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A PILOT STUDY OF DEVELOPMENTAL PATTERNS OF COLLEGE HANDICAPPERS AS MEASURED BY THE ASSESSMENT OF ADULT ADJUSTMENT PATTERNS (AAAP) - AN ERIKSONIAN PERSPECTIVE

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ABSTRACT

A PILOT STUDY OF DEVELOPMENTAL PATTERNS OF COLLEGE HANDICAPPERS AS MEASURED BY THE ASSESSMENT OF ADULT ADJUSTMENT PATTERNS (AAAP) - AN ERIKSONIAN PERSPECTIVE

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This pilot study was designed to examine Eriksonian developmental patterns of college handicappers by onset and severity of handicap. Such developmental levels were measured by the Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson, and Azar, 1982), an objective self report instrument with validity scales that measures all eight Eriksonian developmental stages. The first objective of the study was to determine what Eriksonian developmental differences exist between college handicappers with severe handicaps and those with less severe handicaps. A second objective was to compare developmental patterns of college handicappers having a congenital onset for their handicap with those who acquired their handicap after birth. Another objective was to investigate the interaction effect between onset and severity of handicap. Severe handicappers were defined as being deaf, blind, and wheelchair users. Less severe handicappers were delineated as hard of hearing, partial sighted, and individuals with limited mobility.

A comprehensive treatment of handicapper development from an Eriksonian perspective was presented. An extensive review of the research literature on the effects of severity and onset of handicap was included.

A sample of 168 college handicappers volunteered to participate in the study. An appropriate test format was used based on the specific mode of processing information for that individual handicapper. Alternative formats included audio cassette, braille, and enlarged copies for visual handicappers as well as scribes for those individuals who were not able to mark their own answers.

The statistical methods used to analyze the data consisted of a multivariate analysis of variance (MANOVA) by onset, severity, and handicap. A two-way fixed effects analysis of variance (ANOVA) and a series of one-way ANOVAS were conducted. The results of the analyses revealed that severe handicappers scored higher than less severe handicappers on all eight stages of the AAAP at the .001 level of significance. No significant differences were found between the scores of congenital handicappers and acquired handicappers. A comparison between scores of male and female handicappers resulted in no differences.

Discussion of the results, limitations of the study, and implications for future research were presented.

DEDICATION

To the family from which
I came as well as the one
I am with and to the many
handicappers in my life.
For deaf individuals who
helped me see things I could
never hear. For blind persons
who assisted me in hearing things
that I could never see. For
wheelchair users who took me
down paths that I could never
walk.

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CHAPTER I

THE PROBLEM

Erik Erikson's epigenetic theory of ego development, with its hierarchically arranged stages, in which the resolution of one life stage affects subsequent developmental stages offers an innovative format for understanding the handicapper[1] developmental experience. Until recently, there had been no comprehensive objective instrument that operationalized all eight stages of Erikson's theory. The Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson, Azar, 1982) has begun to meet this need and there is growing evidence that the instrument accurately measures the constructs of the eight Eriksonian stages and provides a set of validity indexes which assess the participant's test taking attitude.

A dearth of data on the psychosocial development of

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[1]Gentile, E., & Gentile, J., Images, Words & Identity. (Office of Programs for Handicappers) Unpublished manuscript, Michigan State University, 1976, p. 1. For the purpose of this study, these authors define a handicapper as "one who determines the degree to and manner in which one's own definable physical or mental characteristic(s) might direct life's activities."

handicappers makes any real understanding of the handicapper experience difficult. Little work has been done in investigating the effects of onset and severity of handicap on psychological development. Without an understanding of such a development, any therapeutic intervention or orientation responding to handicappers becomes quite arduous if not impossible. The psychological development of handicappers was investigated in a systematic and objective manner with the use of the AAAP. The present study used the AAAP in an examination of how the onset and severity of handicap affect developmental issues.

There has been no published study of college handicappers based on an Eriksonian developmental model. No research on the effects of onset and severity of handicap from a developmental perspective has been reported. There is a great need to determine what developmental differences exist between congenital handicappers and those individuals acquiring their handicap at a later time. Another area of concern is differing developmental patterns of handicappers with more severe handicaps and those with less severe handicaps.

Previous efforts at using an Eriksonian framework to understand a person's psychosocial development were heavily dependent on history taking and clinical interviews. The AAAP has met the need of an instrument that measures all the Eriksonian developmental stages. Use of such an assessment

format, allows a handicapper's development to be measured, and this has major implications for the educational, rehabilitative, and psychotherapeutic interventions with handicappers.

Due to the difficulty of objectively measuring a handicapper's emotional and psychosocial development, this aspect usually represents a diminutive portion of the assessment procedures, while cognitive and neurological features dominate the assessment. Such an assessment orientation results in an incomplete and limited evaluation of the individual. If a handicapper's psychological development, in terms of mastery and non-resolution of developmental hurdles is accurately measured, then the subsequent treatment plans can be more adequately designed.

Studies are just beginning to portray handicappers as individuals rather than stereotypes in which there are mass categorizations of "typical" reactions and responses to handicappers. The present study provides a spectrum of possibilities that have heuristic value for implementing innovative research on handicapper developmental issues as well as psychotherapeutic approaches.

Purpose of the Study

The purpose of this study was multi-dimensional. The goal was to examine Eriksonian developmental patterns

of college handicappers by onset and severity of handicap. Such developmental levels would be measured by the Assessment of Adult Adjustment Patterns (AAAP). The first objective was to determine what Eriksonian developmental differences exist between college handicappers with severe handicaps and those with less severe handicaps. A second objective was to compare developmental patterns of college handicappers having a congenital onset for their handicap with those who acquired their handicap after birth. Another objective was to investigate the interaction effect between onset and severity of handicap.

Definitions

Research on handicappers has been complicated by a variety of confusing terms. The World Health Organization (1980) attempted to uniformly classify handicaps, and some of its nomenclature is included in the following categorization of handicaps for this study.

VISUAL

Severe -BLIND - (Legally blind) Vision is less than 20/200 in the better eye with best correction or a visual field of less than 20 degrees. Information is processed by braille and/or auditory format.

Less Severe -PARTIAL SIGHTED - Vision is 20/70 to 20/200 in the better eye with best correction. Information is processed by enlarged print and/or in an auditory format.

HEARING

Severe -DEAF - Profound hearing loss more than 91 dB ISO (International Standards Organization). Even with amplification the main mode of communication includes but not limited to lipreading, sign language, fingerspelling and written format.

Less Severe -HARD OF HEARING - Hearing losses other than profound
--SEVERE (71 - 90 dB) --MODERATE (41 - 70 dB) --MILD (26 - 40 dB), with or without amplification, the perception of conversational speech is decreased but still permits understanding of speech under optimal conditions.

MOBILITY

Severe -POWERED WHEELCHAIR USER - Physical involvement prevents ambulation and functional use of upper extremities, making independent transfer from wheelchair impossible.

Severe -MANUAL WHEELCHAIR USER - Physical involvement prevents ambulation but whose functional use of upper extremities permits independent transfer from wheelchair.

Less Severe -LIMITED MOBILITY HANDICAPPER - Ambulation requires cane (other than white cane) or crutch use.

Research Hypotheses

The hypotheses formulated for this study use the score on the Assessment of Adult Adjustment Patterns (AAAP) for stages 1, 4, 5, and 8 as the dependent measure. The independent variables will be the level of onset and severity of handicap. In this section, the hypotheses are stated in general form to provide the general implications expected from the study. The specific testable hypotheses will be found in Chapter III, Design of the Study.

Hypothesis 1:

Interaction Between Severity and Onset of Handicap

There is an interaction effect between severity and onset of handicap on stages 1, 4, 5, and 8 of the AAAP.

Hypothesis 2:

Onset of Handicap

College congenital handicappers have higher scores on stages 1, 4, 5, and 8 of the AAAP than college acquired handicappers.

Hypothesis 3:

Severity of Handicap

College handicappers with more severe handicaps have higher mean scores on stages 1, 4, 5, and 8 of the AAAP than college handicappers with less severe handicaps.

Theory

The theoretical assumptions underlying the study that are discussed in this section are the following: (1) Eriksonian Developmental Perspective; (2) Severe vs Less Severe Handicapper; (3) Congential vs Acquired Handicappers; and (4) Overview.

Eriksonian Developmental Perspective

It should be noted that Erik Erikson did not write about the development of handicappers and never made any

references to handicappers in his writings. However, his theory of development presents concepts that can help researchers understand the psychosocial patterns of the handicapper. Research in the past has predominantly presented the handicapper as a deviant. Rather than perceive the handicapper as a pawn on the chessboard of physical fate, the Eriksonian developmental perspective provides the opportunity to see each handicapper as a person. Within this framework, handicappers not only play an active role in their development but also grow as a result of their interactions with their physical and social environments.

Erik Erikson's (1963) epigenetic theory of ego development spans the human life cycle from birth to old age. He brought Freud's psychoanalytic theory out of the realm of the family to a wider milieu of the social world where children interact with peers, teachers, and cultural expectations. If the child is the parent of the adult, then to really understand a person one needs to understand how that individual developed. Erikson formulated personality development as stages of crucial life problems. He described what issues were important and showed how issues in one stage would have an effect on the resolution of the problems in the next stages of development. The eight stages of ego development as postulated by Erikson will be explored as they affect a handicapper's psychosocial development.

I. Trust vs. Mistrust (Hope) Age 0 - 1½ years

The degree to which children learn to trust the world, other people, and themselves depends to a great extent upon the quality of care they receive. If they are fed when hungry, changed when wet, cuddled, fondled, played with, and talked to, they develop a sense of the world as a secure and safe place. As Gliedman & Roth (1980) indicate, children usually trust their mothers because their mothers trust themselves, but so often parents of handicapper children lack a positive cultural framework from which to draw. Sawisch (1978) studied prejudices and stigmatizations of prospective parents toward having a handicapper child and found that all children of different handicaps were negatively valued relative to an able-bodied child. The initial reaction of having a handicapper child often plunges parents into a potential conflict. For many parents, their dreams about the child now seem dreadful and dismal. There is a need for the parents to mourn the loss of their expected, normal child. Tsiantis (1982) comments that a handicapper child can be a blow to the narcissistic needs of a mother and father and to their self-image as good parents. Besides the emotional trauma, parents are often filled with guilt, sadness, and uncomfortableness because of not knowing how to "properly" respond to their "special" child. As Barsh indicates,

"no parents are ever prepared to be the parent of a handicapper child."[2]

Parents are usually able to convey their feelings and knowledge to their children, but when a deaf child enters the family circle, such parents are suddenly not even able to "talk" to their child. Infants soon respond and anticipate a mother's voice or the sound of her steps. For the deaf child who is totally dependent on visual and tactile information, Kennedy (1973) says it takes longer to learn these anticipatory signs. The music of a toy mobile over the crib, a mother's assuring voice and her approaching footsteps all go unheard. The security of lying awake listening to the safe environment of your parents in the kitchen or living room, brothers and sisters playing in their rooms is denied to a deaf child. For a blind child, the unseen world can be frightening. The perception of one's environment and the desire to explore can be curtailed if only auditory and tactile interaction are available. The trust that a child begins to develop allowing the mother to be out of sight for a short time is difficult for a deaf child. The deaf baby in a dark room is completely isolated except for touch. Similarly for blind children, it takes a great deal of trust to let their

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[2]Barsh, R.H., The Parent of the Handicapped Child. (Springfield, Illinois: Charles C. Thomas, 1968) p. 9.

mother be "out of touch and sound." The establishment of a stable and consistent mental representation of the caretaker may be difficult for a blind infant.

Predictability and familiarity of people and objects in the environment of the child foreshadow the feelings of hope and trust in the world and oneself. With consistent and regular satisfaction of needs, a child comes to trust the environment and becomes open to new experiences. If the world is perceived and felt to be hostile and capricious, one's willingness to try things on one's own becomes limited and, as a result, mistrust develops. How predictable the world will be for the handicapper child will depend on how attuned the parents have been in conveying predictability to the child.

If the parents are able to instill in their handicapper child that although the child's body or senses may be different, his or her feelings are not, then the child has a positive direction in life. Handicapper children will generally regard their handicap in the same way their parents perceive them. If their parents see the children as helpless, the children often fulfill their parent's prophecy. Even siblings can influence dramatically the handicapper's world. Batshaw and Perret (1981) describe brothers and sisters of a handicapper child as having a multitude of different emotional responses. Their reactions

range from relief that they themselves are not handicappers, which usually results in guilt, to resentment of the time their handicapper brother takes. All these influences and feelings lead to an emotional milieu that causes the handicapper either to hopefully trust in the environment or to perceive the world as frightening.

II. Autonomy vs. Shame and Doubt (Will) Age 1½ - 3 years

During this second stage of life, a child learns what is expected, what obligations and privileges exist, and what limits there are. Such experiences prompt decision making, allow choices, and permit children to metaphorically "stand on their own feet." For the orthopedically involved child, such a metaphor can become a rough reality. Such a child can have difficulties simply standing up and moving around on one's own volition. Erikson (1982) points out that walking provides a conviction that one is learning competent steps toward a productive future and acquiring an identity on the way. Handicappers find many stumbling blocks ahead of them. These barriers do not have as much to do with visual limitations, inability to hear, or even the physical limitations of crawling or ambulating as with the parent's overprotectiveness. As Meadow (1982) indicated, parents who are unsure about their handicapper child's ability to be autonomous vacillate between giving too much and too little independence.

Many experiences are not available to a handicapper child. In the instance of a deaf child, explanations about why an activity should cease are not often made. Lacking a medium to communicate with a deaf child, an adult acts in ways that are frequently not understood and the child must obey for no apparent reason. As Litoff and Feldman (1982) indicated, it can be a doubtful world for a deaf child, for there is no sound and people move about in response to auditory cues that cannot be perceived by the child. Many events, such as finding oneself in a car filled with suitcases enroute to an unknown destination or not being told what is planned or what is going to happen, frequently occur because deaf children live in homes where people are unable to communicate with them.

Hearing people use language to channel their impulses when they are angry, often muttering or calling out expletives. Linguistic limitations may delay the expression of appropriate feelings. The deaf or cerebral palsied children who are not able to communicate verbally their frustrations often resort to socially unacceptable physical means to express their frustrations. To not know for sure the physical position of the person who is bothering a blind person adds insult to injury for the visual handicapper. Even after verbal retaliation, the satisfaction of seeing the reaction on the opponent's face due to one's remarks

is not possible. Handicapper children are often "picked up and placed," paralleling the predicament of a pampered pet that is fed, played with, and trained rather than raised and educated by their family. Such parental actions sometimes create a sense of powerlessness in the handicapper child. The critical issue centers on when protection develops into overprotection. Overprotection, while initiated with the best intentions, is antithetical to the development of self-esteem and creates only shame and doubt for the handicapper. Schlesinger and Meadow (1972) found that parents of deaf children often felt a strong need for more constant supervision of their deaf preschoolers because of their fear of accidents.

Some handicaps, such as loss of vision or limb, or reduced energy and movement due to a chronic disease, may give handicapper children an exaggerated sense of powerlessness. What follows can be a shaming and hatred for oneself. During this stage, oppositional behavior as it resists external influences, be they parents or siblings, permits the formation of a more powerful self-concept. The capacity to say "No" and do what they want allows these children to develop inner controls and nourish feelings of separateness and independence. Some handicappers' parents may not facilitate such autonomy due to a fear that such children may be hurt. Hyde, Power, and Elias (1980) described

mothers who found it difficult to communicate reciprocally with their language-limited children and, instead, resorted to controlling the relationship rather than encouraging autonomy of expression.

III. Initiative vs. Guilt (Purpose) Age 3 - 5 years

After resolving the crises of autonomy and possessing a feeling that you are your own person, the crucial question becomes what you can do on your own. Children of four or five years of age are generally masters of their own bodies and can initiate motor activities. Children who are given freedom and encouragement to initiate motor play, and whose relentless questions are answered, will have their initiative reinforced. For those handicapper children not ambulating, whose mobility is not yet sophisticated enough to use crutches or a wheelchair, their capacity to go where they wish is quite limited. Often a handicapper child wanting to share obligations is not permitted to do so. As Mattson (1972) has indicated, parents who are guilt-laden and highly anxious about their handicapper child tend to cope with their emotional distress by overprotecting, pampering, and limiting the activities of the handicapper.

At this age period, there is usually an anticipation of roles and ideal models. For handicapper children, few role models exist. Not being able to participate and

perform activities like others, the handicapper child may have feelings of differentness or specialness. The wish to do things on their own is often thwarted by their parents for fear that they will get hurt. Instead of beginning to gain some identity as handicappers, the children are told in many ways that they are acceptable and worthwhile as individuals only if they learn to behave and act like able-bodied persons. Parents convey non-acceptance of their child's identity as a handicapper by many unconscious actions such as removing hearing aids or crutches when the child is being photographed. Many handicapper children internalize the feelings that to acknowledge their handicap is to accept an inferior role that will disappoint the significant adults in their lives. With a lack of opportunities to develop a social sense and feelings for others, rejection and the experience of guilt can delay empathy, conscience, and the capacity for handling power and strength.

Difficulties in identification and self-image often result in the handicapper's efforts to dominate the environment or be dominated by it. Coping mechanisms to deal with the environment sometimes manifest themselves as efforts to control the environment by aggression or manipulation of others or as resignation to being controlled by the environment through withdrawal. It should

also be remembered that many deaf and blind children attend residential schools where the development of independence and initiative is generally not encouraged due to the need for conforming behavior in an institutional setting. Rules that are made for the greater good of the group many times stifle individual initiative.

IV. Industry vs. Inferiority (Competence) Age 5 - 12 years

A child at this stage usually becomes capable of some deductive reasoning, learning to play by the rules, and taking an interest in making things. Children actually win recognition by producing things. The motto for this stage becomes "I am what I do." In efforts to win such recognition, competency becomes the outcome. For Erikson, competency was described as the "free exercise of dexterity and intelligence in the completion of tasks, unimpaired by infantile inferiority."[3] Such completion of tasks occurs in comparison with others. The handicapper child's milieu of comparisons extends outside the family to the school and neighborhood. Mobility handicappers become increasingly cognizant of what peers can do physically and what they do more slowly or not at all. Eleven-year-old deaf children with significant language delays are doing well if

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[3]Erikson, E., Insight and Responsibility. (New York: Norton, 1964). p. 124.

they are reading with good comprehension at their grade level. Such deaf children become acutely aware of some of their inferiority in academic work. Instead of diligence and persistence being developed, feelings of being doomed to mediocrity often are created. Burlingham (1979) keenly describes the feelings of many blind children who are painfully aware of their differences and limitations when comparing themselves to sighted children who can do things faster. This often prompts a philosophy that they must work harder than sighted individuals to accomplish goals. With many options and dreams being diminished, the handicapper can easily acquire a sense of inferiority.

V. Identity vs. Role Confusion (Fidelity) Age 12 - 18 years

During this stage, the major role that parents have played in the past is diminished in light of the impactful role that society will now play in the life of the child. Litt, Cuskey, and Rosenberg (1982) found that adolescent handicappers have more difficulty than able-bodied youths in establishing independence from their families. Initially, there are attempts to prove that one is worthwhile by comparing oneself with others. Everyone wants to be like everyone else. A certain brand of tennis shoes or designer jeans becomes more than a mute point but, rather dramatically fashions an entrance into the "in crowd." It becomes

difficult for mobility handicappers to not wear their non-trademark orthopedic shoes or to discard their "generic" wheelchairs. During this time, deaf adolescents often "forget" their hearing aids because everyone wants to be like everyone else. With the adolescent's exaggerated sensitivity to physical appearance, handicappers feel many pressures. Attempts to identify with peers can be frustrating, for at no other time can peers be so cruel about not accepting anyone who is "different."

More serious relationships with members of the opposite sex begin during this stage. As Cull and Hardy (1973) point out, adolescents are particularly concerned about their bodies in terms of sexuality as well as learning how others view them in their sexual roles. For adolescent handicappers, their handicaps may cause the overlapping of childhood and adulthood to persist years beyond that of usual adolescence. If sex is the integration of physical, emotional, and social needs of the entire person, accessibility to information about sexual matters for handicappers sometimes poses a problem. For deaf handicappers, when only two percent (2%) of parents of deaf children know manual communication, it becomes difficult for these children to talk to their parents about sexuality or societal norms. Many deaf individuals often read at a 4th or 5th grade level. Such a reading level becomes problematic

when instructions on many birth control methods are written at a higher grade level using technical terms not readily understood.

Initially, most children glance unobtrusively at contraceptive products in drug stores and supermarkets. Fortified with acquired confidence and rationalizations for gaining more information, they exchange cursory glances for perusal. If one is blind, such "easy access" is not that easy, and the likelihood of a blind 14 year old asking a clerk in a store for the location of contraceptive devices is remote. If one is a wheelchair user and the contraceptive products are on a high shelf out of reach, there would be a great deal of reticence about asking someone to hand you down several containers of prophylactics or contraceptive foams so that you can discern different qualities and merits of each manufactured product.

Poznanski (1973) comments that parents of able-bodied adolescents often are uncomfortable discussing sexual matters and that adolescents often turn to peers for sounding boards. Handicapper adolescents usually have limited peer relationships. Many parents of handicappers have negative feelings about the expression of their children's feelings and have even more ambivalence about marriage for their children.

Becoming emancipated from one's family presents problems. It is not easy to ride a bike or drive a car

away from your family if you are blind. If you are a teenage wheelchair user, getting a van with a lift or hand controls is not as convenient as just asking for permission to use the family car. Certain popular meeting spots might not even be accessible for wheelchair users. The disappointment of going over to a girlfriend's house and being invited in but realizing it would take a crane to transport your wheelchair over the entrance steps does not lend itself to a positive image of one's handicapper identity.

While teenagers spend hours dreaming and thinking of roles they will play and occupations they hope to enter, many handicappers have disconcerting dreams while crystallizing their vocational goals. For many young able-bodied adolescents, a fantasy period exists where they ignite the flame of fame and recognition which with time loses its luster and brilliance when confronted with the drafty winds of realism. For handicappers, that flame often is dimmed at its inception. In the process of looking for heroes and role models to identify with, handicapper youths must come to terms with the fact that many roles seem closed to them.

An almost accepted fact for handicappers is that employment will be problematic. Choices will be limited (except for the outstanding handicapper student) and

many handicapper adolescents will face the dilemma of being forced to accept work or careers that are far below their potential achievement. For some senior high school students, just being admitted into a particular university will be difficult. For a wheelchair user, being academically accepted into an excellent university may not be as challenging as physically getting into a college building. Accessibility problems for deaf students often exist in obtaining sign language interpreters for their courses. In the context of such experiences, instead of a positive self-identity, role confusion sometimes results.

VI. Intimacy vs. Isolation (Love) Age 18 - 30 years

Intimacy refers to the ability to care about another person without the fear of losing one's identity in the process. The young adult who fails to establish sharing and caring relationships with parents, friends, and marriage partner often develops a sense of isolation. The choice of a partner is the most significant occurrence within this stage. Often choices are limited for the handicapper.

During this time, single people frequent many places to meet prospective mates. From bars to churches, the wheelchair dater finds that many places are inaccessible. Architectural and environmental barriers not only limit

the places a handicapper may go, but also inhibit a person's social interaction by lessening one's opportunities for meeting other individuals and participating in social activities.

In a dark or dimly lighted bar, the deaf single is at a distinct disadvantage while trying to communicate by reading another person's lips. Many times a deaf individual, mainly communicating in sign language, finds that the opportunities for dating another deaf person are quite limited unless the person resides in a larger industrial city where more populous deaf communities generally exist. Due to the different communication modes, dating interactions between a hearing non-signer and a deaf signer become even more infrequent.

The mobility of a blind person in a crowded social gathering might be described as more difficult than debonair. Usually, such movement prompts sympathy rather than a great deal of dating interest. The opportunity to "look over" prospective dates and observe behaviors and mannerisms of others is only available to the blind individual through auditory cues and hearsay of others. The lack of such visual cues in social interactions may result in social awkwardness. Sighted individuals learn the use of appropriate eye contact, facial expression, and body cues visually. Blind individuals must be taught these skills verbally.

