

AN ABSTRACT OF THE THESIS OF

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Abstract Approved: \_\_\_\_\_

With the development of the Adaptive Behavior Scale, the AAMD claimed to have provided a means of accurately and objectively measuring adaptive behavior. However, because the type or seriousness of behaviors described within the behavior domains are not taken into account in Part II of the Scale, it is possible for two individuals achieving identical domain scores to still differ significantly in terms of the seriousness of their maladaptive behavior. Thus, an inaccurate representation of the individuals would result.

To investigate this, the behaviors described in each behavior domain on Part II of the AAMD Adaptive Behavior Scale were rated on a seven-step scale ranging from "serious" to "mild," by a group of fourteen mental health professionals. The data generated from these rating scales were evaluated using an analysis of variance and a test for specific comparisons.

The findings revealed significant differences in

the degree of seriousness of the behaviors described in twelve of the thirteen behavior domains included in this study. Only Domain VIII (and XIV, which was not studied) failed to achieve statistically significant results.

The results obtained from this investigation brought into question the Scale's evaluative ability and illustrated the need for altering the present Adaptive Behavior Scale's scoring system. Modifications involving weighted scores were recommended to alleviate existing inadequacies in the Scale's scoring method.

THE SERIOUSNESS OF BEHAVIORS DESCRIBED IN THE AAMD  
ADAPTIVE BEHAVIOR SCALE AS RATED BY  
MENTAL HEALTH PROFESSIONALS

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## Chapter 1

### INTRODUCTION

This chapter describes the effectiveness of Part II of the American Association on Mental Deficiency's (AAMD) Adaptive Behavior Scale in assessing the maladaptive behavior of individuals. The significance of this study, as well as the specific statement of the problem, the purpose of the study, and the null hypothesis are discussed. In addition, the limitations of the study are defined along with the clarification of terms.

### THEORETICAL FORMULATION

The AAMD has stated that for the diagnosis of mental retardation to be given, deficiencies in both measured intelligence and adaptive behavior must be demonstrated (Grossman, 1973). Intelligence scores alone, the usual form of assessment, have been discounted because they do not offer a complete description of the methods employed by individuals in maintaining their personal independence in daily living or of how they fulfill the social expectations of the environment (Leland, Nihira, Foster, Shellhaas, and Kagin, 1968). For example, a mentally retarded individual may possess certain social skills but, because of a rather low IQ score, is not given credit for these skills and is

placed with other retardates of lesser ability. This points up the need for the second dimension, that of adaptive behavior.

The term "adaptive behavior," as defined by the AAMD, refers to "The effectiveness of an individual in coping with the natural and social demands of his or her environment" (Grossman, 1973). This type of information is critical to those involved in the training and habilitation of mentally retarded, emotionally maladjusted, and developmentally disabled persons. In an effort to assist professionals in the assessment of adaptive behavior, the AAMD developed the Adaptive Behavior Scale in 1969, later revising it in 1974.

The Adaptive Behavior Scale purports to provide an objective description and evaluation of adaptive behavior. However, the Scale may tend to mislead clinicians in describing an individual's daily functioning, rather than offering the clear and comprehensive picture it claims to.

#### THE PROBLEM

The AAMD Adaptive Behavior Scale is composed of two parts. Part I of the Scale was designed to evaluate an individual's skills and habits in ten behavior domains "...considered important to the development of personal independence in daily living" (AAMD, 1974). Part II serves as an objective measure of maladaptive behavior related to personality disorders as represented by fourteen behavior

domains. Subdomains are contained within each of these behavior domains and are comprised of a number of phrases which describe the particular behavior domain. These descriptive behavioral phrases are checked by the rater as being manifested either frequently or occasionally. Those behaviors engaged in frequently obtain a score of two while those found to be emitted only occasionally receive a score of one. These numbers are then added producing a subdomain score. The sum of the subdomain scores is the domain score.

In reviewing the contents of Part II, some behavioral descriptions appear to be more serious or indicative of the particular behavior domain than others. This would suggest that in each behavior domain, an individual engaging frequently in less serious forms of maladaptive behavior could obtain a domain score identical to a person frequently emitting more serious types of maladaptive behavior. Obviously this would result in a distorted picture of these individuals. This is particularly characteristic of Part II of the Scale. An example using the first behavior domain of Part II, "Violent and Destructive Behavior," will clarify this point.

Two individuals are rated on the "Violent and Destructive" behavior domain. The first individual frequently exhibits behaviors, as described in this domain, such as crying and screaming, stamping feet while banging objects, and throwing himself on the floor, screaming and yelling. The second person is found to frequently emit such behaviors

described within this domain as attempting to set fires, the choking of others, and the use of objects as weapons against others. Obviously the second individual engages in behaviors significantly more serious and harmful in their consequences than the first. However, in this case both individuals would have obtained equivalent domain scores of six.

It is evident that a "...clear and more comprehensive picture" (AAMD, 1974) of these two individuals, particularly the first, has not been reflected in the domain score. While the descriptive behaviors within the domains do describe them, the Scale does not provide a means for adequately representing the seriousness of the behaviors being emitted. The present study was designed to underscore this failing by having independent mental health professionals rate the seriousness of the various descriptive behavior phrases found in Part II of the AAMD Adaptive Behavior Scale on a scale ranging from serious to mild.

#### Statement of the Problem

Is there a significant difference in the seriousness of the behaviors described in Part II of the AAMD Adaptive Behavior Scale as rated by mental health professionals?

#### Statement of the Hypothesis (Null Form)

There is no significant difference in the seriousness of the behaviors described in Part II of the AAMD Adaptive Behavior Scale as rated by mental health professionals.



### Purpose of the Study

The intent of this study was to investigate the AAMD's contention that the Adaptive Behavior Scale offers a comprehensive representation of the individual in terms of his social functioning. Specifically, the behaviors described in each behavior domain on Part II of the AAMD Adaptive Behavior Scale were rated on a seven-step scale, ranging from serious to mild, by a group of mental health professionals. The ratings were then analyzed to determine whether any significant differences did exist. The results obtained from this procedure were used to show how two individuals achieving identical domain scores could still differ significantly in terms of the seriousness of their maladaptive behavior, thus, presenting an inaccurate picture of the individuals.

### Significance of the Study

With the development of the Adaptive Behavior Scale, the AAMD claimed to have provided an "...objective description and evaluation of an individual's adaptive behavior" (AAMD, 1974). However, very few studies have been conducted concerning the ability of the Scale to assess adaptive behavior other than reliability and validity studies. The present study was designed to investigate other aspects of the Adaptive Behavior Scale that relate to its effectiveness as a measuring device. The investigation of such areas can only add to the existing body of knowledge concerning the

Scale and provide direction for future revisions.

## DEFINITION OF TERMS

In this section, definitions of all major terms relating to this study are provided. Those terms requiring clarification include mental health professional, adaptive behavior, behavior domain, subdomain, descriptive phrases, and the seriousness of descriptive phrases.

### Mental Health Professional

For the purpose of this study a mental health professional refers to one with at least a master's degree in psychology or social work. In addition, the individual must have had at least three years of clinical experience in the mental health field.

### Adaptive Behavior

This term concerns the individual's effectiveness in coping with the natural and social demands of his environment. It also involves the degree to which the person can function and maintain himself independently, as well as the degree to which he meets the standards of personal and social responsibility expected of his age and cultural group (Grossman, 1973).

### Behavior Domain

In an effort to describe the types of behavior considered unacceptable by those having daily contact with retardates, a large number of "critical incident" reports

provided by ward personnel, day-care instructors, and special education teachers were analyzed. The fourteen behavior domains found on Part II of the Adaptive Behavior Scale are merely descriptions of those maladaptive behaviors. They include: (1) Violent and Destructive Behavior; (2) Antisocial Behavior; (3) Rebellious Behavior; (4) Untrustworthy Behavior; (5) Withdrawal; (6) Stereotyped Behavior and Odd Mannerisms; (7) Inappropriate Interpersonal Manners; (8) Unacceptable Vocal Habits; (9) Unacceptable or Eccentric Habits; (10) Self-Abusive Behavior; (11) Hyperactive Tendencies; (12) Sexually Aberrant Behavior; (13) Psychological Disturbances; and (14) Use of Medications (Nihira and Shellhaas, 1970).

### Subdomain

Within each behavior domain are from one to seven phrases, printed in boldface type, which describe, in general, various aspects of the behavior domain. These subdomains consist of a number of descriptive phrases which specifically define the subdomain and, consequently, the behavior domain.

### Descriptive Phrases

Within each subdomain of Part II of the Adaptive Behavior Scale are various phrases which describe the particular subdomain. The number of these descriptive phrases varies within each subdomain. In using the Adaptive Behavior Scale, the rater marks the descriptive phrases which

accurately represent the type of behavior emitted by the subject. These descriptive phrases are given a score of one, for those behaviors emitted occasionally, or a score of two, for those engaged in frequently. The addition of these one or two point scores within each subdomain yields the subdomain score. All subdomain scores within each behavior domain are then combined producing the domain score.

### Seriousness of Descriptive Phrases

For the purpose of this study, the seriousness of the descriptive phrases refers to the numerical distance between the scale ratings supplied by the mental health professionals comprising the experimental group. The scale employed in this investigation was one containing seven alternatives ranging from serious to mild. The significance of this distance was determined mathematically.

### LIMITATIONS OF THE STUDY

The purpose of this section is to define the limits of the present study. These include a discussion of the number of independent raters contained in the experimental group, the type of raters employed, and the rating scale utilized.

The number of independent raters, consisting of fourteen mental health professionals, was somewhat limited. A larger sample may have altered the results to a significant degree. A greater number of subjects would have involved a wider range of opinion concerning the serious-

ness of various maladaptive behaviors. In addition, the larger sample would certainly have added weight to the conclusions drawn from this investigation.

The mental health professionals who took part in this study represent only a small portion of those individuals involved in the care and treatment of the mentally retarded, emotionally maladjusted, and developmentally disabled. Special education teachers, day-care instructors, and ward personnel in residential institutions are other groups which could have been included. Their inclusion would have provided additional information as to how maladaptive behavior relating to personality disorders are perceived by these groups. It would also have made group comparisons possible, further validating the research findings.

The descriptive phrases rated in this study were done so on a seven-step scale ranging from serious to mild. This particular scale, as well as the bipolar adjectives used, served to evaluate how mental health professionals viewed the types of behaviors described in the Adaptive Behavior Scale. It is possible that the inclusion of other dimensions, such as potency and activity (Osgood, Suci, and Tannenbaum, 1957), would have added greatly to the body of knowledge concerning the Adaptive Behavior Scale and may have provided further data on the ability of the Scale to formulate a comprehensive, clear representation of the individual.

## Chapter 2

### REVIEW OF RELATED LITERATURE

Before the advent of the mental test movement, the definition of mental retardation accentuated the individual's capacity to manage himself and his affairs adequately. While originally developed to isolate intellectual functioning from other aspects of mental retardation, the IQ score had come to represent not only the individual's degree of impairment in intellectual functioning but also his behavioral characteristics. With the assignation of classification labels to persons in a particular IQ range, certain behavioral characteristics were inferred. These characteristics were inferred due to the labeling itself and not the result of behavioral observation. The outcome of this practice was a misunderstanding of mental retardation as well as an impediment in the development of remedial approaches (Nihira, Foster, and Spencer, 1968).

Concern over the use and validity of the single IQ score for the classification of retardates led the American Association on Mental Deficiency (AAMD) to propose a new concept of mental retardation. In its manual on terminology and classification, mental retardation was referred to as "Subaverage general intellectual functioning which originated during the developmental period and is associated with

impairment in adaptive behavior" (Heber, 1961). This definition underscored two major dimensions in the classification of mental retardation: measured intelligence and adaptive behavior. The term "adaptive behavior," as defined by the AAMD, refers to "...the effectiveness of an individual in coping with the natural and social demands of his or her environment" (Grossman, 1973). This "coping behavior" can be understood in terms of: (1) "The degree to which the individual is able to function and maintain himself independently," and (2) "The degree with which he meets satisfactorily the culturally imposed demands of personal and social responsibility" (Nihira, Foster, and Spencer, 1968). These concepts suggest that the degree of mental retardation depends on more than just the inherent characteristics of the individual but also on the social and cultural norms of his particular environment. In order to utilize these concepts, new information on the uses and functions of adaptive behavior would have to be generated.

To meet this need a project was proposed to guide the development of a more precise understanding of adaptive behavior and its relationship to mental retardation and emotional disturbances, as well as techniques to facilitate its measurement. Adaptive behavior was suggested as a major aspect of classification to help clarify many of the problems experienced by those working with the mentally retarded. In addition, greater knowledge regarding adaptive behavior was viewed as essential if the evaluation and

treatment of retarded individuals was to be advanced. With these goals in mind, the Adaptive Behavior Project was undertaken in 1965 at the Parsons State Hospital and Training Center under the auspices of the AAMD (Leland, Shellhaas, Nihira, and Foster, 1967).

