years, the Training Agency provided a significantly higher number of individual/family therapy sessions per client in 1999 than the NOMP ($t = -4.27, p < .05$). The mean number of sessions for the Training Agency is 7.98 (SD = 9.56, N = 52), and the mean number of sessions for the NOMP is 5.03 (SD = 4.46, N = 949). The effect size for the number of individual/family therapy sessions is in the small range, eta-squared = .02.

Summary. As noted above, the Training Agency reported a higher average number of sessions per client when compared to the NOMP, which is consistent for all three years, 1997-1999. The effect sizes are small for 1998 and 1999, and moderate for 1997. Table 5 summarizes treatment length for the Training Agency and the NOMP for 1997-1999. A review of the table reveals that the average number of sessions decreased for the Training Agency during 1997-1999 and increased for the NOMP from 1998 to 1999. Although the average number of sessions dropped for the Training Agency, the

difference between years is not significant ($F=.58$, $\eta^2=.01$). The increase in sessions from 1998 to 1999 for the NOMP, however, is significant ($F=26.76$, $\eta^2=.01$), but the effect size is small.

DSM-IV Diagnoses at Intake

1997. Due to the high number of diagnostic categories, many categories have low frequencies. Consequently, low-frequency diagnostic categories are combined and designated as the “Other” category. Two tables are presented for the Axis I diagnoses at intake and the Axis I diagnoses at termination. The first table in each set identifies the diagnostic categories that were used for significance testing, including the “Other” category. The second table in each set supports the first table by reporting the diagnostic categories that comprise the “Other” category. This presentation is also used for 1998 and 1999 data (for a total of 12 tables, four for each year).

Tables 6 and 7 summarize Axis I diagnoses at intake for 1997. In addition, Table 18 provides a listing of the “Top 3” Axis I diagnoses at intake across years 1997-1999. In 1997, the difference for Axis I diagnoses at intake is significant ($\chi^2 = 121.16$, $p < .05$), and the effect size is in the small range, Cramér’s $V = .24$. A review of the adjusted residuals indicates that the difference is accounted for by differences in the following five diagnostic categories: Relational Problems, Depressive Disorders, Adjustment Disorders, No Diagnosis/Diagnosis Deferred, and Other. The largest differences relate to Relational Problems and Depressive Disorders, with the Training Agency reporting more Relational Problems, and the NOMP reporting more Depressive Disorders. In addition, the NOMP reported a higher percentage of Adjustment Disorders, and the Training

Agency reported higher percentages for diagnoses in the “Other” category and “No Diagnosis/Diagnosis Deferred.” Examples of “Other” diagnoses include Attention Deficit and Disruptive Behavior Disorders, Substance Related Disorders, and Additional Conditions-Focus of Clinical Attention.

Due to low frequencies across Axis II diagnoses at intake for 1997, all Axis II diagnoses are combined (except for “No Diagnosis/Diagnosis Deferred”), leaving only two categories, “Personality Disorders/Mental Retardation” and “No Diagnosis/Diagnosis Deferred.” Both data sets reported at least 92% for “No Diagnosis/Diagnosis Deferred”, and the difference between the Training Agency and the NOMP for Axis II at intake is not significant, chi-square = 3.82, $p > .05$ ($N = 1,460$). In addition, the effect size does not meet the floor for a small effect, Cramér’s $V = .05$.

The coding for Axis III is dichotomous, documenting the presence or absence of an Axis III diagnosis. The Training Agency and the NOMP reported that 26% of clients have an Axis III diagnosis in 1997. Consequently, there is no difference for Axis III at intake, chi-square = .007, $p > .05$ ($N = 1,975$). The effect size is essentially zero, Cramér’s $V = .002$.

In 1997, the difference between the Training Agency ($M = 59.38$, $SD = 11.29$, $N = 71$) and the NOMP ($M = 61.31$, $SD = 9.85$, $N = 1,591$) for Axis V at intake was not significant ($t = 1.60$, $p > .05$), and there was no measurable effect size (eta-squared = 0). Table 20 summarizes Axis V data for the Training Agency and NOMP for all three years, 1997-1999.

1998. Tables 8 and 9 summarize Axis I diagnoses at intake for 1998. The difference for Axis I diagnoses at intake is significant (chi-square = 196.38, $p < .05$), and the effect size is moderate, Cramér's $V = .32$. A review of the adjusted residuals indicates that the difference is accounted for by differences in the following five diagnostic categories: Relational Problems, Depressive Disorders, Adjustment Disorders, No Diagnosis/Diagnosis Deferred, and Other. The largest differences relate to Depressive Disorders and the "Other category." The Training Agency reported more diagnoses in the "Other" category, and the NOMP reported more Depressive Disorders. In addition, the NOMP reported a higher percentage of Adjustment Disorders, and the Training Agency reported higher percentages for Relational Problems and "No diagnosis/Diagnosis Deferred."

Due to low frequencies across Axis II diagnoses at intake in 1998, the data are insufficient to run valid inferential statistics. The frequencies, however, are similar to 1997, such that both the Training Agency and the NOMP reported "No Diagnosis/Diagnosis Deferred" for over 92% of clients.

At intake in 1998, the Training Agency did not report a significantly different percentage (37%) of clients who had received a diagnosis for Axis III than the NOMP (27%), chi-square = 2.89, $p > .05$ ($N = 1,978$), and the effect size is less than the floor for a small effect, Cramér's $V = .04$. This pattern of results is consistent with 1997 results at intake.

Also like 1997, the difference between the Training Agency ($\underline{M} = 61.51$, $\underline{SD} = 11.28$, $\underline{N} = 66$) and the NOMP ($\underline{M} = 60.73$, $\underline{SD} = 8.28$, $\underline{N} = 1,116$) for Axis V at intake is

not significant ($t = -.728, p > .05$) in 1998, and there is no measurable effect (eta-squared = 0).

1999. Tables 10 and 11 summarize Axis I diagnoses at intake for 1999. The difference for Axis I diagnoses at intake is significant (chi-square = 56.57, $p < .05$), and the effect size is in the small range, Cramér's $V = .21$. A review of the adjusted residuals indicates that the difference is accounted for by the following five diagnostic categories: Depressive Disorders, Substance Related Disorders, Adjustment Disorders, No Diagnosis/Diagnosis Deferred, and Other. The largest differences relate to Depressive Disorders and the "Other" category. Like 1998 at intake, the Training Agency reported more diagnoses in the "Other" category, and the NOMP reported more Depressive Disorders. In addition, the NOMP reported a higher percentage of Adjustment Disorders, and the Training Agency reported higher percentages for Substance Related disorders and "No diagnosis/Diagnosis Deferred."

As in 1998, frequencies are too low to run valid inferential statistics for Axis II at intake in 1999. Both the Training Agency and the NOMP reported "No Diagnosis/Diagnosis Deferred" for at least 95% of clients. Consequently, there are few "Personality Disorders/Mental Retardation" diagnoses for Axis II at intake (e.g., 2% for the Training Agency and 5% for the NOMP), which is consistent with results from 1997 and 1998 at intake.

Unlike 1997 and 1998, the Training Agency reported a significantly lower percentage (24%) of clients with a diagnosis for Axis III at intake than the NOMP (32%),

chi-square = 42.56, $p < .05$ ($N = 506$) in 1999. Further, the effect size approaches the moderate range, Cramér's $V = .29$, which exceeds 1997 and 1998 amounts.

In 1999, the results for Axis V at intake are similar to the results for 1997 and 1998. The difference between the Training Agency ($M = 62.02$, $SD = 11.86$, $N = 58$) and the NOMP ($M = 61.13$, $SD = 8.57$, $N = 1,232$) is not significant ($t = -.758$, $p > .05$), and there is no measurable effect ($\eta^2 = 0$).

Summary. At intake, Axis I diagnoses for the Training Agency and the NOMP are significantly different for all three years. The differences for Axis II at intake are either not significant or indeterminable, due to low frequencies. The differences for Axis III at intake are not significant, except for 1999, and there are no significant differences for Axis V at intake. Effect sizes are generally small across years, except for Axis I in 1998 and Axis III in 1999, which are moderate or approach the moderate range.

DSM-IV Diagnoses at Termination

1997. Tables 12 and 13 summarize Axis I diagnoses at termination for 1997. In addition, Table 19 provides a listing of the "Top 3" Axis I diagnoses at termination across years 1997-1999. In 1997, the difference for Axis I diagnoses at termination is significant (chi-square = 47.42, $p < .05$), and the effect size is in the small range, Cramér's $V = .15$. A review of the adjusted residuals indicates that the difference is accounted for by the following four categories: Relational Problems, Depressive Disorders, Attention Deficit and Disruptive Behavior Disorders, and Other. The largest differences are found in the "Other" category and Depressive Disorders, with the Training Agency reporting more diagnoses in the "Other" category, and the NOMP

reporting more Depressive Disorders. In addition, the Training Agency reported higher percentages for Relational Problems and Attention Deficit and Disruptive Behavior Disorders as compared to the NOMP.