Many sexuality concerns deal with self-image, personal adjustment, development of relationships, and anxieties about appropriate behaviors. While both handicapper and non-handicapper persons share these concerns, often people in our society respond to a wheelchair, a white cane, a palsied movement, signing hands, or a hearing aid rather than to the person. The visible aspects of one's physical handicap may directly affect the self-image of a handicapper. If others show repugnance toward their physical characteristics, handicappers may internalize this disgust toward their physical selves. Handicappers may find themselves rejected by potential lovers because they are thought to be different or ugly. Comer and Piliavin (1972) described some of the patterns of interaction between handicappers and able-bodied individuals. Their research revealed that interactions were terminated sooner, less variability in verbal behavior was noted and feelings of being more uncomfortable were reported. Such experiences make it difficult for handicappers to break such stigmatizing barriers. Handicapper author Vash (1981) provides an interesting insight into a possible reason for the difficulty many people have making eye contact with handicappers. She states that as children, we were reprimanded for "staring at cripples."

Images encountered daily in magazines, television,

movies, and other media frequently portray "beautiful people" as being only those who possess physical attractiveness. Certain misconceptions can develop for congenitally blind persons since they are unable to see the many shapes of the human body in various stages of undress. Without such experiences, a blind person may have difficulty in comparing his or her physical appearance to others because of the cultural inhibitions about gaining this information by touch.

Even in the realm of sexual expression, a further barrier to the handicapper may be what is considered acceptable. Frequently, a person with severe physical limitations is unable to "perform" in accordance with society's standards. Zola (1982) provides an excellent analogy for understanding how a handicapper's right to sexual expression is often flaccidly forgotten. He indicates that sexuality is one of the things that diminishes when we are ill and returns upon recovery. Many people still equate being a handicapper with being ill and, therefore, assume that the ability and interest in engaging in sex is similarly impaired. Often, there is a need for the handicapper to reject the myth that one is asexual or unloveable. As Deloach and Greer (1981) point out, there is no proven relationship between type of handicap and potency of one's sex drive.

VII. Generativity vs. Stagnation (Care). Age 30 - 45 years

If generativity is the stage of procreation with a concomitant desire to guide the next generation, then for the handicapper, certain barriers often make such a sense of accomplishment difficult. Handicapper parents bringing up their children sometimes encounter barriers from able-bodied individuals who, with the best intentions, need to advise handicapper parents about raising their children. What this implies is that the handicapper parents are not able to give their children appropriate care. Handicapper parents need to dispel the myth that the occurrence of a handicap in a parent will lead to maladjustment in children. Instead of enjoying the presumption that parents know best, handicapper parents have to prove themselves. Sometimes there are physical concomitants of a handicap that make conception for handicappers difficult, such as spinal cord injuries in males which reduce erection capabilities as well as sperm count.

Despite the fact that many handicappers have prepared themselves well for employment, severe and disillusioning job discrimination awaits them as they enter the work force. Often, handicapper workers find that they are passed over for promotions and precluded from holding supervisory roles. The government, in its largesse, sometimes provides substantial amounts of social security benefits which act as

a disincentive for handicappers to even work. Handicappers can actually be penalized if they find employment since disability payments and medical coverage can be lost. While employed, handicappers are sometimes not given the equal hospitalization benefits because of their handicap. It is easy for stagnation to occur when handicappers stay at, or regress to, an earlier dependent relationship of having others relate to them as victims rather than as individuals who are productive.

VIII. Ego Integrity vs. Despair (Wisdom) Age - Over 45

The final stage in Erikson's categorization corresponds to the period when individuals' major efforts are nearing completion. Adults who have been cared for, and who have cared for others, cannot care for themselves. During this stage, individuals look at their lives with satisfaction, or as a series of missed opportunities. It is undoubtedly true that many handicappers are mature adults and have experienced a full life. There are other handicappers whose lives are filled with emotional deprivation, social loneliness, and psychological frustration. Instead of a sense of integration and wisdom, they are left with regret and loss of meaning. It should be noted that handicappers often deal with changes in their bodies - sometimes even the likelihood of death and the ultimate question of what

life is really about far sooner than the able-bodied. For wheelchair users who were in their early twenties at the time of their accident, they not only have had to deal with whether they would walk again, but with whether they would live. Many handicappers have already had a premature bout with death or have to deal daily with the issue that they may not live long, so the significance of their lives becomes even more meaningful.

Most people, as they age, become uneasy about dealing with wrinkles and with loss of hair, stamina,and agility. Children with spinal cord injuries, before the age of ten, already monitor their bowel program and kidney functions. There is a superimposed requirement for mastery of one's body functions that is not present in the younger able-bodied. Weiner (1979) describes successful aging as the capacity to rely on life experiences and cognitive interests rather than on physical strength. Many handicappers have learned quite precociously that physical prowess was never foremost and really quite ephemeral to begin with.

The synopsis presented in Figure 1.1 is a summary of Erikson's epigenetic developmental model. At each stage, there is a new dimension of social interaction with positive and negative outcomes. In the early stages, the parents are initially responsible for these outcomes, but as the person develops, the classroom and total social

milieu play an increasingly important role in ego development. Erikson believes in a creative ego which thrives on conflict and crisis and which, when thwarted, reacts with renewed efforts instead of giving up. Wright (1960) points out that while a handicap is often perceived as inflicting disruptive and disturbing psychological consequences, opportunities and gratifications may be generated.

Severe vs. Less-Severe Handicapper

There is a tendency to equate severity of handicap with the degree of psychological impact; the greater a person's handicap, the more adjustment is necessary. These generalizations and the logical conclusions often do not occur that a less physically involved handicapper would have fewer frustrations. Handicappers with more pronounced handicaps, such as blind, deaf, and wheelchair users, have found it easier to identify as handicappers than individuals with less involved physical conditions. There is a "marginal" quality of the less severely involved handicapper, who stands on the boundary between "able-bodied" and more physically involved persons. Belonging to neither group, non-severe handicappers often are uncertain of their belongingness.

In the case of handicaps involving hearing losses, hard of hearing individuals have more acute identification problems than deaf individuals because they are neither normal hearing nor deaf, but just "in between." To live

FIGURE 1.1

Summary of Erikson's Epigenetic Model

1. Trust-Mistrust (Hope)
   Age: 0 - 1½

Mutual recognition vs. autistic isolation	Ease of feeding
Capacity for faith	Depth of sleep
Oral incorporative & sadistic	Relaxation of bowel
Assured reliance on parent's integrity	Let mother out of sight
	Rely on sameness, consistency, constancy
	Trust self to cope with bodily urges
	Basic faith in existence, law & order

2. Autonomy-Shame & Doubt (Will)
   Age: 1½ - 3

Willing to be oneself	Control from outside is firmly reassuring
Holding on-letting go	Stand on own feet
	Guidance gradually encourages independent choice

3. Initiative-Guilt (Purpose)
   Age: 3 - 5

Anticipation of roles vs. inhibition	Pleasure in conquest
Motor movement	Self-observation
Language	Self-guidance
Intrusive (phallic) mode	Self-punishment
Rivalry without those there	Sense of responsibility
Conscience (family)	Obedience

4. Industry-Inferiority (Competence)
   Age: 5 - 12

Task identification vs. sense of futility	Win recognition by producing things
Sublimation of drive	Renunciation of wish to live forever in the family
I am what I make work	Apply self to tasks
Identification	Perseverence, diligence
Trust of adults (other than parents)	Submit to instruction
	"What works"

FIGURE 1.1 continued

5. Identity-Confusion (Fidelity)
Age: 12 - 18

	Fidelity tests
Trust in peers	Cliques-heroes
Occupational search	Stereotyping self
Identification without heroes	Ideological mind
Social group pressures	Rituals, creed, programs
Ideological thought	Molding identity

6. Intimacy-Isolation (Love)
Age: 18 - 30

	Fusion with another
Uses of identity	Commitment to affiliation
Genital maturity	Ethical strength to honor commitment
	Orgasmic potency
	Heterosexual mutuality
	Sensitivity of sex organs
	Mutual regulation of work, procreation, recreation

7. Generativity-Stagnation (Care)
Age: 30 - 45

Maturity	Belief in the species
Establishing & guiding next generation	Charity
Productivity & creativity supplements but doesn't replace generativity	

8. Integrity-Despair (Wisdom)
Age: 45+

Order & meaning
Acceptance of one's life cycle
Acceptance of other's significant to it versus disgust, regret
"I am what survives of we"
Accrued assurance of order & meaning
Love of the "human ego"
Defend dignity of one's own life cycle
Consolidation of meaning
Acceptance of death

* Prepared by Fredrick R. Wilson and William W. Farquhar, 1977

in a psychological "twilight zone" can be quite stressful. Often , hard of hearing individuals are not really accepted and understood by hearing people and even find their involvement in the deaf community difficult. Sometimes hard of hearing persons learn sign language to relate as deaf persons to find a consistent handicapper identity. What many hard of hearing individuals discover is that the deaf community is somewhat suspicious of hard of hearing persons who enter the deaf clubs. Perhaps a certain level of jealousy is present, and there even exists a pejorative sign in manual language that labels a hard of hearing individual as deaf but as one who really "thinks like a hearing person." In contrast, the deaf individual is quickly incorporated into the deaf community.

Parents of a hard of hearing child prolong their desire for their child to function like a normal hearing child much longer than do parents of a deaf child. People's expectations of what a deaf person can do and cannot do are more clear and consistent than their expectations for a hard of hearing individual. In communicating with a deaf person, one needs to make sure the message is visually conveyed. For the hard of hearing individual, the level of auditory functioning is ambiguous. Many people believe that a hearing aid restores hearing just by amplifying sounds. Unfortunately, a distorted sound is still

distorted even if it is amplified. The hard of hearing handicapper often is expected to hear words and noises that a deaf person is, of course, not expected to hear.

Able-bodied individuals have an ambiguity with regard to the capabilities of a cane user or a handicapper who uses crutches. The cane user who can negotiate steps while holding onto the rail is perceived as "almost" ambulatory. Expectations for getting around, doing things, and carrying items are much greater for the individual with limited mobility than they are for the wheelchair user. The incidences of disappointing the anticipations of others are diminished for wheelchair users, whose efforts to get around and accomplish tasks elicit awe and admiration from others. Glick (1953), in his work with cerebral palsied adults, found that those who were mildly physically involved showed poorer emotional adjustment patterns than those who were more severely involved.

Partial sighted handicappers often find themselves in a visual quandary - not being totally sighted or totally blind. Because they see something and move around, as blind individuals cannot, there is often a pressure to perform like sighted persons because they are not blind. Feinman (1979) found that people held higher expectations for partially sighted individuals than for blind handicappers. In a situation such as crossing a street, partial

sighted individuals may need just as much help as blind individuals, but requests for assistance often are met with negative reactions. Falvo, Allen and Maki (1982) describe ways in which physically involved handicappers are subject to comments such as, "She really could do more if she wanted to" or "He looks healthy enough to me." Such reactions discourage less severely involved handicappers from really dealing with the dimensions of their handicaps. Continued negative feedback from people can result in the handicapper regressively withdrawing from experiences to avoid criticism. Ash, Keegan and Greenough (1978) found that blind individuals adjusted better than did partial sighted individuals who persisted in attempting to live up to people's expectations by functioning as if they were sighted.

The capacity for denial is far greater for less severely involved handicappers. Saflios-Rothschild (1970) indicates that they procrastinate in changing their body images and self-concepts, plunging them into more depression than those who are severely involved and cannot so easily fool the world and themselves. Wright (1969) also elaborated on the fact that often a severely involved handicapper has little recourse but to grapple with the identification of being a handicapper. A person with a mild handicap is "almost" able-bodied and has a tendency

to deny and thwart the adjustment process. More severely involved handicappers, because of their physical limitations, have had to learn to trust others more because of their needs. This need for trusting might be from birth, if the onset of the handicap is congenital, or later in life at the time a handicapper acquires the handicap. There are parallels in vulnerability and the great need to trust others for care, as in the instance of a severely involved infant with cerebral palsy who is not able to move her extremities, and in the case of a twenty-eight-year-old professional football player paralyzed from the neck down. Severely involved handicappers require more perseverance and diligence to make things work, and this helps them establish their identity as handicappers, giving more meaning to their lives.

Congenital vs. Acquired Handicapper

Many congenital handicappers do not need to make many of the adjustments that are required of handicappers who acquire their handicap later in life. Since they have learned from birth to incorporate their handicap, no change in their body image from that of an able-bodied individual to handicapper is necessary. Acquired handicappers need to make such adjustments, which sometimes takes months or years, or unfortunately, never occur.

Congenital handicappers are more easily able to gain consistent responses from parents and siblings, rather than have their parents perception of them change from that of an able-bodied child to that of a handicapper. As Steinhauer, Mushin, and Rae-Grant (1980) point out, the family that has a congenital handicapper has never experienced the child as "normal." As a result of the child's handicap, the family's expectations have initially been altered. If the family has lived with and perceived its child as normal and then such a child becomes a handicapper, there is an even greater sense of loss and depression because the family is forced to scale down its hopes and expectations. The "sick role" is less apt to be maintained by parents who say of their congenital handicapper: "That's how he was born and he always has been like that!" rather than "That's how she became and what a shame!" The latter saying might be more expressive of parents of an acquired handicapper.

For the congenital handicapper, denial is not so easy and the handicap is not such an insidious condition but rather something one has learned to grow with. Children with congenital handicaps must begin at an early age to deal with their differences from others. In contrast to the acquired handicapper, the congenital handicapper does not have to cope with an alteration of the self, and

the plasticity of children is a far greater asset than the refractory quality of an adult's capacity to accommodate and adjust to change. Stewart and Rossier (1978) point out that for the congenital handicapper, normal functioning as the basis for comparison with their handicapper status is absent, as is the concomitant grieving for what "was" is not an issue.

While it might be easier for someone to acquire speech if they lost their hearing later in life, Boyd and Young (1981) mention that individuals who never had hearing do not need to make vocational changes to accommodate their hearing loss. Acquired handicappers who have heard in the past possess a greater proclivity for denial, anxiety reactions, and depression in their communication efforts than do congenital handicappers who have little or no awareness of what it means to hear. Congenitally deaf individuals, who have never experienced the sensation of hearing, do not mourn the loss in the way acquired deaf persons do because there is not a negative point of comparison.

For the congenital handicapper who has always limped, such a reality is easier to accept than having known and experienced a normal gait. A new handicap places the individual in a situation in which there is a need for a radical revision of self-concept. As Lindeman (1981)

describes, the new wheelchair user possesses a new image that is incompatible with a prior image. At the same time, the new handicapper status requires the individual to subscribe to qualities that were not valued positively in the past. While the functional differences between an acquired and congenital wheelchair user can be minimal in aspects of mobility, the psychological differences can be dramatic.

The acquired wheelchair user can maintain an adamant conviction that ambulation will be possible again. It becomes tempting to postpone any adjustment in the hope that there will be a physical restoration. The wish that some medical operation or scientific breakthrough will cure the condition can persist for a lifetime. Parents can reinforce such magical thinking to palliate their own resentment and disappointments. While such resistance to accepting a child's handicap can be found in parents, for the congenital handicapper the likelihood of waiting for a cure is not as great. Handicappers from birth are not as easily influenced by their parent's curative ponderings and not as likely to hope and hang on to something they have never experienced.

From a mobility point of view, congenitally blind individuals have more difficulty orienting themselves than do acquired blind persons who retain the ability to perceive the environment based on visual terms and

memory. From a psychological perspective, individuals who have lost their sight may require more intervention due to depression over the loss and the need to deal with realistic hopes that their sight will return. Lukoff and Whiteman (1972), in their case studies, found that individuals who lost their sight earlier were more socially independent. Their rationale was that the less a blind individual depended on vision prior to the loss, the less resistance there was to overcome. Carver and Rodda (1978) compared congenital with acquired blind handicappers. The acquired blind individuals oriented their activities within a nostalgic visual world and attempted to continuously reconstruct a visual picture, whereas the congenitally blind persons, who never had sight, found the world of ideas and relationships sufficient.

Specific Stages Under Study - A Rationale

It was posited that severe and congenital college handicappers would have higher scores on the Assessment of Adult Adjustment Patterns (AAAP) than would less-severe and acquired college handicappers. The most pronounced differences would be in these stages of the Eriksonian developmental sequence: 1 - Trust vs. Mistrust, 4 - Industry vs. Inferiority, 5 - Identity vs Role confusion, and 8 - Integrity vs. Despair. The

other stages, 2 - Autonomy vs. Shame, 3 - Initiative vs. Guilt, 6 - Intimacy vs. Isolation, and 7 - Generativity vs. Stagnation are more sensitive to environmental factors which affect the expression or instrumentation of carrying out the goals of these stages than the first four stages mentioned.

During the first stage of Trust vs. Mistrust (age 0 - 1½), the more severely involved the handicappers are, the greater the need to trust their caregivers. The physical limitations of such individuals make it necessary that they trust other people for their extensive and involved care. The need to trust others for physical needs is not as great for less physically involved individuals. Blind children must depend more on their parents than partial sighted children do because of their significantly reduced vision. Deaf children are required to concentrate intensely on visual cues from other people. Such children need to focus on and trust the reactions of their parents more than do the hard of hearing youngsters, who can rely on their partial hearing. Hard of hearing children do not need to trust the reactions of others as much as deaf children do. Caretaking is often more intensive for wheelchair users than for cane or crutch users. Increased need for assistance creates a need for a greater trust in others. Congenital handicappers must depend on and trust

many people much sooner than those who acquire a handicap later in life. Paralleling this earlier need to trust others is the development of a greater trust in themselves.

The fourth stage, Industry vs. Inferiority (age 5 - 12), provides the framework within which individuals arrive at a sense of competence. Severely involved individuals, more than less physically involved handicappers, must work harder and persevere longer to reach their goals. Severe handicappers may believe that to overcome their great physical handicaps, they need to offset such limitations with even greater achievements. Partial sighted and hard of hearing children are not so dramatically confronted with their physical limitations. Often such individuals do not see the need for compensatory behavior to counterbalance their handicaps. More severely involved handicappers, with their limited physical capabilities, need to apply themselves to tasks with fervor. In contrast, the less physically involved handicappers can almost "pass" as able-bodied. Congenital handicappers learn early that through industry and exertion they can compensate for their significant physical limitations.

Identity vs. Role confusion (age 12 - 18), the fifth stage of Erikson's developmental model, sets the scene for describing how individuals mold their identities.

Severely involved handicappers are more inclined to accept early their handicapper identity than are less physically involved handicappers. A major explanation for this earlier acceptance is that a more severe handicap cannot be hidden from others. The tendency to idolize "normality" and eschew handicapper identity is greater for less physically involved handicappers than for more severely involved individuals.

Partial sighted and hard of hearing individuals often attempt to fit in with able-bodied persons, not necessarily eliciting an identification as handicappers. Their situation contrasts distinctly with blind persons and wheelchair users who are immediately identified as handicappers. Intense identity confusion often is experienced by those less severely involved handicappers, who may feel they belong neither to the handicapper nor the able-bodied world. For example, partial sighted individuals may not identify with either the blind or the sighted identity groups. Hard of hearing individuals belong neither to the deaf community nor to the hearing world. It is easier for individuals with severely involved handicaps to find cohesive handicapper support groups than it is for less physically involved handicappers.

Identity as a handicapper is accepted more easily by congenital handicappers than by acquired handicappers.

While temporarily able-bodied individuals are immersed in a global consciousness of being similar to everyone, congenital handicappers have been acutely aware almost from the start that they are different. Handicappers from birth know that their identity comes from what they "have" rather than from the limitation of their physical condition. In contrast to acquired handicappers, individuals with congenital onset do not have to incorporate changes into their body image since they have tailored their identity according to their handicapper status.

The eighth stage, Integrity vs. Despair (age 45+) is a time that solidifies one's acceptance of the order and meaning of life. The Latin derivation for the word "integrity" means completeness. Such an etymological background provides an insight into the fact that "complete" handicappers or severely involved handicappers have an easier time than "incomplete" handicappers or less involved handicappers in arriving at a sense of integrity. Some severe handicaps can require more physically involved handicappers to deal with the issue of death quite early in their lives. Due to the medical complications that created their handicaps or to the concomitant residuals of the handicaps, many wheelchair users have experienced physical conditions that were life threatening.

Severely involved handicappers who have experienced a precarious medical condition, with the possibility of

imminent death, often have dealt with life's meaning sooner than less physically involved handicappers. The diminished physical capabilities that severely involved handicappers experience often result in less value being placed on physical traits. With aging and the loss of physical prowess and stamina, severely involved handicappers are more prepared to accept changes than are less physically involved individuals. The transition from what they are physically to who they are personally is easier for severe handicappers than for those less physically involved because the physical realm of their lives has never been critical. Many congenital handicappers, during their early experience of living with a handicap, have precociously pursued the real meaning in life. Often, handicappers who acquired their handicap in their teenage years have a strong proclivity toward living in the past days of "able-bodiedness," not realizing the integrity of their lives as handicappers.

As previously mentioned, stages 2, 3, 6, and 7 of the Eriksonian model are most sensitive to limitations imposed by the environment relative to handicappers' ability to carry out the stages' developmental goals. The successful outcome of the second stage, Autonomy vs. Shame (age 1½ - 3), may be limited in its expression because of the handicap's physical constraints. The

issues of wanting to be oneself and wishing to be independent may be developed but the physical limitations may inhibit expression of those traits. Deaf children may have developed psychological autonomy and want to express their wishes, but be unable to convey them to others because of limited language skills or the absence of an environment that can communicate with them. While the expression of autonomy might be curtailed, the desire for autonomy is not squelched. The desire to go where one pleases may be present but the ability to use a wheelchair or crutches for mobility may not exist at this developmental stage.

During the third stage, Initiative vs. Guilt (age 3 - 5), the desire of handicappers to initiate behavior may be well developed but the expression of such desires may be significantly limited by environmental factors. If few people can communicate with deaf children, including parents, then the child's taking the initiative to express needs is difficult and sometimes futile. Instead of the deaf child initiating communication, a passive disposition is taken and someone else communicates for the deaf child. Once again, the desire to take the initiative may not be affected but the opportunities are environmentally limited. An architectural environment so hostile that handicappers cannot enter buildings in their wheelchairs, and other

people are needed to assist or carry them into the entrance, stifles the expression of initiative but does not take away the desire for initiative. Once the environment includes graded entrances and elevators, the barriers against expressing initiative are removed for wheelchair users. At a time when handicappers wish to share obligations and do things on their own, the environment can be so antagonistic as to deny wheelchair users the initiative of independently using the restroom simply because the narrowness of a door prevents wheelchair access.

The sixth stage, Intimacy vs. Isolation (age 18 - 30), sets the framework for the adult to take an active interest in establishing intimate relationships and making commitments. Many handicappers have difficulty developing sharing and caring relationships with members of the opposite sex. Architectural barriers often preclude wheelchair users from frequenting places where meeting and dating take place. The inability to drive a car may significantly limit social interactions of blind persons and force them to greatly depend on public transportation. There may be a desire for socialization but the expression of this desire may not be possible within the constraints of a prohibitive environment. The likelihood is remote that a young deaf man will start a conversation with a speaking young woman, if he communicates only in sign language. Some of the

examples given deal with frustrations on the part of handicappers that are not related to lack of competence, but to the curtailment of expression by environmental factors.

During the seventh stage, Generativity vs. Stagnation (age 30 - 45), individuals with maturity take an interest in establishing and guiding the next generation. The cultural framework for handicappers raising children has not been conducive to a positive orientation. People often react to handicappers contemplating raising a family with more reservation than elation. The negative concerns range from how deaf parents will be able to hear their child crying, to how blind caregivers will be able to look after a toddler, to how wheelchair users can take their child out of a crib.

Financial limitations may prohibit raising a family given the societal constraints handicappers have as a result of being underemployed. Advancement in employment is most arduous because of a prejudicial presumption that handicappers should not be in supervisory roles or be promoted to administrative levels. A plethora of presumed problems emerge: How will a deaf individual talk over the phone; how can a blind employer review the flow of paperwork in an administrative position. Unfortunately, negative stereotypes of handicappers replace the objective assessment of abilities. Most of the problems in desiring

to be productive and promote the next generation deal not with a lack of abilities, but rather with environmental barriers that preclude the realization of goals.

Review of the First Chapter

Erik Erikson's developmental model with its eight stages provides the theoretical framework to understand the handicapper developmental experience. The Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson, Azar, 1982) presents a format to measure the resolution of important psychosocial life stages. The effects of onset and severity of handicap on the development of a handicapper can be significant. Congential handicappers have grown up incorporating their handicap into their identity. For the acquired handicapper, there is a radical alteration of body image. As Russell (1981) indicates, acquired handicappers are presented with a crisis calling for adjustment in their psychological and behavioral functioning. These adjustments may include changes in how one physically gets around - in the case of a wheelchair user or blind handicappers - or in how one interacts with others in a sound oriented world, if one is a deaf person.

