

AN ABSTRACT OF THE THESIS OF

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Title: Relationship Between Millon Clinical Multiaxial Inventory – III Borderline
Personality Scale C and Length of Psychiatric Inpatient Stay

Abstract approved: Cooper B Holmes

This study investigated Borderline Scale C scores on the Millon Clinical Multiaxial Inventory-III and length of psychiatric inpatient stay. Participants were 108 male and 159 female adult psychiatric inpatients of the New Choices program at Hutchinson Hospital, discharged from January, 2003 to April, 2005, who had valid MCMI-III profiles. The final analysis consisted of 267 useable data sets. A causal-comparative, ex post facto design was used to examine institutional archival quantitative data. The retrospective review included patient MCMI-III profiles and computerized hospital records. Results of the Pearson show the correlation between Scale C Base Rate (BR) scores and number of previous admissions was statistically significant, $r(266) = .14, p < .05$. The correlation between length of stay and number of previous admissions was statistically significant, $r(266) = .17, p < .01$, however, length of stay was not statistically significantly correlated with Scale C BR scores. Having prior admissions is associated with longer lengths of stay; the variability in length of stay due to prior admissions is estimated at 17%. Having prior admissions is associated with having a greater likelihood of an increase in Scale C scores on the MCMI-III; the variability in scores due to prior admissions is estimated at 14%.

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RELATIONSHIP BETWEEN MILLON CLINICAL MULTIAXIAL INVENTORY - III
BORDERLINE PERSONALITY SCALE C AND LENGTH OF PSYCHIATRIC
INPATIENT STAY

A Thesis

Presented to

The Department of Psychology and Special Education

EMPORIA STATE UNIVERSITY

In Partial Fulfillment

Of the Requirements for the Degree

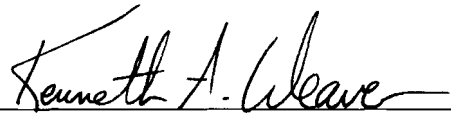
Master of Science

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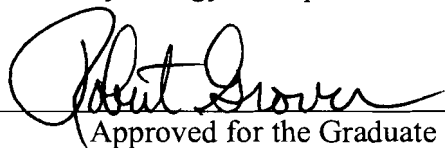
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August, 2005

Thesis
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Approved for the Department of
Psychology and Special Education



Approved for the Graduate Council

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CHAPTER 1

INTRODUCTION

Review of the Literature

Epidemiology of Borderline Personality Disorder (BPD), suggests it is the most common type of mental disorder seen in mental health settings: 10% - 25% of outpatients, 15% - 20% of psychiatric inpatients, and 30% - 60% of clinical populations with personality disorders (American Psychiatric Association, 2000; Lieb, Zanarini, Schmahl, Linehan & Bohus, 2004). Among patients with personality disorders, 51% of inpatients and 27% of outpatients have BPD (Oldham, 1991). BPD occurs in approximately 1% - 2% of the general population and is more prevalent in women than in men with a 3:1 ratio (Bradley, Jenei & Westen, 2005; Oldham, 2004; O'Leary & Norcross, 1998). BPD is five times more common among first degree relatives than the general population and does occur in cultures around the world. In addition, completed suicide occurs in 8% - 10% of individuals with BPD (American Psychiatric Association, 2000). Further, studies have shown that between 9% and 40% of high level users of inpatient psychiatric services are those diagnosed with BPD (Comtois et al., 2003).

The cost of treatment for patients with BPD as well as other diagnostic categories has increased dramatically. By 1997 costs of inpatient hospital stays had exceeded inflation which continued to force the growth of managed care. Quaytman and Sharfstein (1997) found it cost approximately \$650 a day for inpatient services. People diagnosed with BPD are frequent consumers of mental health services often having more frequent and lengthy admissions accounting for approximately 15% of acute admissions (Kent, Fogarty, & Yellowlees, 1995; Kessel, Lambie & Stewart, 2002; Swartz, Blazer, &

George, 1990; Williams, Weiss & Edens, 1998). In an epidemiology study of BPD, about 15% of all inpatients and about half of all patients with a personality disorder received the diagnosis of BPD (Widiger & Weissman, 1991). Surber et. al (1987) conducted a study which examined the characteristics of high users of acute psychiatric inpatient services and found the most frequent diagnosis were: schizophrenia, bipolar affective and BPD, with a mean 3.5 admissions during 1981 – 1982 time period and an average length of stay of 10.6 days per admission. Krawitz and Watson (2000) have described a group of “high service using” BPD consumers, who had an average annual hospitalization of 139.2 days per client year. Bateman and Fonagy (2003) found the estimated annual health care utilization costs for BPD patients receiving partial hospitalization had a mean of \$44,967 and the general care group a mean of \$52,563. They predicted considerable savings could be made by providing a specialized BPD partial hospital treatment service.

These results become even more startling when the elements of BPD are examined. The traits and characteristics of the borderline personality do not stop with the disorder itself. Affective instability is a major component of not only BPD but of Axis I affective disorders: Bipolar Disorders, Cyclothymic Disorder, Dysthymic Disorder, Mania and Depression (Paris, 1999; Widiger, 1991). The DSM-IV differential diagnosis of mood disorders allows for diagnosis in Bipolar I & II, Schizoaffective, Cyclothymic, Depression disorders, Dysthymic and Adjustment Disorders (American Psychiatric Association, 2000; Paris, 1999). As a result of this commonality, patients with affective disorders are likely to obtain an elevation of the Borderline Scale on the Millon Clinical Multiaxial Inventory (MCMI) (Choca, 2004). Millon (1981) argued that personality traits have often been thought to predispose an individual to develop clinical syndromes. For

example: schizoid or avoidant personality styles may increase the person's tendency to develop schizophrenia. Skodol and colleagues studied functional impairment of patients with schizotypal, borderline, avoidant, and obsessive-compulsive personality disorder and found personality disorders to be a significant source of psychiatric morbidity accounting for more impairment in their functioning than those diagnosed with depressive disorders alone (Skodol et al., 2002).