In a review of the findings of the Adaptive Behavior Project, Nihira and Shellhaas (1970) reported that Scott's (1966) adaptive behavior strategies: accomodation, locomotion, and construction had become accepted as the concepts underlying adaptive behavior. Accomodation entails the development and alteration of behavior patterns and traits that meet the prevailing environmental demands. The movement by an individual in seeking out environments compatible to his current behavior patterns was defined as locomotion. Construction involves the modification of the environment so as to make its requirements more congruous with the individual's resources.

These adaptive strategies aid in the conceptualization of three different types of rehabilitation programs. The first and most prevalent, accomodation, is the ability to alter or develop patterns of behavior that will allow the retarded individual to cope with the existing environmental demands. With locomotion, the intention is to discover an environment that will accept the retarded person's limitations and, of course, place him in that environment. Finally, construction necessitates that the environment be changed in such a way as to become more accepting of the



retarded individual's current level of functioning.

However, the utilization of these adaptive strategies depends on obtaining data regarding: (1) "The identification and assessment of the culturally and socially imposed standards of acceptable or unacceptable behavior from the community's point of view," and (2) "The exploration and assessment of the basic attributes of the coping behavior of retardates" (Nihira, Foster, and Spencer, 1968). To generate this type of information the Adaptive Behavior Project had to concentrate on isolating the significant dimensions of the behavior of retardates believed to have direct bearing on their adaptive potential in the community.

The study of adaptive behavior, then, centered on a comparison of different individuals. This meant that an objective assessment of adaptive behavior must be stated in terms of properties commonly observed among most of the retarded population. Because of the impracticability of comparing one individual-as-a-whole with another individual-as-a-whole, a multivariate analytical approach was employed. With this method it was possible to identify a set of dimensions that would provide a quantitative description of the nature and variation of human behavior through the systematic observation of consistencies and patterns of behavior. When applying such a procedure to the study of adaptive behavior, the most common experimental approach was to determine factors capable of being replicated in two or three different samples, formulate hypotheses about the

nature of these factors, and continue experimentation with new factors relating to the adaptive behavior dimension (Nihira, Foster, and Spencer, 1968).

One important consideration in the design of a multivariate analysis is that the variables adequately represent the domains of investigation. To ensure this and to gain an adequate sample of behaviors, Nihira, Foster, and Spencer (1968) examined behavior rating scales available in both the United States and Great Britain. Also, lists of significant behaviors were obtained through semi-structured interviews of institutional ward personnel, with regard to the adaptive behavior concept proposed by the AAMD. A multivariate analysis of these samples yielded a preliminary behavior checklist consisting of 325 specific behaviors representing ten different behavior domains. These included: Independent Functioning, Physical Development, Economic Activity, Number and Time Concept, Occupation (Domestic), Language Development, Self-Direction, Occupation (General), Socialization, and Social Responsibility. These particular behavior categories, or domains, were chosen by the authors because they provided a convenient method of classifying a pool of behavior items recognized in the existing rating scales and, during the early phase of the project, some continuity with the concepts employed in the existing rating scales would be desirable.

In an effort to substantiate this checklist, Nihira, Foster, and Spencer (1968) had ward attendants rate 307

retardates of both sexes, ranging in age from seven to twenty-one, using the Adaptive Behavior Checklist. For empirical verification, a five-level adaptive behavior classification, proposed by Leland (1964), was accepted as the criterion for item selection. This classification system was founded, primarily, upon the clinical judgement of "experts" assisted by scores on the Vineland Social Maturity Scale. The classification system ranged from Level I, mild negative deviation from population norms, to Level V, the extreme lower limit of adaptive behavior. Each item of the Checklist was evaluated in terms of its ability to discriminate among patients classified at different adaptive behavior levels. Also evaluated were the Checklist item's correlation with the adaptive behavior classification, independent of measured intelligence.

The results from these analyses indicated that of the 325 items of the Checklist, only 211 items demonstrated a significant correlation with adaptive behavior. In addition, a major portion of the Checklist items were found to adequately discriminate only the middle ranges of adaptive behavior, that is, the adaptive behavior levels between II and III and III and IV. The findings also revealed that Independent Functioning was the most significant dimension at the lower adaptive behavior levels. Only a small number of items discriminated significantly between Levels I and II, suggesting the Checklist's inadequacy in describing individual differences among mildly retarded individuals, or

that the differentiation between adaptive behavior Levels I and II was based upon behaviors outside of the ten hypothesized domains. With regard to age, some of the Checklist items were found to be inappropriate for children.

To determine the construct validity of the ten hypothesized domains, Nihira, Foster, and Spencer (1968) converted the domain score of each individual to percentages. This was necessary due to the fact that each domain consisted of a different number of items. When compared with the five adaptive behavior levels, each behavior domain of the Checklist was uniquely associated with the adaptive behavior levels. In general, the domain scores uniquely characterized the adaptive behavior Levels I, II, and III. The Checklist profiles for adaptive behavior Levels IV, and V, while not significantly different, proved to be quite similar.

The research conducted by Nihira, Foster, and Spencer (1968) resulted in the formulation of Part I of the Adaptive Behavior Checklist. Consisting of 272 items, Part I was designed to provide a quantitative description of an individual's skills and habits in ten essential areas of personal independence. These behavioral domains were: (1) Independent Functioning; (2) Physical Development; (3) Economic Activity; (4) Number and Time Concept; (5) Occupation (Domestic); (6) Language Development; (7) Self-Direction; (8) Occupation (General); (9) Socialization; and (10) Social Responsibility.

Leland, Nihira, Foster, and Shellhaas (Note 2) rated forty-one institutionalized retardates, ranging in age from ten to thirteen, on Part I of the Adaptive Behavior Checklist. The investigators found that the scores from Part I significantly discriminated between those previously classified at different levels of adaptive behavior, in accordance with clinical judgement.

The second phase in the development of the Adaptive Behavior Scale was based on the study of critical incidence. Investigations of this sort described the types of behavior considered unacceptable to those having daily contact with retardates. Nihira (Note 3) conducted a study in which psychiatric aides from state institutions, special education instructors, and day-care attendants were interviewed. By asking questions designed to elicit free responses, the researcher attempted to explore unknown behavior norms or rules of conduct operating in a given situation. The responses were based upon the retardate's actual behavior as well as the subject's collective expectations regarding the acceptable behavior of the retardate. This procedure generated responses involving more than just the subject's assessment of social norms. More than 2,500 critical incident reports were collected in this manner and revealed a number of behavior domains not represented in Part I of the Adaptive Behavior Checklist.

The research conducted by Nihira (Note 3) led to the development of Part II of the Adaptive Behavior Checklist

through which measures of maladaptive behavior, in the form of personality and behavior disorders, were provided. Consisting of 265 items of specific behavior descriptions, the twelve behavior domains of Part II included: Violent and Destructive Behavior, Antisocial Behavior, Rebelliousness, Untrustworthiness, Withdrawal, Socially Unacceptable Manners, Stereotyped Behavior, Self-Abusiveness, Peculiar and Eccentric Habits, Sexual Aberration, Psychological Disturbances, and Need for Medication.

A factor analysis was performed by Nihira (1969a), using the 537 items which comprised Parts I and II of the preliminary Adaptive Behavior Checklist, in an effort to establish the Checklist's construct validity. A total of 919 adult, ambulatory, institutionalized retardates were rated by psychiatric aides from two Midwestern institutions using the Adaptive Behavior Checklist. A factor analysis of this data resulted in six factors which accounted for 94.4 percent of the total variance in the correlation matrix. Personal Independence, Social Maladaptation, Institutional Difference, Intra-Maladaptation, Sex Difference, and Age Difference were the factors successfully isolated by the researcher.

Personal Independence was primarily defined by the behavior items representing the individual skills and abilities required to maintain independence and suggests autonomy and motivation in the management of personal affairs. The Social Maladaptation factor included items indi-

cative of rebellious, destructive, and untrustworthy behavior as well as personality difficulties suggestive of various negative attitudes toward the social environment. Intra-Maladaptation was composed of items which suggested a self-depreciating and intropunitive process in the adaptive behavior sphere. Institutional Difference was defined as merely the factor of institutional difference. Significant differences were reported between the two participating institutions with respect to the Occupation (Domestic), Number and Time Concept, and Language Development behavior domains. The Sex Difference and Age Difference factors were described as merely the difference in sex and age of the subjects. Male subjects tended to rate higher on the domains of Independent Functioning and Physical Development than did the female subjects. The Age Difference factor was shown to relate significantly to the Sexually Aberrant behavior domain. This domain was inversely related to age, that is, these behaviors were more frequently observed among the younger subjects than among the older residents.

Of the six factors isolated in this investigation by Nihira (1969a), Personal Independence, Social Maladaptation, and Intra-Maladaptation were viewed as most important in the search for general dimensions of adaptive behavior. The three remaining factors, Institutional, Sex, and Age Difference were described as control variables. Therefore, the structural characteristics of the three dimensions, Personal Independence, Social Maladaptation, and Intra-Maladaptation,

were free from the influence of behavioral variations due to institution, sex, and age differences.

Employing similar experimental methods from his earlier study (Nihira, 1969a), Nihira (1969b) attempted to establish the construct validity of the Adaptive Behavior Checklist using 313 institutionalized mentally retarded adolescents and children. Objective descriptions of these subjects' adaptive behavior were obtained through the use of Part I of the Adaptive Behavior Checklist. A factor analysis of the scale scores delineated three major dimensions: Personal Independence, Social Maladaptation, and Personal Maladaptation. The factors of Personal Independence and Social Maladaptation were identical to those found by Nihira (1969a). The Personal Maladaptation factor was similar to the Intra-Maladaptation factor described by Nihira (1969a). A comparison of these findings with four different age groups indicated that the obtained factor structure was relatively stable across ages ranging from preadolescence through adulthood.

A study was conducted by Nihira (1972) to explore the prominent dimensions of maladaptive behavior that described the individual differences of early adolescents in residential institutions for the mentally retarded. The subjects, 458 institutionalized retardates between the ages of thirteen and fifteen, were rated with the Adaptive Behavior Scale. A factor analysis was performed using forty-four subdomain scores from Part II of the Scale. Ten signi-



ficant factors were identified through this analysis: Anti-social Behavior, Withdrawal, Violent and Destructive Behavior (toward property and self), Sexually Inappropriate Behavior, Hyperactive and Stereotyped Behavior, Violent and Destructive Behavior (toward others), Rebellious Behavior, Psychological Disturbances, Truant Behavior, and Eccentric Behavior.

Nihira (1970) investigated the existence of a score pattern on two dimensions of adaptive behavior (Personal Independence and Social Maladaptation) delineated in his previous work (Nihira, 1969a, 1969b). The correspondence between the behavioral typology and their medical classification was also studied. Taken from two Midwestern state institutions, ninety-five adult retardates were rated using the Adaptive Behavior Checklist. Using a system of cluster and factor analysis, individuals with similar score profiles on the two dimensions of the Adaptive Behavior Checklist were grouped together. The results of this analysis allocated 931 retardates into seven "natural" cluster groups. Each group possessed a unique pattern of score profiles and were homogeneous with respect to their behavior patterns on the two dimensions of adaptive behavior. Differences between individuals which would usually be hidden in the unidimensional classification system of adaptive behavior were revealed through the two dimensional typological analysis. In addition, there appeared to be no clear tendency for individuals with the same medical diagnosis to cluster

together in any of the behavioral types. Finally, the results suggested that many retardates with equal levels of deficiencies were not necessarily equal in their emotional maturation and were expressing themselves in different forms of maladaptive behavior.

Tomiyasu, Matruda, and Murakamai (1974) administered the AAMD Adaptive Behavior Scale (Japanese translation) to 6,092 adult retardates and 1,917 retarded children. Through factor analysis, several significant factors from Part I of the Scale emerged. These were: Personal Independence, Social Adjustment, and Personal and Social Responsibility. The three factors found to be significant on Part II of the Scale were: Antisocial and Aggressive Behavior, Self-Stimulating Behavior, and Deficient Interpersonal Behavior.

In previous factor analytic studies, three major dimensions on the Adaptive Behavior Scale were isolated: Personal Independence, Personal Maladaptation, and Social Maladaptation. Guarnaccia (1976) felt that the emphasis on pathology in the latter two dimensions reflected institutional conditions rather than the nature of the Scale itself. Thus, he proposed using the Scale with other populations hypothesizing that this would lead to the delineation of different scale factors. A total of forty mentally retarded adults from a vocational training center were rated by their counselors using Part I of the Adaptive Behavior Scale. A factor analysis yielded the following fac-

tors: Personal Independence, Personal Responsibility, Productivity, and Social Responsibility. Using the variables of age, sex, verbal IQ, performance IQ, and maternal trust, a regression analysis of the four factors was performed. Results showed that the predictors together accounted for seventy-five percent of the variance in Factor I (Personal Independence) and very little in the others. The author concluded, therefore, that the Adaptive Behavior Scale appeared to be well suited for use with the noninstitutionalized.