Handicappers from birth usually receive more consistent responses to being handicappers than do acquired

handicappers, who often are the confused recipients of inconsistent responses from people who knew them before the handicap. It is easier for acquired handicappers to wait for a "cure" that will restore their able-bodiedness than it is for congenital handicappers who never experienced what a cured existence felt like. Denial of one's handicapper identity is much greater for a person acquiring a handicap than for one who was born a handicapper. Acquired handicappers may feel more at a distinct disadvantage and harbor deep feelings of inferiority because they have experienced being able-bodied. Since parents have experienced their acquired handicapper as "able-bodied," there is a tendency to maintain the dream that their child will change back to normal. Such parental wishing postpones the adjustment process of an acquired handicapper.

Severely involved handicappers such as blind, deaf, and wheelchair users usually find it easier to identify as handicappers than do the less physically involved handicappers such as partial sighted, hard of hearing, crutch users, and cane users. Less physically involved handicappers who are just marginally involved find themselves in a psychological "twilight zone," not belonging to the world of the able-bodied or that of the handicappers. For severely involved handicappers, the requirements for adjustment are more pronounced and do not easily permit

deception on the part of the handicappers or the people and environment around them. Adjustment is easier for more severe than for less severe handicappers because lower expectations of others reduce their anxiety and stress. Without constantly having to live up to someone's expectations, severely involved handicappers have more energy available to accomplish activities. Less severe handicappers often have higher expectations set for them by others, requiring them to expend a great deal of energy living up to these performance requirements of others. Worrying so much about whether they will gain acceptance from others diminishes their capacity to think and feel as they wish.

Both congenital and severely involved handicappers are required to trust and depend on people more than acquired and less severe handicappers are. In the case of the congenital handicapper, this trust developed right from birth. Without such trust, the handicapper would have difficulty surviving. If the severely involved do not trust in the help and responsiveness of others, their level of functioning can be greatly diminished. The industry of working toward a sense of competence is quite pronounced for congenital handicappers and severely involved individuals who, as Hughes (1976) indicated, must find their outlet in achievement. While excelling

in sports may be limited and social events may be curtailed, a sense of success is found in other realms. Handicappers with severe physical conditions, and individuals who have their handicaps at birth, have an easier time establishing a handicapper identity. Congenital and severely involved handicappers often deal sooner and more realistically with the verities of life than do the acquired and not so severely involved handicappers.

It was posited that the most pronounced differences in scores on the AAAP between severe and less severe handicappers and similarly between congenital and acquired handicappers would be found in the Eriksonian stages: 1 - Trust vs. Mistrust; 4 - Industry vs. Inferiority; 5 - Identity vs. Role Confusion; and 8 - Integrity vs. Despair. The other stages: 2 - Autonomy vs. Shame; 3 - Initiative vs. Guilt; 6 - Intimacy vs. Isolation; and 7 - Generativity vs. Stagnation are more sensitive to environmental factors which affect the expression or instrumentation of carrying out the goals of these stages than the first four stages mentioned.

Overview of Remaining Chapters

In Chapter II, a review of studies providing a theoretical understanding of the handicapper experience

within the context of an Eriksonian perspective is conducted. Then the pertinent literature relating to the effects of severity and onset of handicap is discussed.

In Chapter III, a description of the sample is given. Procedures for conducting the study are discussed. Information on the instrumentation is provided. The design of the study is described. Hypotheses will be restated in testable form. Lastly, procedures for data analysis are presented.

In Chapter IV, the results of the analysis of data are discussed. Firstly, the preliminary analyses are presented. Secondly, the result of the primary analyses are reported. Each hypothesis is stated, the result of the analysis is given, followed by a statement of rejection or acceptance of the hypothesis. Lastly, exploratory analyses are presented.

In Chapter V, a summary of the study is given, followed by a description of the conclusions, and a discussion of the findings. Implications for further research are presented.

Major Limitation of the Present Study

The focus of the present study was on college handicappers' patterns of psychosocial development. This type of study certainly would have had more far reaching

implications if it had been designed as a longitudinal study. Within the time constraints of a dissertation study, an analysis of the same group of handicappers from college to late adulthood would not be feasible. Therefore, the present study should be perceived as a pilot study prompting longitudinal studies in the future.

CHAPTER II

REVIEW OF THE LITERATURE

In an extensive review of the literature in such disciplines as psychology, education, sociology, medicine, and rehabilitation, a paucity of research was found on the developmental patterns of handicappers. Even less material was discovered on the effects of severity and onset on handicapper development. Within such a framework, the following review is being presented. The objectives of this review are the following: (1) to review the research on developmental studies on handicappers from an Eriksonian perspective; (2) to describe the findings of major studies that have compared congenital and acquired handicappers; (3) to examine previous research on differences between severe and less severe handicappers; and (4) to summarize the above findings.

Handicapper Development - An Eriksonian Perspective

Presently, no research studies exist which provide a developmental study of handicappers from an Eriksonian perspective. There have been four theoretical

conceptualizations (Schlesinger and Meadow, 1972; Kennedy, 1973; Meadow, 1982; Litoff and Feldman, 1982) from an Eriksonian perspective, which presented the psychosocial development of deaf individuals. Of these four articles, only Kennedy (1973) covered all eight stages of Erikson's developmental theory. The other three articles (Schlesinger and Meadow, 1972; Meadow, 1982; Litoff and Feldman, 1982) treated only three to five of the developmental stages. Only Gliedman and Roth (1980) and Eisenberg, Sutkin, and Jansen (1984) discuss handicappers in general from the Eriksonian model for all eight stages. Unfortunately, none of these six articles was based on research or case studies, but rather, were theoretical elaborations. These theoretical papers did not discuss the effect of onset or severity of handicap on developmental patterns of handicappers.

Congenital vs. Acquired Handicapper Studies

Before World War II, many comments and studies about congenital and acquired conditions reflected a heavy influence from psychoanalytic thought. English (1977) comments that for psychoanalytic theories, a handicap had an adverse effect on personality especially if it occurred at birth. Such congenital "victims" most likely would be immature and passive-aggressive types.

Gliedman and Roth (1980) point out that psychoanalysts were never at a loss to apply labels to the psychological behaviors of a handicapper. Such clinicians could easily assign any one of the thirty-nine (39) currently recognized defense mechanisms to the individual's reactions to living with a handicap. For many years, psychoanalytic thought permeated the literature dealing with psychological reactions and responses to being a handicapper. A congenital handicap was perceived as creating diffuse personality disturbances. In contrast, it was thought that acquired handicaps created more acute disturbances and individuals becoming handicappers after school age would not experience any substantial changes in personality.

A typical psychoanalytic treatment of congenital and acquired conditions is represented by an article of some twenty-five pages in which Blank (1957) discussed blindness and the unconscious significance of the eye as a hostile destructive organ equating the eye with a piercing phallus and devouring mouth. His study covered four clinical cases. Blank concluded that blindness would not be as traumatic at age nine or ten as at age five or thirteen based on the phases of psychosexual development. Many of these studies were expansive in their esoteric expressions and unrefined in research methodology.

In the late 1930's, Springer (1938) conducted a

study of 397 deaf children and 327 hearing children with a mean age of sixteen (16) and twelve (12) years old, respectively, for the two groups. He used the Brown Personality Inventory for Children which consisted of eighty questions requiring Yes or No responses. He did indicate that some of the language problems of the deaf warranted that the test be given only to older deaf students but failed to mention how many were not administered the test. Even with these considerations, Springer did not seem to take into account that most deaf individuals at 16 years of age have a reading comprehension of approximately a fourth grade level. Many of the questions in the Brown Personality Inventory have idiomatic formulations such as "Have you been told at home that children should be seen and not heard?" which would have been far beyond a fourth grade reading comprehension. The formulation of such questions places a deaf respondent at a distinct disadvantage. Compounding comprehension problems was the fact that more than ninety per cent of the subjects had foreign-born parents, which meant that English may not have been the child's first language.

Springer's study did have information on the age of onset of deafness. The contingency correlations between onset and the Brown neurotic score were .13 for deaf boys and .39 for deaf girls. He noted a tendency

for girls who became deaf at a later age to get higher neurotic scores, but realized such correlations were not high and must be interpreted with caution. Other areas of caution centered on the correlations between the neurotic score on the Brown Inventory and the intelligence scores on the Goodenough Drawing of A Man Intelligence Test, which ranged from .011 to .046. Such correlations proved to be quite low and highly unreliable. Unfortunately, the methodological problems, combined with the rudimentary nature of statistical analysis and psychometric measurement, made most results inconclusive and questionable. While effect on onset of a handicap was something mentioned in Springer's study, its treatment was not a major focus and had only a peripheral dimension.

Several years later, Joffe and Bast (1978) assessed the responses of 101 blind men to the California Psychological Inventory. They found that individuals who adjusted to their blindness had greater cognitive and intellectual articulation, reduced rigidity, and flexible regulation of affect and impulse. Few significant differences were found between congenital and acquired blind individuals. The authors of the study admit that multiple regression would have been the best technique to determine the relative importance of coping and defense mechanisms of handicappers. However, the small number of subjects and

the large number of independent variables made regression analysis impractical and t-tests were used. Unfortunately, for a study in which the subjects were well chosen and methodology was adequate, the dependent variable on a psychometric instrument was not sensitive enough to differentiate developmental patterns.

Severe vs. Less-Severe Handicapper Studies

One of the earliest studies attempting to investigate the psychosocial development of handicappers was by Kammerer (1940), who compared fifty (50) hospitalized children with osteomyelitis. The mean age of the children was 13.3. The Stanford-Binet Intelligence Test, Rogers' Test of Personality Adjustment, and the Vineland Social Maturity Scale were administered. Interviews with children and parents as well as observation of the children were conducted. The rank order correlation between ratings for severity of handicap and for adjustment was .51 $\pm$ .08. Younger patients showed slightly better adjustment patterns than the older ones.

While this study was considered, at the time, one of the more substantive research projects, the use of the two handicaps osteomyelitis and scoliosis, does not lend itself well to comparisons of severity and less severity. Osteomyelitis is the inflammation of bone and/or marrow.

Scoliosis is the lateral curvature of the spine. The former is an inflammation which cannot be judged on cosmetic appearance as can the latter condition. In the study itself, Kammerer said that an examiner rated the cosmetic appearance of the scoliotic children but ratings of the osteomyelitis group were not obtained. The present study avoids such difficulties in classification of handicaps by delineating handicaps by function rather than by a fine medical technicality.

Macgregor, Abel, Bryt, Lauer, and Weissman (1953) studied psychosocial patterns of seventy-four (74) children and adults with facial deformities and disfigurements. The Rorschach, Wechsler Intelligence Scale, Thematic Apperception Test, and Bender Gestalt test were administered. The subjects were rated by the hospital staff as having 1) slight, 2) moderate, 3) marked and gross facial deformities. The findings of the study revealed that individuals with more severe conditions adjusted better than handicappers with less severe disfigurements. Handicappers who were rated by the staff as being markedly deformed judged themselves less severely. Those individuals with slight to moderate deformities had excessive concerns about their appearance. The more severely involved could almost always count on a negative response wherever they went and they tended to be prepared for such

unfavorable reactions. The less involved handicappers, who needed to contend with erratic and unpredictable responses, alternated between states of anxiety and feelings of relief.

More than twenty years later, Macgregor (1979) conducted a follow-up study of sixteen of the original subjects. Similar evaluations were conducted and the same results were found. The follow-up study reiterated that one of the most important factors in adjustment is the consistency of response that can be expected from others. Individuals with more pronounced conditions receive quite uniform responses whereas those handicappers with less severe conditions are open to unpredictable and fluctuating reactions.

After prefacing her article by saying it should not be dignified as a research study, but rather considered a clinical report of findings, Miller (1958) presented her study of fifty-five (55) handicappers. The subjects ranged in age from seven to twelve years of age. The children's handicaps ranged from mild to severely involved cerebral palsy. Projective tests such as the Rorschach, Thematic Apperception Test, and Children's Apperception Test were administered, as well as the Stanford-Binet Intelligence Test. Miller found that there were more disturbed parent-child relationships in handicappers with

mild handicaps than in handicappers with pronounced handicaps. Some of the explanation for this phenomenon centered on the confusion as to what to expect of a mildly involved handicapper who had variable capabilities, compared to the consistency of expectations of the parents of severely involved handicappers.

Due to Miller's self-declared disclaimer of a non-research work, many of the limitations of the study are appropriate given the constraints of classifying children by severity of handicap, performing psychodiagnostic testing, and determining parent-child styles of interaction in a child guidance clinic.

In a study of thirty-four (34) totally and forty-three (43) partially blind persons, Thume and Murphree (1961) found that visual handicappers who were still expressing strong hopes for the return of their sight precluded the acceptance and use of the white cane for mobility. Such lack of acceptance hindered their development psychologically and vocationally. A visual handicapper who still harbors the hope of returned sight is less likely to see the need for making the personality organization that becomes mandatory for the person who is not waiting for improvement.

Methodology for the Thume and Murphree study left a great deal to be desired in respect to extensiveness

and comprehensiveness, limiting what could be achieved statistically. The entire instrument of measurement consisted of only five questions concerning 1) use of white cane, 2) expectations for return of vision, 3) frequency of eye doctor visits, 4) number of books read in the past three years, and 5) visual perception. A chi-square statistic for frequency data was used and a chi value of 18.66 (P less than .001) was obtained. The study could have benefited from more sophistication in the dependent variable in which five questions were taxed beyond their ability to produce enough data for conclusive results.

Zahn (1973) conducted a study based on an extensive evaluation of 2,454 randomly selected applicants for disability benefits in the New Orleans, Minneapolis/St. Paul, and Columbus, Ohio areas. Data regarding the dependent variables such as relationship with spouse, family, friends, and degree to which the applicants perceived the effects of their handicap were collected through interviews with subjects by a clinical team and combined with medical and clinical evaluations. Zahn discovered that more severely involved handicappers had better interpersonal relations than less severely involved handicappers. This finding was explained by the explanation that with more pronounced physical involvement, ambiguity about one's handicapper status is removed.

Summary

No research studies on handicapper development from an Eriksonian perspective were found after an extensive review of the literature from many disciplines. The effects of onset and severity of handicap have not been treated from a developmental perspective using an objective instrument. Four theoretical conceptualizations (Schlesinger and Meadow, 1972; Kennedy, 1973; Meadow, 1982; Litoff and Feldman, 1982) have related the development of deaf individuals from an Eriksonian perspective. Only two theoretical articles (Gliedman and Roth, 1980; Eisenberg, Sutkin, and Jansen, 1984) discussed handicappers in general from an Eriksonian model. None of these studies treated the effects of onset and severity on the developmental patterns of handicappers. Before World War II, the literature on the psychological effects of a handicap on an individual was inundated by psychoanalytic thought. Such a theoretical orientation perceived congenital handicaps as causing diffuse personality disturbances. Acquired handicaps would have differing degrees of impact depending on the psychosexual stage the handicapper was experiencing. Many of these articles were quite speculative, based at most on case studies, and could only remotely be considered as research.

Springer's (1938) study of deaf and hearing

children through psychometric testing found that there was a tendency for girls who became deaf at a later age to obtain higher neurotic scores. Some problems with the Springer study concerned reading comprehension, which is a refractory problem with any research on deaf individuals. Joffe and Bast (1978), in their study of blind men detected minimal differences between congenital and acquired handicappers. Unfortunately, their research was subject to a problem indigenous in many handicapper studies - use of a psychometric instrument that was not sensitive enough to differentiate developmental patterns of handicappers.

In attempts to understand how handicappers differ in relationship to severity of handicap, Kammerer (1940) compared children with osteomyelitis and scoliosis. He found a correlation of .51 between severity of handicap and adjustment problems. The study did reveal that younger patients adjusted better than older patients. While the study was lauded as one of the better research projects from a methodological and statistical point of view, the two handicaps compared present problems. Scoliosis, an alignment problem of the spine, can be evaluated easily on appearance alone whereas osteomyelitis, an inflammation, cannot be evaluated by external appearance, precluding parallel comparisons of severity for the two handicaps.

Macgregor, Abel, Bryt, Lauer, and Weissman (1953) studied psychosocial patterns of seventy-four (74) subjects with facial deformities which were rated according to severity. The findings of their research revealed that individuals with more severe conditions adjusted better than handicappers who were less severely disfigured. One of the factors that influenced such adjustment was the consistency of response from other people. Individuals with severe handicaps generally receive uniform response, in contrast to individuals with less severe conditions who are many times the recipients of unpredictable reactions. After more than two decades, Macgregor (1979) did a follow-up study of 16 subjects from the original research and found the same results. Consistency of response was also an important factor in adjustment in Miller's (1958) study of cerebral palsied children. Miller found more disturbed parent-child relationships in handicappers with mild handicaps than children with more severe conditions.

Thume and Murphree (1961) found in their study of blind and partial sighted individuals that adjustment was easier for blind individuals than for many partial sighted individuals who were curtailed by hopes of regaining their sight. As a result of such postponement in accepting their present visual loss, many of the subjects rejected the use of the white cane. Some

of the ease in adjustment experienced by the severely involved handicapper in this study was attributed to an easier identification as a handicapper than is the case for others who are less physically involved.

While none of the studies described come close to the present investigation with regard to a research based study from a developmental perspective, they do provide elements in promoting the focus of the research. These studies have advanced the assumption that congenital and severely involved handicappers have an easier time than acquired and non-severe handicappers in trusting, identifying as a handicapper, working toward competence, and gaining a sense of integrity and meaning in life.

CHAPTER III

DESIGN OF THE STUDY

The study presented here was descriptive in nature. The research investigated the relationship of onset and severity of handicap as measured by the Assessment of Adult Adjustment Patterns (AAAP) which is based on an Eriksonian developmental perspective. Included in Chapter III are: a description of the sample, an outline of the procedures used in collecting the data, a description of the instrumentation used, an explanation of the research design used, a list of the hypotheses in testable form, and the statistical methods of analysis.

Sample

The population from which the sample of the present study was drawn consisted of male and female college handicappers. Such handicappers possessed either a visual, hearing or mobility handicap. The sample consisted of 168 college handicappers at Michigan State University and Western Michigan University who volunteered in the study. Subjects who returned their completed questionnaire were able to choose a handicapper organization to which a three dollar contribution was made on their behalf. The

distribution of handicappers by type of handicap and categorization as severe or less severe by level of physical involvement are shown in Table 3.1.

TABLE 3.1

Distribution of College Handicapper Subjects

(N = 168)

Handicap*	f	%	Severe	f	%	Less Severe	f	%
Visual	57	34	Blind	29	35	Partial Sighted	28	33
Hearing	46	27	Deaf	22	26	Hard of Hearing	24	29
Mobility	65	39	Wheelchair Users	33	39	Cane/Crutch Users	32	38
Total	168		Total	84		Total	84	

* (See pages 4-5 for amplified definitions of these handicaps.)

Handicappers under the classification of severely involved represented 50% and less severe handicappers made up the remaining 50% of the subjects. The highest percentage of college handicappers had mobility handicaps, followed by visual and then hearing handicaps. This represents a typical and consistent pattern of the college handicapper populations in university settings. Almost inevitably, the least represented handicapper group would be the deaf because of the communication barriers and need for interpreters which is usually more available at institutions like Gallaudet College

in Washington, D.C. or at the National Technical Institute for the Deaf in Rochester, New York, both of which are specifically designed to meet the educational needs of the deaf student.

Information regarding the nature of the handicap was self-reported by the handicapper subjects. To assure accurate identification of handicap, the designated handicap as described by the Michigan State University handicapper on the demographic data sheet was compared with the handicap listed with the Michigan State University Office of Programs for Handicappers. It was found that the only discrepancy was a self-defined cane user who was listed with the Office of Programs for Handicappers as only having gait difficulties. Personal observation of this handicapper verified his cane use. College handicappers' self-reported description of their handicap for this study was quite accurate and reliable.

A more detailed description of the handicaps for subjects from Table 3.1 revealed that of the 24 hard of hearing subjects, 10 reported having a severe hearing loss (71-90dB), 8 had a moderate hearing loss (41-70dB) and 4 indicated a mild hearing loss (26-40dB). The 33 wheelchair users in the study were further categorized as 18 powered wheelchair users and 15 manual wheelchair users. Those handicappers in the limited mobility category were further classified as 8 cane users, 11 crutch users and 13 with gait difficulties who did not ambulate with cane or crutches.

There were 89 congenital handicappers and 79 acquired handicappers. Little more than half (53%) of the subjects were born with their handicaps, 22% acquired their handicap before they were twelve years old and 25% obtained their handicap after twelve years old. As shown in Table 3.2, the age of onset for handicap was the following:

TABLE 3.2

Onset of Handicap for Handicapper Subjects

(N = 168)

Onset of Handicap	f	%
Congenital	89	53
Up to 5 years	19	11.3
5 years to 12 years	18	10.7
12 years +	42	25

As shown in Table 3.3, age ranged from 18 to 40 years old with a mean of 25.66 and the modal age was 29 years. There were 86 female and 82 male college handicappers that participated in the study. A summary of the ethnicity backgrounds for the participants is described in Table 3.4.

TABLE 3.3

Age of College Handicapper Subjects

(N = 168)

Age (Years)	f	%
18	12	7.1
19	10	6.0
20	11	6.5
21	16	9.5
22	9	5.4
23	7	4.2
24	9	5.4
25	9	5.4
26	8	4.8
27	9	5.4
28	7	4.2
29	9	5.4
30	7	4.2
31	6	3.6
32	6	3.6
33	4	2.4
34	5	3.0
35	3	1.8
36	5	3.0
37	2	1.2
38	3	1.8
39	5	3.0
40	6	3.6

TABLE 3.4

Race of College Handicapper Subjects

(N = 168)

Race	f	%
Asian	5	3
Black	15	8.9
Caucasian	142	84.5
Hispanic	4	2.3
Other	2	1.1

As anticipated, the most represented group was Caucasian (84.5%) followed by Black (8.9%), Asian, Hispanic and Other which were two native Americans comprised the other 6.5% of the total sample.

A breakdown of the educational level of the subjects is shown in Table 3.5.

TABLE 3.5

Educational Background of Handicapper Subjects

(N = 168)

Education: Highest Level Completed	f	%
High School	68	40.5
Trade School	14	8.3
BS/BA	46	27.4
MS/MA/MBA	36	21.4
EdS	4	2.4

As can be seen from the data displayed in Table 3.5, over one-half (51%) of the subjects were in graduate programs and 49% were at an undergraduate level.

Handicapper subjects reported their parental social standing. The findings revealed that 73.3% of the sample came from middle class homes. Due to the fact that the majority of college handicapper subjects were full time students, 51% of the sample reported annually earning less than four thousand dollars. This should not be construed as being typical of income for handicappers in general.

TABLE 3.6

Parental Social Standing

(N = 168)

Level	f	%
Lower	11	6.5
Middle	123	73.3
Upper	34	20.2

The marital status of the subjects is reported in Table 3.7. The majority (62%) of handicappers were never married or lived with someone. The remaining subjects described themselves as being married (27%), divorced (9%), or living together (2%). Of the entire sample, 71% had no children and the 29% that indicated having children did have an average of two children with the mean age of the oldest child being three years old.

TABLE 3.7

Marital Status of the Subjects

(N = 168)

Relationship Status	f	%
Never Married or lived with someone	104	62
Married	45	27
Divorced	15	9
Living Together	4	2

Data acquired for the study regarding college handicappers' sense of physical well-being are shown reported in Table 3.8. A significant number (73.2%) of subjects reported a healthy sense of physical well being. The other subjects (25%) indicated an average sense of physical well being and only 1.8% of the sample perceived their physical well being as unhealthy. Given the nature and degree of physical handicaps for this sample, these results seem paradoxical in the context of pejorative cultural connotations centered around having a handicap.

TABLE 3.8

Subject's Sense of Physical Well-Being

(N = 168)

Category	f	%
Unhealthy	3	1.8
Average	42	25
Healthy	123	73.2

Handicapper subjects in the study were asked to rate their sense of emotional well-being. Just 3% of the sample felt unhappy, 25% perceived their emotional well-being as average, and 72% described themselves as being emotionally happy (Table 3.9).