Scale C was designed to measure a pervasive pattern of instability in terms of: mood, self-image and interpersonal relationships; therefore, Choca (2004) suggested any person who has an elevation on MCMI-III Borderline Scale C has a personality disorder of some type. An elevation of the Schizotypal scale should be expected as well as possible elevations on the Schizoid, Avoidant, Self-Defeating, Anxiety, Dysthymia and psychotic scales. Further, individuals who meet the DSM-IV anacritic borderline personality disorder criteria are likely to have elevated scores on Negativistic or Histrionic MCMI-III scales. The differing domains of the MCMI-III influence each other. For example, depression can be expected to exacerbate personality traits like mood instability, social isolation, and dependency; therefore, the patient's depressive state may pull the personality scores up. Choca advises the clinician to consider the possible interactions of the clinical and personality scales as well as integrate other sources of information. In differential diagnosis a particular case may be confounded by the histrionic-narcissistic personality makeup of a hypomanic person or, for example, by the borderline elements of the oppositional defiant disorder. Clarkin and Foelsch (1998) suggest the specific criteria for BPD is so polythetic in nature, patients may meet the DSM-IV criteria by meeting any of 5, 6, 7, 8, or 9 symptomology criteria. In other words

there are 256 ways, mathematically, of obtaining the diagnosis of BPD (American Psychiatric Association, 2000). It is possible Clarkin and Foelsch (1998) have found a logical rationale for borderline personality being so commonly diagnosed.

Clinicians are often troubled when hospitalizing a patient with borderline personality traits and characteristics, not knowing whether this course of action will benefit or worsen the patient's crisis. Clinical lore has long suggested patients with BPD regress during hospitalization; prolonged stay may be iatrogenic and associated with disruptive behavior, including self-harm behaviors, aggression, and noncompliance with ward routine and increased dependency on mental health services (Boggild, Heisel & Links, 2004; Krawitz & Watson, 2000). In fact, short stay units have been developed to better accommodate those patients who can benefit from brief hospitalization; shorter stays reduces health care costs (Mok & Watler, 1995).

There has long been the idea that a link between diagnosis and length of psychiatric inpatient stay exists. Therefore, having a method to predict who utilizes services provides a payment focus. In 1983 the United States Department of Health proposed a prospective payment system where diagnosis related groups were created and subsequent payment from Medicare was based on this initial diagnosis (McCrone & Phelan, 1994). Subsequent studies in the mid-to-late 1980s showed that diagnostic-related groups alone are a poor indicator of predicted variability in length of inpatient stay (Essock & Norquist, 1988; Essock-Vitale, 1987; Horgan & Jencks, 1987). Research continues to call for additional factors to be modified in an attempt to enhance predictive-ness of diagnosis based models (McCrone & Phelan, 1994). Geller (1986) conducted an evaluation of a state hospital's worst recidivists and found those with Borderline

Personality and Schizophrenic Disorder were the most common diagnostic groups. Further, Geller's findings show the mean number of admissions was 23 compared to 3.7 for the rest of the psychiatric hospital population. The mean length of stay for BPD recidivists ranged from 22.1 to 66.98 days and the median length of stay was 7 to 15.5 days. Geller called for more studies to determine which BPD patients become the most severe recurrent users of psychiatric hospitals. In the present study, the Millon Clinical Multiaxial Inventory-third revision (MCMI-III) was used as an additional factor in examining the length of psychiatric inpatient stay (Millon, Millon & Davis, 1994).

Borderline Personality Disorder

Symptomolgy. Persons diagnosed with borderline personality disorder can have a myriad of symptoms: commonly displayed dejection exhibiting feelings of rejection and abandonment, depression and self-destructive acts including recurrent suicidal behavior such as suicidal gestures and self-mutilating behavior, expression of hostility, exhibition of rapidly changing antithetical thoughts about themselves and others becoming cognitively capricious, having identity diffusion and impulsivity, and chaotic interpersonal relationships (American Psychiatric Association, 2000, Clarkin, Marziali & Munroe-Blum, 1992; Harvard Mental Health Letter, 2002; Kernberg, 2004; Lieb et al. 2004; Linehan, Cochran & Kehrer, 2001; Millon & Davis, 1998; Oldham, 2004; Searight, 2002).

Treatment. The complexity of symptomolgy of BPD leads to much debate over treatment issues. Clinicians generally agree that patients with BPD as well as traits and characteristics are often challenging and difficult to treat due to the behavioral patterns, e.g. suicidal gestures and attempts (Linehan et al. 2001). There are a variety of

treatments for persons with borderline personality pathology: Kernberg's individual psychotherapy, Marziali and Monroe-Blum's relationship management psychotherapy (RMP), Bateman and Fonagy's partial hospitalization approach, Benjamin's structural assessment of social behavior (SASB) approach, Langely's self-management therapy, psychopharmacological treatment, cognitive therapy, and dialectical behavioral therapy (DBT) developed by Marsha Linehan (Bateman & Fonagy, 2003; Kernberg, 2004; Linehan, 2000; Linehan et al. 2001). Patients with the most severe form of borderline characteristics often exhibit life-threatening behaviors and violence. Inpatient treatment is used to provide a stable and safe environment during periods of crisis.

Quaytman and Sharfstein (1997) described a case example representing a composite of real life experiences with patients with BPD and the managed care environment. A patient is admitted with suicidal ideation. A couple days later the hospital's second party, an insurance reviewer and generally a supervisor on the unit, receives a call from a fourth party, a review department with the local for-profit managed care company, who approves one more day of hospitalization. In this case, the patient is rapidly improving and denies being suicidal. At this point a physician, the third party reviewer, is requested; a "physician-to-physician" consultation is arranged whereby a kind of split occurs in treatment. Often the treatment team, the first party reviewer, takes the side of the patient citing the need for finding the "right" pharmacological program and/or "right" level of dependency gratification. The fourth party reviewer, the local for-profit managed care company, often reflects the current pathology of the patient and in this case, denial of suicidal ideation along with the patient quickly becoming one of the higher functioning patients on the unit, will most likely result in termination of payment.

Providing statistical evidence from a clinically based instrument like the MCMI-III to fourth party reviewers could assist in identifying a patient's need for extended care.