Similar to the diagnoses at intake, Axis II diagnoses at termination for 1997 are combined (except for “No Diagnosis/Diagnosis Deferred”) due to low frequencies. The difference between the Training Agency and the NOMP for Axis II at termination is significant, chi-square = 22.00, $p < .05$ ($N = 1,459$), and the effect size is small, Cramér’s $V = .12$. The percentages for “No Diagnosis/Diagnosis Deferred” are 71% and 90% for the Training Agency and NOMP, respectively. The Training Agency reported a higher percentage (29%) of “Personality Disorders/Mental Retardation” relative to the NOMP (10%).

At termination in 1997, the Training Agency did not report a significantly different percentage (36%) of clients who had received a diagnosis for Axis III than the NOMP (26%), chi-square = 2.41, $p > .05$ ($N = 1,954$). Further, the effect size is negligible, Cramér’s $V = .04$.

In 1997, the difference between the Training Agency ($M = 62.28$, $SD = 11.49$, $N = 57$) and the NOMP ($M = 62.78$, $SD = 10.13$, $N = 1,590$) for Axis V at termination was not significant ($t = .36$, $p > .05$), and there is no measurable effect size ($\eta^2 = 0$). In addition, Axis V measures at termination are not significantly different from Axis V measures at intake for the Training Agency in 1997 ($t = -1.71$, $p > .05$; $\eta^2 = .06$). However, Axis V measures at termination are significantly higher than Axis V measures at intake for the NOMP ($t = -11.64$, $p < .05$; $\eta^2 = .08$).

1998. Tables 14 and 15 summarize Axis I diagnoses at termination for 1998.

The difference for Axis I diagnoses at termination is significant (chi-square = 188.29, $p < .05$), and the effect size is moderate, Cramér's $V = .32$. A review of the adjusted residuals indicates that the difference is accounted for by the following four categories: Relational Problems, Depressive Disorders, Adjustment Disorders, and Other. As in 1997 at termination, the largest differences are found in the "Other" category and Depressive Disorders, with the Training Agency reporting more diagnoses in the "Other" category, and the NOMP reporting more Depressive Disorders. In addition, the Training Agency reported higher percentages than the NOMP for Relational Problems, and the NOMP reported more Adjustment Disorders.

Similar to the diagnoses at intake for 1998, the data for Axis II at termination are insufficient to run valid inferential statistics. Both the Training Agency and the NOMP reported "No Diagnosis/Diagnosis Deferred" for over 90% of clients.

At termination in 1998, the Training Agency did not report a significantly different percentage (26%) of clients who had received a diagnosis for Axis III than the NOMP (28%), chi-square = .135, $p > .05$ ($N = 1,968$). Further, there is essentially no effect (Cramér's $V = .008$), a pattern consistent with 1997 results at termination.

Unlike 1997, the difference between the Training Agency ($M = 67.19$, $SD = 11.15$, $N = 58$) and the NOMP ($M = 62.37$, $SD = 9.15$, $N = 1,120$) for Axis V at termination is significant ($t = -3.87$, $p < .05$) in 1998. The effect is small, eta-squared = .01. In addition, Axis V measures at termination are significantly higher than Axis V

measures at intake for both the Training Agency ($t=3.89$, $p < .05$; $\eta^2=.23$) and the NOMP ($t=-10.34$, $p < .05$; $\eta^2=.09$).

1999. Tables 16 and 17 summarize Axis I diagnoses at termination for 1999. The difference for Axis I diagnoses at termination is significant ($\chi^2 = 89.91$, $p < .05$), and the effect size is small, approaching the moderate range, Cramér's $V = .26$. A review of the adjusted residuals indicates that the difference is accounted for by the following three categories: Depressive Disorders, No Diagnosis/Diagnosis Deferred, and Other. Consistent with prior years at termination, the largest differences are found in the "Other" category and Depressive Disorders, with the Training Agency reporting more diagnoses in the "Other" category, and the NOMP reporting more Depressive Disorders. In addition, the Training Agency reported a higher percentage for "No diagnosis/Diagnosis Deferred."

Similar to the diagnoses at intake, the data for Axis II at termination are insufficient to perform valid inferential statistics for 1999. Both the Training Agency and the NOMP reported "No Diagnosis/Diagnosis Deferred" for over 87% of clients, which is similar to 1998.

At termination in 1999, the Training Agency did not report a significantly different percentage (30%) of clients who had received a diagnosis for Axis III than the NOMP (31%), $\chi^2 = .05$, $p > .05$ ($N = 534$), and the effect is negligible, Cramér's $V = .01$. This pattern is consistent with the results for Axis III at termination in prior years.

Like 1998, the difference between the Training Agency ($M = 66.53$, $SD = 10.49$, $N = 51$) and the NOMP ($M = 63.33$, $SD = 9.21$, $N = 1,240$) for Axis V at termination is significant ($t = -2.42$, $p < .05$) for 1999. The effect is small, $\eta^2 = .01$. Also like 1998, Axis V measures at termination are significantly higher than Axis V measures at intake for both the Training Agency ($t = -3.82$, $p < .05$; $\eta^2 = .26$) and the NOMP ($t = -13.65$, $p < .05$; $\eta^2 = .13$).

Summary. At termination, the differences between the Training Agency and the NOMP for Axis I diagnoses are significant across years. For 1998 and 1999, significance testing could not be performed for Axis II at termination due to low frequencies; however, there is a significant difference for 1997. For Axis III at termination, the differences are not significant for all three years. The differences are significant for Axis V at termination, except for 1997. In addition, the differences for Axis V at intake and Axis V at termination are significant for both the Training Agency and the NOMP for all three years, with effect sizes in the moderate and large ranges. With the exception of 1997, the effect sizes for Axis I diagnoses are moderate or approach the moderate range. All other effect sizes are small or indeterminable.

Treatment Events

Treatment events data are not presented for 1997 and 1998 because the Training Agency did not start tracking treatment events until 1999. Consequently, 1999 is the only year that comparative data are available. Treatment events are significant psychological events that can occur during treatment, such as being prescribed psychotropic medication, attempting/completing suicide, and threatening to harm/or harming others.

With the exception of certain psychotropic medications, both entities reported low frequencies for many treatment events, and in some cases, the frequencies are zero. In these instances only frequencies are presented because there are not sufficient data to perform valid inferential statistics.

Psychotropic medications are divided into eight categories as follows: serotonin reuptake inhibitor antidepressants (SSRIs), tricyclic antidepressants, mao-inhibitor antidepressants, antianxiety medications, antipsychotic medications, anticonvulsants, stimulants, and other (which includes atypical antidepressants and sleep aids). The Training Agency reported a significantly lower number of clients who were prescribed SSRIs as compared to the NOMP, 6% and 49%, respectively ($\chi^2=26.22, p<.05$). The effect is in the small range, Cramér's $V=.14$. There is a similar finding for "Other" medications. The Training Agency reported 8% for medications in the "Other" category, which is significantly lower than the NOMP's percentage, 31% ($\chi^2=9.11, p<.05$). The effect is in the small range, Cramér's $V=.08$. Inferential analyses could not be performed for the other drug categories due to low frequencies (see Table 21 for frequencies of all psychotropic medications).

Similarly, inferential analyses could not be performed for the remaining treatment events due to low frequencies: self-injurious behavior, suicide attempt, completed suicide, threatening harm to others, and harming others. Frequencies are presented on Table 22.

CHAPTER 4

Discussion

Representativeness of the NOMP and the Training Agency

The degree to which the Training Agency and the NOMP are representative provides guidance regarding the generalizability of the results, which is important contextual information for the interpretation of the study's findings. As described earlier, the NOMP is represented by MBHOs in the midwestern and southwestern parts of the U.S.; consequently, the results can be reasonably generalized to MBHOs in these regions. Included in the NOMP are organizations that have been contracted by some of the largest health care companies in the country. These larger organizations have contracts with MBHOs across the U.S. This suggests that some results for the NOMP may be generalizable to areas beyond the mid- and southwestern U.S., especially for treatment length, diagnostic data, and prescriptions for psychotropic medications. However, because the NOMP database does not include MBHOs from regions other than the midwest and the southwest, generalizing the results to other parts of the U.S. should be approached with caution.

Until now, the ability to generalize results from the Training Agency to other training agencies has been limited due to a lack of data. However, due to the efforts of

the ADPTC, data from 1997 are available for training agencies across the U.S. These data were compared to the Training Agency data for 1997 to gauge the representativeness of the Training Agency.