TABLE 3.9

Subject's Emotional Well-Being

(N = 168)

Category	f	%
Unhappy	5	3
Average	43	25
Happy	120	72

As shown in Table 3.10, 68% of the handicapper subjects rated their personal relationships as being satisfying, 27.2% indicated their satisfaction level was average, and only 4.8% reported dissatisfaction with their personal relationships.

TABLE 3.10

Subject's Satisfaction with Personal Relationships

(N = 168)

Category	f	%
Dissatisfied	8	4.8
Average	46	27.2
Satisfied	114	68

The demographic profile of the sample described in this study appears to be typical of a college handicapper population. As previously indicated, the distribution of handicaps seem to be similar to other handicapper college populations reported at most larger universities where there is an office that identifies and provides support services for handicappers.

Procedure for Data Collection

Approval for this handicapper project was granted by the University Committee on Research Involving Human Subjects at both Michigan State University and Western Michigan University. Both the Office of Programs for Handicappers at Michigan State University and Western Michigan University Handicapper Student Services office were most agreeable to facilitating the study. Between these two programs, 185 college handicappers with physical handicaps (visual, hearing, and mobility) were identified. Individuals with epilepsy, diabetes, renal conditions, cancer, dyslexia and other handicapper conditions that were not visible were not included. While deafness has been described as the invisible handicap, upon attempts at communication, such a handicap would be easily recognized.

The method of data collection was the following: (1) All Michigan State University and Western Michigan University college handicappers with physical handicaps (visual, hearing, and mobility) who were identified by the handicapper offices at both these universities were sent a packet of information. Each packet included (a) the AAAP Instrument (Appendix A), (b) a letter requesting their participation (Appendix B), (c) a consent form (Appendix C), and (d) AAAP-Survey Fact Sheet with demographic data (Appendix D).

Contingent upon the available information on the

particular handicapper physical involvement, a judgment was made as to the appropriate administration of the instrument. Such a decision was based on the mode of processing information for that individual handicapper. Alternative formats for accomodating specific handicapper groups included:

Blind Handicappers

Such individuals used cassette recording/braille copies of the test materials with the option of brailling or taping only their answers to the questions which were later transcribed on the computerized answer sheets. Visual handicappers and powered wheelchair users could use a scribe by giving the number of the answer for the questions while the scribe records their answer on the sheet.

Partial Sighted

By providing subjects with limited vision enlarged copies (150% magnification) of all test materials including the computer answer sheets, this allowed complete independence in test taking. Such enlarged answer sheets later needed to be transfered to regular sized answer sheets for optacon scoring.

Powered Wheelchair Users and Individuals with Minimal Fine Motor Dexterity

Individuals with limited upper extremity function were provided a scribe who without knowing the nature of the question simply sat across from the individual handicapper and marked on a blank computerized answer sheet the number 1, 2, 3, or 4 as indicated by the handicapper. Individuals who were not able to darken the circle for the answers on the computerized sheet were permitted to use a ball point pen which facilitated the marking of the handicapper's answer without assistance. Once the inked answer sheet was returned, the answers were transferred to a new answer sheet using the appropriate marking pencil.

The above described arrangements were made to reduce as much as possible any interaction effect between the scribe and handicapper subject. When a scribe was used, the seating positions were such that the handicapper subject and scribe would not be directly facing each other. The scribes were carefully instructed about the avoidance of any cues or reactions by voice inflection, sigh or groan while only recording the number of the answer given by the handicapper.

(2) A few days after the packets of material were

distributed, the project coordinator contacted those individuals who may have needed the accommodations of a scribe or an alternative format and made arrangements accordingly. (3) If test packets were not returned within three weeks by campus mail or in their pre-stamped and addressed envelope, a telephone call was made reminding the volunteer to return their test material whether or not it was completed. (4) All data were gathered, answer sheets were reviewed to determine their suitability for electronic scoring. (5) The final procedure consisted of a computer analysis of the data.

It should be noted that 168 out of 185 volunteers completed the study. This represented more than a 90% return rate. Some of the reasons for not completing the packet ranged from time constraints, to feelings that the instrument was too personal or that they did not believe in psychological tests.

Instrumentation

The Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson,and Azar, 1982) is the first objective self report instrument with validity scales that measures all eight Eriksonian developmental stages. The instrument in its present form consists of three hundred and nineteen (319) items. Such items are (1) non-sexist, (2) written in common language, (3) free of idiom and jargon,

(4) non-pathological, (5) affirmatively staged and (6) not cardinal virtues, that is, not strongly correlated with high social desirability. Included in the instrument to differentiate it from other psychometric attempts at operationalizing Erikson's stages are a set of social desirability, validity, and consistency indices. The Social Desirability Scale is used to detect attempts at portraying oneself in a favorable light and giving socially approved answers. A Validity Scale identifies individuals responding in an unusual direction that reflects an atypical or deviant response. This scale has similar properties and purpose of the F Scale in the Minnesota Multiphasic Personality Inventory (MMPI). The Unusual Response Scale presents a measure of the respondent's consistency in answering the questions.

Subjects are requested to rate themselves on a four point scale: (1) Definitely true of me, (2) True of me, or mostly true of me, (3) Not true of me, or mostly not true of me, and (4) Definitely not true of me. The AAAP measures mastery or non-mastery of each Eriksonian stage. Mastery is defined as responding to items over specific percentage of time in a directional manner that is reflective of resolution of those developmental stage issues.

The developmental ego stages as measured by the AAAP provide high internal consistency. (See Table 3.11).

TABLE 3.11

STAGE AND SCALE STATISTICS FOR THE ASSESSMENT OF ADULT ADJUSTMENT PATTERNS

Erikson Stage	Number of Items	N=354 Mean*	Variance	Standard Deviation	Cronbach's Alpha Reliability
1. Trust	18	54.01	54.71	7.33	.88319
2. Autonomy	36	108.86	134.24	11.59	.90717
3. Initiative	26	75.27	79.29	8.90	.87019
4. Industry	63	190.56	440.53	20.99	.95076
5. Identity	33	100.08	108.39	10.41	.90255
6. Intimacy	28	88.09	116.72	10.80	.90126
7. Generativity	29	84.37	116.03	10.77	.88837
8. Integrity	25	74.23	75.83	8.71	.85431

*Based upon individual items weighted one to four summed across the scale.

Note. From "Assessment of Adult Adjustment Patterns (AAAP) Research Instrument: First Report" by William Farquhar, Unpublished Report, 1983.

The internal consistency of the scales ranged from .85 to .95 using the Cronbach Alpha coefficient. A factor analysis of the instrument produced twenty three factors that were consistent with Erikson's theory as well as having reliability coefficients ranging from .68 to .92 with a mean of .84 (Azar, 1982). (See Table 3.12)

TABLE 3.12

THE FACTORS EMERGING FROM THE ASSESSMENT OF ADULT ADJUSTMENT PATTERNS

Erikson Stage	Name of Factor	No. of Items n=354	Cron-bach's Alpha
1. Trust vs. Mistrust	Basic trust	18	.88
2. Autonomy vs. Shame and Doubt	Will to be oneself	23	.89
	Solitude	11	.82
	Holding on, letting go	13	.82
3. Initiative vs. Guilt	Self-punishment & guilt	23	.86
	Anticipation of roles by parents	4	.81
4. Industry vs. Inferiority	Apply self to task	26	.92
5. Identity vs. Identity Confusion	Trust in peers	16	.86
	Ideological thought	8	.79
	Molding identity	13	.84
	Fidelity tests	10	.79
6. Intimacy vs. Isolation	Commitment to affiliation	19	.90
	Genital maturity	11	.83
	Fusion with another	7	.68
7. Generativity vs. Self-Absorption	Establishing & guiding next generation	17	.68
	Charity	15	.84
8. Integrity vs. Disgust, Despair	Order and Meaning	17	.83
	Accepting one's life cycle	13	.80

Note. From "Assessment of Adult Adjustment Patterns (AAAP) Research Instrument: First Report" by William Farquhar, Unpublished Report, 1983.

Assessment of Adult Adjustment Patterns: Scale Reliabilities

Reliability estimates of the eight stage scales were computed for the sample in this present study. The reliability coefficients of the eight stage scales of the handicapper sample was quite consistent with the coefficients reported by Azar (1982). The largest discrepancy in reliability coefficients was found in Stage 8 (Integrity vs. Despair) in which the handicapper study Cronbach's Alpha was .80 in contrast to Azar's sample with .85. (See Appendices E to L).

In comparing the sample used by Azar with the present handicapper study, the composition of the Azar study consisted of Michigan State University faculty members and psychiatric patients at Pine Rest Christian Hospital in Grand Rapids. The educational levels of the faculty consisted of 72% at a graduate level with 50% having doctoral degrees. This contrasts with 51% of the handicapper study being at a graduate level of education and not one handicapper subject possessing a doctorate. The marital status of the two groups were different. Subjects in the Azar study reported 76% being married in distinct contrast to 62% of the handicapper sample who indicated they were never married. The mean age of the Azar sample was 41 while the mean of the handicapper subjects was 26.

Similarities of the reliability coefficients for these two samples indicate internal consistency with different populations tested. A comparison of the reliability scores for the Azar and handicapper study is found in Table 3.13.

Table 3.13

Means, Standard Deviations, and Reliabilities for the 8 Scales of the AAAP

N = 168

	Stage Scale	Mean	SD	Cronbach's Alpha Handicappers	Cronbach's Alpha Azar Study
1.	Trust	73.50	8.05	.86	.88
2.	Autonomy	109.49	11.20	.87	.91
3.	Initiative	74.91	8.37	.86	.87
4.	Industry	196.20	19.39	.93	.95
5.	Identity	104.29	11.36	.89	.90
6.	Intimacy	90.28	11.85	.89	.90
7.	Generativity	82.86	11.14	.87	.89
8.	Integrity	76.71	8.07	.80	.85

Construct validity was established by comparing a normal population with a sample of psychiatric patients. The means for each stage were found to be significantly higher for the normal population than for the psychiatric sample except for Stage 6 at a probability of $<.001$ (Azar, 1982). (See Table 3.14).

Table 3.14

Comparison between the Normal and Psychiatric Samples on the Ego Stage Scales of the Assessment of Adult Adjustment Patterns

N = 354

Erikson Scale	Means		Standard Deviation		F-test	P
	Normal	Psychiatric	Normal	Psychiatric		
1. Trust	55.08	44.19	6.5	6.92	97.65	.00001
2. Autonomy	110.30	94.34	10.17	14.75	65.27	.00001
3. Initiative	76.49	63.00	7.18	10.01	82.13	.00001
4. Industry	193.14	164.59	18.72	24.96	63.34	.00001
5. Identity	103.44	91.66	9.73	12.21	40.62	.00001
6. Intimacy	88.34	85.56	10.74	11.30	1.94	.16504
7. Generativity	84.84	79.62	10.62	11.26	6.94	.00879
8. Wisdom	74.75	69.06	8.56	8.64	12.81	.00039

Note. From "Assessment of Adult Adjustment Patterns (AAAP) Research Instrument: First Report" by William Farquhar, Unpublished Report, 1983.

Farquhar and his research associates spent over two years generating a pool of about 2500 items which were created or adopted from personality inventories that would measure the developmental stages of Erikson. After extensive cross validation and item analysis of this original pool of items, the AAAP emerged in the present format with its content and construct validity. There are presently

more than ten studies in progress using the AAAP. These investigations will provide more evidence as to its validity and practicality as a vehicle to measure how people develop from a psychosocial perspective.

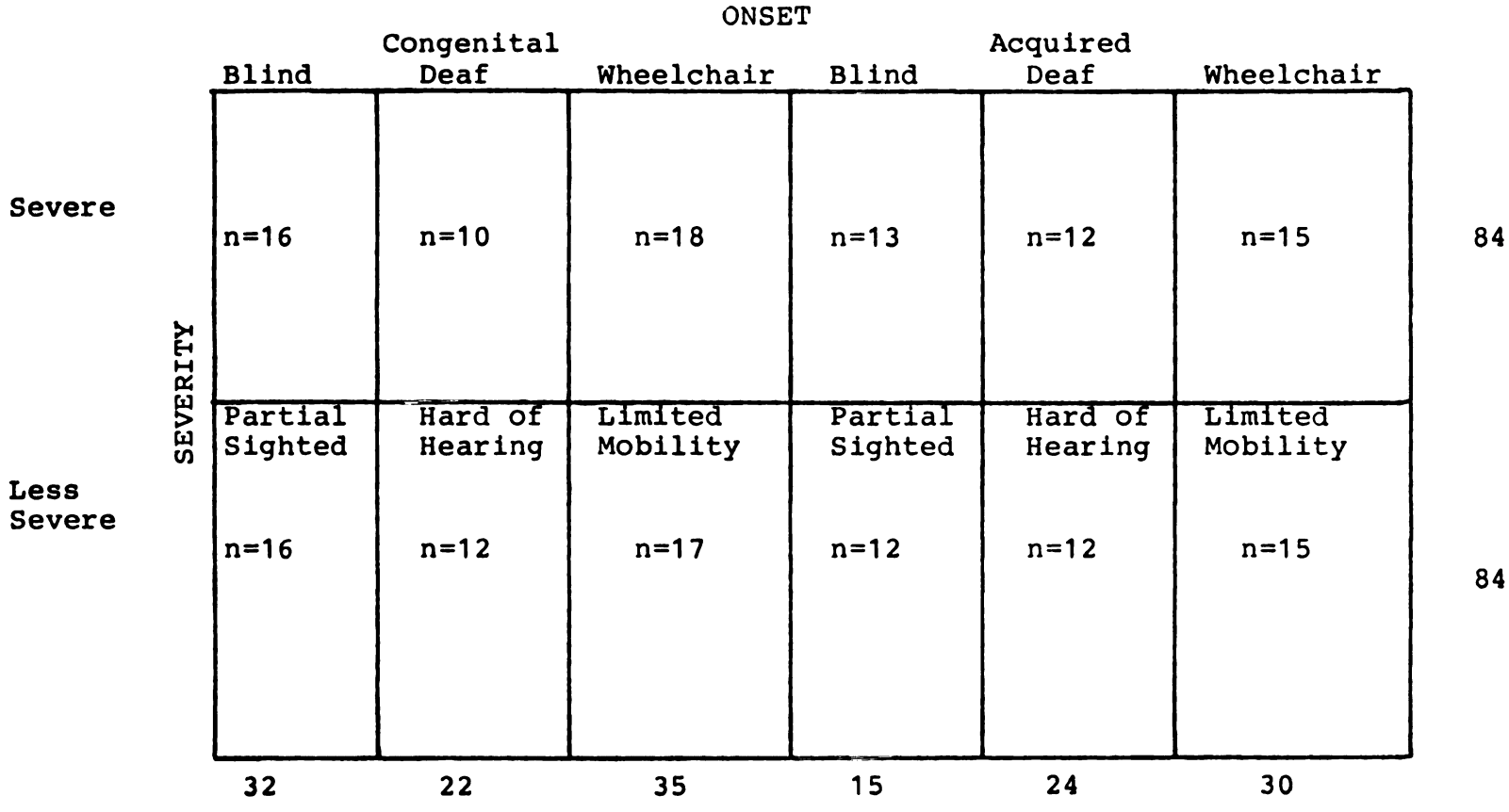
Research Design

This study was designed to provide descriptive data. One benefit of conducting a descriptive study was its flexibility in allowing a variety of sources of information about a complex phenomenon such as handicapper development to be explored. While causality is not within the scope of a descriptive study, the present investigation offers some information on the relationship between the two variables of onset and severity of handicap. Figure 3.1 depicts the design for this study. Figure 3.2 shows the composition of the subjects for each cell which delineates the specific types of handicaps.

Figure 3.1

		ONSET		
		Congential	Acquired	
SEVERITY	Severe Handicap	n=44	n=40	84
	Less Severe Handicap	n=45	n=39	84
		89	79	

Figure 3.2


ONSET
Congenital
Acquired
Blind
Deaf
Wheelchair
Blind
Deaf
Wheelchair
SEVERITY
Severe
n=16
n=10
n=18
n=13
n=12
n=15
84
Partial Sighted
Hard of Hearing
Limited Mobility
Partial Sighted
Hard of Hearing
Limited Mobility
Less Severe
n=16
n=12
n=17
n=12
n=12
n=15
84
32
22
35
15
24
30

Testable Hypotheses

The testable hypotheses formulated for this study were delineated as follows: (1) hypotheses of how both severity and onset combined affect developmental stages, (2) hypotheses regarding the importance of onset of handicap on developmental stages and (3) hypotheses dealing with the impact of severity of handicap on developmental stages. The impact of such factors were observed on stages 1, 4, 5, and 8 of the Eriksonian developmental issues as measured by the Assessment of Adult Adjustment Patterns (AAAP). Each category is stated in a null and alternative hypothesis. These hypotheses were tested at the .05 level of significance.

Interaction Between Severity and Onset of Handicap

H_{O_1}: There is no interaction effect between severity and onset of handicap on stage 1 of the AAAP.

H_{A_1}: There is an interaction effect between severity and onset of handicap on stage 1 of the AAAP.

H_{O_2}: There is no interaction effect between severity and onset of handicap on stage 4 of the AAAP.

H_{A_2}: There is an interaction effect between severity and onset of handicap on stage 4 of the AAAP.

H_{O_3}: There is no interaction effect between severity and onset of handicap on stage 5 of the AAAP.

H_{A_3}: There is an interaction effect between severity and onset of handicap on stage 5 of the AAAP.

H_{O_4}: There is no interaction effect between severity and onset on handicap on stage 8 of the AAAP.

H_{A_4}: There is an interaction effect between severity and onset of handicap on stage 8 of the AAAP.

Onset of Handicap

H_{O_5}: There is no difference in mean scores on stage 1 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_5}: College congenital handicappers have higher mean scores on stage 1 of the AAAP than college acquired handicappers.

H_{O_6}: There is no difference in mean scores on stage 4 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_6}: College congenital handicappers have higher mean scores on stage 4 of the AAAP than college acquired handicappers.

H_{O_7}: There is no difference in mean scores on stage 5 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_7}: College congenital handicappers have higher mean scores on stage 5 of the AAAP than college acquired handicappers.

H_{O_8}: There is no difference in mean scores on stage 8 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_8}: College congenital handicappers have higher mean scores on stage 8 of the AAAP than college acquired handicappers.

Severity of Handicap

H_{O_9}: There is no difference in mean scores on stage 1 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

H_{A_9}: College handicappers with more severe handicaps have higher mean scores on stage 1 of the AAAP than college handicappers with less severe handicaps.

$H_{O_{10}}$: There is no difference in mean scores on stage 4 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

$H_{A_{10}}$: College handicappers with more severe handicaps have higher mean scores on stage 4 of the AAAP than college handicappers with less severe handicaps.

$H_{O_{11}}$: There is no difference in mean scores on stage 5 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

$H_{A_{11}}$: College handicappers with more severe handicaps have higher mean scores on stage 5 of the AAAP than college handicappers with less severe handicaps.

$H_{O_{12}}$: There is no difference in mean scores on stage 8 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

$H_{A_{12}}$: College handicappers with more severe handicaps have higher mean scores on stage 8 of the AAAP than college handicappers with less severe handicaps.

Procedure for Data Analysis

The method of data analysis for this study consisted of using two different statistical procedures: Multivariate Analysis of Variance (MANOVA) using a Hotelling's T^2 statistic and a 2 x 2 Analysis of Variance (ANOVA) as well as a series of one way ANOVAS. In the following section each of the statistical tests are described. A summary chart of the analysis strategy is found on Table 3.15.

Multivariate Analysis of Variance (MANOVA)

The multivariate analysis of variance (MANOVA) is often used for research designs whenever multiple outcome measures are collected. MANOVA offers two specific advantages over univariate approaches: it presents better control over Type I error rates while preserving statistical power, and it allows more thorough analysis of complex data. As a statistical technique, MANOVA allows the data to be seen in a multivariate perspective which helps conceptualize and analyze the nature of multiple influences rather than computing significance levels for each response variable separately. MANOVA produces one probability statement for the entire set of dependent variables considered simultaneously.

The preliminary purpose of using a MANOVA procedure was to explore the entire set of dependent variable on all

eight stages simultaneously by onset, handicap, and severity. It is possible that no significant differences will be detected when each dependent variable is analyzed separately even though a MANOVA of the same data will indicate significant differences. To test for that possibility, a 2 x 2 ANOVA and a series of one-way ANOVAS were performed to examine differences on stages 1, 4, 5, and 8 that were hypothesized on the basis of severity and onset.

Analysis of Variance (ANOVA)

The differences between the mean scores on stages 1, 4, 5, and 8 on the Assessment of Adult Adjustment Patterns for college severe handicappers and less severe handicappers were tested by the ANOVA method. A 2 x 2 ANOVA was performed to investigate the main effects and interaction effects between onset and severity. A series of one-way ANOVAS were performed to test differences between college congenital handicappers and acquired handicappers.

The assumptions for the use of the analysis of variance method are:

1. Normality
2. Homogeneity of variance
3. Independence of observations

The assumption of normality for the analysis of variance was met. The Central Limit Theorem states that when the sample size becomes sufficiently large, the distribution of the sample means approaches a normal distribution centered on the true population mean. The sample size in the present study is 168 which meets the criterion of the Central Limit Theorem and therefore, the assumption of normality. Even if the assumption of normality was not met, the consequences are not too severe since the F test is robust with respect to violation of the normality assumption. The homogeneity of variance assumption is controlled for when the cell sizes for each category are equal or nearly equal. In the present study, the number in the categories were: severe handicappers = 84, less severe handicappers = 84; congenital handicappers = 89, acquired handicappers = 79; severe congenital handicappers = 44, severe acquired handicappers = 40, less severe congenital handicappers = 45, and less severe acquired handicappers = 39. It should be noted that the analysis of variance is robust to violations of the homogeneity of variance assumption.

Safeguards for meeting the assumption of independence were advanced by the following method: when subjects volunteered to participate in the study, it was strongly emphasized that subjects complete the test

without discussion with anyone else. Individual packets were mailed to each subject. Blind handicappers and powered wheelchair users were isolated in soundproof reading rooms during their administration which eliminated interaction between subjects.

Table 3.15

Summary Chart of the Analysis Strategy

MANOVA - Analyzing all 8 stages simultaneously

Onset Severity Handicap

Severity by Onset

Severity by Handicap

Onset by Handicap

Handicap

Onset

Severity

ANOVA - Analyzing each stage individually

INTERACTION

Interaction between Onset and Severity - Stage 1
Interaction between Onset and Severity - Stage 4
Interaction between Onset and Severity - Stage 5
Interaction between Onset and Severity - Stage 8

ONSET

Congenital vs. Acquired - Stage 1
Congenital vs. Acquired - Stage 4
Congenital vs. Acquired - Stage 5
Congenital vs. Acquired - Stage 8

SEVERITY

Severe vs. Less Severe - Stage 1
Severe vs. Less Severe - Stage 4
Severe vs. Less Severe - Stage 5
Severe vs. Less Severe - Stage 8

Summary

This pilot study was designed to examine Eriksonian developmental patterns of college handicappers by onset and severity of handicap. Such developmental levels would be measured by the Assessment of Adult Adjustment Patterns (AAAP). Severe handicappers were defined as being deaf, blind, and wheelchair users. Less severe handicappers were delineated as hard of hearing, partial sighted, and individuals with limited mobility. The first objective was to determine what Eriksonian developmental differences exist between college handicappers with severe handicaps and those with less severe handicaps. A second objective was to compare developmental patterns of college handicappers having a congenital onset for their handicap with those who acquired their handicap after birth. Another objective was to investigate the interaction effect between onset and severity of handicap.

The Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson, and Azar, 1982) was used in this study to measure developmental patterns of handicappers. The AAAP is the first objective self report instrument with validity scales that measures all eight Eriksonian developmental stages. The internal consistency of the scales ranged from .85 to .95 using the Cronbach Alpha coefficient on the Azar study (1982). The Cronbach's Alpha for this

handicapper study ranged from .80 to .93. A comparison of the reliability scores for the Azar study and the present study revealed significantly similar patterns.

A sample of 168 college handicappers at Michigan State University and Western Michigan University volunteered to participate in the study. Each subject was sent a packet including the AAAP instrument and the AAAP-Survey Fact Sheet with demographic data. An appropriate test format was sent depending on the mode of processing information for that individual handicapper. Such alternative formats included audio cassette, braille, and enlarged copies for visual handicappers as well as scribes for those individuals whose limited upper extremity function did not permit them to record their own answers.