Millon Clinical Multiaxial Inventory

Theoretical foundation. Millon has hypothesized how personality traits relate to one another and what the etiology of the particular personality styles may be and how the adaptive potential of the personality may fit into evolutionary theory. The strength of the MCMI is that it can provide a measure of an individual's personality style. Choca (2004) further defines "personality style" as the psychological essence of the person regardless of the ability to cope or said pathology.

Millon's theory has evolved considerably since its conception in 1969, adjusting for the Diagnostic and Statistical Manual of Mental Disorders (DSM) second, third and fourth revisions as well as incorporating developmental theory. He also believes the field of cognitive psychology can mature by integrating the available knowledge through a process he coined "psychosynergy" (Choca, 2004). What Millon did was borrow from the theory of evolution pointing to four ecological principles: aims of existence, modes of adaptation, strategies of replication, and processes of abstraction. These principles lead to four polarities of which Millon used three to derive the MCMI-III personalities. Those combinations are outlined as follows. The aims of existence principle distinguishes between life enhancement and life preservation; the dichotomy between the two is called the pleasure-pain polarity. The process that calls for both modification and accommodation to the environment, in the principle of modes of adaptation, provides the concept for the polarity of active versus passive. In other words, the adaptation to unfavorable aspects of the environment is the active mode and acceptance of aspects that

cannot be changed in our environment is the passive mode. The third principle is strategies of replication addressing whether the species is better served by the nurturance of others or by the promotion of the individual. Millon used this principle to form the self-other polarity. The self-other polarity is the drive toward self-actualization against the need to have regard for others; personalities that emphasize the “self” like narcissistic and antisocial contrast with personalities emphasizing “others” like the dependent and histrionic personality styles (Choca, 2004).

Millon also integrates human developmental stages into his theory and recognizes four stages: sensory attachment, sensorimotor autonomy, pubertal gender identity, and intracortical initiative. His proposition is the person’s development dealing with the four sets of polarities is associated with the experiences the individual had during those stages. So combining the two, Millon would report the individual in the sensory attachment period develops the pleasure versus pain polarity and so on. His personality prototypes are both categorical and dimensional in nature; therefore, when two individuals are seen in one category, they can be further differentiated using the subscales in the MCMI. One specific subscale Borderline Scale C, is used in this study.

Borderline Scale C. This scale was designed to measure a pervasive pattern of instability in terms of mood, self-image and interpersonal relationships. Elevations of 74 or greater indicate that patients have typically responded in an overemotional and impulsive manner, demonstrating intensity of affect (Choca, 2004; Jankowski, 2002). Individuals that endorse the 16 items can be aggressive, angry or even cruel, displaying destructive ideas and behaviors toward the self and others. Respondents may show feelings of worthlessness, hopelessness, and sadness. The 16 items of the Borderline

Scale C have been grouped into four predominant factors: depression, behavioral acting-out, submissive dependency and hostile dominance (Choca, 2004). Choca has examined the MCMI-III personality scales and has found that individuals who meet the corresponding DSM-IV criteria for borderline personality disorder are also likely to have an elevation in scores on the Histrionic or the Negativistic scales as well.

MCMI-III as a treatment measure. Research related to length of stay for psychiatric inpatients concerns the efficacy of long-versus short term treatment. Piersma and Boes (1997a) found shorter length of stay (7 days) as opposed to longer stays (21 days) is associated with less patient-reported change on personality and symptom variables as measured by pre-and posttest on the MCMI-III. They conducted another study in which the MCMI-III as a treatment evaluation measure for psychiatric inpatients was examined. Five basic personality scales (Avoidant, Depressive, Dependent, Aggressive and Passive-Aggressive) showed significant decreases between admission and subsequent testing. On the pathological personality scales there was a significant decrease in scores on the pre-and posttest on both Borderline and Paranoid scales (Piersma & Boes, 1997b.). These studies call for continued research using the Millon instruments.

Conclusion

The World Health Organization (WHO) (2000) provides guidelines for secondary prevention of mental health including: reducing disability, prevention relapse, and for providing interventions for treatment related strategies. In fact, the WHO calls for evidenced-based practice, prevention, and promotion of mental health and operationally defines “evidence” as, “information appropriate in answering questions about the

effectiveness of interventions” (pp 8). We also know that patients with not only BPD but Schizophrenia and Affective Disorders enter treatment at various levels of severity. My study was designed to examine the effectiveness of the MCMI-III clinical instrument’s ability to predict length of inpatient stay for the most severe level of patient; the psychiatric inpatient.

Rationale. Information obtained from such a study could be used to aid in treatment communication with patients and their families; approximate lengths of stay could be discussed as well as a more formal outline of what specific issues to address for each day of hospitalization. For example, patients for whom emotional dysregulation appears to be functionally related to their presenting problem may benefit from Dialectical Behavior Therapy (DBT) (Linehan, 2000). Patients identified with BPD benefit from DBT, each application of DBT is designed to treat individuals with varying presentations of personality problems (Linehan).

While a study of this particular design has not previously been conducted, preliminary research suggests assessment data may be useful in identifying patient populations who are at a greater risk of hospitalization (Hopko, Lachar, Beilley & Varner, 2001). The amount of research using clinical assessments in predicting length of stay is sparse; clinician-based measures may account for significant variance in length of stay and should be examined (Anderson, Crist & Payne, 2004; Averill et al. 2001).

Research Question

Based on past research the following research question was developed:
Do Borderline Personality Scale C scores on the MCMI-III and number of previous admissions significantly correlate with the most recent length of stay?

CHAPTER 2

METHOD

Participants

The participants for this study were 108 male and 159 female adult (i.e., 18 and over) psychiatric inpatients of the New Choices program at Hutchinson Hospital, discharged from January, 2003 to April 2005, who had valid MCMI-III profiles. The MCMI was administered to each participant as part of their inpatient program. Data from Scale C was collected on 286 profiles; 19 data sets were excluded from the study. Number of previous admissions was not available for thirteen profiles; those profiles could not be matched with length of stay, and were excluded. Six additional profiles contained MCMI-III information; however, no hospital records were available for patients from April 21, 2005 to April 30, 2005. Therefore, the data sets were incomplete and could not be used in the present study. The final analysis contained 267 useable data sets.