The detection of statistically independent factors by Nihira (1969a, 1969b) and others suggested that retardates possessing equivalent skills and abilities were not necessarily equal in their emotional maturation and that they expressed themselves in at least two different forms of behavior reactions considered socially inappropriate and maladaptive. These findings demonstrated the value of the Adaptive Behavior Scale in the observation and description of an individual's capabilities and limitations from competence in personal independence to the various displays of social and personal maladaptation (Nihira and Shellhaas, 1970).

Since adaption is relative to the individual and his environment, the practical validity of the Adaptive Behavior Scale had to be demonstrated in terms of the various demands placed on an individual in diverse environmental conditions. In a study of 531 institutionalized retarded adults,

Greenwood and Perry (Note 1) found that all of the Part I domain scores and seven domain scores from Part II significantly discriminated among individuals who had been placed into five homogeneous administrative groups (medical, educational, vocational, preplacement, and release). Results such as these suggested the possible use of the Scale information as an aid in placement decisions.

Foster and Foster (1967), using forty-one retarded adolescents and children, demonstrated that three domain scores from Part I and the total score from Part II were altered significantly from pre-test to posttest over a two-year period as the result of an intensive operant approach. No scores changed significantly for the non-operant control group. This study underscored the possibility of utilizing the Adaptive Behavior Scale in the evaluation of rehabilitation programs.

In a study conducted by Foster and Nihira (1969), an effort was made to validate Part II of the Adaptive Behavior Checklist. The criterion employed by these researchers was comparable to that of Nihira, Foster, and Spencer (1968). However, Foster and Nihira (1969) used the degree to which the domain scores discriminated between groups of patients who had been previously classified into different psychiatric groups on the basis of the expanded supplementary medical classification, provided by Heber (1961), as their method of verification.

Foster and Nihira (1969) had a sample of 260 psy-

chiatrically impaired institutionalized adult retardates rated on Parts I and II of the Adaptive Behavior Checklist. The experimental groups consisted of random samples of individuals classified as "psychotic reaction," "behavior reaction," or "no further psychiatric impairment." The three diagnostic groups were further subdivided into high and low functioning levels on the basis of their scores on Part I of the Checklist.

The investigators (Foster and Nihira, 1969) found that six behavior domains, from the twelve domains in Part II of the Checklist, significantly discriminated between low-level functioning diagnostic groups. This was true even though the groups were equated on IQ and general functioning levels. The six domains achieving these results were: Psychological Disturbances, Untrustworthiness, Violent and Destructive Behavior, Self-Abusiveness, Rebelliousness, and Antisocial Behavior. No differences were found between high-level nonimpaired groups and either the high-level psychotic or the high-level behavior reaction groups on any of the twelve behavior domains in Part II of the Checklist.

Although reasons for the failure of Part II to adequately discriminate among the high-level subjects was unclear, Foster and Nihira (1969) offered several possible explanations. Inadequacies in the Checklist, inadequacies in the diagnostic system that placed patients into the categories, or the real or perceived differences in the retardates behavior as seen by the clinician who assigned the

diagnostic classification and the psychiatric aide responsible for completing the Adaptive Behavior Checklist, are all possibilities. However, the most important point brought out by this study was the presence of clinically significant variance not accounted for by IQ tests and behavior rating scales, including Part I of the Adaptive Behavior Checklist.

Nihira (1971) conducted a study with the intention of identifying critical behavior domains in terms of the environmental demands imposed upon retardates. Using questionnaires, respondents were asked to report specific incidents of behavior problems involving retardates in an effort to reveal the types of behavior norms imposed upon the retardate. The respondents were instructed to report incidents that would not be tolerated by themselves or by others who might have contact with retardates in similar situations. Incident reports exceeding 2,500 were collected on the critical behavior of retardates from fifty-eight psychiatric aides, sixty special education instructors, and 158 day-care attendants. The incident reports were first grouped into eighty-five very specific behavior categories. From these behavior categories, two broad behavior domains were formed. One domain contained reports citing lack of skills and abilities while the other was formulated from reports involving emotional and conduct disturbances. The categories under the domain of skills and abilities were further subdivided into five behavioral categories: Self-

Help Skills, Communication Skills, Academic Skills, Occupational Skills, and Economic Skills. Incidents under the domain of emotional and conduct disturbances were subdivided into the following behavior categories: Antisocial Destructiveness, Rebelliousness, Immaturity in Socialization, Withdrawal, Peculiar and Eccentric Habits, Sexual Maladjustment, and Psychological Disturbances. From these results, the author concluded that the variability of environmental demands was associated with the varying degree of retardation and the accompanying variation in environmental situations to which the retardate must learn to adapt.

The studies previously mentioned (Foster and Foster, 1967; Foster and Nihira, 1969; Nihira, 1971; and Greenwood and Perry, Note 1) showed that the validity measures needed by users of the Scale were dependent upon the nature of the decisions to be made by each user. They also stress the importance for evaluation of the practical validity of the Scale with different criteria of retardates' adaptive behavior under varying environmental situations (Nihira and Shellhaas, 1970).

Studies dealing with the reasons for referral of retardates were designed to determine what behaviors and situations in the retardate's past had been judged significantly inappropriate to warrant institutionalization. The primary goal was the development of techniques for ascertaining different environmental demands and expectations. Maney, Pace, and Morrison (1964), using the admission appli-

cations and social histories of 141 retardates, selected thirty-four items which characterized each retardate's situation prior to institutionalization. Through a principle component analysis of the thirty-four by thirty-four correlation matrix, five independent dimensions were specified: Conspicuous Behavior Problems Outside of the Home, Psychic Alienation, Family Adjustment Problems, Delinquency, and Family Organization. These dimensions were analyzed for similarities and differences among individuals with the intention of specifying target populations in program development for habilitable retardates. The researchers found that social maladjustment conspicuous outside of the home, psychic alienation, parental conflict or inadequacy, inappropriate interpersonal behavior or property crimes, and traditional, matricentral family composition were characteristic of those individuals requiring institutional care. On the basis of these results the authors suggested three major areas for program development. These target areas included: (1) the classic male delinquent, involved in property crimes, in protest against authority, and failure in school; (2) the conduct disorders, aggression towards others in the home and, at times, sexual delinquency; and (3) the deprived, in need of placement for the essentials of food, housing, and affection, as well as for management of their conduct.

Shellhaas and Nihira (1969) conducted a replication of the Maney, Pace, and Morrison (1964) study. It involved



the completion of structured questionnaires from the social histories of a sample of 267 retarded patients, 320 discharges, and 124 successfully rehabilitated individuals. A rater, different from the person who originally abstracted the social history information from the files, categorized information from questionnaires into the thirty-four categories employed by Maney, Pace, and Morrison (1964) for the sample of 267 retarded patients. A random sample of forty questions was selected and recategorized into the thirty-four categories by another independent rater. The inter-rater agreement for this procedure was 78.75 percent. The thirty-four by thirty-four correlation matrix underwent a principle component analysis which did not yield a similar factor structure to that of Maney et al. (1964). This inconsistency with the previous research was attributed, by the authors, to the heterogeneity of the institutional population used in their study.

An analysis of the data generated from the Shellhaas and Nihira (1969) study did result in eight factors representing specific reasons for the institutionalization of retardates. The factors identified were: (1) Arrest and Court Appearance; (2) Cultural Deprivation versus Disturbing Individual from Adequate Home; (3) Antisocial Aggression; (4) Incompatibility with Parents; (5) School Learning Problems versus Young Diagnosis with Anomalies; (6) Sloppy Individual; (7) Illegitimate Child-Broken Home; and (8) School Disruption versus Dull (but no disruption). These

factors suggested the three major targets for programs designed to rehabilitate the mentally retarded mentioned by Maney et al. (1964). The authors also put forth an additional area for program development directed at altering the basic social environment of the retarded.

In another study conducted by Shellhaas and Nihira (1970), orthogonally rotated factors representing reasons retardates are referred to institutions were compared for two different institutions. Three significant factors emerged from this analysis: Arrest and Court Appearance, Cultural Deprivation, and Antisocial Aggression. Some factors exhibited similarities between the two institutions while several factors were unique to each institution. The researchers explained these similarities and differences on the basis of behavioral, environmental, or population characteristics.

Nihira and Shellhaas (1970) pointed out two basic limitations inherent in the previous studies dealing with reasons for referral. The first is that the reported reasons for referral, appearing in an individual's record, may not reflect the actual conditions under which group sanctions were imposed. Secondly, less conspicuous norm infractions objectionable to the group may not be reported. In spite of these limitations, however, the reasons for referral studies served to uncover behavior domains not dealt with by existing behavior rating scales. These studies also revealed environmental conditions that led to the

institutionalization of retardates because of unfortunate life circumstances rather than behavior problems.

A reliability study was reported by the AAMD (1974) in its manual for the Adaptive Behavior Scale, 1974 Revision. This latest revision of the Scale was administered to 133 residents at three state training schools. Each of these subjects was independently rated by two different ward personnel, one representing the "morning" shift and the other the "evening" shift. Reliabilities for Part I scores were determined by Pearson product-moment correlation coefficients between the pairs of independent ratings. The reliabilities varied between domains, some considerably, when compared between institutions. For the three institutions, the mean reliabilities ranged from .93 for "Physical Development" to .71 for "Self-Direction." The mean reliability for all domains in Part I was .86. This was a significant increase over the .74 mean reliability for Part I of the earlier Scale editions. The Part II domains showed a reduction in reliability from those obtained on the original addition of the Adaptive Behavior Scale. At that time, the reliabilities ranged from .84 to .40, with a mean reliability of .67. The present study demonstrated the reliability range of Part II to be from .77 to .37, with a .57 mean reliability. The slight abatement in the reliability of the 1974 revision of the Scale could have been due to factors other than the Scale itself. Such variables as the population characteristics of the sample, types of

raters, and situational differences between the morning and evening shifts may have been responsible.

Inter-rater reliabilities were computed in the factor analytic studies conducted by Nihira (1969a, 1969b). In the adult study, two independent judges rated forty-eight subjects on the Adaptive Behavior Checklist. The domain score reliabilities ranged from .89 to .35 with a mean reliability of .72. Between continuous variables, the Pearson product-moment and Phi coefficients were used while the Biserial correlation coefficients were used between dichotomous variables. In the study with children and adolescents, the author calculated inter-rater reliabilities from the domain scores of forty-eight subjects independently rated by two judges. The range of the reliability coefficients for the domain scores ranged from .89 to .35 with a .72 mean reliability coefficient. These coefficients were obtained in the same manner as those in the adult study.

In a study which examined the relationships among the Wechsler and Stanford-Binet IQ scores, Wide Range Achievement Test (WRAT) scores, and Adaptive Behavior Scale scores, a sample of 129 institutionalized mentally retarded adolescents and children from a special education program were employed by researchers Christian and Malone (1973). Small to moderate correlations (.26-.50) were obtained between the WRAT and IQ scores, while a .75 correlation coefficient was found between the behavior scale and IQ scores. These results tended to support the validity of the Adap-

tive Behavior Scale and reflect its value in the assignment of educational training priorities. The authors noted several important advantages of the Adaptive Behavior Scale over the other measures. These were: (1) the significance of the Scale in the assessment of behavioral change, reflection of the subject's progress, and program effectiveness; (2) the importance of the subdomain scores in the placement of individuals in programs designed with regard to their behavioral deficits; and (3) the comprehensive screening qualities provided by the Scale.

Bhattacharya (1973) pointed out several flaws which existed in the Adaptive Behavior Scale before the 1974 Revision. It was Bhattacharya's contention that a few of the dimensions of the Scale tended to overlap in spite of the fact that they were based on the results of factor analysis. For example, Self-Direction, as a general factor, may have considerable overlap with Responsibility, Occupation (General), or Socialization. The scoring devices in the Adaptive Behavior Scale were also criticized as being somewhat arbitrary as far as the determination of weight-ages was concerned. Each individual rated on the Scale may not have equal intervals from the point following or preceding it. Furthermore, the additive method recommended in obtaining the total score could be open to skepticism if the relationship between the various subdomains and points of the Scale to the total Scale are not determined. A solution to this, the author suggested, would be a point scale with

the formulation of some well defined criteria for each point. The criteria for each dimension would vary according to the nature of the behavioral dimension. With this modification, results would be reported more meaningfully in terms of profiles or behavioral dimensions as opposed to group scores.