Based on the results, there are many similarities between the Training Agency and the ADPTC agencies. For example, two out of the three presenting problems/diagnoses at intake are alike. In addition, the Training Agency provides the same services and has generally the same funding practices as ADPTC agencies. Although it is less clear how the Training Agency compares to ADPTC agencies in size, the data do not suggest that it is meaningfully different in size from other agencies.

The Training Agency appears more similar to other training agencies than different for several important domains: diagnoses, services provided, funding sources, and size. At a minimum, it is reasonable to conclude that the Training Agency is representative of other training agencies in the U.S. for the domains listed above.

As factors such as diagnoses and services provided have a large influence on the day to day operations of a training agency, they may indicate that the Training Agency is representative in other ways as well. An example is the use of a sliding scale. Sliding scales typically attract clients with lower incomes, which suggests that the clients seen at the ADPTC training agencies are low income, similar to the clients of the Training Agency under study.

Summary of Results

Demographic Data. The results for demographic data are relatively consistent from year to year. In general, there are significant differences between the Training

Agency and the NOMP for all demographic variables, except for gender for all years and ethnicity for 1998 and 1999. Both organizations reported more female (60-68%) clients than male clients for 1997-1999. The similarity in the distribution of gender for both organizations and the trend across years are expected, as women generally access therapy services more than men (Mintz & O'Neil, 1990; Russo, 1990).

Like gender, ethnicity for the Training Agency is not significantly different from the NOMP for 1998 and 1999. In 1997, the difference is significant; however, the effect size is less than the floor for a small effect size (Cramér's $V=.06$), and the overall trend for ethnicity across years is relatively stable. For example, both organizations reported that at least 80% of clients are White/nonHispanic for all three years, with Hispanic or African American clients making up the second largest group of clients (up to 10%), depending on the year and the organization.

There are significant differences between the Training Agency and the NOMP for the remaining demographic variables, and the pattern of the results is consistent from year to year. For example, for all three years, the Training Agency and the NOMP reported significant, though generally small, differences between clients for age, marital status, and educational level. The difference for income level is also significant across years, with effect sizes that are moderate or approach the moderate range.

On the whole, the clients of the Training Agency are younger, more likely to be single, and less likely to be highly educated relative to NOMP clients, which is true across years. For example, the 3-year average for age for the Training Agency is 28.1 years and 38.2 years for the NOMP, an average difference of 10.1 years. For education,

the Training Agency reported more clients in the “8th grade or less category”, and the NOMP reported more clients with college degrees and postgraduate work for all years. In addition, the Training Agency clients clearly have lower incomes than the NOMP clients, with at least 84% of NOMP clients earning greater than \$20,000 per year, and 72% of Training Agency clients earning less than \$20,000 per year. With the exception of gender, and to some degree ethnicity, the results suggest that MBHO settings provide services to a somewhat different client base as compared to training agencies. This overall finding is consistent with previous findings (Horton, 2000).

Average Number of Therapy Sessions per Year. The average number of therapy sessions per year per client for the Training Agency is significantly different from the NOMP’s figures for all three years. In addition, the pattern of results is consistent across years, with the Training Agency reporting a higher number of sessions than the NOMP. For example, the 3-year average for the Training Agency is 9.0 sessions; whereas, the NOMP’s 3-year average is 4.6 sessions, resulting in an average difference of 4.4 sessions across years. This general pattern mirrors the results of Horton (2000) for 1996, with the Training Agency reporting 10 sessions and the NOMP reporting four sessions.

The mean number of sessions for the NOMP is consistent with the finding that, on average, the number of sessions per year for many MBHOs is limited to six sessions or less (Giles & Marafiote, 1998; Hamilton, 1994). The results demonstrate that therapy provided in MBHO settings is more likely to be of shorter duration than therapy provided in training agencies. In addition, there is less variation in the average number of sessions for the NOMP relative to the Training Agency for 1997-1999. This may indicate that the

length of treatment is more consistent across clients in MBHO settings as compared to training agencies. Given that the number of sessions for the Training Agency is generally twice that of the NOMP, this result may be particularly salient for the training of psychologists.

Upon review of Table 5, which summarizes treatment length, there appears to be another trend, which is a decrease in the difference of the number of sessions between the Training Agency and the NOMP across years. For example, the difference is 5.9 sessions in 1997 and 3.0 sessions in 1999. The decreases are the result of decreases in Training Agency figures and an increase in NOMP figures from 1998 to 1999. This finding may suggest that the difference in treatment length is gradually shrinking and that MBHOs and training agencies are moving toward seeing clients for the same length of time.

Although an initial inspection of the results appears to reveal a shrinking gap in treatment length, a closer look leaves the matter less clear. Treatment lengths for the Training Agency across years are not significantly different from each other. The case is similar for the NOMP, except for 1999, which is significantly different from 1997 and 1998. Thus it may be premature to conclude that there is a shrinking gap in the number sessions between MBHOs and training agencies; however, it is an interesting possibility that may be forthcoming in future research.

DSM-IV Diagnoses. The results indicate there are significant differences between the Training Agency and the NOMP for Axis I diagnoses at both intake and termination for all three years. The NOMP consistently reported the same three

diagnoses and with similar relative frequencies across years for both intake and termination. Depressive Disorders are the highest category, followed by Adjustment Disorders and disorders in the “Other” category (e.g. Substance Related Disorders, Bipolar Disorders, Anxiety Disorders, and Attention Deficit and Disruptive Behavior Disorders). The combination of these three categories account for over 80% of all NOMP diagnoses for each year, a finding consistent with 1996 results (Horton, 2000).

The pattern is more variable for the Training Agency; however there is some consistency across years. For example, the “Other” category is the highest category for the Training Agency for all three years at intake and termination. Similarly, Depressive Disorders is the second largest category at termination for all three years. From there, the diagnostic pattern is less stable. For example, the second largest category at intake varies across years at both intake and termination (See Tables 18 and 19), as does the third largest category.

As a result, there are essentially two differences in diagnostic patterns between the Training Agency and the NOMP. The first is that the Training Agency is less consistent across years, with no clear diagnostic pattern from year to year; whereas, the NOMP essentially uses the same diagnoses from year to year with the same relative frequencies across years. The second is that the Training Agency uses a wider array of diagnoses as compared to the NOMP, which essentially uses three (as mentioned above). These differences in diagnostic patterns suggest that MBHOs emphasize certain diagnoses; whereas, training agencies use a wider spectrum of diagnostic categories that may shift from year to year. Given the effect sizes for Axis I diagnoses are often

moderate or approach the moderate range during 1997-1999, the difference in diagnostic patterns may have important implications for the training of psychologists.

For Axis II, both organizations reported “No diagnoses/Diagnosis deferred” for approximately 90% of clients for 1997-1999, which is consistent with results from 1996 (Horton, 2000). The frequencies for Axis II diagnoses, which are Personality Disorders or Mental Retardation, are generally low for both organizations across years. Although low frequencies are expected because clients with personality disorders do not regularly present for treatment, the results should be interpreted with caution due to limited data. Based on the data that are available, the results suggest that training agencies provide Axis II diagnoses about as often as MBHOs.

There is one exception to the trend. In 1997 at termination, the Training Agency reported a significantly higher number of clients (29%) with an Axis II diagnosis, as compared to the NOMP (10%). This anomaly may relate to trainees at the Training Agency that had a special interest in personality disorders during 1997, which resulted in more intense recruitment efforts of these types of clients that year.

The results for the presence or absence of medical problems reported for Axis III are relatively stable across years. Generally, Axis III diagnoses for the Training Agency are not significantly different from NOMP data. For some years, the Training Agency reported more Axis III diagnoses; whereas, the NOMP reported higher frequencies for other years. Across all years both organizations reported that 26-37% of clients have a medical problem. The only exception is 1999 at intake. The Training Agency reported significantly fewer Axis III diagnoses (24%), compared to the NOMP (32%), with a

moderate effect size. In summary, even with this one significant result, most of the evidence suggests that clients at training agencies experience medical problems at about the same rate as clients at MBHOs.

The results for Axis V are mixed. For all three years at intake, Axis V values hover around 61 (on a 100-point scale) for both organizations, and the differences for each year are not significant. The result is similar to 1996 findings (Horton, 2000). At termination in 1998 and 1999, the Training Agency reported significantly higher values for Axis V relative to the NOMP. The results are inconclusive, suggesting that Training Agency clients and NOMP clients are comparable in their level of global functioning for some years and not in others.

Both organizations reported significantly higher Axis V values at termination across years compared to those at intake (except for 1997, the difference is not significant for the Training Agency), which suggests that practitioners in both organizations perceived improvement in their clients' global functioning during treatment. In general the spread is greater for Training Agency clients, suggesting that trainees observed more improvement in clients than the NOMP practitioners. It is important to note that the Global Assessment of Functioning Scale (American Psychiatric Association, 1994) is subjectively applied, and the psychometric properties of the scale cannot be determined; therefore, interpretation of these results should be approached with caution.