Twelve hypotheses were divided into three categories: interaction effect between severity and onset; differences between college congenital handicappers and college acquired handicappers; and differences between college handicappers with severe handicaps and college handicappers with less severe handicaps. The statistical methods used to analyze the data included a multivariate analysis (MANOVA) by onset, severity, and handicap which examined all eight stages simultaneously. A 2 x 2 analysis of variance (ANOVA) and a series of one-way ANOVAS were performed to analyze individual stages. All analyses were tested at the .05

level of significance. A summary chart of the analysis strategy is presented on Table 3.15.

CHAPTER IV

RESULTS OF THE DATA ANALYSIS

The research data are analyzed in this chapter. The chapter will consist of three sections: (1) The preliminary analyses using multivariate procedures to investigate the effects on all eight stages simultaneously, (2) the primary analyses of the hypotheses examining individual stages separately, and (3) exploratory analyses of data which supplements some of the other findings.

In the first section, the results of the multivariate analysis of variance (MANOVA) using the Hotelling T^2 statistic are reported from the most complex analysis of the main effects to series univariate analyses. The MANOVA procedure was conducted to examine the interaction effect between handicap, onset, and severity on the dependent variables of all eight stages simultaneously. The results of each of these third, second, and first order tests are presented. This preliminary MANOVA procedure globally examines all eight stages at the same time. A summary statement of the preliminary analyses is found in Table 4.18.

In the second section, the specific questions regarding onset and severity on stages 1, 4, 5, and 8 for this study are investigated in their hypothesis form. All hypotheses formulated for the study are re-stated in testable form. The results of the analysis are given followed by a statement of whether or not the hypothesis was accepted or rejected. The results of all the hypotheses are summarized in Table 4.19.

In the third section, further exploratory analyses of the data received on the handicapper subjects are presented. Such supplementary analyses facilitate a greater understanding of the handicapper subjects studied.

Preliminary Analyses - MANOVA Examining All Eight Stages Simultaneously

Table 4.1

Multivariate Test of Significance for Interaction Effects Between Severity, Onset, and Handicap on all 8 Stages

Test	Value	Approx. F	Hypothesis D.F.	Error D.F.	Sig. of F
Hotellings	.1591	1.47	16.00	296.	.108

As Table 4.1 indicates, there was no significant third order interaction effect between severity, onset, and handicap.

Table 4.2

Multivariate Test of Significance for Interaction Effects Between Severity and Onset on all 8 Stages

Test	Value	Approx. F	Hypothesis D.F.	Error D.F.	Signif. of F
Hotellings	.0592	1.10	8.0	149.	.364

The second order interaction between severity and onset in Table 4.2 failed to be significant at a .05 level.

Table 4.3

Multivariate Test of Significance for Interaction Effects Between Severity and Handicap on all 8 Stages

Test	Value	Approx. F	Hypothesis D.F.	Error D.F.	Signif. of F
Hotellings	.1393	1.28	16.0	296.	.203

An examination of the data in Table 4.3 revealed that the second order interaction between severity and handicap was not significant.

Table 4.4

Multivariate Test of Significance for Interaction Effects Between Onset and Handicap on all 8 Stages

Test	Value	Approx. F	Hypothesis D.F.	Error D.F.	Signif. of F
Hotellings	.1643	1.52	16.0	296.	.091

Results from Table 4.4 reflect no second order interaction effect between onset and handicap at the .05 significance level.

Table 4.5

Multivariate Tests of Significance for Main Effects for Handicap, Onset, and Severity on all 8 Stages

Test	Value	Approx. F	Hypothesis D.F.	Error D.F.	Signif. of F
		HANDICAP			
Hotellings	.1157	1.07	16.0	296.	.303
		ONSET			
Hotellings	.0840	1.56	8.0	149.	.140
		SEVERITY			
Hotellings	.8205	15.28	8.0	149.	.001

In order to test whether differences existed between handicaps; levels of onset - congenital and acquired handicappers; and degrees of severity - more physically involved and less physically involved handicappers, multivariate tests were

computed. The results of the analyses for these main effects appear in Table 4.5. It can be seen that none of the approximate F values for handicap or onset reached the .05 level. The test of the main effect for severity revealed differences at the .001 level of significance.

Primary Analyses - ANOVA Examining Each Stage Individually

Hypotheses about the Interaction Between Severity and Onset of Handicap

The following set of four hypotheses were formulated to examine whether there was an interaction effect between severity and onset of handicap.

H_{O_1}: There is no interaction effect between severity and onset of handicap on Stage 1 of the AAAP.

H_{A_1}: There is an interaction effect between severity and onset of handicap on Stage 1 of the AAAP.

Table 4.6

2-Way Analysis of Variance Interaction Effects Between Onset and Severity-Stage 1

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Onset	1	20.56	20.56	.404	.526
Severity	1	2473.69	2473.69	48.56	.001
Interaction Effect	1	3.04	3.04	.060	.807
Within	164	8353.72	50.93		
Total	167	10846.			

As indicated in Table 4.6, the F for the interaction effect was .060 with a probability of .807 significance level. Therefore, the null hypothesis was not rejected.

H_{O_2}: There is no interaction effect between severity and onset of handicap on Stage 4 of the AAAP.

H_{A_2}: There is an interaction effect between severity and onset of handicap on Stage 4 of the AAAP.

Table 4.7

2-Way Analysis of Variance Interaction Effects Between Onset and Severity-Stage 4

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Onset	1	351.40	351.40	1.167	.282
Severity	1	13069.69	13069.69	43.39	.001
Interaction Effect	1	63.42	63.42	.211	.647
Within	164	49396.39	301.19		
Total	167	62831.70			

The results of the two-way analysis of variance for stage 4 as shown in Table 4.7 revealed an F value of .211 with an associated .647 probability. Therefore, the null hypothesis was not rejected.

H_{O_3}: There is no interaction effect between severity and onset of handicap on Stage 5 of the AAAP.

H_{A_3}: There is an interaction effect between severity and onset of handicap on Stage 5 of the AAAP.

Table 4.8

2-Way Analysis of Variance Interaction Effects Between Onset and Severity-Stage 5

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Onset	1	50.35	50.35	.575	.449
Severity	1	6878.98	6878.98	78.61	.001
Interaction Effect	1	317.52	317.52	3.62	.059
Within	164	14351.31	87.50		
Total	167	21585.11			

As shown in Table 4.8, the F-ratio for the interaction effect was 3.62 with a probability of .059. Therefore, the results of the two-way ANOVA for Stage 5 did not allow for the rejection of the null hypothesis.

H_{O_4}: There is no interaction effect between severity and onset of handicap on Stage 8 of the AAAP.

H_{A_4}: There is an interaction effect between severity and onset of handicap on Stage 8 of the AAAP.

Table 4.9

2-Way Analysis of Variance Interaction Effects Between Onset and Severity-Stage 8

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Onset	1	152.26	152.26	3.37	.068
Severity	1	3258.24	3258.24	72.25	.001
Interaction Effect	1	112.58	112.58	2.49	.116
Within	164	7395.51	45.09		
Total	167	10902.28			

The F value of 2.49 for the ANOVA (Table 4.9) produced a significance level of .116 which did not permit the null hypothesis to be rejected.

Hypotheses About Onset of Handicap

The four hypotheses in this section were developed to determine whether differences exist between college handicappers whose handicaps were congenital or acquired on stages 1, 4, 5, and 8 of the AAAP.

H_{O_5}: There is no difference in mean scores on Stage 1 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_5}: College congenital handicappers have higher mean scores on Stage 1 of the AAAP than college acquired handicappers.

Table 4.10

Analysis of Variance-Onset of Handicap
Congenital vs Acquired Groups-Stage 1

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	15.53	15.53	.238	.626
Within Groups	166	10830.46	65.24		
Total	167	10846.			

On Stage 1 of the AAAP, congenital handicappers obtained a mean of 73.79 and acquired handicappers had a mean of 73.18. The F value of .238 computed by the analysis of variance (Table 4.10) produced a significance level of .626, and therefore, the null hypothesis was not rejected. No differences were found between congenital and acquired handicappers on the first stage of the AAAP.

H_{O_6}: There is no difference in mean scores on Stage 4 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_6}: College congenital handicappers have higher mean scores on Stage 4 of the AAAP than college acquired handicappers.

Table 4.11

Analysis of Variance-Onset of Handicap
Congenital vs Acquired Groups-Stage 4

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	302.18	302.18	.802	.372
Within Groups	166	62529.52	376.68		
Total	167	62831.70			

The mean score of congenital handicappers on Stage 4 was 197.47 in contrast to a mean of 194.78 obtained by acquired handicappers. The results of the ANOVA In Table 4.11, indicated that this difference was not significant. The F = .801 with a probability of .372 failed to reject the null hypothesis. No differences on Stage 4 were found between these two groups.

H_{O_7}: There is no difference in mean scores on Stage 5 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_7}: College congenital handicappers have higher mean scores on Stage 5 of the AAAP than college acquired handicappers.

Table 4.12

Analysis of Variance-Onset of Handicap
Congenital vs Acquired Groups-Stage 5

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	37.30	37.30	.287	.593
Within Groups	166	21547.81	129.80		
Total	167	21585.11			

Congenital handicappers obtained a mean of 104.74 and acquired handicappers received a mean of 103.80 on the Stage 5. The results of the analysis of variance in Table 4.12 were not significant. The F-ratio was .287 with an associated probability of .593. Therefore, the null hypothesis could not be rejected.

H_{O_8}: There is no difference in mean scores on Stage 8 of the AAAP between college congenital handicappers and college acquired handicappers.

H_{A_8}: College congenital handicappers have higher mean scores on Stage 8 of the AAAP than college acquired handicappers.

Table 4.13

Analysis of Variance-Onset of Handicap
Congenital vs Acquired Groups-Stage 8

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	135.94	135.94	2.09	.150
Within Groups	166	10766.34	64.85		
Total	167	10902.28			

On Stage 8 of the AAAP, congenital handicappers obtained a mean of 77.56 and acquired handicappers received the mean of 75.76. In examining Table 4.13, it is noted that the F value of 2.09 had a probability of .150 significance. Such a probability was not sufficient for rejecting the null hypothesis.

Hypotheses About Severity of Handicap

The last series of four hypotheses were created to determine whether there are differences between college handicappers with more severe handicaps and college handicappers with less severe handicaps on Stages 1, 4, 5, and 8 of the AAAP.

H_{O_9}: There is no difference in mean scores on Stage 1 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

H_{A_9}: College handicappers with more severe handicaps have higher mean scores on Stage 1 of the AAAP than college handicappers with less severe handicaps.

Table 4.14

Analysis of Variance-Severity of Handicap
Severe vs Less Severe Groups-Stage 1

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	2468.66	2468.66	48.92	.001
Within Groups	166	8377.33	50.46		
Total	167	10846.00			

Severe handicappers had a mean of 77.33 on Stage 1 of the AAAP in contrast to less severe handicappers who obtained a mean of 69.67. The obtained F of 48.92 as reported in Table 4.14 was highly significant, with an associated probability of .001. Therefore, the null hypotheses was rejected and the alternative hypothesis was accepted. Severe handicappers differed from less severe handicappers on Stage 1.

$H_{O_{10}}$: There is no difference in mean scores on Stage 4 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

$H_{A_{10}}$: College handicappers with more severe handicaps have higher mean scores on Stage 4 of the AAAP than college handicappers with less severe handicaps.

Table 4.15

Analysis of Variance-Severity of Handicap
Severe vs Less Severe Groups-Stage 4

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	13020.48	13020.48	43.392	.001
Within Groups	166	49811.22	300.06		
Total	167	62831.70			

Severe handicappers in Stage 4 obtained a mean of 205.01. Less severe handicappers on the same stage received a mean of 187.40. As can be seen in Table 4.15, the F value of 43.392 with a probability of .001 allowed for the rejection of the null and the acceptance of the alternative hypothesis. Handicappers with more severe handicaps differed from less severe handicappers on Stage 4.

$H_{O_{11}}$: There is no difference in mean scores on Stage 5 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.

$H_{A_{11}}$: College handicappers with more severe handicaps have higher mean scores on Stage 5 of the AAAP than college handicappers with less severe handicaps.

Table 4.16

Analysis of Variance-Severity of Handicap
Severe vs Less Severe Groups-Stage 5

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	6865.92	6865.92	77.43	.001
Within Groups	166	14719.19	88.67		
Total	167	21585.11			

A mean of 110.69 on Stage 5 was obtained by more severely involved handicappers in comparison to the mean of 97.90 obtained by less severe handicappers. The results of the ANOVA in Table 4.16 indicate significant differences between severe and less severe handicappers. The F value of 77.43 with an accompanying probability of .001 resulted in the rejection of the null hypothesis and the acceptance of the alternative hypothesis.

$H_{O_{12}}$: There is no difference in mean scores on Stage 8 of the AAAP between college handicappers with more

severe handicaps and college handicappers with less severe handicaps.

$H_{A_{12}}$: College handicappers with more severe handicaps have higher mean scores on Stage 8 of the AAAP than college handicappers with less severe handicaps.

Table 4.17

Analysis of Variance-Severity of Handicap
Severe vs Less Severe Groups-Stage 8

Source of Variation	DF	SS	MS	F-Ratio	F-Prob.
Between Groups	1	3241.92	3241.92	70.25	.001
Within Groups	166	7660.35	46.14		
Total	167	10902.28			

On Stage 8, severe handicappers received a mean of 81.11 in contrast to a mean of 72.32 obtained by less severe handicappers. The results of the analysis of variance (Table 4.17) reveal an F value of 70.25 which was sufficiently high to allow for the rejection of the null hypothesis and the acceptance of the alternative hypothesis.

Exploratory Analyses

Although no formal hypotheses were formulated for the following data, such information contributes to a greater understanding of the handicapper experience as measured by the AAAP. A one-way analysis of variance was conducted to examine whether there were differences between the 82 male and 86 female college handicappers. The results of the analysis showed no differences on all eight stages at .05 level of significance. A one-way analysis of variance with six levels of handicap (blind, deaf, wheelchair user, partial sighted, hard of hearing, and limited mobility) was conducted. No significant differences were found between such handicapper groups on eight stages of the AAAP.

It was theorized that the most pronounced differences between handicappers by onset and severity would be in stages 1, 4, 5, and 8. In contrast, stages 2, 3, 6, and 7 were believed to be more sensitive to environmental constraints which would curtail the expression of carrying out the goals of such stages.

The results of the one-way analysis of variance for severity of handicap indicated that more severe handicappers differed from less severe handicappers at .001 significance level on all eight stages. While the means of congenital handicappers were higher than acquired

handicappers, there were no significant differences at the .05 level for all eight stages. Differentiation between stages 1, 4, 5, and 8 and the "environmentally sensitive" stages of 2, 3, 6, and 7 of the AAAP was not found in the analyses based on onset and severity of handicap.

Table 4.18

Results of the Multivariate Analysis
Examining All Eight Stages of the AAAP Simultaneously

Source of Multiple Variation	F-value	Probability
Interaction between Severity, Onset and Handicap	1.47	.108
Interaction between Severity and Onset	1.10	.364
Interaction between Severity and Handicap	1.28	.203
Interaction between Onset and Handicap	1.52	.091
Handicap	1.07	.383
Onset	1.56	.140
Severity	15.28	.001

Summary

The results of the analysis of data were presented in Chapter IV.

The preliminary analyses using the multivariate analysis of variance (MANOVA) examined the interaction effect between handicap, onset, and severity on the dependent variables of all eight stages simultaneously. The results of the MANOVA were reported from the most complex analysis of the main effects to a series of univariate analyses. There were no significant third or second order interaction effects. The test of the main effect for severity revealed differences at the .001 level of significance. A summary of the results of the MANOVA is presented in Table 4.18.

The primary analyses of the study investigated twelve hypotheses. Individual stages were examined separately by using a 2 x 2 analysis of variance (ANOVA) as well as a series of one-way ANOVAS. The specific questions regarding onset and severity on stages 1, 4, 5, and 8 for this study were investigated in their hypothesis form. All hypotheses formulated for the study were re-stated in testable form. The results of the analysis were given followed by a statement of whether or not the hypothesis was accepted or rejected.

Four hypotheses were formulated to examine whether

there was an interaction effect between severity and onset of handicap. The results of the 2-way analysis of variance for stages 1, 4, 5, and 8 of the AAAP revealed no interaction effect between severity and onset of handicap.

Four hypotheses were developed to determine whether differences exist between college congenital handicappers and college acquired handicappers. A series of one-way analyses of variance were conducted and no differences were found between congenital handicappers and acquired handicappers on stages 1, 4, 5, and 8 of the AAAP.

The last series of hypotheses was created to determine whether there were differences between college handicappers with severe handicaps and college handicappers with less severe handicaps. All four one-way analyses of variance resulted in severe handicappers scoring higher on stages 1, 4, 5, and 8 of the AAAP at a .001 level of significance. A summary of the results of the statistical tests of the hypotheses can be found in Table 4.19.

The results of the exploratory analyses revealed no differences between male and female handicappers on all eight stages. No significant differences were found between handicapper groups on all eight stages. It was theorized that stages 2, 3, 6, and 7 were more sensitive to environmental constraints in curtailing the expression

of the stage goals than stages 1, 4, 5, and 8. No differences were found between stages 1, 4, 5, and 8 and the "environmentally sensitive" stages of 2, 3, 6, and 7 of the AAAP in the analyses based on onset and severity of handicap.

Table 4.19

Summary of Results on Statistical Tests of Hypotheses

Hypothesis	Test/Value	Prob.	Decision
Interaction Between Severity and Onset			
H_{O_1}: There is no interaction effect between severity and onset of handicap on Stage 1 of the AAAP.	F= .060	.807	Not Rejected
H_{O_2}: There is no interaction effect between severity and onset of handicap on Stage 4 of the AAAP.	F= .211	.647	Not Rejected
H_{O_3}: There is no interaction effect between severity and onset of handicap on Stage 5 of the AAAP.	F= 3.62	.059	Not Rejected
H_{O_4}: There is no interaction effect between severity and onset of handicap on Stage 8 of the AAAP.	F= 2.49	.116	Not Rejected

Table 4.19
continued

Hypothesis	Test/Value	Prob.	Decision
Onset of Handicap			
H_{O_5}: There is no difference in mean scores on Stage 1 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .238	.626	Not Rejected
H_{O_6}: There is no difference in mean scores on Stage 4 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .802	.372	Not Rejected
H_{O_7}: There is no difference in mean scores on Stage 5 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .287	.593	Not Rejected
H_{O_8}: There is no difference in mean scores on Stage 8 of the AAAP between college congenital handicappers and college acquired handicappers.	F= 2.09	.150	Not Rejected

Table 4.19
continued

Hypothesis	Test/Value	Prob.	Decision
Severity of Onset			
H_{O_9}: There is no difference in mean scores on Stage 1 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 48.92	.001	Rejected
H_{A_9}: College handicappers with more severe handicaps have higher mean scores on Stage 1 of the AAAP than college handicappers with less severe handicaps.			Accepted
$H_{O_{10}}$: There is no difference in mean scores on Stage 4 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 43.392	.001	Rejected
$H_{A_{10}}$: College handicappers with more severe handicaps have higher mean scores on Stage 4 of the AAAP than college handicappers with less severe handicaps.			Accepted.

Table 4.19
continued

Hypothesis	Test/Value	Prob.	Decision
$H_{O_{11}}$: There is no difference in mean scores on Stage 5 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 77.43	.001	Rejected
$H_{A_{11}}$: College handicappers with more severe handicaps have higher mean scores on Stage 5 of the AAAP than college handicappers with less severe handicaps.			Accepted
$H_{O_{12}}$: There is no difference in mean scores on Stage 8 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 70.25	.001	Rejected
$H_{A_{12}}$: College handicappers with more severe handicaps have higher mean scores on Stage 8 of the AAAP than college handicappers with less severe handicaps.			Accepted

CHAPTER V

SUMMARY AND CONCLUSIONS

The final chapter of the present study consists of an overall summary of the study including the hypotheses and associated results. The conclusions are discussed in the following section. Implications for future research on developmental patterns of handicappers are presented.

Summary

A dearth of data on the psychosocial development of handicappers makes any comprehensive understanding of the handicapper experience difficult. No developmental research studies have been published which examine handicappers from an Eriksonian perspective. Erikson's epigenetic theory of ego development with its eight hierarchically arranged stages, in which the resolution of one life stage has its impact on the following developmental stages offers a framework to understand the handicapper experience. The Assessment of Adult Adjustment Patterns (AAAP) (Farquhar, Wilson, Azar, 1982) presents an innovative format to investigate important psychosocial patterns of handicappers.

The purpose of this study was multi-dimensional. The goal was to examine Eriksonian developmental patterns of college handicappers by onset and severity of handicap. Such developmental levels would be measured by the Assessment of Adult Adjustment Patterns (AAAP). Severe handicappers were defined as being deaf, blind, and wheelchair users. Less severe handicappers were delineated as hard of hearing, partial sighted, and individuals with limited mobility. The first objective was to determine what Eriksonian developmental differences exist between college handicappers with severe handicaps and those with less severe handicaps. A second objective was to compare developmental patterns of college handicappers having a congenital onset for their handicap with those who acquired their handicap after birth. Another objective was to investigate the interaction effect between onset and severity of handicap.

The hypotheses tested in this study are stated in general form as follows:

Hypothesis 1:

Interaction Between Severity and Onset of Handicap

There is an interaction effect between severity and onset of handicap on stages 1, 4, 5, and 8 of the AAAP.

Hypothesis 2:

Onset of Handicap

College congenital handicappers have higher scores on stages 1, 4, 5, and 8 of the AAAP than college acquired handicappers.

Hypothesis 3:

Severity of Handicap

College handicappers with more severe handicaps have higher mean scores on stages 1, 4, 5, and 8 of the AAAP than college handicappers with less severe handicaps.

One hundred-sixty eight subjects participated in the study. Eighty-two male and eighty-six female college handicappers at Michigan State University (MSU) and Western Michigan University (WMU) volunteered for the project. Their educational background consisted of 49% being at an undergraduate level and 50% in graduate programs. Age ranged from 18 to 40 years old with a mean of 25.66. There were 89 congenital handicappers and 79 acquired handicappers. The number of handicappers with severe handicaps was 84. Handicappers with less severe handicaps totaled 84.

All Michigan State University and Western Michigan University college handicappers who were identified by

both the MSU Office of Programs for Handicappers or the WMU Handicapper Student Services were sent a packet including the AAAP instrument and the AAAP-Survey Fact Sheet with demographic data. An appropriate test format was sent depending on the mode of processing information for that individual handicapper. Such alternative formats included audio cassette, braille, and enlarged copies for visual handicappers as well as scribes for those individuals whose limited upper extremity function did not permit them to record their own answers.

The statistical methods used to analyze the data included a multivariate analysis (MANOVA) by onset, severity, and handicap which examined all eight stages simultaneously. A 2 x 2 analysis of variance (ANOVA) and a series of one way ANOVAS were performed to analyze individual stages. All analyses were tested at the .05 level of significance.

Hypotheses

A summary of hypotheses and their results is presented in Table 5.1.

Table 5.1

Summary of Hypothesis Testing for Study

Hypothesis	Test/Value	Prob.	Decision
Interaction Between Severity and Onset			
H_{O_1}: There is no interaction effect between severity and onset of handicap on Stage 1 of the AAAP.	F= .060	.807	Not Rejected
H_{O_2}: There is no interaction effect between severity and onset of handicap on Stage 4 of the AAAP.	F= .211	.647	Not Rejected
H_{O_3}: There is no interaction effect between severity and onset of handicap on Stage 5 of the AAAP.	F= 3.62	.059	Not Rejected
H_{O_4}: There is no interaction effect between severity and onset of handicap on Stage 8 of the AAAP.	F= 2.49	.116	Not Rejected

Table 5.1
continued

Hypothesis	Test/Value	Prob.	Decision
Onset of Handicap			
H_{O_5}: There is no difference in mean scores on Stage 1 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .238	.626	Not Rejected
H_{O_6}: There is no difference in mean scores on Stage 4 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .802	.372	Not Rejected
H_{O_7}: There is no difference in mean scores on Stage 5 of the AAAP between college congenital handicappers and college acquired handicappers.	F= .287	.593	Not Rejected
H_{O_8}: There is no difference in mean scores on Stage 8 of the AAAP between college congenital handicappers and college acquired handicappers.	F= 2.09	.150	Not Rejected

Table 5.1
continued

Hypothesis	Test/Value	Prob.	Decision
Severity of Onset			
H_{O_9}: There is no difference in mean scores on Stage 1 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 48.92	.001	Rejected
H_{A_9}: College handicappers with more severe handicaps have higher mean scores on Stage 1 of the AAAP than college handicappers with less severe handicaps.			Accepted
$H_{O_{10}}$: There is no difference in mean scores on Stage 4 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 43.392	.001	Rejected
$H_{A_{10}}$: College handicappers with more severe handicaps have higher mean scores on Stage 4 of the AAAP than college handicappers with less severe handicaps.			Accepted.