The data sets included: gender, age, race, marital status, admitting diagnosis, date of testing, both the raw and Base Rate (BR) Scale C scores, number of previous admissions and length of stay measured in days. The sample contained 40% males and 60% females with a mean age of 37.7 years with a standard deviation of 15.13 years. Thirty-three percent of the sample was single, 15% married, 10% separated, 21% divorced, 3% widowed, 13% were remarried and 4% were cohabitating. The present sample consists of 92% White, 4% African American, and 1.5% Hispanic. Asian Americans and American Indians comprised 0.4% and 1.9% respectively. These parallel

the MCMI's developmental sample population: 86% White, 9% African American, 3% Hispanic, and 1% other races or ethnic groups (Choca, 2004).

Admitting diagnosis ranged across 19 categories as defined by the psychiatric unit itself: Schizophrenia 2.2%, Adjustment Reaction 3%, Alcohol Dependence 5.2%, Episode Mood NOS 5.6%, Alcohol Abuse 1.5%, Schizoaffective 6.7%, Poison Psycho-stimulants/Toxins 1.5%, Paranoid State 0.4%, Bipolar I 14.6%, Mental Disorder NOS 2.6%, Psychosis/Delusional 2.6%, PTSD 0.7%, Dysthymia 1.9%, Anxiety 1.1%, BPD 0.4%, Other 1.9% and 3% of the profiles did not have admitting diagnosis available. Additionally 3 related categories comprised 44.6% cumulative percentage of admitting diagnosis: Recurrent Depression 13.9%, Depression 24.7% and Depression with Psychosis 6%.

Design

A correlational study, ex post facto in design, examined institutional archival quantitative data (Lomax, 2001; Rosenthal & Rosnow, 1991). The retrospective review included patient MCMI-III profiles and computerized hospital records. Other studies have used similar retrospective chart-based case-controlled reviews of hospital patients (Boggild et al., 2004; McCrone & Phelan, 1994; Mok & Watler, 1994). The three variables considered in this study were: number of previous psychiatric admissions, MCMI-III subscale Borderline Scale C scores, and length of hospitalization measured in days. The correlation of previous admissions and Borderline subscale C scores on length of inpatient hospitalization is the focus of this study.

Instrumentation

The Millon Clinical Multiaxial Inventory- III, created by Theodore Millon, Roger Davis and Carrie Millon is a 175 item, true-false, self-report, paper-and-pencil inventory which takes approximately 25 minutes to complete. The test is divided into four groups: Clinical Personality Patterns, Severe Personality Pathology, Clinical Syndromes, and Severe Clinical Syndromes. The internal consistency alpha coefficients for the 24 total clinical scales range from .66 to .90 and exceed .80 for 20 of the 24 scales (Millon & Davis, 1998; Jankowski, 2002).

Choca (2004) reviewed individual demographics for interpretation on the MCMI-III profile; with gender, no differences in average scores were found. Strack, Kaufman & Kaufman (1999) report men score higher on Antisocial Scale 6A and women on Somatoform Disorder Scale H and Major Depression Scale CC. With race, no specific data on performance with different races on the MCMI-III is available. Previous editions have examined the issue and have found similar results to most other psychological tests. There was a lack of representativeness in the standardized sample so Choca does caution clinicians in interpreting such profiles solely. With age there is a trend toward lower scores for the older population, more clinical tolerance for higher scores in the younger, and greater concern for milder elevations in the older. There was a comparative study on culture between American and Korean college students where Koreans obtained higher scores on 6 of the 11 personality scales. Most demographic information was collected with the MCMI-I; information pertaining to gender, race and age for the MCMI-III were unavailable (Strack et al. 1999).

The instrument was designed to be used by only clinical populations; therefore, it uses base rate (BR), scores rather than *T* scores as they are considered inappropriate because they assume an underlying normal distribution. Further, Millon had experienced clinicians provide the DSM-III-R Multiaxial diagnoses for all of the patients for the normative group. Millon then created anchor points for his scales reflecting the prevalence, or BR, of each psychiatric condition. BR scores of 60 were set at the median raw score obtained by all patients. BR scores of 75 were assigned to the minimum raw score by patients who met criteria for the particular disorder/ condition. For personality scales, BR scores of 74-84 signify the presence of a clinically significant *trait* and BR 85 or greater; suggest the presence of a *disorder*. For the clinical syndrome scales, BR 75-84 indicates the *presence* of a syndrome and BR 85 or greater, indicate the *prominence* of a syndrome (Choca, 2004; Jankowski, 2002; Piersma & Boes, 1997a.; Strack et al.1999).

Ninety five test items directly reflect DSM-IV criteria, and it is one of only a few major instruments to include Axis I and II DSM-IV diagnosis. There are 14 personality pattern scales, 10 clinical syndrome scales, 3 modifying indices and 1 validity index which both detect response biases. The 10 clinical syndrome scales as found in the DSM-IV Axis I are: Anxiety (A), Somatoform (H), Bipolar- Manic (N), Dysthymia (D), Alcohol Dependence (B), Drug Dependence (T), Post-Traumatic Stress Disorder (R) and severe syndrome clinical scales are: Thought Disorder (SS), Major Depression (CC) and Delusional Disorder (PP). The 14 personality pattern scales as found in the DSM-IV Axis II are: Schizoid (1), Avoidant (2A), Depressive (2B), Dependent (3), Histrionic (4), Narcissistic (5), Antisocial (6A), Sadistic (Aggressive) (6B), Compulsive (7), Negativistic (Passive-Aggressive) (8A), Masochistic (Self-Defeating) (8B), and severe

personality pathology scales are outlined as: Schizotypal (S), Borderline (C) and Paranoid (P). The 3 modifying indices are: Disclosure (X), Desirability (Y) and Debasement (Z). There is also a validity index (V) (Choca, 2004; Jankowski, 2002; Millon & Davis, 1998; Strack et al. 1999).