Treatment Events. With the exception of prescriptions for psychotropic medications, the base rates for treatment events are naturally low due to the seriousness

of the behavior. This is reflected in both the Training Agency and the NOMP results, as both entities reported low frequencies for many treatment events, and in some cases, the frequencies are zero. Consequently, results for most treatment events are not interpretable, such as self-injurious behavior, suicide attempt, completed suicide, threatening to harm others, and harming others.

Though frequencies are generally low for most of the treatment events, there are significant results for some categories of psychotropic medications. The Training Agency reported significantly fewer clients who were prescribed SSRIs and medications in the “Other” category relative to the NOMP. The most dramatic difference relates to SSRIs, with the Training Agency reporting 5.6% and the NOMP reporting 48.8%. Although the effect size is small, the fact that virtually half of all MBHO clients are prescribed SSRIs is difficult to overlook and, and this finding may have important implications for the training of psychologists.

Proposed Explanations for Differences between Organizations and Across Years

There are similarities and differences between the Training Agency and the NOMP; however, for the variables that are most salient to training (e.g., demographic variables, average number of sessions, diagnoses for Axis I at intake and termination, and psychotropic medications), the Training Agency results differ significantly from the NOMP results. In addition, the effect sizes for some of these differences are in the moderate range. Before exploring the implications of the findings, it may be helpful to consider plausible explanations for the results. Four explanations are proposed for the variation between the Training Agency and the NOMP for 1997-1999: 1) different fee

structures, 2) unequal reliance on third party payers, 3) the status of psychiatric consultation in training agencies, and 4) the setting of the Training Agency.

The first explanation proposed for the differences between the Training Agency and the NOMP relates to the different fee structures of the organizations. The Training Agency is a not-for-profit organization and offers services on a sliding scale basis; whereas, most of the NOMP organizations operate for profit and charge full fees, offering reduced fees on a limited basis, if at all. The sliding scale arrangement at the Training Agency attracts individuals that do not have the financial capability to pay full fee for services; hence, the difference in fee structures may help account for differences in the income of clients, and to some degree, the age of clients as younger people usually have fewer financial resources.

The second proposed explanation for the differences between the Training Agency and the NOMP relates to third party payers. The difference in the number of sessions may be due to the fact that much of the NOMP's business is transacted via reimbursement from insurance companies, which often limit the number of sessions that are reimbursed per year (Giles & Marafiote, 1998; Hamilton, 1994; Howard & O'Mahoney, 1998). As few Training Agency clients have mental health benefits, and most of the Training Agency's business is provided on a sliding scale basis, the Training Agency is relatively immune from session limits imposed by managed care, and does not limit the length of treatment.

Related to the difference in the number of sessions is the possibility of a shrinking gap in treatment length over the years. For the Training Agency side of the gap, the

decreases in treatment length may be practically meaningful, even though they are not statistically significant from year to year, especially if the trend continues. One possibility is that graduate programs are starting to respond to the call for changes in training and supervisors may be encouraging trainees to experiment with more brief therapy models. Another possibility is that students are learning about other models didactically and implementing them during their clinical practica. In fact, there is evidence that curricula are changing. In a study about the extent to which graduate psychology programs are modifying their curricula and exposing students to the “short-term orientation of managed care”, 40% of the 101 chairpersons of APA accredited psychology programs surveyed indicated that their programs had already made one or more changes in the curricula in response to the demands of managed care (Carleton, 1998). As an example, the Training Agency under study implemented a course about empirically-supported treatments (many of which are brief in nature) in 1997.

On the other side of the gap in treatment length, the increase in treatment length reported by MBHOs for 1999 is unexpected, especially when the literature suggests that session limits are becoming tighter. If treatment length continues to lengthen for MBHOs in the future, it may suggest that practitioners have become more savvy at navigating the authorization process for more sessions, or that MBHOs are relaxing their policies about session limits due to the threat of law suits.

The limitation on the number of sessions and the impact of third party payers may also explain differences in the diagnoses for Axis I at intake and termination. Managed care companies often encourage (or require) the use of empirically-validated, brief

therapy approaches (American Psychological Association, 1997; Shaw, 1997; Hamilton, 1994). To see how such practices may affect diagnoses, consider depression. There is a growing body of research supporting the efficacy of brief therapy for depression. Given that MBHOs are pressured to use empirically-validated, brief therapy approaches, diagnoses of depression have a better chance of being reimbursed as compared to other diagnoses that have fewer documented, empirically-validated treatments. As a result, the high frequency of Depressive Disorders reported by the NOMP may reflect the influence of managed care reimbursement practices.

Because the Training Agency's mission is not related to business, but is focused on training, there are no outside pressures to use one diagnosis over another. Consequently, brief and long-term approaches are employed to ensure that students obtain exposure to a variety of therapeutic models. A review of the larger issue of the relationship between insurance reimbursement and diagnosis is beyond the scope of this research; however, it is an issue that needs more examination, as there may be practical and ethical dilemmas connected to diagnosis and managed care reimbursement practices (American Psychological Association, 1997).

The third proposed difference relates to psychotropic medications. Medication evaluations are often a normal part of the MBHO business. In fact, the NOMP tracks the number of medication evaluations and includes this information as a regular part of their database. Medical evaluations are not a routine part of Training Agency business because there is not a psychiatrist or prescribing physician on site, and clients must be referred out for these types of services. The fact that trainees are not routinely involved

in medication evaluations may account for the large differences reported for SSRIs and “Other” psychotropic medications. One possibility is that Training Agency clients have less access to psychotropic medications, due to lower income and the fact that there is no psychiatrist on site. Another possibility is that psychotropic medications are underreported at the Training Agency because trainees may or may not be involved with that part of their clients’ care.

The fourth proposed explanation for the differences between the NOMP and the Training Agency relates to the setting of the Training Agency. The Training Agency is housed in a university setting, which may account for differences for a number of variables, including age, marital status, and educational level. For example, recall that a relatively large proportion of NOMP clients hold college degrees or have acquired postgraduate work. These clients are less likely to access an agency on a university campus as compared to undergraduates, who have more exposure to agencies with a university affiliation.

Implications for the Training of Psychologists

Differences between the Training Agency and the NOMP may have important implications for the training of psychologists, given that the results suggest experiences at training agencies differ from experiences in MBHO settings. One of the most important implications relates to the results for the average number of sessions. It appears that the average duration of therapy at training agencies is roughly two times the average duration of therapy at MBHOs. The difference in the duration of therapy is even more striking when you consider the wide variation in the number of sessions per client at the Training

Agency. This suggests that some Training Agency clients are seen for a long period of time. Taking 1998 for example, approximately 50% of clients at the Training Agency were seen for more than six sessions; whereas, only 20% of the NOMP clients were seen for more than six sessions.

The results for the average number of sessions are even more relevant, considering that a number of insurance companies are pressuring providers to close every case within as few as three to four sessions (Miller, 1996). The combination of the reported diminishing length of treatment in managed care settings and the longer duration for therapy at training agencies may suggest that graduate students are not being adequately exposed to brief forms of therapy. Further, graduates may be perceived as inefficient at delivering therapy services because they were trained to use long-term, global approaches to therapy with a focus on “cure” versus the management of an episodic event. Similarly, graduates may appear incompetent at applying intermittent, problem focused approaches due to insufficient exposure to brief therapy models. Carleton (1998) found evidence to support these concerns, reporting that managed care managers are dissatisfied with behavioral health professionals’ ability to work within the short-term orientation of managed care.

The results give credence to some of the recommendations of the APA’s task force for the training and education of psychologists (American Psychological Association, 1997). The APA recommended that professional psychologists have a thorough knowledge of short-term interventions, intermittent care, continuum of care, and systems of healthcare delivery. In addition, the task force concluded that “the focus

in the future will be on brief, active interventions, with the client taking responsibility for behavior change.” The APA’s concern along with evidence that the average number of sessions for training agencies is higher than what is typical for the MBHO industry suggest that greater emphasis on brief therapy models is needed for training.

There may be important implications connected to diagnostic patterns, given the relatively large difference between the Training Agency and the NOMP for Axis I diagnoses at intake and termination. The Training Agency reported a relatively wide distribution of diagnostic categories; whereas, it appears that MBHOs most frequently use Depressive Disorders and Adjustment Disorders. It could be argued that seeing a wide distribution of diagnoses at a training agency is appropriate because the training agency may represent a rare opportunity for students to receive exposure to a diversity of diagnoses. Further, it could be argued that Depressive Disorders and Adjustment Disorder are represented at the Training Agency and that students are receiving training for these diagnoses. On the other hand, when the actual frequencies of these disorders at the Training Agency are considered, the level of exposure to these disorders per student may be limited.