Bhattacharya (1973) offered several more improvements. Suggested first was that the number of points for each scale be increased and made more significant by keeping the distance between two points approximately equal. New dimensions of adaptive behavior could also be added in an effort to make the Scale more comprehensive. Next, the author recommended the reorganization of the personality items due to the fact that the negative personality traits are unsystematically placed in the Scale. Finally, a profile with information on the relative standing of each individual on each variable was proposed as a more adequate method of obtaining a comprehensive representation of the individual.

A review of the research findings reported by Nihira, Foster, and Spencer (1968); Foster and Foster (1967); Foster and Nihira (1969); Nihira (1969a, 1969b, 1971, 1972, Note 3); Leland, Nihira, Foster, and Shellhaas (Note 2); and Greenwood and Perry (Note 1) demonstrated the behavior domains of the Adaptive Behavior Scale to be valid descriptions of adaptive behavior as defined by the AAMD (Grossman, 1973). But while the essential characteristics

of adaptive behavior have been well researched, the method employed to numerically represent the adaptive characteristics of an individual has never been adequately investigated. The only discussion of the Adaptive Behavior Scale's scoring system, which designates a score of one or two depending on whether the behavior was emitted either occasionally or frequently, appears in an article by Bhattacharya (1973). Although criticizing the scoring system, no research was conducted by Bhattacharya to support his subsequent recommendations. Because the efficacy of the Scale's scoring method in accurately representing the adaptive behavior of individuals lacks substantiation through empirical research, new information should be obtained to determine the most effective and adequate scoring format.

## Chapter 3

### METHODS AND PROCEDURES

This chapter deals with the methodological and procedural considerations involved in this investigation. Included here are detailed descriptions of the population and sampling techniques employed, the materials and instrumentation, and the overall design of the study. Also discussed are the methods used in data collection and analysis.

### POPULATION AND SAMPLING

The population selected for this investigation consisted of a group of mental health professionals. Because Part II of the Adaptive Behavior Scale attempts to measure maladaptive behavior as related to personality traits, these particular individuals appeared to possess obvious qualifications in the assessment of these factors. Furthermore, through their frequent contact with the emotionally maladjusted or developmentally disabled, they invariably become involved in the training and habilitation of such handicapped individuals, an activity requiring, at some point, the assessment of adaptive behavior.

The requirements for inclusion in the experimental group were the holding of at least a master's degree in psychology or social work and a minimum of three years of



clinical experience in the mental health field. The members of this group were selected from mental health professionals located in the Emporia and Topeka, Kansas area. Specifically, mental health professionals employed by the Mental Health Center of Eastern Kansas (Emporia, Kansas) and the Veterans Administration Hospital of Topeka, Kansas were contacted and asked to take part in this study. Those agreeing to participate made up the experimental group.

The experimental group was composed of fourteen mental health professionals. Of these fourteen, eight held doctoral degrees in psychology and one was a master's level psychologist. The remaining five subjects were social workers possessing master's degrees.

#### MATERIALS AND INSTRUMENTATION

The only instrument employed in this investigation was a booklet containing rating scales for each descriptive phrase in Part II of the AAMD Adaptive Behavior Scale for Children and Adults, 1974 Revision. The descriptive phrases, excluding those designated as "Other (Specify: \_\_\_\_\_)," were cut out directly from Part II of the Scale and permanently fixed to eight and a half inch by eleven inch sheets of paper under their appropriate domain headings. Upon each sheet, rating scales were printed with each scale corresponding to one descriptive phrase in each of thirteen behavior domains. The final behavior domain, Use of Medications, was excluded from this investigation

due to the fact that it did not describe a maladaptive behavior related to personality or behavior disorders (see appendix).

This study utilized a rating scale consisting of one set of bipolar adjectives ranging from serious to mild. Because the scale served an evaluative function, the bipolar adjectives selected were ones contained in the Evaluative dimension of the semantic space as described by Osgood, Suci, and Tannenbaum (1957). Figure 1 gives an example of the rating scale used in this study.

serious \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ : \_\_\_ mild

FIGURE 1  
RATING SCALE

As can be seen, a seven-step scale was employed. The reason for this was that through experimentation (Stagner and Osgood, 1946) it was demonstrated that seven alternatives tend to be used with approximately equal frequency. Thus, it was unlikely that there would be a definite tendency by the subject to use only certain scale positions as is often found with five-step scales and those exceeding seven steps.

Finally, an instruction sheet was included making up the first and second pages of the rating scale booklet. The only instructions obtained by the subject were found on these pages. A copy of the instruction sheets (Osgood, Suci, and Tannenbaum, 1957) along with the remainder of the

rating scale booklet is located in the appendix.

## DESIGN

The basic procedure followed in this study was to have the subjects complete the rating scales in the booklet containing the descriptive phrases from Part II of the AAMD Adaptive Behavior Scale. After the selection of the subjects was made, each individual was given a copy of the booklet and asked to follow the instructions printed there. No other information was given other than to make sure the subject understood what was required. Each subject was given as much time as necessary to complete the rating scale.

Through this within-subjects experimental design, each subject was exposed to all levels of the independent variable, Descriptive Phrase, for each domain in Part II of the Scale. Each level of this independent variable corresponded to a specific descriptive phrase contained in the particular domain being investigated. The ratings assigned by the subjects to these phrases provided a numerical representation of the dependent variable. The dependent variable was the degree of seriousness of the behaviors described by the phrases in Part II of the Adaptive Behavior Scale as viewed by mental health professionals.

## DATA COLLECTION

After completion of the scales, each subject was called on individually by the experimenter and the data were collected. Upon receiving the data, the researcher reviewed each booklet with the subject to insure that all rating scales had been completed and that the instructions were followed correctly.

## DATA ANALYSIS

Each rating scale alternative was assigned a number, one through seven, as follows:

serious 7 : 6 : 5 : 4 : 3 : 2 : 1 mild

### FIGURE 2

#### SCALE VALUES

That is, if an individual checked the adjective pair "serious-mild" between, for example, the first and second sets of dots at the left, a six would be assigned. Other checked alternatives were assigned to the other numerals. The scores obtained in this manner were analyzed for significant differences between statements (descriptive phrases) within each behavior domain. Statements close together, with regard to numerical distance, were to be judged similar in terms of seriousness. Conversely, if they were significantly distant, the statements would be shown to differ in their degree of seriousness. To evaluate the relationship

between the statements, statistical measures were carried out which included an analysis of variance and a test for specific comparisons.

For each behavior domain, a simple analysis of variance was performed to determine whether there existed a significant difference in the ratings of the various statements within a particular domain. The data used in these analyses consisted of the experimental group's mean rating for each descriptive phrase as summarized, by behavior domains, in tables similar to that shown in Figure 3.

THE MEAN SCALE RATINGS FOR DOMAIN  
XI: HYPERACTIVE TENDENCIES

DESCRIPTIVE PHRASES	MEAN RATING
1	
2	
3	
4	

FIGURE 3

MEAN SCALE RATING TABLE

The .05 level was used in determining the significance of F.

Tukey's (a) Test for specific comparisons was used to provide information concerning differences between specific descriptive phrases within each behavior domain (Linton and Gallo, 1975). To accomplish this, a table of

differences between means, for the various descriptive phrases comprising each behavior domain, was constructed. By arranging the means in descending order along the top (column heads) and sides (row heads) of the table, it was possible to form a matrix with the mean differences comprising the body of the matrix. By using the formula shown in Figure 4, critical values for the various behavior domains were derived. Every difference between means, per

$$\text{Critical value (means)} = q_k \sqrt{\text{MS error}/n}$$

FIGURE 4

CRITICAL VALUE FORMULA

domain, was tested against the appropriate critical value with the determining level of significance being .05.

Through these calculations, information was obtained indicating those descriptive phrases, contained in each behavior domain, which were related closely as to their degree of seriousness and those which were not. Tables representing these relationships were developed from this data.

## Chapter 4

### ANALYSIS OF DATA

The analysis of data, generated through the rating of various descriptive phrases from Part II of the Adaptive Behavior Scale by a group of mental health professionals, is discussed in this chapter. The subjects' mode of responding to the demands of the study as well as the statistical analyses performed are dealt with. The outcome of these analyses and their significance are also reported.

### RESPONSE ANALYSIS

Mental health professionals were asked to rate the various descriptive phrases contained in the behavior domains of the AAMD Adaptive Behavior Scale, Part II. Fifteen mental health professionals from the Emporia and Topeka, Kansas area agreed to participate in this investigation. However, only fourteen rating scale booklets were returned for inclusion in the statistical analyses. In general, the subjects were very cooperative, usually completing the rating scales in approximately two weeks with the longest period being four weeks. In all cases the researcher found the rating scales to be completed accurately and in their entirety. Never was it necessary to request a clarification of the ratings executed by the sub-

jects.

## STATISTICAL ANALYSIS

The statistical analyses conducted for this investigation were based on the scale ratings assigned to the descriptive phrases within each domain of Part II by the experimental group. This group, composed of mental health professionals, rated the seriousness of the behavior described in each phrase on a seven-step scale ranging from "serious" to "mild." A value was assigned to each alternative of the rating scale to provide a numerical representation of the descriptive phrase's degree of seriousness. These scores varied from seven, indicating behaviors viewed as extremely serious, to one, for behaviors regarded as very mild forms of maladaptation.

To test the null hypothesis, that there were no significant differences in the seriousness of the behaviors described in Part II of the Adaptive Behavior Scale, a simple analysis of variance was computed from the ratings obtained for each behavior domain included in the study. The significance levels for  $F$  were obtained from tabled sources with the .05 level of significance being chosen to demonstrate the strength of relationships.

Further investigation into those behavior domains exhibiting statistical significance was performed using Tukey's (a) Test for specific comparisons. The critical values for these analyses were determined mathematically



with the .05 level of significance being utilized. This method of analysis isolated individual descriptive phrases, within a behavior domain, that differed significantly in their degree of seriousness.

The twenty-six phrases comprising Domain I describe various forms of violent and destructive behavior and were rated by mental health professionals as to their degree of seriousness. The mean scale ratings for these phrases are presented in Table 1. The actual phrases associated with each descriptive phrase number in this table, as well as the phrase numbers found in all other tables presented in this chapter, are located in the appendix. As shown in this table, mental health professionals rated phrase 10 as an extremely serious indication of violent and destructive behavior. This group tended to view phrases 6, 7, 8, 9, 11, 20, and 22 as being quite closely related to the "serious" end of the scale. Only slightly associated with the scale adjective "serious" were the descriptive phrases 2, 4, 5, 12, 15, 16, 17, 18, and 19. Rated slightly in the "mild" direction of the scale were phrases 23, 24, 25, and 26. The subjects equally associated descriptive phrases 1, 3, 13, 14, and 21 with either end of the rating scale. Based on this data, the statistical significance of the variance in the ratings was determined.

Displayed in Table 2 is a summary of the analysis of variance conducted on the ratings generated from Domain I. The F value computed from this analysis demonstrated signi-

TABLE 1  
 THE MEAN SCALE RATINGS FOR DOMAIN I:  
 VIOLENT AND DESTRUCTIVE BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING	DESCRIPTIVE PHRASES	MEAN RATING
1	4.93	14	4.79
2	5.29	15	5.79
3	4.93	16	5.43
4	5.64	17	5.14
5	5.93	18	5.21
6	6.36	19	5.50
7	6.57	20	6.07
8	6.50	21	4.93
9	6.93	22	6.57
10	7.00	23	3.71
11	6.50	24	3.93
12	5.29	25	3.93
13	4.71	26	3.86

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 2  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN I:  
VIOLENT AND DESTRUCTIVE BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	25.00	324.62	12.98	12.82
SUBJECTS	13.00	159.74		
DESCRIPTIVE PHRASES X SUBJECTS	325.00	329.19	1.01	
TOTAL	363.00	813.55		

$F(\text{table}) = 1.77$  for  $p < .01$

ificance at the .01 level. On this basis, the null hypothesis, that significant differences in the degree of seriousness do not exist among the descriptive phrases of Domain I, was rejected.

In an effort to isolate those phrases which varied significantly in their degree of seriousness, comparisons were made between the individual phrases of Domain I using Tukey's (a) Test for specific comparisons. A number of significant relationships were identified through these comparisons. These are reported in Table 3.