Borderline Scale C. Scale C, originally labeled the Cycloid or Cyclothymic scale contains 16 items comprising the essential features of: pervasive pattern of unstable interpersonal relationships and labile emotions. The intense labile affect can vary from euphoric to depressed and from appreciative to angry and critical. Elevations on this scale indicate examinees typically respond in an impulsive and overemotional way (Choca, 2004; Jankowski, 2002). Gibertini, Brandenburg and Retzlaff (1986) examined the operating characteristics of the MCMI and found the overall diagnostic power of Scale C to be 89%.

Procedure

The participants were previously administered the MCMI-III upon admission and the results were entered into a computerized scoring program by a qualified professional (MICROTEST Q Assessment System, 1994). The results of individual profiles were housed in written formats in the patient chart as well as electronically.

Profiles were invalid based on (i.e., excessive responses, missing or double marked responses of 12 or greater, scores greater than 1 on the Validity (Scale V) specifically looking at items number 65, 110, 157, and scores outside the valid range of 34 to 178 on Disclosure (Scale X). In addition, the Desirability (Scale Y) for understatement of psychopathology and Debasement (Scale Z) for overstatement of psychopathology were checked and deemed invalid when either had a BR score of

greater than or equal to 75. When there are multiple elevations in the clinical personality and severe personality pathology scales, Strack et al. (1999) suggested examining the most severe personality pathology scales, that is, Schizotypal (Scale S), Borderline (Scale C), and Paranoid (Scale P), first, putting the interpretive emphasis there and using the other scales to aid in providing features of the patient's personality. Each valid profile yielded one score for Scale C ranging from 0 to 115. For the purpose of this study, any score received on Scale C will be recorded.

Data Collection. Collection of data occurred in two parts. First, collection of Scale C scores was conducted on the premises of Horizons Mental Health Center and second, collection of number of previous admissions, length of inpatient stay, and demographics was conducted at Hutchinson Hospital New Choices Psychiatric Unit. First, profiles both in and out-patient are stored on the MICROTEST Q Assessment System which does not, in unprinted format, contain identifiable profile information regarding patient status. In order to retrieve data from only inpatients, a hard copy record booklet was accessed via support staff. The booklet contains: name, social security number, date of testing, type of test given, ordering attending, and those ordered via inpatient were noted with an "H." Names and dates denoted by, "H" in the booklet was then matched to names in the MICROTEST Q system. Profiles were then printed out and examined for validity and Scale C raw and BR scores. Patient name, date of testing, raw and BR scores were recorded in a columnar pad. Printed out profiles were immediately distributed to the locked shredder container.

In order to match patient data from the MCMI-III profile to the hospital data, patient names were temporarily recorded on pen and paper. This identifiable information

was placed in a transportable metal locked box and carried via tunnel system from Horizons Mental Health Center to Hutchinson Hospital New Choices Psychiatric Unit. Upon entering the unit, part 2 of the data collection began.

For the second part, support staff at Hutchinson Hospital, given previous notice, printed out, by patient name, number of previous admissions and length of inpatient stay for this researcher to look through. Data collected from Horizons Mental Health Center was matched by patient name to hospital data. After data matching was complete, a black marker was used to black out patient names; the names were cut off the data and distributed to the shredder pile for destruction on the unit premises. Each data set was assigned a numeric code; no patient names or identifiable information was removed from the unit.

The procedural method of data collection followed the guidelines of Emporia State Institutional Review Board (see Appendix A) as well as the protocol for both Horizons Mental Health Center, where the computerized MCMI-III profiles are housed, and Hutchinson Hospital New Choices Program, where the computerized information for patient length of stay is housed (see Appendix B). Additionally a confidentiality form for Horizons Mental Health was signed (see Appendix C). Permission was granted in writing by all three institutional bodies before collection of any data occurred.

CHAPTER 3

RESULTS

Research Question

Statistical analysis included Pearson's product-moment correlation coefficient in order to examine the research question: Do Scale C scores on the MCMI-III and number of previous admissions significantly correlate with the most recent length of stay?

Demographics, both raw and BR Scale C scores and length of stay were entered into SPSS statistical program (Green & Salkind, 2005). When multiple MCMI-III profiles were found, only the most recent was used.

Supplementary Analysis

The interpretation of r in this study involves the method of displaying practical importance called, binomial effect-size display (BESD). Rosenthal and Rosnow (1991) found neither experienced behavioral researchers nor experienced statisticians had a good intuitive sense of the practical meaning of such indices of effect size such as r^2 and w^2 ; which are typically a poor reflection of the practical value of any given correlation; the BESD was introduced because it is both easily understood and applicable whenever r is utilized. The BESD is computed as $.50 + r / 2$; to state as a percentage simply multiply r x 100. The effect-size estimate, the degree to which the null hypothesis is false, however, is also a valuable piece of information as it allows for the appraisal of the strength of the evidence presented. For the purpose of my study both the strength of effect size and the practical importance of BESD were calculated.

Results of the Pearson correlation show Scale C BR scores were statistically significant, $r(266) = .14, p < .05$ with number of previous admissions. The effect-size

estimate = 2%; BESD = .14. Correlations between length of stay and number of previous admissions were statistically significant, $r(266) = .17, p < .01$. The effect-size estimate = 3%; BESD = .17. See Table 1. Scale C BR scores were not statistically significant with length of stay.

Table 1

Correlations Between Scale C Base Rate Scores, Number Of Admissions, and Length Of Stay

| Subscale | 1 | 2 | 3 |
|----------------------------------|---|-----|-------|
| Participants ($n = 267$) | | | |
| 1. Scale C BR Score | | .14 | -.04 |
| 2. Number of Previous Admissions | | | .17** |
| 3. Length of Stay | | | |

* $p < .05$

** $p < .01$

CHAPTER 4

DISCUSSION

Research Question

Do Scale C scores on the MCMI-III and number of previous admissions significantly correlate with the most recent length of stay? The basis of the findings center on the pronounced areas of strength of association between number of previous admissions with both length of stay and Scale C scores and no significant association between Scale C scores with length of stay.