Consider 1999 results at termination. The Training Agency reported six cases of Depressive Disorders and six cases of Adjustment Disorders. Given that there are approximately 15 graduate students per year, the most experience a graduate student will have in a year, with either disorder, is one client, or possibly, none at all. The low frequencies reported by the Training Agency are compounded, considering that the discussion is about diagnostic categories (e.g., a group of many diagnoses versus one

diagnosis). As there are relatively low frequencies for some diagnoses, the difference in diagnostic patterns may suggest that training agencies need to place more emphasis on experiences with disorders that are commonly presented in MBHO settings.

Another factor to consider for training is the large difference in the percentage of clients who were prescribed psychotropic medications. Almost half of the MBHO clients were prescribed SSRIs. The fact that far fewer Training Agency clients were prescribed psychotropic medications suggests that graduate students may not be receiving enough exposure to how psychotropic medications impact their role as a clinician. For example, psychologists are often the initiators for a medication evaluation. In addition, psychologists provide consultation services to prescribing physicians in many cases. This is especially true in environments where multidisciplinary approaches to treatment are being implemented, which appears to be the direction of the future. There is also the need to understand the role of psychotropic medications in therapy, and how the two relate to each other throughout the course of treatment. As medication evaluations are a routine part of MBHO business, psychopharmacology and its relationship to treatment appears to be an area of training that warrants further development.

Another implication for training relates to client characteristics. The results suggest that training agencies have a different mix of clients compared to MBHOs. This may indicate that graduate students are not receiving adequate experiences with the types of clients that present to MBHOs, such as higher income clients, married clients, clients of various educational levels, and older clients. Different clients may present with different problems in life, which suggests that graduate students are not receiving enough

experiences with the problems presented by clients in MBHO settings. It could be argued that all of the types of people noted above were represented at the Training Agency; however, representation at the Training Agency does not guarantee adequate exposure for each graduate student. The results suggest that the Training Agency may need to take measures to ensure that all graduate students receive equitable experience with the types of clients that are more likely to utilize MBHOs.

The point of highlighting the above implications is not to suggest that none of the clinical skills necessary for working in managed care are part of the traditional curriculum. Instead, aspects of managed care present a unique approach to many of the skills that are currently being taught (Levenson & Burg, 2000). At a minimum, it appears that there may be a lack of emphasis on experiences that would help prepare graduate students for work in MBHO settings. Given that training resources are limited, reallocation of training resources may be necessary in order to increase students' exposure to managed care.

Recommendations for the Training of Psychologists

The most straightforward way to address some of the differences between training agencies and MBHOs is for graduate programs to provide external practica in managed care environments (American Psychological Association, 1997; Austad, Sherman, & Holstein, 1993; Charous & Carter, 1996). An external practicum would most likely provide more in-depth, applied experience with the types of clients and problems that occur in managed care than is available at the Training Agency. Although creating these opportunities is certainly a responsibility of graduate programs, Bilynsky

and Vernaglia (1998) submit that the health care system itself should bear part of the responsibility for the development of applied graduate training in managed care.

Unfortunately, barriers to external placements in managed care settings have been noted. Bilynsky and Vernaglia (1998) comment that the current focus on cost containment interferes with the ability of managed care organizations to contribute to graduate training. In addition, because graduate students are not typically licensed as professionals, there are restrictions for the reimbursement of services delivered by graduate students (American Psychological Association, 1998; Lovell, 1997). Many graduate students would be willing to provide services to MBHOs pro bono for the experience. However, due to the multiple demands of doctoral programs, students have little time available for unpaid practica (American Psychological Association, 1998). Currently, it appears that it is the student's burden to obtain these highly relevant training experiences, which suggests that training reform may need to be addressed at the systems level.

Although there may be barriers to obtaining external practica in managed care environments, there are other ways to provide training that will address the differences between training agencies and MBHOs. One of the most powerful means to prepare graduate students for work in managed care environments is to provide training in brief psychological treatments and assessment (Austad, Sherman, & Holstein, 1993; Lovell, 1997). Of all the commentary about training and managed care, brief therapy and empirically-validated approaches to treatment appear to elicit the most commentary. Skills in brief therapy could be learned in the classroom and then applied at the Training

Agency. This may require training agencies to add policies that acknowledge the importance of brief therapy models, perhaps, by requiring that a certain percentage of students' clients be treated from a problem-focused perspective.

A barrier to the provision of brief therapy training that is commonly cited relates to the faculty's lack of exposure to these methods. According to Broskowski (1995), "the faculty of most psychology departments have no experience working within...managed care systems, and their current incentives are geared to reinforcing traditional practices." There are data to support Broskowski's claim. In a survey of accredited doctoral training programs in psychology, Resnick, DeLeon, and Vandebos (1997) found that fewer than 40% of the faculty have experience practicing within managed care, and that more than half of the graduate programs reported that they had no one on the faculty with expertise in managed care. In the long run, the trainers will need to be well-versed in brief therapy approaches, and this issue will most likely diminish in future years with attrition. However, for this time of transition, accessing adjunct teaching and supervising faculty, experienced with managed care issues and service delivery, may help support the training of brief therapies. Bringing in experienced professionals from outside the program may also assist with other skills and competencies needed for managed care (Lovell, 1997).

There are various ways to increase students' exposure to medication evaluations and psychopharmacology. To add clinical experiences, the Training Agency could develop a rotation at the student health center whereby graduate students provide consultation services to providers. Similarly, developing relationships with health care providers outside of the university and creating field placements on multidisciplinary

teams in health care settings is another way to increase students' exposure to medication evaluations. Didactic training could be provided by adding psychopharmacology courses or lectures (Austad, Sherman, & Holstein, 1993). Many programs offer psychopharmacology courses as an elective; however, they are not currently an APA requirement.

In addition to adding a psychopharmacology course, making changes in the curriculum across the board is recommended. Although the finding that 40% of programs have made at least one change (Carleton, 1998) is encouraging, 60% of the responding programs reported making no changes. Further, for the respondents that reported changes, the scope of the changes may vary from highly meaningful to imperceptible. Thus, it appears there is substantial growth potential for managed care training, merely by making adjustments in the curriculum.

Levenson and Burg (2000) provide an example of a graduate program at Colorado State University (CSU) that infused managed care training into the curriculum. Their description is based on information that the authors' received from J.A. Kuhn, a former student who served as the assistant director of the Training Agency. Students take a didactic seminar on professional issues, including managed care practice. They select two clients from their case load to be "managed care cases". During the initial stage of treatment students must seek "authorization" for additional services by completing a form with the following information: DSM-IV diagnoses, a specific and measurable treatment plan, treatment goals with behavioral indicators of progress, and the number of future sessions that are being requested. The forms are submitted to the assistant director

of the clinic, who acts as the managed care company reviewer. Students are typically given three additional sessions before they are required to complete their next request. The assistant director also provides feedback on better ways to operationalize terms and to communicate such information to third party payers. The CSU program also added a course on empirically supported treatments, as was mentioned earlier.

It should be noted, however, that there are ethical concerns connected to using MBHOs as a benchmark for training. Managed care has been and continues to be controversial, and ethical dilemmas regarding managed care are well documented (Bilynsky & Vernaglia, 1998; Giles & Marafiote, 1998; American Psychological Association, 1997). For example, many ethical issues have surfaced connected to MBHOs' reliance on insurance reimbursement and the constraints imposed by third party payers (American Psychological Association, 1997). In addition, working in a managed care environment raises issues of informed consent, abandonment (due to time-limited treatment), and confidentiality with regard to third party payers (Levenson & Burg, 2000). Some practitioners refer to work within managed care as "mangled care" due to frustrations connected with the limits on service (Franko & Erb, 1998), and Phelps et al. (1998) found that 48% of psychologists working in managed care reported ethical dilemmas created by the managed care environment. These ethical concerns are, in a large part, responsible for the "sluggish" response to the need for training reform, and there are serious questions about whether or not it is appropriate for graduate training to mimic MBHO settings.

This suggests that using MBHOs as a benchmark for training may result in the propagation of unethical practices, which is a large focus of the controversy. On the other hand, the goal for training is to prepare graduate students for the real world, and it may be unethical to deny training concerns raised by managed care. Levenson and Burg (2000) maintain that ignoring managed care is a disservice to trainees and that trainees need skills that allow them to survive economically. In the absence of evidence that MBHOs are on the decline, it appears that consideration of MBHO environments for training is currently unavoidable, even though the controversy continues.

Limitations of the Study and Recommendations for Future Research

There are several limitations of the study. The first relates to the representativeness of the Training Agency. Although this study improved upon the Horton (2000) study by providing evidence to support the representativeness of the Training Agency, there are still some limitations. Ideally, data for all of the variables examined in this study would be available from training agencies across the U.S., and representativeness would be a none issue. One of the reasons why this is not a current possibility is that few training agencies maintain databases because most are not-for-profit organizations, and there is little financial incentive to create databases. In addition, the volume of most training agencies is relatively small, and it may not be cost beneficial to maintain a formal database. In order for this type of research to be more directly generalizable, training agencies will need to create databases that are consistent with each other so that the information can be compiled, analyzed, and compared to MBHOs. Currently, there are no organized efforts toward this end, and the best way to assuage

concerns about generalizability is to compare the Training Agency data to the data that are available from other training agencies (e.g., the ADPTC data) , and to adequately describe the setting of the Training Agency being studied, as prescribed by Todd et al. (1994).