Table 5.1
continued

Hypothesis	Test/Value	Prob.	Decision
$H_{O_{11}}$: There is no difference in mean scores on Stage 5 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 77.43	.001	Rejected
$H_{A_{11}}$: College handicappers with more severe handicaps have higher mean scores on Stage 5 of the AAAP than college handicappers with less severe handicaps.			Accepted
$H_{O_{12}}$: There is no difference in mean scores on Stage 8 of the AAAP between college handicappers with more severe handicaps and college handicappers with less severe handicaps.	F= 70.25	.001	Rejected
$H_{A_{12}}$: College handicappers with more severe handicaps have higher mean scores on Stage 8 of the AAAP than college handicappers with less severe handicaps.			Accepted

Conclusions

(1) Support was found for the hypothesis that college handicappers with severe handicaps would have higher scores than college handicappers with less severe handicaps on the first stage (Trust vs. Mistrust) of the AAAP.

(2) College handicappers with severe handicaps have higher developmental scores than college handicappers with less severe handicaps on the fourth stage (Industry vs. Inferiority) as measured by the AAAP.

(3) Severely involved college handicappers had higher scores than less severely involved handicappers on stage five (Identity vs. Confusion) of the AAAP.

(4) Differences were found between college handicappers with severe handicaps and college handicappers with less severe handicaps on stage eight (Integrity vs. Despair) for the AAAP.

(5) In exploratory analyses, significant differences were found between college handicappers with severe handicaps and college handicappers with less severe handicaps on stages 2 (Autonomy vs. Shame), 3 (Initiative vs. Guilt), 6 (Intimacy vs. Isolation), and 7 (Generativity vs. Stagnation) as measured by the AAAP.

Discussion

In the following sections, findings are discussed in light of previous research. Theoretical background and alternative explanations for the results are presented.

Severity of Handicap

As predicted by previous research, severe handicappers were found to have higher scores than less severe handicappers in the present study. The results of research by Macgregor, Abel, Bryt, Lauer, and Weissman (1953) and Macgregor's (1979) follow-up study showed that adjustment patterns for more severely involved individuals were more stable than those for handicappers with less severe conditions. An important reason for more stability with more involved individuals centered on the quite uniform and consistent responses that severe handicappers received. In contrast, handicappers with less severe conditions were more open to unpredictable and fluctuating reactions, often resulting in a great deal of anxiety.

Miller's study (1958) also concluded that psychosocial stressors were quite reduced for severe handicappers in comparison to less severely involved individuals. Some of the explanation for this phenomenon centered on

the confusion as to what to expect of a mildly involved handicapper who had variable capabilities, compared to the consistency of expectations of those dealing with severely involved handicappers. Zahn (1973), in an extensive evaluation of more than two thousand disability applicants found that more severely involved handicappers had better interpersonal relations than less severely involved handicappers. This finding was explained by the explanation that with more pronounced physical involvement, ambiguity about one's handicapper status is removed.

The findings for this study revealed that college handicappers with severe handicaps have higher scores than less severe handicappers on all eight stages of the AAAP. These results substantiated earlier studies on severity of handicap. There is a tendency to equate severity of handicap with the degree of negative psychological impact. The presumption is that the more severely involved the handicapper, the greater the problems experienced. Such generalizations and the logical conclusion that less physically involved handicappers would have fewer frustrations often do not occur. Handicappers with more pronounced handicaps such as blind, deaf, and wheelchair users have found it easier to identify as handicappers than individuals with less involved physical

conditions. There is a "marginal" quality of less severely involved handicappers, who stand on the boundary between able-bodied and more physically involved persons. Belonging to neither group, less severe handicappers often are uncertain of their handicapper identities. In the case of handicappers with hearing losses, hard of hearing individuals have more acute identification problems than deaf individuals because they are neither normal hearing nor deaf but "in between." To live in a psychological twilight zone can be stressful.

Able-bodied individuals have an ambiguity with regard to the capabilities of a cane user or a handicapper who uses crutches. The cane user who can negotiate steps while holding onto the rail is perceived as "almost" ambulatory. Expectations for getting around, doing things, and carrying items are much greater for the individual with limited mobility than they are for the wheelchair user. The incidences of disappointing the anticipations of others are diminished for wheelchair users, whose efforts to get around and accomplish tasks elicit awe and admiration from others. Feinman (1979) found that people held higher expectations for partially sighted individuals than for blind handicappers. In a situation such as crossing a street, partial sighted individuals may need just as much help as blind individuals, but requests for assistance are met with negative reactions.

There are some reservations about concluding that college handicappers with severe handicaps do better developmentally than less involved handicappers. One of the main problems with any handicapper research has been the classification of handicaps and degree of physical involvement. While this study carefully defined each category, differentiation as to whether the severe handicap was progressive or stable, chronic or acute, traumatic or insidious in onset was not obtained and factored in for the analysis. While wheelchair user status might be classified as a severe handicap, there can be quite a different psychological experience for a wheelchair user whose spinal cord injury is stable in contrast to another wheelchair user with muscular dystrophy whose condition is becoming progressively worse. While two individuals may be deaf, if the onset of deafness for one person is at the age of one and the other person at fifteen years, a qualitatively different developmental experience will be encountered.

Another alternative explanation for finding significance on the basis of severity of handicap may be that the concept of severe handicapper is too global and vague to discriminate such factors as functional limitations, the degree of stigma attached to the handicap by others as well as by the handicapper, the progressive nature of

the handicap, the age of onset, and the present level of acceptance of the handicap. Other reservations about the significant results of severe handicappers doing better than less severe handicappers on the AAAP have to do with the major limitation of the study. This project was a pilot study in which subjects could not be matched by age or sex. There was no random selection but instead, almost the entire identified college handicapper population at Michigan State University and Western Michigan University was included in the study. This type of developmental study would have had more far-reaching implications if it had been designed as a longitudinal study.

Onset of Handicap

It was anticipated that congenital handicappers would have higher scores than acquired handicappers. This was premised on the fact that many congenital handicappers do not need to make many of the adjustments that are required of handicappers who acquire their handicap later in life. Since they have learned from birth to incorporate their handicap, no change in their body image from that of an able-bodied individual to handicapper is necessary.

Congenital handicappers are more easily able to gain consistent responses from parents and siblings, rather than have their parents' perception of them change

from that of an able-bodied child to that of a handicapper. As Steinhauer, Mushin, and Rae-Grant (1980) point out, the family that has a congenital handicapper has never experienced the child as "normal." As a result of the child's handicap, the family's expectations have initially been altered.

For the congenital handicapper, denial is not so easy and the handicap is not such an insidious condition but rather something one has learned to grow with. Children with congenital handicaps must begin at an early age to deal with their differences from others. In contrast to the acquired handicapper, the congenital handicapper does not have to cope with an alteration of the self, and the plasticity of children is a far greater asset than the refractory quality of an adult's capacity to accommodate and adjust to change. Stewart and Rossier (1978) point out that for the congenital handicapper, normal functioning as the basis for comparison with their handicapper status is absent, as is the concomitant grieving for what "was" is not an issue.

The acquired wheelchair user can maintain an adamant conviction that ambulation will be possible again. It becomes tempting to postpone any adjustment in the hope that there will be a physical restoration. The wish that some medical operation or scientific breakthrough will

cure the condition can persist for a lifetime. Parents can reinforce such magical thinking to palliate their own resentment and disappointments. Handicappers from birth are not as easily influenced by their parent's curative ponderings and not as likely to hope and hang on to something they have never experienced.

Despite such theoretical support for congenital handicappers having higher scores than acquired handicappers, in the present study, no significant differences were detected on all eight stages between the two groups. Such differences may not exist, for once handicappers reach college age such differences in adjustment patterns may be minimal. Perhaps there is no acquired handicapper profile and what becomes the norm is rather the unique and individual response to the acquisition of a handicap. The investigation of such a complex phenomenon as adjustment to handicap may be too diverse to be explained by any one typology and may be impervious to categorization.

Another alternative explanation for not being able to find significant differences between congenital and acquired handicappers may be due to the great range of years for onset in the acquired group. The differences between one year old acquired handicappers and individuals who acquire their handicap at the age of twenty may have

been too great for making comparisons. The timing of handicap acquisition in the life cycle is particularly important in understanding adjustment patterns. Previous experiences with any serious illness may be a resource that can help a handicapper adjust to a handicap. The differences between a child's and a young adult's reactions to acquiring a handicap could not be determined from the present study. Neither was there any way of assessing at what level of adjustment congenital and acquired handicappers have accepted their handicap.

Other possible explanations for finding no differences between congenital and acquired handicaps center on the complexities of dealing with handicaps whose degree of visability and stigma may have been too diverse to be properly categorized. Therefore, even though there were no significant differences found on the basis of onset, any understanding of such a complex phenomenon as the acquisition of handicap requires a knowledge of the way such a handicap was acquired, whether progressive or traumatic, how stable that handicap is, the visibility of the handicap, the social stigma of the handicap, the time of onset in the person's life cycle and the coping strengths and patterns prior to the acquisition of the handicap. A pilot study such as this could not incorporate all these factors.

Specific Stages Under Study

It was posited that the most pronounced differences in the Eriksonian developmental sequence would be in stages 1 - Trust vs. Mistrust, 4 - Industry vs. Inferiority, 5 - Identity vs. Role Confusion, and 8 - Integrity vs. Despair and, that the other stages, 2 - Autonomy vs. Shame, 3 - Initiative vs. Guilt, 6 - Intimacy vs. Isolation, and 7 - Generativity vs. Stagnation were more sensitive to environmental factors which affect the expression or instrumentation of carrying out the goals of the stages.

These last four stages were considered "environmentally sensitive." The successful outcome of the second stage, Autonomy vs. Shame, might be limited to its expression because of the handicap's physical constraints. The issues of wanting to be oneself and wishing to be independent may be developed but the physical limitations may have developed psychological autonomy and want to express their wishes, but be unable to convey them to others because of limited language skills or the absence of an environment that can communicate with them. While the expression of autonomy might be curtailed, the desire for autonomy is not squelched. The desire to go where one pleases may be present but the ability to use a wheelchair or crutches for mobility may not exist at this developmental stage.

During the third stage, Initiative vs. Guilt, the wish of handicappers to initiate behavior may be well developed but the expression of such desires may be significantly limited by environmental factors. If few people can communicate with deaf children, including parents, then the child's taking the initiative to express needs is difficult and sometimes futile. The desire to take the initiative may not be affected but the opportunities might be environmentally limited. An architectural environment so hostile that handicappers cannot enter buildings in their wheelchairs, and other people are needed to assist or carry them into the entrance, stifles the expression of initiative but does not take away the desire for initiative.

The sixth stage, Intimacy vs. Isolation, sets the framework for the adult to take an active interest in establishing intimate relationships and making commitments. Many handicappers have difficulty developing sharing and caring relationships with members of the opposite sex. Architectural barriers often preclude wheelchair users from frequenting places where meeting and dating take place. The inability to drive a car may significantly limit social interactions of blind persons and force them to greatly depend on public transportation.

During the seventh stage, Generativity vs. Stagnation, individuals with maturity take an interest in establishing and guiding the next generation. The cultural framework for handicappers raising children has not been conducive to a positive orientation. People often react to handicappers contemplating raising a family with more reservation than elation. The negative concerns over the handicapper parent becoming a good caretaker take on an oppressive nature. Such negative reactions range from how deaf parents will be able to hear their child crying, to how blind caregivers will be able to look after a toddler, to how wheelchair users can take their child out of a crib.

Financial limitations may prohibit raising a family given the societal constraints handicappers have as a result of being underemployed. Advancement in employment is most arduous because of a prejudicial presumption that handicappers should not be in supervisory roles or be promoted to administrative levels.

The results of the study did not support the rationale that there would be differences between stages 1, 4, 5, and 8 and the "environmentally sensitive" stages of 2, 3, 6, and 7. Perhaps the rationale failed to perceive autonomy as not necessarily a physical activity but rather a mental acquisition. While there may not

be the ability to physically initiate an activity, the capacity for taking the initiative to learn how to successfully use other people in your environment to accomplish tasks may be a more momentous achievement than taking your first physical step. The mode of mastery over one's body may be different for wheelchair users who may relate to their bodies by means of another person (personal assistant). Powered wheelchair users may be quite dependent on a personal assistant who bathes and dresses them in the morning so they can go to work. Such dependence offers opportunities for greater independence.

Sometimes, control of the environment for a blind person is through another person who assists in crossing a busy street, enabling the blind individual to represent a client in the courthouse. The deaf professional who presents a report through an interpreter before a Senate hearing is not precluded from showing competence. Different levels of environmental dependence might be employed to reduce real dependence. Other people can become methods of instrumentation as handicappers meet their goals. The medium through which handicappers attain such goals might be other people, animals, technical aids, and other environmental supports that, once accommodations are provided, allow them to work competitively.

Handicap

The fact that no differences by handicap were found in the study seemed to substantiate most handicapper research. There is no blind, or deaf, or paraplegic personality as such. Theories purporting to prove that a handicap group shares a characteristic personality have found little credibility. Instead, what has been found is that handicappers have the same range and combination of personality traits as able-bodied persons. Handicappers are individuals and there are infinite ways that different factors interact in shaping the handicapper experience for each person.

What has been pointed out in this study is that instead of a psychology of deafness or blindness, what really occurs are the psychological implications of being treated as a deaf person or as a blind person. The differences found on the developmental scale for severe and less severe handicappers give some credence to the tremendous impact the reactions of others have on the handicapper experience. When people's attitudes changes from responding to a white cane or a wheelchair that happens to be attached to a person, to responding to the person who happens to use a white cane or a wheelchair, then real changes in the handicapper experience will evolve.

It should be noted that when the opportunity for training and education becomes available to handicappers, they are able to compete with able-bodied individuals. A comparison with other groups who were tested with the AAAP revealed that handicappers' scores are comparable if not higher on many of the eight stages.

Generalizations

Restricted generalizations are based on the fact that there was no random selection, the sample consisted of college handicappers, quite a select group of handicappers and one that could not be construed as being representative of handicappers in general. It should be mentioned that the college handicapper populations at Michigan State University and Western Michigan University are fairly representative of college handicapper populations and distribution of handicaps at other large universities. The results of the study may be generalized to other college handicappers similar to this sample who volunteered to fill out a questionnaire for a dissertation study. The use of volunteers further limits the generalization of the sample to volunteers from the same type of population. Any discussion of research results on such a complex phenomenon as adjustment patterns of handicappers generates many theoretical

implications from a number of perspectives. The results provide productive avenues for further research and create more searching questions than they yield absolute answers.

Implications for Future Research

(1) Since many of the subjects for this study will be attending Michigan State University and Western Michigan University for the next few years, a follow-up study of some of the same subjects used in the present study after a year or two would be helpful in determining whether the developmental scale scores continue to be stable.

(2) Future research on handicapper development would be strengthened if the self-report measure AAAP were accompanied by an instrument that would provide assessment of the handicapper's adjustment by interview or perception of significant others.

(3) In investigating the effect of onset and severity of handicap, information about the type of acquisition (progressive or traumatic) should be included.

(4) The AAAP instrument should be administered to non-college handicapper populations to determine whether differences on the basis of onset or severity of handicap are influenced by educational level.

Conducting the study on handicapper samples with different age, socioeconomic status, and ethnic backgrounds rather than the white, middle class, college educated population of the present study would be helpful.

(5) Given the fact that the AAAP measures all developmental stages, handicapper research on elderly handicappers would provide information on whether adjustment patterns differ for young handicapper populations and older handicapper groups.

(6) To understand the effects of acquiring a handicap, recently hospitalized individuals who experience a traumatic handicap could be tested during their hospitalization and re-tested a year later to compare adjustment patterns.

(7) An excellent comparison of wheelchair users to determine the effects of onset could be investigated through matching by age and sex, wheelchair users with spina bifida (a congenital spinal cord condition) and wheelchair users with traumatic spinal cord injuries.

APPENDICES

APPENDIX A

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS

APPENDIX A

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS

Directions

Please answer the questions in this booklet as honestly as you can. The statements were designed to measure how you view yourself, and how you view life in general. Be as honest as you possibly can.

Work quickly, not spending too much time on any one question. There are no right or wrong answers to these questions.

Make your marks on the answer sheet next to the same number that appears before the question. Please use a number two pencil.

DO NOT MARK ON THIS BOOKLET

All items are to be rated:

(1) Definitely true of me

(2) True of me, or mostly true of me

(3) Not true of me, or mostly not true of me

(4) Definitely not true of me

Example:

1. I believe that people should save money.

ANSWER SHEET

1. (1) (2) (3) (4) (5) Please ignore this response

This person marked space number one on question one indicating the belief that people should save money is "definitely true of me."

NOW TURN THE PAGE AND BEGIN

Use the BLUE answer sheet first.

1. I learn fast.
2. I generally attend community or school meetings.
3. I have gone door-to-door collecting signatures on a petition.
4. I give blood (or would if not medically prohibited).
5. My life is the result of choices I have made.
6. When I have to speed up and meet a deadline, I can still do good work.
7. I generally feel pleased with my performance when I talk in front of a group.
8. I like children.
9. I have difficulty in getting down to work.
10. If I want to, I can charm a member of the opposite sex.
11. I make it a point to vote in all elections.
12. I check things out for myself.
13. When I argue, I use facts to support my position.
14. When the situation demands, I can go into deep concentration concerning just about anything.
15. I publicly question statements and ideas expressed by others.
16. People are more important to me than material things are.
17. It's easy for me to know whether people really like me.
18. I enjoy interacting with children.
19. I have volunteered my name as a witness at the scene of a crime or an accident.
20. I enjoy being sexually stimulated.
21. I have actually sought out information about my school board members in order to form an opinion.
22. I do things for my community.
23. How many friends I have depends on how pleasing a person I am.
24. I handle myself well at social gatherings.
25. I can work on ideas for hours.

26. I have "put myself on the line" in my relations with others.

27. My social life is full and rewarding.

28. When things are not going right in my work, I reason my way through the problems.

29. It is hard for me to keep my mind on what I am trying to learn.

30. I am confident when learning a complicated task.

31. If I can't solve a problem quickly, I lose interest.

32. I like problems that make me think for a long time before I solve them.

33. I enjoy finding out whether or not complex ideas work.

34. I like problems which have complicated solutions.

35. When I was younger, I wanted to run away from home.

36. I enjoy parties.

37. I feel self-confident in social situations.

38. I can work even when there are distractions.

39. I feel uneasy if I don't know the next step in a job.

40. I can work under pressure.

41. I feel that people are genuinely interested in me.

42. In times of trouble, I have friends I turn to.

43. It is hard for me to work on a thought problem for more than an hour or two.

44. I learn well when someone gives me the problem and lets me work out the details myself.

45. I have difficulty imagining how other people feel.

46. People like to work with me.

47. In times of crisis, I'm one of the first people my friends call for help.

48. When I was prepared, teachers couldn't fool me with trick questions.

49. I am dedicated to my work.

50. In my work I show individuality and originality.

51. I am proud of my work.

52. My plans work out.

53. I get stage fright when I have to appear before a group.

54. When I'm in a group, I feel confident that what I have to say is acceptable.

55. I get caught up in my work.

56. I like to solve problems.

57. When I get hold of a complicated problem, I return to it again and again until I come up with a workable solution.

58. I get along with people.

59. The thought of making a speech in front of a group panics me.

60. I feel inferior to most people.

61. For me to learn well, I need someone to explain things to me in detail.

62. When I took a new course in school, I felt confident that I would do all right.

63. I play around so much I have a hard time getting a job done.

64. No matter what the task, I prefer to get someone to do it for me.

65. I feel proud of my accomplishments.

66. I will probably always be working on new projects.

67. My judgement is sound.

68. People expect too much of me.

69. I feel useless.

70. I'm interested in people.

71. I enjoy doing favors for my friends.

72. I am always a loyal friend.

73. I do many things well.

74. I like to participate actively in intense discussions.

75. When I sit down to learn something, I get so caught up that nothing can distract me.

76. I know the children who live in my neighborhood.

77. I think about the big issues of life.

78. I like to discuss ways to solve the world's problems.

79. When I decide to do something, I am determined to get it done.

80. I like to answer children's questions.

81. I give clothing and other items to charitable organizations such as the Salvation Army.

82. I lend things to my neighbors when they need them.

83. I work to make my community better for children.

84. I have gone door-to-door collecting money for charity.

85. I see to it that my work is carefully planned and organized.

86. I find it hard to keep my mind on a task or job.

87. I go at my work without much planning ahead of time.

88. I am proud of the accomplishments I have made at work.

89. Completed and polished products have a great appeal for me.

90. I read a great deal even when my work does not require it.

91. I have worked on a school committee.

92. I devote time to helping people in need.

93. I feel there is nothing I can do well.

94. I am active in community or school organizations.

95. Children bore me.

96. I can stay with a job a long time.

97. I like curious children.

98. Young people are doing a lot of fine things today.

99. I enjoy the times I spend with young people.

100. Children's imaginations fascinate me.

101. I have met the leaders of my community and have formed my own opinions about them.

102. I keep my word.

103. I do not understand myself.

104. Because I have to be so different from situation to situation, I feel that the real me is lost.

105. Children talk to me about personal things.

106. I am proud of my accomplishments.

107. I enjoy things that make me think.

108. I enjoy explaining complex ideas.

109. I get those things done that I want to do.

110. I am pretty much the same person from situation to situation.

111. I do not expect people to be consistent.

112. I have very few good qualities.

113. Often other people determine the kind of person I am.

114. My work is usually up to the standards set for me.

115. I am determined to be the kind of person I am.

116. I'm just not very good with children.

117. I am good at solving puzzles.

118. My happiness is pretty much under my own control.

119. I feel disappointed and discouraged about the work I do.

120. I keep up with community news.

121. Once I have committed myself to a task, I complete it.

122. I feel more confident playing games of skill than games of choice.

123. I feel confident when learning something new that requires that I put myself on the line.

124. I never have serious talks with my friends.

125. I like the way young children say exactly what they think.

126. I like to participate in intense discussions.

127. I feel awkward around members of the opposite sex.

128. I analyze my own motives and reactions.

129. I feel deep concern for people who are less well off than I am.

130. People of the opposite sex think well of me.

131. I enjoy interacting with children.

132. I find it easy to introduce people.

PLEASE TURN OVER YOUR ANSWER SHEET AND CONTINUE MARKING YOUR ANSWERS.