The twenty-nine phrases of Domain II were rated by the experimental group as to the seriousness of the anti-social behavior described in each phrase. The mean scale ratings obtained through this procedure are presented in Table 4. The mental health professionals viewed phrases 8, 9, 10, 12, 13, 14, 15, 24, 25, 28, and 29 of this domain as

TABLE 3  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST  
 FOR SPECIFIC COMPARISONS FOR DOMAIN I:  
 VIOLENT AND DESTRUCTIVE BEHAVIOR

MEAN SCALE RATINGS	MEAN SCALE RATINGS			
	Phrase (24)	Phrase (25)	Phrase (26)	Phrase (23)
	3.93	3.93	3.86	3.71
Phrase (10) 7.00	3.07	3.07	3.14	3.29
Phrase (9) 6.93	3.00	3.00	3.07	3.21
Phrase (7) 6.57	2.64	2.64	2.71	2.86
Phrase (22) 6.57	2.64	2.64	2.71	2.86
Phrase (8) 6.50	2.57	2.57	2.64	2.79
Phrase (11) 6.50	2.57	2.57	2.64	2.79
Phrase (6) 6.36			2.50	2.64

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 2.46

TABLE 4  
 THE MEAN SCALE RATINGS FOR DOMAIN II:  
 ANTISOCIAL BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING	DESCRIPTIVE PHRASES	MEAN RATING
1	2.79	15	5.50
2	3.36	16	3.93
3	3.57	17	3.86
4	4.93	18	3.86
5	4.29	19	3.57
6	2.79	20	3.79
7	3.57	21	3.93
8	5.29	22	4.86
9	5.36	23	3.93
10	5.71	24	5.93
11	3.00	25	5.57
12	5.64	26	4.64
13	5.21	27	4.07
14	5.71	28	5.43
		29	5.86

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 5  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR  
DOMAIN II: ANTISOCIAL BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	28.00	390.55	13.95	12.16
SUBJECTS	13.00	175.27		
DESCRIPTIVE PHRASES X SUBJECTS	364.00	417.52	1.15	
TOTAL	405.00	983.34		

$F(\text{table}) = 1.73$  for  $p < .01$

being only slightly indicative of the more serious aspects of antisocial behavior. Descriptive phrases 2, 3, 7, 11, 16, 17, 18, 19, 20, 21, and 23 were rated as being only slightly related to the "mild" pole of the scale. Rated quite closely to the "mild" end of the scale were phrases 1 and 6. The remaining phrases, 4, 5, 22, 26, and 27, describe types of antisocial behavior regarded by the subjects as neutral on the "serious-mild" rating scale.

In analyzing the variance among the descriptive phrase ratings of Domain II, the computed  $F$  value was shown to be significant for  $p < .01$ . This, as well as other values obtained through the analysis of variance, are presented in Table 5. Because of these findings, the null hypothesis was rejected in favor of the alternative; that significant differences in the degree of seriousness do exist among the descriptive phrases of Domain II.

Presented in Table 6 are the particular phrases of Domain II exhibiting these significant differences. These descriptive phrases were identified through the use of Tukey's (a) Test for specific comparisons.

The scores compiled in Table 7 represent the mean scale ratings for the twenty-seven phrases of Domain III. These phrases describe various types of rebellious behavior and were rated by the experimental group as to their degree of seriousness. The behaviors characterized by phrases 3, 4, 8, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 25, and 26 were judged to be only slightly indicative of serious forms of defiant behavior. Phrase 16 was considered only slightly related to the "mild" end of the rating scale while the subjects viewed phrase 1 as quite closely related to the less serious aspects of rebellious behavior. Those phrases seen as equally associated with both poles of the "serious-mild" scale were 2, 5, 6, 7, 9, 17, 18, 24, and 27.

Differences in how the mental health professionals judged the descriptive phrases of Domain III were investigated through an analysis of variance computed from the information in Table 7. The results of this analysis, presented in Table 8, indicated the value of  $F$  as being significant for  $p < .01$ . Because significant differences were found in the seriousness of the behaviors described in this domain, the null hypothesis was rejected.

The specific phrases of Domain III differing significantly in their degree of seriousness were determined

TABLE 6  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a)  
 TEST FOR SPECIFIC COMPARISONS FOR  
 DOMAIN II: ANTI-SOCIAL BEHAVIOR

MEAN SCALE RATINGS	MEAN SCALE RATINGS														
	Phrase (5)	Phrase (27)	Phrase (16)	Phrase (21)	Phrase (23)	Phrase (17)	Phrase (18)	Phrase (20)	Phrase (3)	Phrase (7)	Phrase (19)	Phrase (2)	Phrase (11)	Phrase (1)	Phrase (6)
Phrase (24) 5.93	1.64	1.86	2.00	2.00	2.00	2.07	2.07	2.14	2.36	2.36	2.36	2.57	2.93	3.14	3.24
Phrase (29) 5.86	1.57	1.79	1.93	1.93	1.93	2.00	2.00	2.07	2.29	2.29	2.29	2.50	2.86	3.07	3.07
Phrase (10) 5.71	1.43	1.64	1.79	1.79	1.79	1.86	1.86	1.93	2.14	2.14	2.14	2.36	2.71	2.93	2.93
Phrase (14) 5.71	1.43	1.64	1.79	1.79	1.79	1.86	1.86	1.93	2.14	2.14	2.14	2.36	2.71	2.93	2.93
Phrase (12) 5.64		1.57	1.71	1.71	1.71	1.79	1.79	1.86	2.07	2.07	2.07	2.29	2.64	2.86	2.86
Phrase (25) 5.57		1.50	1.64	1.64	1.64	1.71	1.71	1.79	2.00	2.00	2.00	2.21	2.57	2.79	2.79
Phrase (15) 5.50		1.43	1.57	1.57	1.57	1.64	1.64	1.71	1.93	1.93	1.93	2.14	2.50	2.71	2.71
Phrase (28) 5.43			1.50	1.50	1.50	1.57	1.57	1.64	1.86	1.86	1.86	2.07	2.43	2.64	2.64
Phrase (9) 5.36			1.43	1.43	1.43	1.50	1.50	1.57	1.79	1.79	1.79	2.00	2.36	2.57	2.57
Phrase (8) 5.29						1.43	1.43	1.50	1.71	1.71	1.71	1.93	2.29	2.50	2.50
Phrase (13) 5.21								1.43	1.64	1.64	1.64	1.86	2.21	2.43	2.43
Phrase (4) 4.93												1.57	1.93	2.14	2.14
Phrase (22) 4.86												1.50	1.86	2.07	2.07
Phrase (26) 4.64													1.64	1.86	1.86
Phrase (5) 4.29															1.50

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 1.37



TABLE 7  
THE MEAN SCALE RATINGS FOR DOMAIN III:  
REBELLIOUS BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING	DESCRIPTIVE PHRASES	MEAN RATING
1	2.79	14	5.00
2	4.79	15	5.93
3	5.79	16	3.86
4	5.71	17	4.43
5	4.57	18	4.79
6	4.79	19	5.00
7	4.14	20	5.00
8	5.29	21	5.64
9	4.50	22	5.14
10	5.93	23	5.79
11	5.07	24	4.21
12	5.50	25	5.21
13	5.36	26	5.14
		27	4.50

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 8  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR  
DOMAIN III: REBELLIOUS BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	26.00	183.54	7.06	7.51
SUBJECTS	13.00	416.51		
DESCRIPTIVE PHRASES X SUBJECTS	338.00	317.72	.94	
TOTAL	377.00	917.77		

$F(\text{table}) = 1.76$  for  $p < .01$

through a test of specific comparisons. The significant results obtained through Tukey's (a) Test are summarized in Table 9.

The nine phrases of Domain IV provide descriptions of various untrustworthy behaviors. These phrases were rated by mental health professionals as to the seriousness of the behaviors they depict. The scores in Table 10 represent the average rating assigned by the subjects to each phrase of this domain. As shown in the table, phrases 3 and 4 were rated quite closely to the "serious" end of the "serious-mild" scale. The behaviors described in phrases 2, 6, 7, 8, and 9 were regarded by the subjects as only slightly serious indications of untrustworthy behavior. The remaining descriptive phrases, 1 and 5, were judged to be equally associated with both bipolar adjectives of the rating scale.



TABLE 10  
THE MEAN SCALE RATINGS FOR DOMAIN  
IV: UNTRUSTWORTHY BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING
1	4.00
2	5.93
3	6.14
4	6.50
5	4.43
6	5.14
7	5.43
8	5.50
9	5.57

Note. The phrases associated with each descriptive phrase number are located in the appendix.

Significant differences were revealed among the descriptive phrases of Domain IV in relation to their degree of seriousness. This conclusion was based on an analysis of the variance among the scale ratings of this domain. The results of this statistical procedure, summarized in Table 11, demonstrated significance for  $F$  at the .01 level. This evidence served to refute the null hypothesis.

A specific comparisons test was also conducted in an effort to determine the actual descriptive phrases within Domain IV that were rated significantly different as to

TABLE 11  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR  
DOMAIN IV: UNTRUSTWORTHY BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	8.00	70.88	8.86	12.14
SUBJECTS	13.00	189.91		
DESCRIPTIVE PHRASES X SUBJECTS	104.00	75.92	.73	
TOTAL	125.00	336.71		

$F(\text{tabled}) = 2.70$  for  $p < .01$

their degree of seriousness. The significant relationships, identified through Tukey's (a) Test for specific comparisons, are presented in Table 12.

The average scale ratings assigned by the experimental group to the fourteen phrases of Domain V are listed in Table 13. These phrases were rated as to the seriousness of the withdrawn behaviors they describe. Descriptive phrases 4, 5, 6, 8, 9, and 10 were rated quite closely to the "serious" end of the rating scale with phrases 1, 2, 7, and 12 viewed as only slightly related to this adjective. The ratings delegated by the subjects to phrases 11 and 14 indicated only a slight relationship to the "mild" pole of the scale. Neither bipolar adjective was regarded as being characteristic of the behaviors described in phrases 3 and 13.

To examine the null hypothesis, that no significant

TABLE 12

THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST FOR  
SPECIFIC COMPARISONS FOR DOMAIN IV:  
UNTRUSTWORTHY BEHAVIOR

MEAN SCALE RATINGS	MEAN SCALE RATINGS			
	Phrase (7) 5.43	Phrase (6) 5.14	Phrase (5) 4.43	Phrase (1) 4.00
Phrase (4) 6.50	1.07	1.36	2.07	2.50
Phrase (3) 6.14			1.71	2.14
Phrase (2) 5.93			1.50	1.93
Phrase (9) 5.57			1.14	1.57
Phrase (8) 5.50			1.07	1.50
Phrase (7) 5.43				1.43
Phrase (6) 5.14				1.14

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 1.03

TABLE 13  
 THE MEAN SCALE RATINGS FOR  
 DOMAIN V: WITHDRAWAL

DESCRIPTIVE PHRASES	MEAN RATING
1	5.43
2	5.36
3	4.50
4	6.21
5	6.50
6	6.64
7	5.86
8	6.21
9	6.14
10	6.21
11	3.71
12	5.43
13	4.14
14	3.93

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 14  
ANALYSIS OF VARIANCE SUMMARY TABLE  
FOR DOMAIN V: WITHDRAWAL

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	13.00	180.44	13.88	3.91
SUBJECTS	13.00	110.20		
DESCRIPTIVE PHRASES X SUBJECTS	169.00	599.95	3.55	
TOTAL	195.00	890.59		

$F(\text{table}) = 2.13$  for  $p < .01$

differences were present in the seriousness of the behaviors described in Domain V, calculations were performed on the data from Table 13. Specifically, the numerical distance between the scale ratings was investigated to determine whether the variance among them was significant. This analysis of variance revealed the presence of significant differences, at the .01 level, for the computed  $F$  value. The null hypothesis was rejected on the basis of this information which is reported in Table 14.

In a further analysis of the data found in Table 13, specific phrases were identified that varied significantly in their degree of seriousness. Utilizing Tukey's (a) Test, comparisons were made among the mean scale ratings of Domain V with those comparisons yielding significant mean differences presented in Table 15.

The thirteen phrases of Domain VI describe various



TABLE 15  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a)  
 TEST FOR SPECIFIC COMPARISONS FOR  
 DOMAIN V: WITHDRAWAL

MEAN SCALE RATINGS	MEAN SCALE RATINGS		
	Phrase (13) 4.14	Phrase (14) 3.93	Phrase (11) 3.71
Phrase (6) 6.64	2.50	2.71	2.93
Phrase (5) 6.50		2.57	2.79
Phrase (4) 6.21			2.50
Phrase (8) 6.21			2.50
Phrase (10) 6.21			2.50
Phrase (9) 6.14			2.43

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 2.39

forms of stereotyped behavior and odd mannerisms. These phrases were rated by mental health professionals as to their degree of seriousness. The average scale ratings for the descriptive phrases of Domain VI are listed in Table 16. Phrases 6, 7, and 13 were viewed as quite serious indications of stereotyped behavior and odd mannerisms. Rated only slightly in the "serious" direction of the scale were phrases 4, 5, 8, 10, 11, and 12. Phrase 1 was seen as related only slightly to the "mild" pole of the rating scale. The behaviors described in the phrases 2, 3, and 9 were rated by the mental health professionals as not being sufficiently characteristic of either the "serious" or the "mild" pole of the rating scale.

Through an investigation of the scale ratings, differences in the degree of seriousness among the phrases of Domain VI were determined. The values obtained from this analysis are found in Table 17. These values demonstrated statistical significance at the .01 level for the value of F. It was concluded, therefore, that the descriptive phrases of this domain varied significantly in their degree of seriousness.