Discussion and Limitations

Having prior admissions is weakly associated with longer lengths of stay. The mean length of stay in this study was 7.6 days; the variability in length of stay due to prior admissions is an estimated 17 %. Knowing this information can be helpful to the patient and the unit in many ways such as: planning for appropriate staff to patient ratio; allowing the treatment team to base the patient's treatment plan on, for example, a 9 day as opposed to 7½ day plan, communicating effectively to the patient and their family a more clear picture of how long the patient will be hospitalized, aiding in communication to prospective payment sources, and promoting discussion around hospital cost and care. It is important to note the number of previous admissions was specific to only this unit; it is unknown if the patient was additionally hospitalized at other institutions during the time period of this study, January 1, 2003 through April 30, 2005.

Swett (1995) examined the number of previous psychiatric admissions as a predictor of readmission within 30 days for psychiatric patients and found the admissions were significantly greater for those who were subsequently readmitted. Swett argues

number of previous admissions can be used as a rough measure of chronic and/or intermittent psychopathology which places the patient at greater risk for periods of greater acuity and subsequent hospitalization. One possible reason for the results is that both higher scores on Scale C and higher numbers of previous admissions may denote a subset of the patient population whose borderline personality may be a rough measure of the chronic severity of their disorder.

This study did find having prior admissions is associated with having a greater likelihood of an increase in Scale C scores on the MCMI-III. The mean Scale C score in this study was 63; the variability in scores due to prior admissions is estimated at 14%. Patients with prior admissions are more likely to have an increase of approximately 9 points (i.e., $63 \times .14$) in Scale C scores. This could account for a marked increase in the severity of the patient's personality pathology, for example, from a non-trait level to a trait level or from a trait level to a disorder level. In reviewing the scoring system of the MCMI-III, depending on the patient's initial score an increase in, for example, 9 points may not show a marked increase in pathology. For example, receiving a score on the low end of the trait range (74 to 85) upon first administration to a higher level of the same trait range in subsequent administration signifies, essentially, the patient will continue to be identified as having borderline personality traits. A similar example utilizing the disorder range (85 to 115) illustrates the same point; the patient who has previously been identified as having a disorder due to a score of 85 will not change in practical diagnosis following a score of 94. This information, however, is important to the clinician as it enhances judgment. Additionally, this information may promote additional clinical

treatment team conversation around the known relationship between longer lengths of stay and iatrogenic outcomes.

When considering both findings, the inpatient unit may want to consider the interaction of cost effectiveness programs like the brief planned admissions (BPA) and the therapeutic benefits of DBT to both decrease the presumed increase in cost and limit iatrogenic outcomes.

The study did not find a significant association between Scale C scores with length of stay. The system itself may account for the absence of significance in length of stay and borderline Scale C scores. In managed care and the acute short stay units, 5 to 7 days are the rule not the exception, therefore, persons who score higher on Scale C may simply be treated in a shorter amount of time. It is important to note the present study, conducted in an acute care facility, may have patients for whom longer term care is required. Those patients would then be transferred to a more appropriate facility. The number of patients who were transferred were not recorded in this study. The prospective payment system, managed care, may additionally contribute for some of the variance in length of inpatient stay; this variable was not examined in the present study.

Forty-four cumulative percentage of profile respondent's admitting diagnosis was related to depression: Recurrent Depression 13.9%, Depression 24.7% and Depression with Psychosis 6%. Patients in this population have affective instability and score higher on Scale C. It is possible, for example, psychopharmacological advances have effectively shortened length of inpatient stay. The present study did not examine psychopharmacological dimensions.

It is important to mention there has been some speculation about admitting psychiatrists account for variance in predicting patient length of stay; differing educational backgrounds and personality styles may account for variations between psychiatrists and their patient's length of stay. Lyons and colleagues found the attending psychiatrist was a strong predictor: in 1988, predicting 12.4% of the variation in length of stay compared to 8.8% in 1989 (Lyons, O'Mahoney & Larson, 1991). The present study did not examine this dimension.

Areas for Future Research

The present study did not account for total patient bed days per year. By examining all patient days used, a comparison of the older managed care system of longer stays versus the newer short stay unit system could be examined to see if patients with severe pathology and possible higher Scale C scores use approximately the same number of total inpatient days per year. It is possible the present study did not find significant correlation between Scale C scores and length of stay due to the present managed care acute system. Adding the dimension of attending physician would strengthen the present study by expanding the known variables in association with length of stay; making each relationship to length of stay more pronounced. Perhaps a prospective longitudinal study where pre-and post-MCMI-III administration is given to inpatients upon initial hospitalization followed by periodic administration as outpatients in order to determine the relationship between Scale C scores and residential status would provide a clearer picture than the present study design.

REFERENCES

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Text Revision. Washington, DC: Author.
- Anderson, S. W., Crist, A. J., & Payne, N. (2004, January). Predicting inpatient length of stay with the expanded version of the brief psychiatric rating scale version 4.0. *Psychiatric Services, 55*, 77-79.
- Averill, P. M., Hopko, D. R., Small, D., Greenlee, H. B., & Varner, R.V. (2001). The role of psychometric data in predicting inpatient mental health service utilization. *Psychiatric Quarterly, 72*, 217-237.
- Bateman, M. A., & Fonagy, P. (2003, January). Health service utilization costs for Borderline personality disorder patients treated with psychoanalytically oriented partial hospitalization versus general psychiatric care. *American Journal of Psychiatry, 160*, 169-171.
- Boggild, A. K., Heisel, M. J., & Links, P. S. (2004). Social, demographic, and clinical factors related to disruptive behavior in hospital. *Canadian Journal of Psychiatry, 49*, 114-118.
- Bradley, R., Jenei, J., & Westen, D. (2005, January). Etiology of borderline personality disorder: disentangling the contributions of intercorrelated antecedents. *The Journal of Nervous and Mental Disease, 193*, 24-31.
- Choca, J. (2004). *Interpretive guide to the Millon Clinical Multiaxial Inventory*. (3rd ed.). Washington, DC: American Psychological Association.