133. My table manners at home are as good as when I eat out in a restaurant.

134. I am a worthwhile person.

135. It is very important that my mate loves me.

136. My life is what I made it to be.

137. My basic state of happiness is dependent upon me.

138. I make my own decisions.

139. I can't stand the children who live in my neighborhood.

140. It's pretty neat to be me.

141. I get a feeling for the meaning of life through contemplation.

142. I have not deliberately said something that hurt someone's feelings.

143. I like myself.

144. Compliments embarrass me.

145. I am self confident.

146. I am not irked when people express ideas very different from my own.

147. Getting along with loudmouthed, obnoxious people is impossible for me.

148. Even though I do not like the thought of it, my death does not frighten me.

149. I have had experiences in life which were so intense that they were almost mystical.

150. I feel good when others do something nice for me.

151. I am close to someone with whom I talk about my feelings.

152. I have been so close to somebody, that it is not possible to find adequate words to describe the feelings.

153. I don't think I'll ever find someone to love.

154. My values change as I discover more about life and the universe.

155. I ignore the feelings of others.

156. I would not care to be much different than I am.

157. I get a feeling for the meaning of life through art.

158. My feelings about nature are almost sacred.

159. I am sometimes irritated by people who ask favors of me.

160. With the person I am closest to, I share my inner feelings of confidence.

161. I find myself thinking about things much more deeply than I did in years past.

162. There have been times when I was quite jealous of the good fortune of others.

163. I keep my word.

164. I cannot stand silence.

165. When someone says something critical about me, I keep my composure.

166. The best times of my life were in the past.

167. Even when I am doing something I really enjoy, I can never get totally involved.

168. After a lot of hard struggling, I am comfortable being me.

169. I enjoy privacy.

170. I have been so close to someone that our relationship seemed almost mystical.

171. When I get angry at someone, I boil inside without letting them know.

172. As far as I know about myself, once I choose a mate, I do so for life.

173. For me to act on a sexual urge, I have to have feelings for the other person.

174. I am sensitive to how other people feel.

175. When I am alone, silence is difficult to handle.

176. I learn from constructive thinking.

177. There have been occasions when I felt like smashing things.

178. It's good to be alive.

179. I have been so close to someone, that at times it seemed like we could read each other's mind.

180. I have no one with whom I feel close enough to talk over my day.

181. I get a feeling for the meaning of life through beauty.

182. I like to be by myself a part of every day.

183. I have had experiences in life when I have been overwhelmed by good feelings.

184. I trust the spontaneous decisions I make.

185. With the person I am closest to, I share my inner anxieties and tensions.

186. I play fair.

187. I can make big decisions by myself.

188. I am amazed at how many problems no longer seem to have simple right and wrong answers.

189. I don't worry whether anyone else will like the friends I choose.

190. I like being by myself.

191. I am a citizen of the world.

192. I am basically cooperative when I work.

193. It is very important that my mate likes to snuggle.

194. When I get angry at someone, it rarely wrecks our relationship.

195. I can see little reason why anyone would want to compliment me.

196. I am strong enough to make up my own mind on difficult questions.

197. I am comfortable being alone.

198. I have a person with whom I talk about my deepest feelings about sex.

199. The more I look at things, the more I see how everything fits with everything else.

200. I find there are a lot of fun things in this world to do alone.

201. Even though I am pretty much in touch with who I am, I am always discovering new aspects of myself.

202. The inner wisdom of people never ceases to amaze me.

203. I feel strongly about some things.

204. It is very important that my mate be thoughtful of me.

205. I get a feeling for the meaning of life through nature.

206. Life gets better as I get older.

207. When I get angry at someone, I tell them about it, and it's over.

208. There is at least one person in my life with whom I can talk about anything.

209. Whatever age I am always seems to be the best.

210. With the person I am closest to, I share my inner feelings.

211. There have been times when I felt like rebelling against people in authority even though I knew they were right.

212. No matter who I'm talking with, I'm a good listener.

213. If someone criticizes me to my face, I listen closely to what they are saying about me before reacting.

214. I have had an experience where life seemed just perfect.

215. I am outspoken.

216. Circumstances beyond my control are what make me a basically unhappy person.

217. I can take a stand.

218. I have a sense of awe about the complexity of things in the universe.

219. I have had moments of intense happiness, when I felt like I was experiencing a kind of ecstasy or a natural high.

220. I can remember "playing sick" to get out of something.

221. I give help when a friend asks a favor.

222. No matter what the task, I prefer to do it myself.

223. I like to gossip at times.

224. If someone criticizes me to my face, I feel low and worthless.

225. I sometimes try to get even rather than forgive and forget.

226. I do not intensely dislike anyone.

227. I like being able to change my plans without having to check with somebody.

228. I see to it that my work is carefully planned and organized.

229. My values are formed from many sources, and I integrate them to give meaning to my life.

230. With the person I am closest to, I share my inner feelings of weakness.

231. I seem to understand how other people are feeling.

232. I just can't be courteous to people who are disagreeable.

233. When people express ideas very different from my own, I am annoyed.

234. When I was young, there were times when I wanted to leave home.

235. Being close to another person means sharing my inner feelings.

236. I value the deep relationship I have formed with the opposite sex.

237. I sometimes feel resentful when I don't get my way.

238. It is very important that my mate likes to touch me and be touched by me (hold hands, hug, etc.).

239. I feel free to express both warm and hostile feelings to my friends.

240. Being deeply involved with someone of the opposite sex is really important to me.

241. How many friends I have depends on how pleasant a person I am.

242. I am ashamed of some of my emotions.

243. I never like to gossip.

244. For me, sex and love are tightly linked together.

245. The closest I get to another person is to share my opinions and ideas.

246. Reading or talking about sex stimulates me.

247. I get a feeling for the meaning of life through music.

248. I have not found a person with whom I can be close.

249. As I look back at my past decisions, although I wish I might have done things differently, I realize those were the best decisions I could make at the time.

250. My morals are determined by the thoughts, feelings, and decisions of other people.

251. I act independently of others.

252. I wouldn't enjoy having sex with someone I was not close to.

253. I go out of my way to avoid being embarrassed.

254. I rarely check the safety of my car no matter how far I am traveling.

255. I have been punished unfairly.

256. Sometimes I deliberately hurt someone's feelings.

257. With the person I am closest to, I share my inner feelings of tenderness.

258. I have had experiences in life when I have felt so good that I have felt completely alive.

PLEASE BEGIN MARKING YOUR RESPONSES ON THE BROWN ANSWER SHEET

1. If I were one of the few surviving members from worldwide war, I would make it.

2. People like me.

3. No one understands me.

4. My parents caused my troubles.

5. It takes a lot to frighten me.

6. There are questions that interest me which will not be answered in my lifetime.

7. I must defend my past actions.

8. It's hard for me to say "no" without feeling guilty.

9. I feel optimistic about life.

10. My free time is spent aimlessly.

11. Feelings of guilt hold me back from doing what I want.

12. My word is my bond.

13. I admit my mistakes.

14. I worry or condemn myself when other people find fault with me.

15. I am happy.

16. I believe people are basically good.

17. My feelings are easily hurt.

18. Whatever stage of life I am in is the best one.

19. When somebody does me wrong, I get so hung up on my own feelings I can't do anything but brood.

20. When I feel tense, there is a good reason.

21. I like being able to come and go as I please.

22. I have taken time to help my neighbors when they need it.

23. I worry about things that never happen.

24. I have feelings of doom about the future.

25. I trust others.

26. I am basically an unhappy person.

27. My family understood me while I was growing up.

28. Mostly I like to just sit at home.

29. I am happy with the pace or speed with which I make decisions.

30. People hurt my feelings without knowing it.

31. I take the unexpected in my stride.

32. I frighten easily.

33. I eat balanced meals.

34. I find people are consistent.

35. My day-to-day frustrations do not get in the way of my activities.

36. I think the best way to handle people is to tell them what they want to hear.

37. I worry about my future.

38. It takes something of real significance to upset me.

39. My mistakes annoy me, but do not frighten me.

40. Guilt is a feeling I seem to have outgrown.

41. I believe the best times are now.

42. I constantly need excuses for why I behave the way I do.

43. When I feel worried, there is usually a pretty good reason.

44. Basically, I feel adequate.

45. I like people who say what they really believe.

46. I learn things as fast as most people who have my ability.

47. People respect my work because I do a good job.

48. I am picky about my food.

49. I don't need to apologize for the way I act.

50. I have a lot of energy.

51. I am calm.

52. No matter what the task, I prefer to get someone to do it for me.

53. I am willing to admit it when I don't know something.

54. I enjoy being sexually stimulated by someone I don't know.

55. I am an even-tempered person.

56. If a clerk gives me too much change, I correct the error.

57. I punish myself when I make mistakes.

58. My duties and obligations to others trap me.

59. I was raised in a happy family.

60. When it's time to go to bed, I fall asleep easily.

61. My parents treated me fairly.

62. I am a stable, dependable worker.

APPENDIX B

REQUEST FOR PARTICIPATION

MICHIGAN STATE UNIVERSITY

OFFICE OF PROGRAMS FOR HANDICAPPERS
477 COMMUNICATION ARTS AND SCIENCES BUILDING
(517) 353-9642 (TTY)

EAST LANSING · MICHIGAN · 48824

Dear Handicapper,

Your participation is requested in a major study on handicappers. Often we do not realize how much of an effect our involvement in a study can mean in people's thinking and orientation. Now is your opportunity to increase the awareness of many people. This study will have a tremendous impact for parents, teachers, and counselors in their understanding of handicappers. Most of all, your efforts to complete the questionnaire will help handicappers have a better understanding of themselves. You can make such a contribution a reality by your involvement.

All information received will be confidential. As soon as the questionnaire is returned, all identifying information will be removed to ensure anonymity.

As a gesture of appreciation for your help, the Project Coordinator will contribute $3.00 to one of the handicapper organizations or projects listed below for each individual returning a completed questionnaire. Please attempt to return the questionnaire packet within a week to:

Office of Programs for Handicappers
Room 477 Communication Arts - MSU
East Lansing, Michigan 48824

or

Office of Programs for Handicappers
Room 402 Main Library - MSU
East Lansing, Michigan 48824

Handicappers have often expressed that the greatest barriers experienced are attitudes and lack of knowledge. Your efforts in this study can break down those barriers.

Thankfully yours,

Judy K. Gentile
Director

Russell E. Scabbo
Project Coordinator

William W. Farquhar
Professor

- -

Please send a contribution for me to one of the following organizations or projects (Check only one):

- ☐ MSU Handicapper Student Council
- ☐ Lansing Globerollers
- ☐ MSU Environmental Enhancement Fund (for handicapper accommodations)
- ☐ MSU Fund for Visual Handicapper Reading Services

APPENDIX C

CONSENT FORM

CONSENT FORM

PARTICIPANT CONSENT FORM

I understand that the study being conducted by Russell Scabbo, under the supervision of William Farquhar, Ph.D., is for the purpose of examining developmental patterns of college handicappers. I understand that participating in this study will not result in direct benefits for me, nor will I be penalized for withdrawing from the study for any reason. I give permission to the MSU Office of Programs for Handicapper Students to release to the project coordinator their description of my handicap. In addition, I understand that the information I provide by filling out these forms will be kept in strict confidence. Only the researcher will have access to the original forms. General results will be reported, but none of these will identify individual subject's results. I know that, upon request, I will receive a report of this study's general results, within the restrictions of confidentiality as outlined above.

_____ _____

Signature Date

APPENDIX D

AAAP SURVEY FACT SHEET
(DEMOGRAPHIC INFORMATION)

AAAP SURVEY-FAMILY SKILLS

Please do not write below

Fill out completely, please.

	Write Number	Statistical Use Only
1. Your age in years:	_____	7-8
2. Your race: 1=Asian; 2=Black; 3=Caucasian; 4=Other	_____	9
3. Sex: 1=female; 2=male	_____	10
4. How many children do you have?	_____	11-12
5. Age (in years) of youngest or only child (Put X if no children):	_____	13-14
6. Age (in years) of oldest child (Put X if no children or only 1):	_____	15-16
7. Marital Status: 1=Married; 2=Living Together; 3=Divorced; 4=Widowed; 5=Never Married or Lived with Someone	_____	17
8. How many times have you been married or lived with someone?	_____	18
9. Income: (self) 1=Under $4,000; 2=$4000-6000; 3=$6000-10,000; 4=$10,000-15,000; 5=$15,00-20,000; 6=$20,000-25,000; 7=$25,000-30,000; 8=$30,000-40,000; 9=Over $40,000	_____	19
10. Education (Highest level completed, or equivalent): 1=Grade School; 2=Junior High; 3=High School; 4=Trade School; 5=BS/BA; 6=MS/MA; 7=Ed.S.; 8=Ph.D.	_____	20
11. Rate your social standing: 1 2 3 4 5 6 7 8 9 (Lower Middle Upper)	_____	21
12. Rate your sense of physical well being: 1 2 3 4 5 6 7 8 9 (Unhealthy Average Healthy)	_____	22
13. Rate your sense of emotional well being: 1 2 3 4 5 6 7 8 9 (Unhappy Average Happy)	_____	23
14. Rate your sense of job satisfaction: 1 2 3 4 5 6 7 8 9 (Dissatisfied Average Satisfied)	_____	24
15. Rate your sense of satisfaction with personal relationships: 1 2 3 4 5 6 7 8 9 (Dissatisfied Average Satisfied)	_____	25

When you return your completed answer sheet, this card will be removed and filed for reference under conditions of strictest confidence.

Code Number: _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Phone( ) _____ ( ) _____
Work Home

16. HANDICAP (Mark X)

___ BLIND - (Legally blind) Vision is less than 20/200 in the better eye with best correction or a visual field of less than 20 degrees. Information is processed by braille and/or auditory format.

___ PARTIAL SIGHTED - Vision is 20/70 to 20/200 in the better eye with best correction. Information is processed by enlarged print and/or auditory format.

___ DEAF - Profound hearing loss more than 91 dB ISO (International Standards Organization). Even with amplification the main mode of communication includes but not limited to lipreading, sign language, fingerspelling or written format.

___ HARD OF HEARING - Hearing losses other than profound
___ SEVERE (71 - 90 dB) ___ MODERATE (41 - 70 dB)
___ MILD (26 - 40 dB), in which with or without amplification, the perception of conversational speech is decreased but still permits understanding of speech under optimal conditions.

___ POWERED WHEELCHAIR USER - Physical involvement prevents ambulation and functional use of upper extremities, which does not permit independent transfer from wheelchair.

___ MANUAL WHEELCHAIR USER - Physical involvement prevents ambulation but whose functional use of upper extremities permits independent transfer from wheelchair.

___ CANE USER (Other than white cane)

___ CRUTCH USER

___ GAIT DIFFICULTIES - Ambulates without cane or crutches.

___ OTHER (Please specify) _____

17. ONSET OF HANDICAP

_____Birth _____ Age of onset

APPENDIX E

TABLE E.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS: STAGE 1 CORRELATION MATRIX

Appendix E

Table E.1

Assessment of Adult Adjustment Patterns: Stage 1 Correlation Matrix

ITEM	VE18	VE37	VE26	VE50	VE24	VE44	VE15	VE48	VE9	VE41
VE18	1.00000									
VE37	.36547	1.00000								
VE26	.35637	.38708	1.00000							
VE50	.35311	.17719	.22109	1.00000						
VE24	.36846	.38741	.33629	.28089	1.00000					
VE44	.18936	.19015	.21873	.18403	.15394	1.00000				
VE15	.53569	.38214	.56386	.38571	.44765	.34815	1.00000			
VE48	.12900	.07596	.29519	.01480	.05684	-.03903	.12899	1.00000		
VE9	.40018	.24083	.35920	.33666	.41160	.25015	.54848	.03552	1.00000	
VE41	.48682	.37731	.24858	.31768	.28304	.19513	.35223	-.06432	.21932	1.00000
VE33	.22895	.07658	.11501	.09137	.20048	.08204	.18067	.38487	.18546	.04979
VE60	.26625	.31201	.32318	.16583	.23481	.22812	.29231	.18087	.12930	.30499
VE16	.36150	.07856	.16325	.33522	.19081	.04731	.28747	-.01246	.40826	.13334
VE32	.22116	.33120	.16638	.19080	.28420	.10604	.21810	.11296	.17883	.20956
VE34	.20596	.21458	.04298	.06660	.06255	.22069	.04670	-.11984	.10946	.24898
VE43	.26618	.12375	.23136	.23438	.19049	.45664	.44361	-.00472	.25077	.21616
VE55	.18680	.11333	.09316	.09721	.06439	.24918	.11935	-.00976	.11500	.17755
VE23	.12534	.33724	.16194	.01618	.30498	.11564	.11331	.05775	.08904	.21454
VE51	.33025	.26652	.10437	.17010	.22527	.26771	.34541	-.04444	.25329	.31648
VE31	.23047	.12558	.16814	.21090	.14729	.32899	.21698	-.02333	.13347	.34590
VE38	.22692	.35058	.33930	.26847	.22428	.16195	.29101	.14304	.20812	.32111
VE1	.26131	.10569	.15239	.13050	.08094	.10716	.24540	-.05579	.25561	.16209
VE5	.21368	.20204	.08696	.20340	.33861	.04477	.19456	.02262	.15610	.10207
VE25	.37017	.10365	.31924	.27982	.27181	.14731	.24158	.21616	.17616	.17848
VE20	.33225	.07321	.23432	.18289	.14506	.16437	.28132	.07698	.13035	.22211

Appendix E
continued

ITEM	VE33	VE60	VE16	VE32	VE34	VE43	VE55	VE23	VE51	VE31
VE33	1.00000									
VE60	.18075	1.00000								
VE16	.12679	.10518	1.00000							
VE32	.21559	-.00082	-.00771	1.00000						
VE34	.01619	.09614	.22456	-.05073	1.00000					
VE43	.01750	.11053	.20208	.34283	.02892	1.00000				
VE55	.07244	.02893	-.00532	.23804	.17815	.21959	1.00000			
VE23	.08812	.13586	.02724	.35872	.02796	.19776	.07186	1.00000		
VE51	.05944	.05554	.22122	.25907	.24127	.41349	.39837	.29047	1.00000	
VE31	.07821	-.00935	.02361	.30914	.02212	.43231	.34802	.19132	.41443	1.00000
VE38	.13751	.06513	.16059	.38884	.16347	.41622	.17107	.27303	.36782	.33497
VE1	-.01255	.12934	.03746	.14938	-.06503	.19918	.16629	.01548	.21864	.09304
VE5	.07683	.14162	.10335	.55103	.00138	.32130	.06890	.27558	.20155	.17603
VE25	.30227	.16143	.42449	.10945	.20462	.11672	.16621	.03152	.17095	.18790
VE20	.10416	.11237	.16826	.21089	-.05070	.44080	.07918	.11773	.19256	.26033

ITEM	VE38	VE1	VE5	VE25	VE20
VE38	1.00000				
VE1	.04938	1.00000			
VE5	.35791	.13323	1.00000		
VE25	.38491	.01626	.10319	1.00000	
VE20	.37821	.16675	.22886	.22735	1.00000

APPENDIX F

TABLE F.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS:
STAGE 1 CORRECTED ITEM-TOTAL CORRELATION
ALPHA IF ITEM DELETED

Appendix F

Table F.1

Assessment of Adult Adjustment Patterns: Stage 1 Corrected Item-Total Correlation Alpha if Item Deleted

Item	Corrected Item-Total Correlation	Alpha If Item Deleted
VE18	.61352	.84135
VE37	.48270	.84595
VE26	.50322	.84559
VE50	.42141	.84850
VE24	.50035	.84576
VE44	.38122	.85043
VE15	.64044	.84162
VE48	.13659	.85855
VE9	.48390	.84663
VE41	.49433	.84567
VE33	.26316	.85421
VE60	.33403	.85167
VE16	.31464	.85148
VE32	.44948	.84731
VE34	.18329	.85596
VE43	.51217	.84532
VE55	.29618	.85207
VE23	.32352	.85158
VE51	.50085	.84598
VE31	.41196	.84859
VE38	.53786	.84406
VE1	.23153	.85458
VE5	.37251	.84989
VE25	.42376	.84864
VE20	.38796	.84954

APPENDIX G

TABLE G.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS: STAGE 4 CORRELATION MATRIX

Appendix G

Table G.1
Assessment of Adult Adjustment Patterns: Stage 4 Correlation Matrix

ITEM	V32	V33	V34	V12	V13	V14	V43	V90	V123	V75
V32	1.00000									
V33	.50279	1.00000								
V34	.61099	.51142	1.00000							
V12	.22228	.21863	.18018	1.00000						
V13	.19927	.34435	.21042	.37229	1.00000					
V14	.25090	.32416	.22246	.24772	.34145	1.00000				
V43	.37509	.26884	.30175	.11377	-.02452	.21484	1.00000			
V90	.23081	.24507	.17466	.32006	.21225	.23565	.06493	1.00000		
V123	.25171	.29735	.12105	.25045	.11664	.23490	.18109	.11788	1.00000	
V75	.24842	.14537	.35374	.12053	.06236	.16055	.22732	.15686	.20050	1.00000
V15	.25207	.31408	.25754	.16903	.31877	.34524	.09935	.17261	.24966	.15866
V25	.28652	.41200	.22720	.10470	.19000	.26504	.28858	.17019	.18525	.16898
V31	.29894	.32362	.34866	.19807	.14284	.13286	.55763	.09487	.04240	.13977
V66	.07791	.23111	.10530	.17564	.12969	.23774	.21564	.15544	.18849	.03745
V55	.14234	.37214	.13853	.17034	.12680	.22941	.23638	.13665	.07646	.17984
V56	.25492	.50883	.31185	.03456	.23340	.24436	.21423	.20417	.12067	.23027
V57	.30341	.40640	.27870	.16420	.27835	.25432	.35210	.24923	.33196	.11001
V44	.24920	.32271	.34354	.21255	.12608	.11434	.21405	.08071	.35156	.13325
V107	.33717	.37823	.26060	.32822	.32813	.39182	.32771	.37815	.23427	.18636
V108	.38965	.45061	.31778	.10789	.32948	.25409	.24019	.18891	.17170	.13441
V117	.41545	.49182	.45504	.03763	.19650	.33449	.24262	.16711	.15730	.11115
V73	.17639	.31163	.20809	.19410	.28542	.22034	.07000	.18364	.29896	.28142
V93	.02812	-.00397	.09759	.11155	-.08284	.03717	.19503	.02252	.09050	.15593
V88	.12328	.26634	-.00901	.16164	.18664	.25522	.13577	.04724	.30699	.05833
V89	-.00636	.26691	.10110	.10745	.15216	.07928	-.03459	.07688	.10639	.04360
V122	.23612	.32620	.12069	.06231	.21092	.18499	.12954	.19045	.21691	.14841
V144	.16639	.14349	.07940	.13526	.07465	.12991	.19488	.11498	.22366	-.06047
V96	.16258	.34510	.15723	.13473	.08118	.25342	.31406	.17720	.08619	.19849
V106	.14410	.23830	-.00036	.15244	.21153	.26449	.20187	.13578	.32885	.13438
V65	.08630	.26063	.05474	.01942	.11187	.21249	.15593	.02450	.23023	-.06042

Appendix G
continued

ITEM	V32	V33	V34	V12	V13	V14	V43	V90	V123	V75
V48	.16901	.32681	.06731	.03507	.29125	.24128	.01529	.19198	.19409	.13562
V49	.12411	.27148	.09169	.19592	.16397	.19389	.19890	.08818	.21872	.22160
V50	.14068	.18957	.14616	.15790	.19115	.27743	.11439	.16269	.22614	.20957
V51	.22592	.35311	.12340	.25277	.27410	.33050	.16054	.19890	.32978	.19423
V63	.03262	.06236	-.03746	.14599	-.00305	-.02491	.09258	.12550	.03388	.15273
V28	.20585	.28307	.12897	.19274	.06654	.23903	.03941	.13332	.16905	.04912
V29	.31174	.26364	.32306	.22240	.06044	.17132	.37659	.19103	.14320	.23375
V9	.16104	.14997	.17491	.12840	-.18783	.00741	.34212	.10562	.01504	.10617
V85	.01013	.13552	-.03750	.09678	.10786	.06429	.06020	.07292	.08699	.13034
V86	.25876	.31041	.21981	.10914	-.06057	.20711	.42506	.10900	.03315	.18917
V87	.12216	.20921	.02480	.01201	.00157	.00270	.19075	.03696	.03143	.03351
V121	.21185	.28185	.17062	.23961	.31713	.28530	.18078	.15675	.16785	.32100
V79	.02479	.31685	.10050	.15381	.20983	.22194	.16559	.15679	.11707	.31038
V118	.08667	.10826	-.03090	.21180	.15741	.20102	.17236	.04170	.36341	.18636
V119	.12026	.22040	.02728	.13590	.10232	.21480	.25402	.07868	.29913	.04906
V67	.20642	.23152	.14359	.28651	.37058	.28257	.27852	.19065	.11453	.14608
V68	.18534	.09951	.08476	.18560	-.03787	.14068	.25945	.05935	.07247	.01627
V69	.12505	.17498	.10187	.08421	.03730	.24487	.27017	.01162	.07538	.07908
V52	.10576	.26786	.15090	.20738	.17888	.26660	.14669	.18244	.14120	.17103
V38	.17848	.14309	.17497	.10062	.04092	.17708	.25715	.18889	.06416	.23196
V39	.14198	-.01853	.11205	.02742	-.00465	.07923	.22014	.06094	.10685	.07742
V40	.21200	.15968	.10274	.05736	.07781	.24890	.33477	.09983	.16219	.15373
V6	.14690	.08667	.10227	.15462	.09161	.12294	.13628	.13258	.14713	.13063
V7	.00472	.17592	.05204	.14135	.19445	.18364	.07639	.01976	.38483	.08824
V53	.04032	.06256	-.08499	.12714	.01468	.16518	.16878	.03636	.21689	.05821
V54	.03215	.17317	.07890	.10028	.11678	.31545	.14898	.07162	.27068	.14121
V59	.02905	.12074	-.05406	.22513	.16742	.11145	.16386	.08445	.42091	.04137
V60	.06222	.06265	.03741	.12970	.08027	.11811	.16529	.03161	.21319	.10106
V61	.11534	.07412	.26460	.20024	.00979	.16094	.24707	.09054	.12538	.08624
V62	.20405	.11141	.21519	.13274	.15536	.24359	.26510	.17119	.26192	.20601
V30	.33902	.39055	.31739	.23567	.19033	.27465	.21257	.06583	.32446	.17259
V1	.15290	.26143	.22034	.23670	.27346	.23859	.06589	.15409	.15501	.09558