The individual phrases exhibiting significant differences within Domain VI were identified through Tukey's (a) Test for specific comparisons. These descriptive phrases are presented in Table 18.

The seven phrases of Domain VII were assigned ratings by a group of mental health professionals on the

TABLE 16  
THE MEAN SCALE RATINGS FOR DOMAIN  
VI: STEREOTYPED BEHAVIOR  
AND ODD MANNERISMS

DESCRIPTIVE PHRASES	MEAN RATING
1	3.71
2	4.07
3	4.24
4	5.93
5	5.93
6	6.07
7	6.21
8	5.29
9	4.07
10	5.21
11	5.29
12	5.93
13	6.07

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 17

ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN VI:  
STEREOTYPED BEHAVIOR AND ODD MANNERISMS

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	12.00	76.08	6.34	1.75
SUBJECTS	13.00	140.07		
DESCRIPTIVE PHRASES X SUBJECTS	156.00	564.72	3.62	
TOTAL	181.00	780.87		

F(tabled) = 2.18 for  $p < .01$

basis of their degree of seriousness as indications of inappropriate interpersonal manners. The mean scale ratings obtained from this procedure are listed in Table 19. As shown in this table, phrases 4 and 6 were rated quite closely to the "serious" end of the scale while only slightly related to this adjective were the phrases 2, 3, and 7. The behaviors described by the phrases 1 and 5 were considered by the subjects to be neutral in terms of their relationship to the bipolar adjectives of "serious" and "mild."

An analysis of variance was computed from the ratings obtained for Domain VII. This analysis revealed significant differences in how the descriptive phrases were rated in terms of their seriousness. The values from Table 20 show this difference to be significant for  $p < .01$ . The fact that the descriptive phrases of Domain VII were signi-

TABLE 18

THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST FOR SPECIFIC  
COMPARISONS FOR DOMAIN VI: STEREOTYPED  
BEHAVIOR AND ODD MANNERISMS

MEAN SCALE RATINGS	
MEAN SCALE RATINGS	Phrase (1) 3.71
Phrase (7) 6.21	2.50

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 2.38

ificantly varied in their degree of seriousness, served to disprove the null hypothesis.

Further analysis, using Tukey's (a) Test for specific comparisons, provided information as to the particular phrases within Domain VII which achieved statistical significance. These descriptive phrases are identified in Table 21.

Domain VIII is composed of seven phrases which describe various types of unacceptable vocal habits. Each phrase was rated as to the seriousness of the behavior described in the phrase. The scores listed in Table 22 rep-

TABLE 19  
THE MEAN SCALE RATINGS FOR DOMAIN VII:  
INAPPROPRIATE INTERPERSONAL MANNERS

DESCRIPTIVE PHRASES	MEAN RATING
1	4.14
2	5.64
3	5.50
4	6.07
5	4.71
6	6.07
7	5.86

Note. The phrases associated with each descriptive phrase number are located in the appendix.

resent the mean scale ratings assigned by a group of mental health professionals to the descriptive phrases of this domain. Those phrases rated quite closely to the bipolar adjective of "serious" were 3 and 6. The remaining phrases, 1, 2, 4, 5, and 7, were rated only slightly toward the "serious" pole of the scale.

In analyzing the variance among the scale ratings of Domain VIII, statistical significance was not established. A summary of the values derived through this analysis of variance are presented in Table 23. As is evident from this table, the value of  $F$  demonstrated a lack of significance for  $p < .05$ . Because no significant dif-

TABLE 20  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN VII:  
INAPPROPRIATE INTERPERSONAL MANNERS

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	6.00	45.24	7.54	8.67
SUBJECTS	13.00	85.14		
DESCRIPTIVE PHRASES X SUBJECTS	78.00	67.86		
TOTAL	97.00	198.24		

$F(\text{table}) = 3.07$  for  $p < .01$

ferences were found in the seriousness of the behaviors described by the phrases of Domain VIII, the null hypothesis was accepted. These results precluded the need for a test of specific comparisons.

The twenty-nine phrases of Domain IX provide descriptions of unacceptable or eccentric habits. These phrases were rated by the experimental group as to the seriousness of the behaviors they illustrate. The mental health professionals comprising this group viewed the behavioral descriptions in phrases 6, 7, 8, 15, 16, 17, 20, 22, 23, and 29 as being quite serious indications of unacceptable or eccentric habits. Phrases 1, 2, 5, 9, 10, 11, 13, 14, 18, 19, 21, 27, and 28 were considered to be only slightly related to the "serious" end of the rating scale. The behavior described by phrase 12 was rated only slightly toward the "mild" end of the scale. Those descriptive

TABLE 21  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST  
 FOR SPECIFIC COMPARISONS FOR DOMAIN VII:  
 INAPPROPRIATE INTERPERSONAL MANNERS

MEAN SCALE RATINGS	MEAN SCALE RATINGS	
	Phrase (5)	Phrase (1)
	4.71	4.14
Phrase (4) 6.07	1.36	1.93
Phrase (6) 6.07	1.36	1.93
Phrase (7) 5.86	1.14	1.71
Phrase (2) 5.64		1.50
Phrase (3) 5.50		1.36

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 1.07



TABLE 22  
THE MEAN SCALE RATINGS FOR DOMAIN VIII:  
UNACCEPTABLE VOCAL HABITS

DESCRIPTIVE PHRASES	MEAN RATING
1	5.57
2	5.57
3	6.14
4	5.36
5	5.93
6	6.29
7	5.64

Note. The phrases associated with each descriptive phrase number are located in the appendix.

phrases felt to be equally associated with both poles of the "serious-mild" rating scale were phrases 3, 4, 24, 25, and 26. Table 24 summarizes the scale ratings obtained for the phrases of Domain IX.

Displayed in Table 25 is a summary of the analysis of variance conducted on the ratings generated from Domain IX. The F value computed from this analysis demonstrated significance at the .01 level. On this basis, the null hypothesis, that significant differences in the degree of seriousness do not exist among the descriptive phrases of Domain IX, was rejected.

To determine the particular phrases which varied

TABLE 23  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN VIII:  
UNACCEPTABLE VOCAL HABITS

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	6.00	9.71	.29	.47
SUBJECTS	13.00	49.93		
DESCRIPTIVE PHRASES X SUBJECTS	78.00	48.86	.62	
TOTAL	97.00	108.50		

$F(\text{tabled}) = 2.23$  for  $p < .05$

significantly in their degree of seriousness, comparisons were made between the mean scale ratings contained in Domain IX. A number of significant relationships among specific descriptive phrases were identified. These significant comparisons are reported in Table 26.

The behaviors described in the nine phrases of Domain X were rated by the subjects on the basis of their seriousness as indications of self-abusive behavior. The mean scale ratings provided by the experimental group are listed in Table 27. On the average, the subjects considered phrases 1, 2, 3, 4, 5, 6, 7, and 9 to be quite closely related to the more serious aspects of self-abusive behavior. Rated only slightly towards the "serious" pole of the rating scale, however, was phrase 8.

The overall differences in the scale ratings for the descriptive phrases of Domain X were investigated

TABLE 24  
 THE MEAN SCALE RATINGS FOR DOMAIN IX:  
 UNACCEPTABLE OR ECCENTRIC HABITS

DESCRIPTIVE PHRASES	MEAN RATING	DESCRIPTIVE PHRASES	MEAN RATING
1	5.29	15	6.71
2	5.14	16	6.79
3	4.79	17	6.64
4	4.14	18	5.64
5	5.71	19	5.36
6	6.00	20	6.21
7	6.43	21	5.79
8	6.71	22	6.64
9	5.64	23	6.71
10	5.64	24	4.29
11	5.86	25	4.00
12	3.64	26	4.57
13	5.14	27	5.93
14	5.93	28	5.79
		29	6.50

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 25  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN IX:  
UNACCEPTABLE OR ECCENTRIC HABITS

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	28.00	310.80	11.10	2.96
SUBJECTS	13.00	262.52		
DESCRIPTIVE PHRASES X SUBJECTS	364.00	1,365.00	3.75	
TOTAL	405.00	4,298.32		

$F(\text{table}) = 1.73$  for  $p < .01$

through an analysis of variance. The values obtained from this analysis, shown in Table 28, revealed statistical significance at the .01 level. This result indicated that the descriptive phrases of Domain X varied significantly in their degree of seriousness. The null hypothesis was refuted on the basis of this conclusion.

Through Tukey's (a) Test for specific comparisons, the individual phrases possessing the significant differences found in Domain X were determined. Table 29 summarizes the specific descriptive phrases identified through this procedure.

The scores listed in Table 30 represent the mean scale ratings for the four phrases of Domain XI. These phrases illustrate various hyperactive tendencies and were rated by mental health professionals as to the seriousness of the behaviors they describe. Phrase 3 was rated quite

TABLE 26

THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST  
FOR SPECIFIC COMPARISONS FOR DOMAIN IX:  
UNACCEPTABLE OR ECCENTRIC HABITS

MEAN SCALE RATINGS	MEAN SCALE RATINGS			
	Phrase (24)	Phrase (4)	Phrase (25)	Phrase (12)
4.29	4.14	4.00	3.64	
Phrase (16) 6.79	2.50	2.64	2.79	3.14
Phrase (8) 6.71		2.57	2.71	3.07
Phrase (15) 6.71		2.57	2.71	3.07
Phrase (23) 6.71		2.57	2.71	3.07
Phrase (17) 6.64		2.50	2.64	3.00
Phrase (22) 6.64		2.50	2.64	3.00
Phrase (29) 6.50			2.50	2.86
Phrase (7) 6.43				2.79
Phrase (20) 6.21				2.57

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 2.49

TABLE 27  
 THE MEAN SCALE RATINGS FOR DOMAIN X:  
 SELF-ABUSIVE BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING
1	6.86
2	6.43
3	6.86
4	6.36
5	6.64
6	6.50
7	6.14
8	5.93
9	6.79

Note. The phrases associated with each descriptive phrase number are located in the appendix.

closely to the "serious" end of the rating scale, while the remaining phrases, 1, 2, and 4, were viewed by the subjects as only slightly serious indicators of hyperactive behavior.

The data from Domain XI was analyzed to determine whether the variance among the scale ratings was significantly large. The results obtained through this analysis of variance are given in Table 31. As indicated in the summary table, statistically significant differences, for  $p < .01$ , were present among the descriptive phrases in terms of their degree of seriousness. The null hypothesis was disproved on

TABLE 28  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR  
DOMAIN X: SELF-ABUSIVE BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	8.00	11.84	1.48	4.00
SUBJECTS	13.00	21.72		
DESCRIPTIVE PHRASES X SUBJECTS	104.00	38.48	.37	
TOTAL	125.00	72.04		

$F(\text{table}) = 2.70$  for  $p < .01$

the basis of these findings.

A further investigation, concerning the specific phrases of Domain XI which were significantly related, was also executed. The results of this analysis, based on Tukey's (a) Test for specific comparisons, are presented in Table 32.

The experimental group rated the eighteen phrases of Domain XII, which depict a variety of sexually aberrant behaviors, as to their degree of seriousness. The mean scale ratings generated by this group are reported in Table 33. The behavior described by phrase 17 was seen by the subjects as an extremely serious indication of sexually aberrant behavior. Phrases 2, 5, and 7 were regarded as quite closely associated with the "serious" pole of the rating scale. Rated only slightly toward the "serious" end of the scale were the phrases 1, 3, 4, 6, 14, 15, 16, and

TABLE 29  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST  
 FOR SPECIFIC COMPARISONS FOR DOMAIN X:  
 SELF-ABUSIVE BEHAVIOR

MEAN SCALE RATINGS	MEAN SCALE RATINGS	
	Phrase (7) 6.14	Phrase (8) 5.93
Phrase (1) 6.86	.71	.93
Phrase (3) 6.86	.71	.93
Phrase (9) 6.79		.86
Phrase (5) 6.64		.71

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = .69



TABLE 30  
 THE MEAN SCALE RATINGS FOR DOMAIN  
 XI: HYPERACTIVE TENDENCIES

DESCRIPTIVE PHRASES	MEAN RATING
1	5.21
2	5.50
3	6.43
4	5.50

Note. The phrases associated with each descriptive phrase number are located in the appendix.

18. Not all phrases, however, were rated in the "serious" direction of the scale. Mental health professionals viewed phrases 11 and 12 as being slightly related to the bipolar adjective "mild." All other phrases, 8, 9, 10, and 13, were considered equally affiliated with both the "serious" and "mild" poles of the rating scale.

The variance among the phrase ratings for Domain XII were analyzed with the results appearing in Table 34. The F value computed in this analysis of variance indicated significance for  $p < .01$ . The conclusion drawn from these results, that significant differences existed in the seriousness of the behaviors described in Domain XII, led to the rejection of the null hypothesis.