The second limitation is also related to the representativeness of the Training Agency and concerns the ADPTC data. The ADPTC collected information for only one year, 1997. Ideally, the ADPTC database would include data for all of the years under study (e.g., 1998 and 1999 in addition to 1997). This is a limitation of the study because the representativeness of the Training Agency can only be assessed for one year. It is unlikely that the nature of the training agencies in the ADPTC database would have changed in a matter of two years. Therefore, it is improbable that this limitation is significant for the interpretation of the results.

The third limitation of the study concerns the NOMP. The NOMP database is limited to data from the midwestern and southwestern parts of the U.S., which means MBHOs from other regions are not directly represented in the NOMP database. In addition, because participation in the NOMP is voluntary, there may be some selection bias. For example, is there something different about the service patterns of the MBHOs in the NOMP as compared to those that are not participants of the NOMP? This is unlikely given there are only a handful of mega companies that are responsible for most MBHO contracts (as discussed earlier); however, it remains a possibility.

A database that provides the level of detail presented by the NOMP, but be truly representative of MBHOs for all of the U.S. would resolve the above limitation.

However, it may be unrealistic to expect such a database in the near future, if at all. The difficulty in obtaining detailed data from MBHOs is the very reason that the NOMP was created. Consequently, the NOMP will probably remain the best, perhaps the only, source for detailed data from MBHOs for some time to come, despite its limitations.

The fourth limitation of the study is that only one year was examined (1999) for treatment events. It is difficult to conclude that the differences observed for psychotropic medications, for example, exist for other years. Examination of more years needs to be performed in order to identify and analyze trends.

Finally, training issues are more complex than the description of service patterns. This study cannot address the question: Is the current approach to training adequately preparing psychologists for work in an MBHO environment? To answer this question would require more thorough evaluation of training agencies as well as entire graduate programs. Future research may reveal the degree of reform needed and or the reforms that are more or less effective for the preparation of graduate students for managed care. The analysis provided in this research is merely a first step toward comparing some aspects of the training experience to real world experiences that graduate students in psychology can expect in managed care environments.

Summary

Overall, training agency settings are different from MBHO settings. For training agencies, treatment is longer in duration, diagnoses are more diverse, and the exposure to psychopharmacology is relatively low. In addition, the client bases are different. Training agency clients are generally younger, unmarried, less educated, and have lower

incomes. These findings suggest that graduate students, who rely on training agency experiences, may not know what to expect in managed care settings. Even worse, they may not have the skills and competencies needed for success and ethical practice in managed care. Thus, it appears that training reform is overdue and that changes to the training of psychologists need to be thoughtfully considered in order to adequately prepare graduate students for the real world of managed care.

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APPENDIX A: Letters of Cooperation

February 1, 2001

Jamie R. Horton, M.S.
Department of Psychology
Colorado State University
Fort Collins, CO 80523

Dear Ms. Horton:

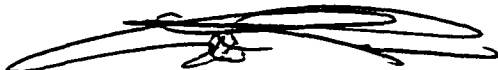
RE: Letter of Cooperation for "The Status of Training: Training Agency Service Patterns Compared to Managed Behavioral Healthcare Organizations (MBHOs)"

This letter serves to document the involvement of the Psychological Services Center in your doctoral dissertation project, "The Status of Training: Training Agency Service Patterns Compared to Managed Behavioral Healthcare Organizations (MBHOs)" to be performed at Colorado State University. I have reviewed your dissertation proposal to familiarize myself with the nature of your project, and I authorize you to use data from the Psychological Services Center (PSC).

The PSC will provide you access to their files for the purposes outlined in your dissertation proposal. I am satisfied with the data collection procedures outlined in your proposal. I am also satisfied with your procedures to ensure that no identifying information is included in your data collection. Finally, the plans for securing the data are acceptable to the PSC, such as securing paper copies in a locked file cabinet and password protecting computer files.

In summary, I am familiar with your project, satisfied with your procedures to collect and secure the data, and will provide you access to the PSC's files for your dissertation project named above.

Sincerely,



Lee A. Rosén
Director, Psychological Services Center

Enclosure

CQIR *Center for Quality Innovations & Research*

*P.O. Box 198048
Cincinnati, OH 45219-8048
Phone: (513) 558-2779
Fax: (513) 558-1717*

February 2, 2001

Jamie R. Horton, M.S.
Department of Psychology
Colorado State University
Fort Collins, CO 80523

425 Oak Street, Carriage House

Dear Ms. Horton:

RE: Letter of Cooperation for "The Status of Training: Training Agency Service Patterns Compared to Managed Behavioral Healthcare Organizations (MBHOs)"

This letter serves to document the involvement of the National Outcomes Management Project (NOMP) in your doctoral dissertation project, "The Status of Training: Training Agency Service Patterns Compared to Managed Behavioral Healthcare Organizations (MBHOs)" to be performed at Colorado State University. I have reviewed your dissertation proposal to familiarize myself with the nature of your project, and I authorize you to use data from the NOMP database.

The NOMP will provide you archival data from their database for the purposes outlined in your dissertation proposal. The data do not include identifying information and are anonymous. I am satisfied with the security procedures for the data that you outlined in your proposal, which include securing paper copies of the data in a locked cabinet and password protecting computer files of the data.

In summary, I am familiar with your project, satisfied with your procedures to secure the data, and will provide you data from the NOMP database for your dissertation project named above.

Sincerely,



N.A. Dewan, M.D.
Director

Enclosure

APPENDIX B: Tables

Table 1

Alphabetical Listing of Diagnostic Categories Used in the Study

Additional Conditions That May Be a Focus of Clinical Attention

(referred to as "Additional Conditions-Focus of Clinical Attention" in the study)

Adjustment Disorders

Anxiety Disorders

Attention-Deficit and Disruptive Behavior Disorders

Bipolar Disorders

Delirium, Dementia, and Amnestic and Other Cognitive Disorders

(referred to as "Cognitive Disorders" in the study)

Amnestic Disorders

Delirium

Dementia

Other Cognitive Disorders

Depressive Disorders

Dissociative Disorders

Eating Disorders

Factitious Disorders

Gender Identity Disorders

Impulse-Control Disorders Not Elsewhere Classified

Table I (continued)

Alphabetical Listing of Diagnostic Categories Used in the Study

Infancy, Childhood, or Adolescence Disorders

Communication Disorders

Elimination Disorders

Feeding and Eating Disorders of Infancy or Early Childhood

Motor Skills Disorder

Pervasive Developmental Disorders

Tic Disorders

Other Disorders of Infancy, Childhood, or Adolescence

Learning Disorders

Mental Disorders Due to a General Medical Condition Not Elsewhere Classified

**(referred to as "Mental Disorders Due to a General Medical Condition"
in the study)**

Mental Retardation

No Diagnosis/Diagnosis Deferred

Diagnosis or Condition Deferred on Axis I

No Diagnosis or Condition on Axis I

Table 1 (continued)

Alphabetical Listing of Diagnostic Categories Used in the Study

Other Conditions That May Be a Focus of Clinical Attention

(referred to as "Other Conditions-Focus of Clinical Attention" in the study)

Paraphilias

Problems Related to Abuse or Neglect

Relational Problems

Schizophrenia and Other Psychotic Disorders

Sexual Dysfunctions

Sleep Disorders

Somatoform Disorders

Substance-Related Disorders

Unspecified Mental Disorder

Table 2

Demographic Variables for the Training Agency and the NOMP - 1997

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Gender					0.30	0.01
Male	37.7	40	35.2	1,058		
Female	62.3	66	64.8	1,951		
Ethnicity					11.03 *	0.06
White/nonHispanic	80.0	84	83.2	2,503		
Hispanic	7.6	8	7.9	237		
African-American	3.8	4	5.9	177		
Asian-American	1.9	2	1.0	31		
Native-American	0.0	0	1.0	29		
Other	6.7	7	1.0	29		
Marital Status					30.33 *	0.10
Married	34.6	36	50.4	1,515		
Separated	1.9	2	5.9	176		
Divorced	10.6	11	15.5	466		
Never Married	52.9	55	28.2	849		

Table 2 (continued)