- Clarkin, J. F., & Foelsch, P. A. (1998). Key principles in the treatment of borderline personality disorder. In G.P. Koocher, J.C. Norcross, & S.S. Hill III (Eds.). *Psychologists' desk reference* (pp. 303-305). New York, Oxford Press.
- Clarkin, J. F., Marziali, E., & Munroe-Blum, H. (Eds.). (1992). *Borderline personality disorder: clinical and empirical perspectives*. New York: Guilford Press.
- Comtois, K. A., Russo, J., Snowden, M., Srebnik, D., Ries, R., & Roy-Byrne, P. (2003). Factors associated with high use of public mental health services by persons with borderline personality disorder. *Psychiatric Services, 54*, 1149-1154.
- Essock, S. M., & Norquist, G. S. (1988). Toward a fairer prospective payment system. *Archives of General Psychiatry, 45*, 1041-1044.
- Essock-Vitale, S. (1987). Patient characteristics predictive of treatment costs on inpatient psychiatric wards. *Hospital and Community Psychiatry, 38*, 263-269.
- Geller, J. L. (1986). In again, out again: preliminary evaluation of a state hospital's worst recidivists. *Hospital and Community Psychiatry, 37*, 386-390.
- Gibertini, M., Brandenburg, N. A., & Retzlaff, P. D. (1986). The operating characteristics of the Millon clinical multiaxial inventory. *Journal of Personality Assessment, 50*, 4, 554-567.
- Green, S. B., Salkind, N. J. (2005). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (4th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Harvard Mental Health Letter (2002, March). Borderline personality: new recommendations. *Harvard Health Publications Group, 18*.

- Horgan, C., & Jencks, S.F. (1987). Research on psychiatric classification and payment systems. *Medical Care* 25, Supp. 9, S22-S36.
- Hopko, D. R., Lachar, D., Beilley, S. E., & Varner, R.V. (2001). Assessing Predictive Factors for Extended Hospitalization at Acute Psychiatric Admission. *Psychiatric Services*, 52, 1367-1373.
- Jankowski, D. (2002). *A beginner's guide to the MCMI-III*. Washington, DC: American Psychological Association.
- Kent, S., Fogarty, M., & Yellowlees, P. (1995). Heavy utilization on inpatient and outpatient services in a public mental health service. *Psychiatric Services*, 46, 1254-1257.
- Kernberg, O. (2004). Borderline personality disorder and borderline personality organization: psychopathology and psychotherapy. In J. J. Magnavita (Ed), *Handbook of personality disorders: theory and practice* (pp. 99-118). Hoboken, NJ: John Wiley & Sons, Inc.
- Krawitz, R., & Watson, C. (2000). *Borderline personality disorder: Foundations of treatment*. Adelaide, Australia: Henley Beach.
- Kessel, K.V., Lambie, I., & Stewart, M. W. (2002). The impact of brief planned admissions on inpatient mental health unit utilization for people with a diagnosis of borderline personality disorder. *New Zealand Journal of Psychology*, 31, 93-97.
- Lieb, K., Zanarini, M. C., Schmahl, C., Linehan, M. M., & Bohus, M. (2004). Borderline personality disorder. *The Lancet*, 364, 453-469.

- Linehan, M. M.(2000). Commentary on innovations in dialectical behavior therapy. *Cognitive and Behavioral Practice, 7*, 478-481.
- Linehan, M. M., Cochran, B. N., & Kehrer, C.A. (2001). Dialectical behavior therapy for borderline personality disorder. In D.H. Barlow (Ed), *Clinical handbook of psychological disorders: A step-by-step treatment manual* (3rd ed.), (pp. 470-522). New York: The Guilford Press.
- Lomax, R. G. (2001). *Statistical concepts: A second course for education and the behavioral sciences*. (2nd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- Lyons, J. S., O'Mahoney, M. T., & Larson, D. B. (1991). The attending psychiatrist as a predictor of length of stay. *Hospital and Community Psychiatry, 42, 10*, 1064-1066.
- McCrone, P., & Phelan, M. (1994). Diagnosis and length of psychiatric in-patient stay. *Psychological Medicine, 24*, 1025-1030.
- MICROTEST Q Assessment System 3.0 (1994). National computer systems, Inc. Minneapolis, MN.
- Millon, T. (1981). *Disorders of personality: DSM-III Axis II*. New York: Wiley.
- Millon, T., Millon, C., & Davis, R. (1994). *Millon™ Clinical Multiaxial Inventory-III*. Minneapolis, MN: NCS Pearson, Inc.
- Millon, T., & Davis, R. D. (1998). Millon clinical Multiaxial inventory (MCMI-III). In G. P. Koocher, J. C. Norcross, & S. S. Hill III (Eds.), *Psychologists' desk reference* (pp. 142-147). New York: Oxford Press.

- Mok, H., & Watler, C. (1995). Brief psychiatric hospitalization: preliminary experience with urban short-stay unit. *Canadian Journal of Psychiatry, 40*, 415-417.
- Oldham, J. M. (2004). Borderline Personality Disorder: An overview. *Psychiatric Times, July 1*, 43- 51.
- Oldham, J. M. (1991). Borderline Personality Disorder: An introduction. *Hospital and Community Psychiatry, 42*,1014.
- O'Leary, B. J., & Norcross, J. C. (1998). Lifetime prevalence of mental disorders in the general population. In G. P. Koocher, J. C. Norcross, & S. S. Hill III (Eds.), *Psychologists' desk reference* (pp. 3-5). New York: Oxford Press.
- Paris, J. (1999). Borderline personality disorder. In T. Millon, P.H. Blaney, & R.D. Davis (Eds.), *Oxford textbook of psychopathology* (pp. 628-652). New York: Oxford University Press.
- Piersma, H. L., & Boes, J. L. (1997a.). The relationship of length of stay to MCMI-II and MCMI-III change scores. *Journal of Clinical Psychology, 53*, 535-542.
- Piersma, H. L., & Boes, J. L. (1997b.) MCMI-III as a treatment outcome measure for psychiatric inpatients. *Journal of Clinical Psychology, 53*, 825-831.
- Quaytman, M., & Sharfstein, S. S. (1997). Treatment for severe borderline personality disorder in 1987 and 1997. *American Journal of Psychiatry, 154*, 1139-1144.
- Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis* (2nd ed.). New York: McGraw-Hill Publishing Company.
- Searight, H. R. (1992, May). Borderline personality disorder: diagnosis and management in primary care. *Journal of Family Practice, 34*, 605-613.