The specific phrases contained in Domain XII that differed significantly in their degree of seriousness were

TABLE 31  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR  
DOMAIN XI: HYPERACTIVE TENDENCIES

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	3.00	11.77	3.92	4.78
SUBJECTS	13.00	50.80		
DESCRIPTIVE PHRASES X SUBJECTS	39.00	31.98	.82	
TOTAL	55.00	94.55		

$F(\text{table}) = 4.33$  for  $p < .01$

determined through Tukey's (a) Test for specific comparisons. The significant relationships resulting from these comparisons are found in Table 35.

The ratings for Domain XIII represent the seriousness of the descriptive phrases as judged by a group of mental health professionals. The mean scale ratings for these thirty-four phrases, which describe behaviors indicative of psychological disturbances, are listed in Table 36. The information contained in this table shows that phrases 29, 33, and 34 were rated quite closely to the "serious" end of the rating scale. Phrases 7, 11, 20, 21, 22, 28, 31, and 32 were viewed by the subjects as being only slightly related to the adjective "serious," while phrases 1, 4, 5, 6, 10, 26, and 27 were rated only slightly in the direction of the scale pole designated as "mild." Equally associated with either pole of the scale were phrases 2, 3, 8, 9, 12, 13,

TABLE 32  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST  
 FOR SPECIFIC COMPARISONS FOR DOMAIN  
 XI: HYPERACTIVE TENDENCIES

MEAN SCALE RATINGS			
MEAN SCALE RATINGS	Phrase (2)	Phrase (4)	Phrase (1)
5.50	5.50	5.50	5.21
Phrase (3) 6.43	.93	.93	1.21

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = .92

14, 15, 16, 17, 18, 19, 23, 24, 25, and 30.

Differences in how the group of mental health professionals judged the seriousness of the descriptive phrases of Domain XIII were investigated through an analysis of variance. The values obtained from this procedure are reported in Table 37. From this information the value of  $F$  was computed and demonstrated statistical significance for  $p < .01$ . As a result, the alternative hypothesis, that the seriousness of the behaviors described within this domain varied significantly, was adopted while the null hypothesis was rejected.

The specific phrases within Domain XIII that

TABLE 33  
 THE MEAN SCALE RATINGS FOR DOMAIN XII:  
 SEXUALLY ABERRANT BEHAVIOR

DESCRIPTIVE PHRASES	MEAN RATING
1	5.79
2	6.43
3	5.93
4	5.00
5	6.29
6	5.36
7	6.29
8	4.00
9	4.50
10	4.29
11	3.50
12	3.93
13	4.57
14	5.07
15	5.86
16	5.64
17	7.00
18	5.71

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 34  
ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN  
XII: SEXUALLY ABERRANT BEHAVIOR

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	17.00	230.63	13.56	9.76
SUBJECTS	13.00	183.82		
DESCRIPTIVE PHRASES X SUBJECTS	221.00	307.19	1.39	
TOTAL	251.00	721.64		

$F(\text{table}) = 1.98$  for  $p < .01$

exhibited significant differences in their degree of seriousness are presented in Table 38. These descriptive phrases were identified through the use of Tukey's (a) Test for specific comparisons.

Thus, of the thirteen domains included in this study, all but one demonstrated statistical significance for  $p < .01$ . These domains were: I, Violent and Destructive Behavior; II, Antisocial Behavior; III, Rebellious Behavior; IV, Untrustworthy Behavior; V, Withdrawal; VI, Stereotyped Behavior and Odd Mannerisms; VII, Inappropriate Interpersonal Manners; IX, Unacceptable or Eccentric Habits; X, Self-Abusive Behavior; XI, Hyperactive Tendencies; XII, Sexually Aberrant Behavior; and XIII, Psychological Disturbances. These results led to a rejection of the null hypothesis and an acceptance of the alternative; that significant differences in the degree of seriousness do exist

TABLE 35  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST FOR  
 SPECIFIC COMPARISONS FOR DOMAIN XII:  
 SEXUALLY ABERRANT BEHAVIOR

MEAN SCALE RATINGS	MEAN SCALE RATINGS								
	Phrase (6) 5.36	Phrase (14) 5.07	Phrase (4) 5.00	Phrase (13) 4.57	Phrase (9) 4.50	Phrase (10) 4.29	Phrase (8) 4.00	Phrase (12) 3.93	Phrase (11) 3.50
Phrase (17) 7.00	1.64	1.93	2.00	2.43	2.50	2.71	3.00	3.07	3.50
Phrase (2) 6.43				1.86	1.93	2.14	2.43	2.50	2.93
Phrase (5) 6.29				1.71	1.79	2.00	2.29	2.36	2.79
Phrase (7) 6.29				1.71	1.79	2.00	2.29	2.36	2.79
Phrase (3) 5.93						1.64	1.93	2.00	2.43
Phrase (15) 5.86						1.57	1.86	1.93	2.36
Phrase (1) 5.79							1.79	1.86	2.29
Phrase (18) 5.71							1.71	1.79	2.21
Phrase (16) 5.64							1.64	1.71	2.14
Phrase (6) 5.36									1.86
Phrase (14) 5.07									1.57

<sup>1</sup>Notes. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Notes. The phrases associated with each descriptive phrase number are located in the appendix.  
 critical value (means) = 1.51

TABLE 36  
 THE MEAN SCALE RATINGS FOR DOMAIN XIII:  
 PSYCHOLOGICAL DISTURBANCES

DESCRIPTIVE PHRASES	MEAN RATING	DESCRIPTIVE PHRASES	MEAN RATING
1	3.86	18	4.21
2	4.00	19	4.93
3	4.07	20	5.50
4	3.36	21	5.57
5	3.57	22	5.14
6	3.43	23	4.57
7	5.71	24	4.43
8	4.71	25	4.29
9	4.07	26	3.21
10	3.79	27	3.14
11	5.79	28	5.07
12	4.07	29	6.07
13	4.14	30	4.64
14	4.57	31	5.07
15	4.14	32	5.29
16	4.07	33	6.14
17	4.21	34	6.86

Note. The phrases associated with each descriptive phrase number are located in the appendix.

TABLE 37  
 ANALYSIS OF VARIANCE SUMMARY TABLE FOR DOMAIN  
 XIII: PSYCHOLOGICAL DISTURBANCES

SOURCE	df	SS	MS	F
DESCRIPTIVE PHRASES	33.00	376.82	11.42	8.17
SUBJECTS	13.00	423.55		
DESCRIPTIVE PHRASES X SUBJECTS	429.00	599.59	1.40	
TOTAL	475.00	1,399.97		

$F(\text{tabled}) = 1.67$  for  $p < .01$

among the descriptive phrases of these domains.

Statistical significance was not established, however, for Domain VIII, Unacceptable Vocal Habits. Because  $p$  was greater than .05, the null hypothesis was accepted for this domain.



TABLE 38  
 THE SIGNIFICANT RESULTS OF TUKEY'S (a) TEST FOR  
 SPECIFIC COMPARISONS FOR DOMAIN XIII:  
 PSYCHOLOGICAL DISTURBANCES

MEAN SCALE RATINGS	MEAN SCALE RATINGS																											
	Phrase (32)	Phrase (22)	Phrase (28)	Phrase (31)	Phrase (19)	Phrase (8)	Phrase (30)	Phrase (14)	Phrase (23)	Phrase (24)	Phrase (25)	Phrase (17)	Phrase (18)	Phrase (13)	Phrase (15)	Phrase (3)	Phrase (9)	Phrase (16)	Phrase (12)	Phrase (2)	Phrase (1)	Phrase (10)	Phrase (5)	Phrase (6)	Phrase (4)	Phrase (21)	Phrase (27)	
Phrase (34) 6.06	1.57	1.71	1.79	1.79	1.93	2.14	2.21	2.29	2.29	2.43	2.57	2.64	2.64	2.71	2.71	2.79	2.79	2.79	2.79	2.79	2.86	3.00	3.07	3.29	3.43	3.50	3.64	3.71
Phrase (33) 6.14								1.57	1.57	1.71	1.86	1.93	1.93	2.00	2.00	2.07	2.07	2.07	2.07	2.14	2.29	2.36	2.57	2.71	2.79	2.93	3.00	
Phrase (29) 6.07									1.64	1.79	1.86	1.86	1.93	1.93	2.00	2.00	2.00	2.00	2.07	2.21	2.29	2.50	2.64	2.71	2.86	2.93		
Phrase (11) 5.79											1.57	1.57	1.64	1.64	1.71	1.71	1.71	1.71	1.71	1.79	1.93	2.00	2.21	2.36	2.43	2.57	2.64	
Phrase (7) 5.71												1.57	1.57	1.64	1.64	1.64	1.64	1.71	1.86	1.93	2.14	2.29	2.36	2.50	2.57			
Phrase (21) 5.57																			1.57	1.71	1.79	2.00	2.14	2.21	2.36	2.43		
Phrase (20) 5.50																				1.64	1.71	1.93	2.07	2.14	2.29	2.36		
Phrase (30) 5.29																							1.71	1.86	1.93	2.07	2.14	
Phrase (27) 5.14																							1.57	1.71	1.79	1.93	2.00	
Phrase (28) 5.07																								1.64	1.71	1.86	1.93	
Phrase (31) 5.07																								1.64	1.71	1.86	1.93	
Phrase (19) 4.93																										1.57	1.71	1.79
Phrase (8) 4.71																												1.57

<sup>1</sup>Note. Each value in the body of the table represents the difference between the column and row values.

<sup>2</sup>Note. The phrases associated with each descriptive phrase number are located in the appendix.

critical value (means) = 1.52

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The intent of this study was to determine whether significant differences existed in the seriousness of the behaviors described in Part II of the AAMD Adaptive Behavior Scale as rated by mental health professionals. Based on these ratings, it was found that the behaviors described in Part II did differ significantly in their degree of seriousness. This fact brings into question the Scale's evaluative ability and illustrates the need for altering the present Adaptive Behavior Scale's scoring system. Modifications involving weighted scores are recommended to alleviate existing inadequacies in the Scale's scoring method.

### SUMMARY

With the development of the Adaptive Behavior Scale, the AAMD claimed to have provided a means of accurately and objectively measuring adaptive behavior. This was important in view of their statement concerning the diagnosis of mental retardation. For this diagnosis to be given, deficiencies in both measured intelligence and adaptive behavior had to be demonstrated. The tool used in the assessment of adaptive behavior, the Adaptive Behavior Scale, consists of two parts. Part I is designed to evaluate an individual's

skills and habits in ten behavior domains considered essential in daily functioning and personal independence. Part II, consisting of fourteen behavior domains, is designed to assess a wide range of maladaptive behavior related to personality disorders. Each behavior domain contains a variety of phrases which describe that particular domain. An individual engaging in any of the behaviors described in the domain is given a score of either one or two depending on whether the behavior is emitted occasionally or frequently. According to the AAMD (1974), this method of assessment goes well beyond the IQ score in providing a clear and comprehensive picture of the individual. However, considering the type of rating system utilized, inaccuracies in evaluation seem likely to result. This appears particularly characteristic of Part II.

Because the type or seriousness of the behaviors described within the behavior domains are not taken into account in Part II of the Scale, it is possible to rate an individual who has raped others equally to one who merely hugs or caresses too intensely in public. Obviously the seriousness of the behaviors these individuals engage in is essential in assessing their level of adaptive functioning. With equal ratings, however, this distinction is obscured. This apparent weakness in Part II of the Scale was the subject of this investigation.

It was hypothesized that the descriptive phrases, contained in Part II of the Adaptive Behavior Scale, would

vary significantly in their degree of seriousness. Results such as this would indicate the possibility of rating individuals exhibiting serious maladaptive behaviors equally to those emitting behaviors that are less severe. To test this, mental health professionals were asked to rate the various descriptive phrases in Part II of the Adaptive Behavior Scale in terms of their degree of seriousness. The ratings were performed on a seven-step scale ranging from serious to mild. The data generated from these rating scales was evaluated using an analysis of variance and a test for specific comparisons.

The findings revealed significant differences in twelve of the thirteen behavior domains included in this study. These domains were: I, Violent and Destructive Behavior; II, Antisocial Behavior; III, Rebellious Behavior; IV, Untrustworthy Behavior; V, Withdrawal; VI, Stereotyped Behavior and Odd Mannerisms; VII, Inappropriate Interpersonal Manners; IX, Unacceptable or Eccentric Habits; X, Self-Abusive Behavior; XI, Hyperactive Tendencies; XII, Sexually Aberrant Behavior; and XIII, Psychological Disturbances. The null hypothesis, that there were no significant differences in the seriousness of the behaviors described in Part II of the Adaptive Behavior Scale, was rejected for these domains. It was not rejected, however, for Domain VIII, Unacceptable Vocal Habits; as statistical significance was not established.