Demographic Variables for the Training Agency and the NOMP - 1997

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Educational Level					13.08 *	0.07
8th grade or less	3.0	3	2.0	61		
Some high school	9.0	9	10.2	306		
High school graduate	19.0	19	19.9	600		
Some college	50.0	50	36.0	1,084		
College graduate	8.0	8	20.1	606		
Any postgraduate work	11.0	11	11.8	354		
Income Level					179.02 *	0.25
Less than \$20,000	71.4	60	15.9	456		
\$20,000--\$39,000	20.2	17	30.4	872		
\$40,000--\$59,000	4.8	4	26.0	745		
\$60,000--\$79,000	1.2	1	15.7	451		
\$80,000 or more	2.4	2	12.0	345		

* $p < .05$

Table 3

Demographic Variables for the Training Agency and the NOMP - 1998

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Gender					0.88	0.02
Male	39.8	37	35.0	698		
Female	60.2	56	65.0	1,294		
Ethnicity					11.35	0.07
White/nonHispanic	85.8	79	86.4	1,730		
Hispanic	9.8	9	5.2	104		
African-American	0.0	0	6.4	128		
Asian-American	2.2	2	0.9	18		
Native-American	0.0	0	0.3	7		
Other	2.2	2	0.8	17		
Marital Status					55.51 *	0.16
Married	22.0	20	50.7	1,013		
Separated	2.2	2	5.6	111		
Divorced	8.8	8	13.7	273		
Never Married	67.0	61	30.0	600		

Table 3 (continued)

Demographic Variables for the Training Agency and the NOMP - 1998

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Educational Level					22.15 *	0.10
8th grade or less	6.0	5	1.7	35		
Some high school	6.0	5	10.4	208		
High school graduate	24.1	20	19.2	384		
Some college	47.0	39	34.2	687		
College graduate	14.5	12	23.4	469		
Any postgraduate work	2.4	2	11.1	222		
Income Level					298.81 *	0.39
Less than \$20,000	82.8	62	11.6	224		
\$20,000--\$39,000	9.3	7	28.0	539		
\$40,000--\$59,000	1.3	1	25.8	498		
\$60,000--\$79,000	5.3	4	16.6	320		
\$80,000 or more	1.3	1	18.0	346		

* $p < .05$

Table 4

Demographic Variables for the Training Agency and the NOMP - 1999

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Gender					0.31	0.01
Male	35.2	25	32.1	609		
Female	64.8	46	67.9	1,289		
Ethnicity					2.31	0.03
White/nonHispanic	80.3	57	81.4	1,584		
Hispanic	9.9	7	7.0	136		
African-American	5.6	4	8.9	174		
Asian-American	4.2	3	1.5	29		
Native-American	0.0	0	0.6	11		
Other	0.0	0	0.6	11		
Marital Status					27.78 *	0.12
Married	24.3	17	48.9	947		
Separated	2.9	2	6.5	126		
Divorced	14.3	10	14.7	286		
Never Married	58.5	41	29.9	581		

Table 4 (continued)

Demographic Variables for the Training Agency and the NOMP - 1999

Demographic Variable	Training Agency		NOMP		chi-square	V
	%	(N)	%	(N)		
Educational Level					24.68 *	0.11
8th grade or less	9.0	6	2.4	46		
Some high school	19.4	13	9.5	185		
High school graduate	19.4	13	19.1	373		
Some college	38.7	26	37.1	725		
College graduate	7.5	5	20.6	402		
Any postgraduate work	6.0	4	11.3	220		
Income Level					227.39 *	0.35
Less than \$20,000	74.5	47	10.7	197		
\$20,000–\$39,000	17.5	11	26.3	487		
\$40,000–\$59,000	4.8	3	24.8	458		
\$60,000–\$79,000	1.6	1	17.1	317		
\$80,000 or more	1.6	1	21.1	390		

* $p < .05$

Table 5

Treatment Length (1997-1999)

Training Agency		NOMP		Difference	Statistics		
Year	Mean	(N)	Mean	(N)	Mean	t	eta-squared
1997	10.1	75	4.2	1,467	5.9	(10.6) *	0.07
1998	9.0	64	4.1	1,271	4.9	(8.5) *	0.05
1999	8.0	52	5.0	949	3.0	(4.3) *	0.02

*p < .05

Table 6

Diagnoses for Axis I at Intake - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Relational Problems	25.5	16	3.5	69
Anxiety Disorders	12.7	8	10.1	199
Adjustment Disorders	9.5	6	28.0	549
No Diagnosis/Diagnosis Deferred	9.5	6	3.7	73
Depressive Disorders	7.9	5	41.6	817
Other (see Table 7 for detail)	34.9	22	13.1	257
Total	100.0	63	100.0	1,964

chi-square for the Training Agency vs. NOMP = 121.16, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .24.

Table 7

Diagnoses Included in the "Other" Category on Table 6 - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Additional Conditions-Focus of Clinical Attention	14.1	9	0.4	9
Attention Deficit and Disruptive Behavior Disorders	4.8	3	3.0	58
Substance Related Disorders	4.8	3	3.2	63
Learning Disorders	3.2	2	0.1	1
Eating Disorders	3.2	2	0.9	17
Problems Related to Abuse or Neglect	3.2	2	0.0	0
Bipolar Disorders	1.6	1	2.9	56
Schizophrenia and Other Psychotic Disorders	0.0	0	0.7	13
Impulse-Control Disorders Not Elsewhere Classified	0.0	0	0.6	12
Other Conditions-Focus of Clinical Attention	0.0	0	0.3	6
Cognitive Disorders	0.0	0	0.3	6
Sexual Dysfunctions	0.0	0	0.3	5
Mental Disorders Due to a General Medical Condition	0.0	0	0.2	3
Paraphilias	0.0	0	0.2	3
Dissociative Disorders	0.0	0	0.0	2

Table 7 (continued)

Diagnoses Included in the "Other" Category on Table 6 - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.0	1
Somatoform Disorders	0.0	0	0.0	1
Sleep Disorders	0.0	0	0.0	1
Total	34.9	22	13.1	257

Table 8

Diagnoses for Axis I at Intake - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Depressive Disorders	17.5	12	43.8	788
Relational Problems	15.9	11	0.6	10
No Diagnosis/Diagnosis Deferred	14.5	10	5.6	100
Anxiety Disorders	7.2	5	9.8	177
Adjustment Disorders	7.2	5	26.6	479
Other (see Table 9 for detail)	37.7	26	13.6	245
Total	100.0	69	100.0	1,799

chi-square for the Training Agency vs. NOMP = 196.38, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .32.

Table 9

Diagnoses Included in the "Other" Category on Table 8 - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Additional Conditions-Focus of Clinical Attention	21.7	15	0.1	1
Learning Disorders	4.3	3	0.0	0
Eating Disorders	4.3	3	1.0	18
Attention Deficit and Disruptive Behavior Disorders	1.4	1	2.1	37
Cognitive Disorders	1.5	1	0.2	3
Substance Related Disorders	1.5	1	4.6	82
Bipolar Disorders	1.5	1	3.2	58
Problems Related to Abuse or Neglect	1.5	1	0.1	1
Schizophrenia and Other Psychotic Disorders	0.0	0	1.2	21
Impulse-Control Disorders Not Elsewhere Classified	0.0	0	0.6	10
Sexual Dysfunctions	0.0	0	0.2	4
Gender Identity Disorders	0.0	0	0.2	3
Somatoform Disorders	0.0	0	0.1	2
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.0	1
Mental Disorders Due to a General Medical Condition	0.0	0	0.0	1

Table 9 (continued)

Diagnoses Included in the "Other" Category on Table 8 - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Paraphilias	0.0	0	0.0	1
Sleep Disorders	0.0	0	0.0	1
Other Conditions-Focus of Clinical Attention	0.0	0	0.0	1
Total	37.7	26	13.6	245

Table 10

Diagnoses for Axis I at Intake - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
No Diagnosis/Diagnosis Deferred	14.4	6	4.7	60
Depressive Disorders	11.9	5	49.1	621
Substance Related Disorders	7.1	3	1.6	20
Adjustment Disorders	7.1	3	23.1	293
Other (see Table 11 for detail)	59.5	25	21.5	273
Total	100.0	42	100.0	1,267

chi-square for the Training Agency vs. NOMP = 56.57, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .21.