- Skodol, A. E., Gunderson, J. G., McGlashan, T. H., Dyck, I. R., Stout, R. L., Bender, D. S., et al. (2002). Functional impairment in patients with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorder. *American Journal of Psychiatry*, *159*, 276-283.
- Strack, S., Kaufman, A. S. & Kaufman, N. L. (Eds.). (1999). *Essentials of Millon inventories assessment*. New York: John Wiley & Sons, Inc.
- Surber, R. W., Winker, E. L., Monteleone, M., Havassy, B. E., Goldfinger, S. M., & Hopkin, J. T. (1987). Characteristics of high users of acute psychiatric inpatient services. *Hospital and Community Psychiatry*, *38*, 1112-1114.
- Swartz, M., Blazer, D., & George, L. (1990). Estimating the prevalence of borderline personality disorder in the community. *Journal of Personality Disorder*, *4*, 257-272.
- Swett, C. (1995). Symptom severity and number of previous psychiatric admissions as predictors of readmission. *Psychiatric Services*, *46*, 482-485.
- Widiger, T. A., & Weissman, M. M. (1991). Epidemiology of borderline personality disorder. *Hospital and Community Psychiatry*, *42*, 1015- 1020.
- Williams, W., Weiss, T. W., Edens, A., Johnson, M., & Thornby, J. I. (1998). Hospital utilization and personality characteristics of veterans with psychiatric problems. *Hospital and Community Psychiatry*, *49*, 370-375.
- World Health Organization. (2002). *Prevention and promotion in mental health*. Geneva, Switzerland: Author.



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April 27, 2005

Tapatha Strickler
408 W. Nickerson Blvd.
Nickerson, KS 67561

Dear Ms. Strickler:

Your application for approval to use human subjects, entitled "Using the MCMI-III Borderline Personality Scale C to Predict Length of Inpatient Stay," has been reviewed. I am pleased to inform you that your application was approved and you may begin your research as outlined in your application materials.

On behalf of the Institutional Review Board, I wish you success with your research project. If I can help you in any way, do not hesitate to contact me.

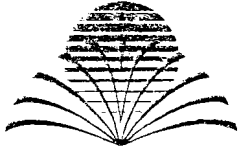
Sincerely,

A handwritten signature in cursive script, appearing to read "Jeffrey Tysinger".

Dr. Jeffrey Tysinger
Chair, Institutional Review Board

pf

cc: Cooper Holmes
Jeff Tysinger



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April 28, 2005

Tapatha Strickler
408 W. Nickerson Blvd.
Nickerson, KS 67561

Dear, Ms. Strickler; Institutional Review Board of Emporia State University; Thesis Committee and interested parties:

We, at Horizons Mental Health Center, approve your request to collect data for your Masters thesis. In compliance with ethical standards we ask that you sign our confidentiality agreement.

We understand that temporarily, identifiable consumer identification will be collected and not distributed nor removed from the property. Following additional data collection at Hutchinson Hospital, we understand, identifiable consumer information will be destroyed and only non-identifiable consumer data will be removed from the property.

Should you have any questions please feel free to contact me.

Sincerely,

Michael A. Truman CEO
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Tabitha

I apologize for the delay in getting back to you. We have decided that you will be allowed to use the data here at Horizons, provided that you sign the confidentiality agreement, and that no consumer identifying data be collected or distributed. Please let me know when you plan to start and what you might need while you are here.

Michael A. Truman, CEO
 Horizons Mental Health Center
 1715 East 23rd Ave
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April 15, 2005

Tapitha Strickler
408 West Nickerson Blvd.
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Dear Ms. Strickler:

I am pleased to inform you that your request has been approved to use the New Choices data base to gather length of stay data for your thesis. As per your request, you will be able to collect length of stay information on the New Choices unit, keeping patient information confidential in line with guidelines by Hutchinson Hospital and Emporia State University's Institutional Review Board and your thesis committee. We understand this data will be used for your thesis project, "An Examination of the MCMI's Ability to Predict Length of Psychiatric Inpatient Stay for Patient's Diagnosed with Borderline Personality Disorder".

I understand that other data for your thesis will be collected from Horizons Mental Health Center with their approval. While collecting this data if you have any questions, please contact Bunny B. Czarnopys, PhD, LCSW, LCMFT, Program Director of the New Choices Program.

Good luck on your thesis project.

Very truly yours,



Gene E. Schmidt, President
Hutchinson Hospital Corporation



Hutchinson Hospital

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Tapatha Strickler
408 W. Nickerson Blvd
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Dear Ms. Strickler:

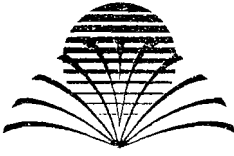
As stated via letter previously, The New Choices Program, Hutchinson Hospital Psychiatric Center has approved your request to collect limited data for your Masters thesis. It is understood that you have signed the confidentiality agreement with HMHC, in compliance with ethical standards.

It is understood that temporarily, identifiable consumer identification will be collected to match information from testing at HMHC. However, it will not be removed from the property nor distributed. It is understood that the identifiable consumer information will be destroyed after LOS data has been collected. Only non-identifiable consumer data will be removed from the property.

Good luck on your thesis work.

Sincerely,

Bunny B. Czarnopys, PhD, LSCSW, LCMFT for Gene Schmidt, CEO HHC
Program Director
New Choices Program
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CONFIDENTIAL INFORMATION AGREEMENT

I hereby agree to maintain the confidentiality of all Horizons Mental Health Center's patient information. The mental health care of an individual is always personal in nature. Therefore, any information about a patient's condition, care, treatment, and/or personal data will be considered strictly confidential and not be discussed with anyone other than those who are directly responsible for that individual's care.

Name *Stephanie K. Strickler*
Date *May 2, 2005*

Witness *Duffy E. [Signature]*
Date *5-2-05*

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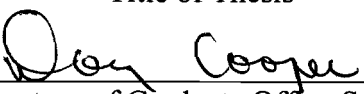
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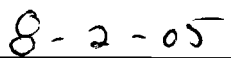
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Relationship Between Millon Clinical
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