## CONCLUSIONS

The results obtained from this investigation point up the misleading qualities of the domain scores utilized in Part II of the Adaptive Behavior Scale. It was shown that the behaviors described in each domain, excluding Domain VIII (and XIV, which was not studied), differed significantly in their degree of seriousness. The Scale's rating procedure, however, fails to account for this difference. By disregarding this aspect, inaccuracies in the evaluation of an individual's adaptive functioning are possible.

With the present scoring system, an individual who, for example, frequently uses objects as weapons against others could obtain a lower domain score than one who often cries, stamps his feet, and throws himself on the floor screaming and yelling. The domain score would not adequately reveal the extent of the first individual's maladaptive behavior. Equally damaging is the fact that the domain score may cause the second individual to appear more deficient than is actually the case.

The findings of this study, then, should serve to caution users of the Adaptive Behavior Scale to not rely solely on the domain scores of Part II when evaluating individuals. An investigation of the actual behaviors rated on the Scale should also be performed before any decisions concerning an individual's adaptive functioning are made. These results also suggest that changes in the Scales's scoring system are warranted.

## RECOMMENDATIONS

In order to prevent misinterpretation of the Adaptive Behavior Scale, Part II domain scores, a revised rating procedure should be developed. The essential characteristic of this system should be to attribute more significance or weight to those behaviors, within each domain, considered more serious or indicative of maladaptive behavior. This could be accomplished by designating a particular score value to each descriptive phrase within a behavior domain, commensurate with its degree of seriousness. This would include providing a particular score value for behaviors emitted occasionally or frequently. For example, using the mean ratings obtained in this study for Domain I, the phrase, "Uses objects as weapons against others," would receive a score of seven while a three would be scored for the phrase, "Cries and screams."

Another possible solution would be to adopt a rating scale similar to that employed in this study. This scale could consist of seven alternatives ranging from serious to mild or whatever other evaluative dimension was required. With this method, the descriptive phrases contained in each domain would be rated in terms of how serious the behavior described was as an indication of the particular behavior domain.

Rating systems such as those mentioned here would provide a more adequate representation of the degree of maladaptive behavior. Further research, however, would be

necessary to determine the efficacy of these systems.

There are several directions this research could take. The inter-rater reliabilities of the proposed rating systems would require verification as well as the most effective format to employ in presenting the modified systems within the Scale. In addition to these, replications of the present study should be conducted to more accurately determine the extent of the present findings. The effect of various populations on how the descriptive phrases are rated is also an important consideration for future research.

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APPENDIX  
Rating Scale Booklet







**PHRASE  
NO.**

- |     |  |                    |
|-----|--|--------------------|
| 23. | Cries and screams  | Serious _____ Mild |
| 24. | Stamps feet while banging objects or<br>slamming doors, etc. | Serious _____ Mild |
| 25. | Stamps feet, screaming and yelling                           | Serious _____ Mild |
| 26. | Throws self on floor, screaming and yelling                  | Serious _____ Mild |

**II. ANTISOCIAL BEHAVIOR**

- |     |   |                    |
|-----|---|--------------------|
| 1.  | Gossips about others  | Serious _____ Mild |
| 2.  | Tells untrue or exaggerated stories about<br>others   | Serious _____ Mild |
| 3.  | Teases others   | Serious _____ Mild |
| 4.  | Picks on others   | Serious _____ Mild |
| 5.  | Makes fun of others.  | Serious _____ Mild |
|     |   |                    |
| 6.  | Tries to tell others what to do   | Serious _____ Mild |
| 7.  | Demands services from others  | Serious _____ Mild |
| 8.  | Pushes others around  | Serious _____ Mild |
| 9.  | Causes fights among other people  | Serious _____ Mild |
| 10. | Manipulates others to get them in trouble   | Serious _____ Mild |
|     |   |                    |
| 11. | Is always in the way  | Serious _____ Mild |
| 12. | Interferes with others' activities, e.g., by<br>blocking passage, upsetting wheelchairs, etc. | Serious _____ Mild |
| 13. | Upsets others' work   | Serious _____ Mild |
| 14. | Knocks around articles that others are<br>working with, e.g., puzzles, card games, etc.       | Serious _____ Mild |
| 15. | Snatches things out of others' hands.   | Serious _____ Mild |



**PHRASE  
NO.**

- 16. Keeps temperature in public areas uncomfortable for others, e.g., opens or closes window, changes thermostat  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 17. Turns TV, radio or phonograph on too loudly  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 18. Makes loud noises while others are reading  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 19. Talks too loudly  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 20. Sprawls over furniture or space needed by others  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_

- 21. Does not return things that were borrowed  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 22. Uses others' property without permission  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 23. Loses others' belongings.  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 24. Damages others' property  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 25. Does not recognize the difference between own and others' property  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_

- 26. Uses hostile language, e.g., "stupid jerk," "dirty pig," etc.  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 27. Swears, curses, or uses obscene language  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 28. Yells or screams threats of violence  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_
- 29. Verbally threatens others, suggesting physical violence  
 Serious \_\_\_\_\_ Mild \_\_\_\_\_

### III. REBELLIOUS BEHAVIOR

RASE  
NO.

- 1. Has negative attitude toward rules but usually conforms      Serious \_\_\_\_\_ Mild
- 2. Has to be forced to go through waiting lines, e.g., lunch lines, ticket lines, etc.      Serious \_\_\_\_\_ Mild
- 3. Violates rules or regulations, e.g., eats in restricted areas, disobeys traffic signals, etc.      Serious \_\_\_\_\_ Mild
- 4. Refuses to participate in required activities, e.g., work, school, etc.      Serious \_\_\_\_\_ Mild

- 5. Gets upset if given a direct order      Serious \_\_\_\_\_ Mild
- 6. Plays deaf and does not follow instructions      Serious \_\_\_\_\_ Mild
- 7. Does not pay attention to instructions      Serious \_\_\_\_\_ Mild
- 8. Refuses to work on assigned subject      Serious \_\_\_\_\_ Mild
- 9. Hesitates for long periods before doing assigned tasks      Serious \_\_\_\_\_ Mild
- 10. Does the opposite of what was requested      Serious \_\_\_\_\_ Mild

- 11. Resents persons in authority, e.g., teachers, group leaders, ward personnel, etc.      Serious \_\_\_\_\_ Mild
- 12. Is hostile toward people in authority      Serious \_\_\_\_\_ Mild
- 13. Mocks people in authority      Serious \_\_\_\_\_ Mild
- 14. Says that he can fire people in authority      Serious \_\_\_\_\_ Mild
- 15. Says relative will come to kill or harm persons in authority      Serious \_\_\_\_\_ Mild

- 16. Is late to required places or activities      Serious \_\_\_\_\_ Mild
- 17. Fails to return to places where he is supposed to be after leaving, e.g., going to toilet, running an errand, etc.      Serious \_\_\_\_\_ Mild
- 18. Leaves place of required activity without permission, e.g., work, class, etc.      Serious \_\_\_\_\_ Mild
- 19. Is absent from routine activities, e.g., work, class, etc.      Serious \_\_\_\_\_ Mild
- 20. Stays out late at night from home, hospital ward, dormitory, etc.      Serious \_\_\_\_\_ Mild

**PHRASE  
NO.**

- |     |  |                    |
|-----|--|--------------------|
| 21. | Attempts to run away from hospital, home, or school ground         | Serious _____ Mild |
| 22. | Runs away from group activities, e.g., picnics, school buses, etc. | Serious _____ Mild |
| 23. | Runs away from hospital, home, or school ground                    | Serious _____ Mild |

- |     |   |                    |
|-----|---|--------------------|
| 24. | Interrupts group discussion by talking about unrelated topics                     | Serious _____ Mild |
| 25. | Disrupts games by refusing to follow rules  | Serious _____ Mild |
| 26. | Disrupts group activities by making loud noises or by acting up                   | Serious _____ Mild |
| 27. | Does not stay in seat during lesson period, lunch period, or other group sessions | Serious _____ Mild |

**IV. UNTRUSTWORTHY BEHAVIOR**

- |    |   |                    |
|----|---|--------------------|
| 1. | Has been suspected of stealing                              | Serious _____ Mild |
| 2. | Takes others' belongings if not kept in place or locked     | Serious _____ Mild |
| 3. | Takes others' belongings from pockets, purses, drawers, etc | Serious _____ Mild |
| 4. | Takes others' belongings by opening or breaking locks       | Serious _____ Mild |

- |    |  |                    |
|----|--|--------------------|
| 5. | Twists the truth to own advantage        | Serious _____ Mild |
| 6. | Cheats in games, tests, assignments, etc | Serious _____ Mild |
| 7. | Lies about situations                    | Serious _____ Mild |
| 8. | Lies about self                          | Serious _____ Mild |
| 9. | Lies about others                        | Serious _____ Mild |









## XII. SEXUALLY ABERRANT BEHAVIOR

PHRASE  
NO.

- |     |   |                    |
|-----|---|--------------------|
| 1.  | Has attempted to masturbate openly  | Serious _____ Mild |
| 2.  | Masturbates in front of others  | Serious _____ Mild |
| 3.  | Masturbates in group  | Serious _____ Mild |
|     |   |                    |
| 4.  | Exposes body unnecessarily after using toilet                                     | Serious _____ Mild |
| 5.  | Stands in public places with pants down or with dress up                          | Serious _____ Mild |
| 6.  | Exposes body excessively during activities, e.g., playing, dancing, sitting, etc. | Serious _____ Mild |
| 7.  | Undresses in public places, or in front of lighted windows                        | Serious _____ Mild |
|     |   |                    |
| 8.  | Is sexually attracted to members of the same sex                                  | Serious _____ Mild |
| 9.  | Has approached others and attempted homosexual acts                               | Serious _____ Mild |
| 10. | Has engaged in homosexual activity  | Serious _____ Mild |
|     |   |                    |
| 11. | Is overly seductive in appearance or actions                                      | Serious _____ Mild |
| 12. | Hugs or caresses too intensely in public  | Serious _____ Mild |
| 13. | Needs watching with regard to sexual behavior                                     | Serious _____ Mild |
| 14. | Lifts or unbuttons others' clothing; to touch intimately                          | Serious _____ Mild |
| 15. | Has sexual relations in public places   | Serious _____ Mild |
| 16. | Is overly aggressive sexually   | Serious _____ Mild |
| 17. | Has raped others  | Serious _____ Mild |
| 18. | Is easily taken advantage of sexually   | Serious _____ Mild |



### XIII. PSYCHOLOGICAL DISTURBANCES

PHRASE  
NO.

- |       |   |  |
|-------|---|--|
| 1.    | Does not recognize own limitations  | Serious ___:___:___:___:___:___:___ Mild |
| 2.    | Has too high an opinion of self   | Serious ___:___:___:___:___:___:___ Mild |
| 3.    | Talks about future plans that are unrealistic                                 | Serious ___:___:___:___:___:___:___ Mild |
| <hr/> |   |  |
| 4.    | Does not talk when corrected  | Serious ___:___:___:___:___:___:___ Mild |
| 5.    | Withdraws or pouts when criticized  | Serious ___:___:___:___:___:___:___ Mild |
| 6.    | Becomes upset when criticized   | Serious ___:___:___:___:___:___:___ Mild |
| 7.    | Screams and cries when corrected  | Serious ___:___:___:___:___:___:___ Mild |
| <hr/> |   |  |
| 8.    | Blames own mistakes on others   | Serious ___:___:___:___:___:___:___ Mild |
| 9.    | Withdraws or pouts when thwarted  | Serious ___:___:___:___:___:___:___ Mild |
| 10.   | Becomes upset when thwarted   | Serious ___:___:___:___:___:___:___ Mild |
| 11.   | Throws temper tantrums when does not get own way                              | Serious ___:___:___:___:___:___:___ Mild |
| <hr/> |   |  |
| 12.   | Wants excessive praise  | Serious ___:___:___:___:___:___:___ Mild |
| 13.   | Is jealous of attention given to others                                       | Serious ___:___:___:___:___:___:___ Mild |
| 14.   | Demands excessive reassurance   | Serious ___:___:___:___:___:___:___ Mild |
| 15.   | Acts silly to gain attention  | Serious ___:___:___:___:___:___:___ Mild |
| <hr/> |   |  |
| 16.   | Complains of unfairness, even when equal shares or privileges have been given | Serious ___:___:___:___:___:___:___ Mild |
| 17.   | Complains, "Nobody loves me"  | Serious ___:___:___:___:___:___:___ Mild |
| 18.   | Says, "Everybody picks on me"   | Serious ___:___:___:___:___:___:___ Mild |
| 19.   | Says, "People talk about me"  | Serious ___:___:___:___:___:___:___ Mild |
| 20.   | Says, "People are against me"   | Serious ___:___:___:___:___:___:___ Mild |
| 21.   | Acts suspicious of people   | Serious ___:___:___:___:___:___:___ Mild |