Table 11

Diagnoses Included in the "Other" Category on Table 10 - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Relational Problems	28.6	12	0.0	0
Additional Conditions-Focus of Clinical Attention	11.7	5	0.1	1
Schizophrenia and Other Psychotic Disorders	4.8	2	1.8	23
Anxiety Disorders	4.8	2	10.3	132
Learning Disorders	2.4	1	0.2	3
Attention Deficit and Disruptive Behavior Disorders	2.4	1	2.1	27
Cognitive Disorders	2.4	1	0.3	4
Bipolar Disorders	2.4	1	4.3	55
Eating Disorders	0.0	0	0.9	11
Impulse-Control Disorders Not Elsewhere Classified	0.0	0	0.6	8
Sleep Disorders	0.0	0	0.2	2
Other Conditions-Focus of Clinical Attention	0.0	0	0.2	2
Mental Disorders Due to a General Medical Condition	0.0	0	0.1	1
Somatoform Disorders	0.0	0	0.1	1
Dissociative Disorders	0.0	0	0.1	1

Table 11 (continued)

Diagnoses Included in the "Other" Category on Table 10 - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Sexual Dysfunctions	0.0	0	0.1	1
Problems Related to Abuse or Neglect	0.0	0	0.1	1
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.0	0
Total	59.5	25	21.5	273

Table 12

Diagnoses for Axis I at Termination - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Depressive Disorders	21.2	13	43.3	850
Adjustment Disorders	19.7	12	26.9	531
Relational Problems	16.4	10	3.5	69
Attention Deficit and Disruptive Behavior Disorders	8.2	5	3.1	62
Anxiety Disorders	6.6	4	9.9	196
Other (see Table 13 for detail)	27.9	17	13.3	263
Total	100.0	61	100.0	1,971

chi-square for the Training Agency vs. NOMP = 47.42, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .15.

Table 13

Diagnoses Included in the "Other" Category on Table 12 - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Additional Conditions-Focus of Clinical Attention	8.3	5	0.5	9
Bipolar Disorders	6.6	4	3.1	63
Substance Related Disorders	4.9	3	2.9	57
Learning Disorders	3.3	2	0.1	1
Schizophrenia and Other Psychotic Disorders	1.6	1	0.8	16
Eating Disorders	1.6	1	0.8	15
No Diagnosis/Diagnosis Deferred	1.6	1	3.3	66
Impulse-Control Disorders Not Elsewhere Classified	0.0	0	0.5	10
Cognitive Disorders	0.0	0	0.3	5
Sexual Dysfunctions	0.0	0	0.3	5
Mental Disorders Due to a General Medical Condition	0.0	0	0.1	3
Paraphilias	0.0	0	0.1	3
Sleep Disorders	0.0	0	0.1	3
Other Conditions-Focus of Clinical Attention	0.0	0	0.1	3
Somatoform Disorders	0.0	0	0.1	2

Table 13 (continued)

Diagnoses Included in the "Other" Category on Table 12 - 1997

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.1	1
Dissociative Disorders	0.0	0	0.1	1
Total	27.9	17	13.3	263

Table 14

Diagnoses for Axis I at Termination - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Depressive Disorders	22.4	13	47.3	846
Relational Problems	15.5	9	0.3	6
Adjustment Disorders	8.6	5	25.7	461
No Diagnosis/Diagnosis Deferred	6.9	4	3.2	57
Other (see Table 15 for detail)	46.6	27	23.5	422
Total	100.0	58	100.0	1,792

chi-square for the Training Agency vs. NOMP = 188.29, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .32.

Table 15

Diagnoses Included in the "Other" Category on Table 14 - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Additional Conditions-Focus of Clinical Attention	15.7	9	0.0	0
Learning Disorders	10.3	6	0.0	0
Bipolar Disorders	5.2	3	3.5	62
Anxiety Disorders	5.2	3	10.0	179
Eating Disorders	3.4	2	0.9	17
Attention Deficit and Disruptive Behavior Disorders	1.7	1	2.0	36
Substance Related Disorders	1.7	1	4.5	80
Impulse-Control Disorders Not Elsewhere Classified	1.7	1	0.6	10
Problems Related to Abuse or Neglect	1.7	1	0.0	0
Schizophrenia and Other Psychotic Disorders	0.0	0	1.2	21
Cognitive Disorders	0.0	0	0.2	3
Somatoform Disorders	0.0	0	0.2	3
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.1	2
Sexual Dysfunctions	0.0	0	0.1	2
Paraphilias	0.0	0	0.1	2
Gender Identity Disorders	0.0	0	0.1	2

Table 15 (continued)

Diagnoses Included in the "Other" Category on Table 14 - 1998

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Mental Disorders Due to a General Medical Condition	0.0	0	0.0	1
Sleep Disorders	0.0	0	0.0	1
Other Conditions-Focus of Clinical Attention	0.0	0	0.0	1
Total	46.6	27	23.5	422

Table 16

Diagnoses for Axis I at Termination - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Depressive Disorders	12.8	6	52.1	662
Adjustment Disorders	12.8	6	21.4	272
No Diagnosis/Diagnosis Deferred	10.5	5	2.0	26
Anxiety Disorders	4.3	2	10.2	129
Other (see Table 17 for detail)	59.6	28	14.3	181
Total	100.0	47	100.0	1,270

chi-square for the Training Agency vs. NOMP = 89.91, $p < .05$;

Cramer's V for the Training Agency vs. NOMP = .26.

Table 17

Diagnoses Included in the "Other" Category on Table 16 - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Relational Problems	29.9	14	0.0	0
Additional Conditions-Focus of Clinical Attention	14.9	7	0.1	1
Substance Related Disorders	4.3	2	1.9	24
Learning Disorders	2.1	1	0.1	1
Attention Deficit and Disruptive Behavior Disorders	2.1	1	2.5	32
Schizophrenia and Other Psychotic Disorders	2.1	1	2.0	25
Impulse-Control Disorders Not Elsewhere Classified	2.1	1	0.9	12
Problems Related to Abuse or Neglect	2.1	1	0.1	1
Bipolar Disorders	0.0	0	4.9	62
Eating Disorders	0.0	0	0.9	11
Cognitive Disorders	0.0	0	0.2	3
Other Conditions-Focus of Clinical Attention	0.0	0	0.2	3
Sleep Disorders	0.0	0	0.1	2
Infancy, Childhood, or Adolescence Disorders	0.0	0	0.1	1
Mental Disorders Due to a General Medical Condition	0.0	0	0.1	1

Table 17 (continued)

Diagnoses Included in the "Other" Category on Table 16 - 1999

Diagnoses	Training Agency		NOMP	
	%	(N)	%	(N)
Somatoform Disorders	0.0	0	0.1	1
Dissociative Disorders	0.0	0	0.1	1
Total	59.6	28	14.3	181

Table 18

Top Three Axis I Diagnoses at Intake (1997-1999)

Rank	Training Agency			NOMP
	1997	1998	1999	1997, 1998, & 1999
1	Other	Other	Other	Depressive Disorders
2	Relational Problems	Depressive Disorders	No Diagnosis/Diagnosis Deferred	Adjustment Disorders
3	Adjustment Disorders & No Diganosis/Diagnosis Deferred	Relational Problems	Depressive Disorders	Other

100

Table 19

Top Three Axis I Diagnoses at Termination (1997-1999)

Rank	Training Agency			NOMP
	1997	1998	1999	1997, 1998, & 1999
1	Other	Other	Other	Depressive Disorders
2	Depressive Disorders	Depressive Disorders	Depressive Disorders	Adjustment Disorders
3	Adjustment Disorders	Relational Problems	Adjustment Disorders	Other

Table 20

Axis V for the Training Agency (1997-1999)

Year	Intake		Termination		Difference	Statistics	
	Mean	(N)	Mean	(N)	Mean	t	eta-squared
1997	59.8	50	62.3	50	2.54	(1.7)	0.06
1998	61.1	53	67.0	53	5.92	(3.9) *	0.23
1999	62.8	43	68.3	43	5.46	(3.8) *	0.26

* $p < .05$

Axis V for the NOMP (1997-1999)

Year	Intake		Termination		Difference	Statistics	
	Mean	(N)	Mean	(N)	Mean	t	eta-squared
1997	61.3	1,571	62.7	1,571	1.4	(11.6) *	0.08
1998	60.7	1,116	62.4	1,116	1.6	(10.3) *	0.09
1999	61.1	1,229	63.3	1,229	2.2	(13.7) *	0.13

* $p < .05$

Table 21

Psychotropic Medications for 1999

Psychotropic Medication	Training Agency		NOMP	
	%	(N)	%	(N)
SSRI Antidepressant*	5.6	2	48.8	644
Tricyclic Antidepressant	0.0	0	10.7	141
MAO Inhibitor Antidepressant	0.0	0	0.5	6
Antianxiety Medication	2.7	1	13.6	180
Antipsychotic Medication	5.4	2	4.8	63
Anticonvulsant Medication	5.4	2	4.6	61
Stimulant	0.0	0	3.0	39
Other**	7.9	3	30.7	405

*chi-square = 26.22, $p < .05$; Cramer's V=.14

**chi-square = 9.11, $p < .05$; Cramer's V=.08

Table 22**Treatments Events for 1999**

Treatment Event	Training Agency		NOMP	
	%	(N)	%	(N)
Self-injurious Behavior	5.3	2	0.5	6
Suicide Attempt	0.0	0	0.2	2
Completed Suicide	0.0	0	0.1	1
Threaten Harm to Others	5.3	2	0.2	2
Harm Others	0.0	0	0.2	2