Appendix G
continued

ITEM	V15	V25	V31	V66	V55	V56	V57	V44	V107	V108
V15	1.00000									
V25	.17400	1.00000								
V31	.07981	.27578	1.00000							
V66	.16278	.29641	.04728	1.00000						
V55	.20356	.28024	.18326	.36356	1.00000					
V56	.18332	.27265	.21181	.26981	.46380	1.00000				
V57	.23532	.36335	.32110	.31819	.21567	.27627	1.00000			
V44	.13571	.09519	.17551	.11064	.05266	.26081	.17815	1.00000		
V107	.18332	.28722	.30547	.22912	.27626	.41529	.31448	.27776	1.00000	
V108	.26420	.26478	.20580	.09449	.19874	.37265	.19760	.17851	.45031	1.00000
V117	.18254	.23978	.14484	.15015	.23674	.39983	.35246	.27144	.16741	.26150
V73	.15371	.14081	.02060	.29052	.18627	.32655	.26446	.20585	.26230	.23118
V93	.04301	.13578	.10723	.07721	.04093	.13839	.03055	.05520	.18414	.07144
V88	.23586	.17465	.11853	.20124	.22290	.31441	.22700	.14657	.26732	.20648
V89	.22316	.05764	-.00309	.15510	.19483	.16206	.14458	.10871	.21172	.11018
V122	.18892	.14803	.06806	.12625	.23161	.25967	.21714	.18117	.22681	.18973
V114	-.00878	.14413	.09852	.16992	.15850	.22418	.24064	.24887	.11706	.08172
V96	.10559	.33014	.33182	.17144	.25345	.27727	.24407	.08361	.24973	.15223
V106	.13931	.26898	.24190	.22267	.23617	.30038	.24573	.15185	.41119	.24795
V109	.18827	.17297	.20149	.21844	.32215	.20971	.30066	.12317	.36159	.11549
V65	.13499	.15366	.14670	.20422	.13829	.26169	.20745	.10682	.27959	.21728
V48	.25651	.18102	.03063	.17015	.10777	.21287	.22864	.05644	.15948	.14003
V49	.26394	.32819	.29480	.27296	.32690	.28812	.26678	.05654	.36240	.20673
V50	.27272	.22700	.06660	.34019	.29584	.26437	.15958	.08088	.20326	.16164
V51	.17902	.27085	.14743	.33034	.33842	.38106	.28072	.17559	.36977	.26505
V63	.09110	.09931	.18828	.06205	.11944	.14672	.09610	-.01385	.17717	-.01281
V28	.20403	.10118	.15995	.01709	.02675	.24849	.12979	.12370	.16004	.18636

Appendix G
continued

ITEM	V15	V25	V31	V66	V55	V56	V57	V44	V107	V108
V29	.05254	.06428	.36522	.15073	.17140	.14502	.15214	.28315	.27843	.18355
V9	-.07168	.26799	.31080	.06597	.19870	.12487	.10751	.10918	.20458	.06527
V85	.13501	.00425	.00905	.02361	.22280	.16481	.18189	-.00649	.24868	.14524
V86	.05758	.17065	.28813	.04255	.20185	.31161	.21755	.33632	.32922	.17286
V87	.03035	-.01495	.14162	.00708	.06111	.16572	.07289	.18338	.16847	.06437
V121	.19183	.25818	.23283	.23671	.30938	.22782	.31025	.18025	.30651	.13844
V79	.26547	.32860	.22531	.39816	.28753	.30704	.29322	.16140	.26341	.14257
V118	.01636	.17164	.04362	.28118	.21897	.11954	.12356	.10393	.15560	.11226
V119	.14171	.23583	.19134	.14721	.22080	.23035	.17892	.04280	.22912	.14842
V67	.12791	.15078	.23601	.23857	.22721	.20103	.13696	-.00263	.38746	.20872
V68	.01888	.14101	.16847	.12972	.12887	.07635	.05034	.22400	.19854	.00675
V69	.07655	.26598	.15890	.15290	.21074	.07767	.18978	.10270	.14992	.12736
V52	.18574	.13819	.09008	.24212	.23397	.12570	.08977	.02927	.19410	.08510
V38	.06526	.15706	.26232	.20879	.16219	.16116	.25641	.11084	.13297	.01423
V39	.09046	.03461	.05064	.11769	.00020	-.00246	.10938	-.08021	.10515	.14789
V40	.14947	.25906	.18517	.21288	.21039	.24065	.20260	.08897	.27199	.17105
V6	.13537	.19423	.06125	.20841	.06580	.16416	.19619	.20190	.25234	.09698
V7	.30186	.21310	.03072	.31076	.17046	.15145	.25006	.07954	.16382	.07106
V53	.01864	.13700	.08333	.05356	-.00287	.03492	.11782	-.02244	.11575	.07519
V54	.25629	.16648	.12221	.18847	.28556	.25001	.26595	.07431	.22056	.15420
V59	.18506	.15945	.09308	.11066	.07197	.05319	.24452	.07076	.16274	.16122
V60	.17384	-.04622	.11636	.01518	.07834	.00776	.12530	.09580	.16267	.10317
V61	.18530	.01346	.18368	.19738	.04507	.13451	.26286	.30696	.14365	-.00140
V62	.20241	.25327	.15498	.17211	.09124	.13949	.19596	.03756	.33182	.25858
V30	.29009	.22886	.19443	.14855	.13763	.25036	.21711	.24294	.19151	.25419
V1	.24254	.12372	.04899	.25835	.22795	.23151	.23075	.28502	.22790	.12794

Appendix G
continued

ITEM	V117	V73	V93	V88	V89	V122	V114	V96	V106	V109
V117	1.00000									
V73	.29037	1.00000								
V93	.08434	.25889	1.00000							
V88	.18031	.30433	.14018	1.00000						
V89	.07986	.23544	-.03841	.34499	1.00000					
V122	.36452	.31124	-.02477	.23801	.28326	1.00000				
V114	.20796	.28785	.09474	.27210	.06949	.25634	1.00000			
V96	.18380	.23874	.11769	.23326	.11341	.27064	.24691	1.00000		
V106	.10315	.35294	.21253	.65170	.16530	.19706	.20652	.22978	1.00000	
V109	-.01237	.20236	.13356	.28797	.16133	.12951	.17607	.17611	.33191	1.00000
V65	.05922	.25531	.12972	.47174	.11235	.11203	.22329	.12037	.57373	.22573
V48	.22686	.30737	.01734	.37251	.21241	.16946	.15894	.09661	.27500	.16689
V49	-.08519	.23617	.09532	.35191	.24896	.04185	.06583	.36218	.41098	.28702
V50	.08008	.34724	.30710	.38520	.26532	.18610	.23816	.20491	.37479	.18290
V51	.19188	.38506	.14213	.71077	.25363	.22518	.34871	.23498	.63650	.30603
V63	-.09067	.16376	.13134	.24989	.02803	.04254	.09840	.25368	.23907	.16166
V28	.24430	.27044	.17772	.38018	.08357	.26590	.22223	.18313	.29959	-.02020
V29	.17297	.08227	.09050	.08955	-.04576	.16166	.14708	.24603	.22765	.23069
V9	.03408	.00997	.14187	.00345	-.03139	.01673	.07972	.26906	.05382	.06740
V85	.09190	.11525	.03140	.33396	.20046	.12008	.09115	.20960	.32902	.13326
V86	.24122	.13940	.24061	.13463	.02880	.21103	.18301	.34642	.17033	.23641
V87	.14584	.05903	.10457	.20219	.12842	.13243	.13625	.15577	.16363	.14568
V121	.04228	.27370	.05606	.29208	.21264	.30325	.11503	.32843	.35726	.33893
V79	.09618	.25002	.10315	.30694	.24919	.18046	.07628	.30292	.41331	.37000
V118	.06564	.45342	.27505	.36397	.04557	.18660	.27562	.14827	.41768	.35636

Appendix G
continued

ITEM	V117	V73	V93	V88	V89	V122	V114	V96	V106	V109
V119	.12971	.32095	.27904	.50124	.04889	.19052	.27428	.25401	.43157	.28555
V67	.11270	.34400	.07700	.20802	.20424	.19287	.09533	.28726	.22710	.30755
V68	.22882	.11457	.16494	-.01423	.01704	.03905	.05544	.10407	.05638	-.00864
V69	.07428	.13821	.28113	.23584	-.01072	.13623	.33708	.20893	.24670	.20119
V52	.06932	.11631	.04811	.25964	.20953	.04359	-.00066	.03272	.25329	.27391
V38	.19145	-.00408	-.05562	.07749	-.07883	.09574	.16970	.26500	.10373	.07756
V39	-.01353	-.00103	.18954	-.00568	-.16664	-.07599	.02647	.05505	-.07351	.09226
V40	.20289	.17634	.13478	.23939	-.00346	.09528	.17394	.26657	.34824	.19709
V6	.05040	.22933	.17497	.25808	.09587	.20279	.33208	.34035	.32681	.25942
V7	.06840	.18066	.20549	.25046	.19602	-.00698	.05223	.00506	.19763	.12691
V53	.03125	.11750	.09309	.02011	.05696	.14765	.01125	.19135	-.02129	.00828
V54	.20154	.20953	.18773	.33772	.14515	.13958	.22014	.12036	.30860	.23035
V59	.06487	.23689	.14250	.12378	.11063	.13893	.05667	.03314	.15398	.12481
V60	.00586	.13402	.23516	.23344	.06743	.15893	.18303	.06912	.11522	.13632
V61	.18113	.19887	.32332	.04558	-.06139	.05677	.17924	.04506	.11434	.15996
V62	.12961	.26454	.27196	.20670	.06077	.13524	.17481	.19691	.35437	.18322
V30	.31038	.31676	.16016	.30437	.18358	.28910	.16669	18695	.22896	.20274
V1	.27044	.29686	.06826	.22019	.05526	.22323	.27828	.19746	.17337	.23414

Appendix G
continued

ITEM	V65	V48	V49	V50	V51	V63	V28	V29	V9	V85
V65	1.00000									
V48	.13251	1.00000								
V49	.31045	.19102	1.00000							
V50	.21228	.26714	.38050	1.00000						
V51	.42007	.38755	.43967	.60863	1.00000					
V63	.11144	-.01845	.39088	.07150	.20854	1.00000				
V28	.21464	.25539	.11040	.25012	.35603	.11211	1.00000			
V29	.14731	.08769	.14095	.-3804	.10087	.23986	.09114	1.00000		
V9	.07753	-.00277	.24370	-.00309	.01378	.26535	.01061	.30462	1.00000	
V85	.17469	.15593	.35408	.14741	.28851	.27549	.24528	.02933	.21722	1.00000
V86	.13837	.13463	.24108	.04993	.12086	.30274	.11437	.39014	.44452	.14514
V87	.18716	.15684	.22854	.08477	.16577	.18573	.03965	.14096	.20202	.42847
V121	.29440	.11886	.47234	.31669	.34900	.25106	.17221	.18422	.16997	.36762
V79	.26682	.26923	.46090	.36847	.35521	.15122	.18563	.14564	.94128	.25906
V118	.15267	.14790	.18239	.28302	.36618	.10303	.15293	.17580	.07588	.08552
V119	.29486	.32478	.30979	.37459	.50285	.29528	.39534	.11011	.20223	.26402
V67	.11071	.14954	.29809	.32863	.29351	.09901	.18400	.18162	.07227	.14176
V68	-.00586	-.11387	-.05109	.12360	.08834	.03935	.07568	.19572	.09518	-.16376
V69	.23673	.17057	.23415	.19792	.24625	.16419	.15664	.13373	.16504	.06006
V52	.11595	.23016	.18464	.35065	.41325	-.00647	.19547	.10203	.04144	.18452
V38	.09122	.28272	.19107	.10261	.13464	-.01749	.05729	.31489	.13588	.06561
V39	.00654	-.06486	.01250	.08719	.04852	.08253	.00963	.06565	.07493	-.15035
V40	.14750	.18610	.28963	.37215	.35839	.06850	.12603	.07476	.02538	.11945
V6	.22202	.15943	.23205	.28710	.26317	.15685	.18972	.19934	.20353	.22709
V7	.11937	.16868	.23168	.35260	.24019	.00860	.12236	.02909	-.08199	.07858
V53	-.05044	-.01481	.10796	.13776	.02247	-.06160	.12202	-.00354	.11449	-.07317
V54	.21121	.16599	.24061	.32086	.35046	-.00515	.14945	.11649	.09322	.22338
V59	.01559	.12246	.17804	.23657	.13082	.01879	.17228	-.02456	.04943	-.00912
V60	.12666	.10602	.13363	.13898	.23095	.08234	.12587	.17827	.04355	.11805
V61	.11826	.03412	.05188	.15660	.09295	.02142	.03238	.27021	.11667	-.00489
V62	.18760	.18043	.27664	.34226	.33092	-.01065	.10812	.15883	.13330	.16274
V30	.15712	.22866	.20348	.29010	.30011	.02497	.29871	.13740	.10670	.11026
V1	.07694	.34569	.05556	.20048	.23273	.04323	.11331	.21198	.02340	.13369

Appendix G
continued

ITEM	V86	V87	V121	V79	V118	V119	V67	V68	V69	V52
V86	1.00000									
V87	.35337	1.00000								
V121	.32256	.25525	1.00000							
V79	.24194	.12640	.58058	1.00000						
V118	.15688	.04473	.31655	.23882	1.00000					
V119	.30185	.18020	.20896	.16740	.45263	1.00000				
V67	.21794	.10596	.36893	.28349	.33530	.29704	1.00000			
V68	.26331	-.00358	.09773	.00286	.13778	.10704	.24134	1.00000		
V69	.24067	.04506	.15756	.15066	.18569	.36695	.13942	.01545	1.00000	
V52	-.04101	.01534	.15483	.29075	.24635	.25872	.40281	.11254	.23376	1.00000
V38	.24819	.09308	.20419	.22279	.06016	.14077	.14262	.07124	.09268	.15155
V39	.01588	-.18051	-.16131	-.20928	.09333	.11769	.04788	.06447	.08234	.08087
V40	.19154	.10052	.14229	.17974	.19911	.35088	.23567	.07837	.23504	.19496
V6	.15136	.17649	.15864	.16525	.17739	.30473	.21230	-.03838	.20781	.11431
V7	-.09112	-.00241	.16214	.24030	.27585	.21372	.22147	.09903	.11264	.16552
V53	.02812	.04033	.09563	-.01276	.13828	.16309	.18619	.08787	.13011	.08415
V54	.06305	.14659	.32933	.37944	.24964	.21262	.13512	.03290	.22488	.23451
V59	.01446	.05239	.03997	.05704	.25726	.29474	.21974	.07514	.12541	.16661
V60	.15293	.17147	.17020	.12244	.18903	.27018	.16965	-.00252	.32893	.19682
V61	.22930	.02973	-.00113	.09965	.16831	.16674	.12001	.20480	.10672	.10770
V62	.11456	.01947	.10642	.25276	.24866	.28955	.30960	.08445	.18965	.22845
V30	.09899	.01126	.21776	.19405	.27483	.35837	.30462	.13073	.20742	.17577
V1	.14123	.05193	.07635	.15703	.20740	.23383	.15002	-.03142	.13365	.19502

Appendix G
continued

ITEM	V38	V39	V40	V6	V7	V53	V54	V59	V60	V61
V38	1.00000									
V39	-.00742	1.00000								
V40	.33009	.21644	1.00000							
V6	.19151	.06171	.31627	1.00000						
V7	.06552	.00714	.16555	.20866	1.00000					
V53	.05446	.00086	.18595	.13496	.36808	1.00000				
V54	.13949	.00266	.19382	.09950	.39267	.29760	1.00000			
V59	.01143	.05183	.17512	.19292	.53394	.66393	.26837	1.00000		
V60	.08259	.11229	.19494	.12443	.31872	.30225	.38244	.41130	1.00000	
V61	.15718	.28105	.16994	.27991	.09098	-.12300	.14391	.09121	.10464	1.00000
V62	.08905	.17805	.32253	.32336	.21584	.13297	.32398	.25552	.22395	.31141
V30	.15707	.06054	.28212	.23034	.25139	.14927	.36836	.18423	.19293	.30841
V1	.16874	.13775	.20239	.37870	.16368	-.01644	.15787	.14204	.15484	.32810

ITEM	V62	V30	V1
V62	1.00000		
V30	.30653	1.00000	
V1	.18128	.28080	1.00000

APPENDIX H

TABLE H.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS:
STAGE 4 CORRECTED ITEM-TOTAL CORRELATION
ALPHA IF ITEM DELETED

Appendix H

Table H.1

Assessment of Adult Adjustment Patterns:
Stage 4 Corrected Item-Total Correlation
Alpha if Item Deleted

Item	Corrected Item-Total Correlation	Alpha If Item Deleted
V32	.44187	.92486
V33	.58363	.92384
V34	.38132	.92534
V12	.37121	.92537
V13	.34361	.92553
V14	.47970	.92463
V43	.47793	.92457
V90	.30760	.92612
V123	.43648	.92491
V75	.32781	.92565
V15	.38204	.92530
V25	.44460	.92484
V31	.39934	.92518
V66	.40024	.92516
V55	.43175	.92497
V56	.50676	.92458
V57	.51526	.92449
V44	.33987	.92557
V107	.58563	.92406
V108	.40705	.92512
V117	.39155	.92524
V73	.49702	.92478
V93	.28192	.92588
V88	.52505	.92433
V89	.23527	.92624
V122	.38170	.92530
V114	.36127	.92544
V96	.45998	.92478
V106	.55525	.92436
V109	.42392	.92507
V65	.37088	.92536

Appendix H
continued

Item	Corrected Item-Total Correlation	Alpha If Item Deleted
V48	.37204	.92536
V49	.50645	.92451
V50	.50582	.92445
V51	.62534	.92376
V63	.23545	.92625
V28	.37307	.92535
V29	.38432	.92530
V9	.26073	.92641
V85	.29089	.92587
V86	.43191	.92495
V87	.24833	.92624
V121	.50268	.92465
V79	.47979	.92482
V118	.42951	.92503
V119	.54411	.92417
V67	.47489	.92486
V68	.19198	.92657
V69	.37458	.92537
V52	.37229	.92545
V38	.30790	.92592
V39	.10296	.92729
V40	.44399	.92487
V6	.42557	.92501
V7	.36398	.92542
V53	.21119	.92701
V54	.45281	.92484
V59	.33855	.92588
V60	.33265	.92568
V61	.30876	.92586
V62	.46121	.92484
V30	.51085	.92445
V1	.40439	.92515

APPENDIX I

TABLE I.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS: STAGE 5 CORRELATION MATRIX

Appendix I

Table I.1

Assessment of Adult Adjustment Patterns: Stage 5 Correlation Matrix

ITEM	V24	V41	V26	V27	V17	V18	V46	V47	V36	V37
V24	1.00000									
V41	.28908	1.00000								
V26	.27472	.36966	1.00000							
V27	.27278	.26894	.22178	1.00000						
V17	.18829	.35965	.08592	.30129	1.00000					
V18	.19969	.24178	.18918	.14292	.10721	1.00000				
V46	.54384	.36210	.24509	.28035	.26039	.25362	1.00000			
V47	.22537	.22790	.20850	.15506	.13493	.18003	.27521	1.00000		
V36	.37697	.11260	.12997	.28137	.08540	.24688	.32142	.17923	1.00000	
V37	.61303	.31721	.25748	.49431	.21722	.25991	.46288	.18885	.45265	1.00000
V10	.39798	.22739	.21793	.35069	.12995	.15287	.33140	.18538	.19886	.46375
V130	.32351	.28144	.16494	.45654	.14873	.17657	.31087	.22426	.15229	.44219
V132	.41539	.25457	.30547	.30595	.13477	.19660	.37878	.21076	.20957	.38576
V127	.30986	.23911	.23885	.36490	.18498	.09752	.20095	.09689	.13631	.46184
V128	.09309	.06285	.16323	.14676	.12562	.01089	-.01907	.05497	-.17721	.05751
V126	.06268	-.00201	.21572	.08813	-.05557	.03054	.03772	.17062	.04815	.06075
V77	-.01151	-.00457	.11477	.04641	-.02431	.04555	.00993	.12105	-.00980	.05006
V78	.07819	-.02073	.11491	.08647	-.02825	.04822	-.03940	.09337	.06955	.07210
V74	.06177	-.03648	.23485	.10557	-.11322	.05742	-.00534	.13162	.07756	.08431
V124	.23914	.22505	.30733	.14008	.14721	.14952	.24904	.19338	.08240	.22729
V115	.31322	.18790	.19937	.25135	.29523	.19060	.25562	.20641	.25145	.30486
V103	.23517	.25672	.22772	.36164	.23523	.08979	.20829	.10484	.10596	.40616
V104	.40373	.17626	.15673	.25602	.12784	.14824	.35007	.06532	.20018	.41157
V112	.24183	.24432	.33342	.15801	.00925	.16150	.27167	.08154	.08558	.16859
V113	.17410	.05778	.11323	.11057	-.00316	.03854	.13215	.14524	.10754	.13739
V110	.36316	.26302	.16029	.34370	.26366	.13802	.43078	.24281	.19223	.33416
V16	.15436	.31887	.38924	.15566	.11562	.30236	.17491	.23150	.10015	.18033
V58	.24872	.24966	.17180	.15916	.13259	.09846	.38843	.23135	.23705	.25104
V45	.14387	.12399	.04096	.21379	.13750	.02850	.10527	.11762	.00385	.10400
V70	.33620	.26578	.31525	.19663	.09476	.33872	.41346	.21735	.24071	.30604
V71	.14441	.24979	.26965	.05888	-.04791	.40352	.16706	.23468	.18584	.20863
V72	.24552	.22634	.14227	.12564	.15338	.19029	.18937	.13774	.23017	.21751
V42	.25284	.43644	.29310	.28895	.17607	.07543	.30933	.27235	.15681	.31813

Appendix I
continued

ITEM	V10	V130	V132	V127	V128	V126	V77	V78	V74	V124
V10	1.00000									
V130	.46040	1.00000								
V132	,35916	,23863	1.00000							
V127	.31990	.43994	.18369	1.00000						
V128	.15780	.18700	.09090	.05505	1.00000					
V126	.01518	.11747	.03192	.12974	.23234	1.00000				
V77	.16693	.14124	-.02264	.09870	.31016	.43563	1.00000			
V78	.07359	.08246	-.06294	.16337	.16158	.45356	.54163	1.00000		
V74	.11193	.13286	.05397	.17156	.21636	.75486	.43889	.43996	1.00000	
V124	.22798	.19467	.18205	.22903	.27108	.27910	.22628	.07147	.26728	1.00000
V115	.14285	.22350	.30150	.23437	.18529	.17221	.09201	.18508	.14739	.25394
V103	.17380	.35868	.29820	.39556	.03004	.05166	.15908	.07768	.13068	.27891
V104	.24065	.33967	.43642	.30809	.06845	.06981	.13752	-.01211	.11786	.19927
V112	.10539	.10381	.30429	.06797	.05530	.13641	.05068	-.00538	.17662	.25749
V113	.20520	.17370	.04734	.09027	-.01964	.11724	.04347	.04169	.13514	.20245
V110	.19538	.29518	.30034	.14855	.05264	.06452	.06735	.03472	.06847	.12539
V16	.16545	.21863	.21484	.18420	.24124	.34415	.30149	.12878	.27106	.40919
V58	.27805	.35569	.20473	.15265	.08577	.09915	.10333	.02507	.13218	.39970
V45	.07161	.25773	.16361	.13071	.13825	.04705	.08860	.06461	.04618	.26600
V70	.32469	.34302	.34103	.11977	.22735	.20423	.28413	.09503	.25290	.47998
V71	.17964	.18469	.32066	.11472	.11056	.23851	.22563	.23245	.25204	.31307
V72	.16292	.20332	.21476	.22180	.23691	.35240	.27737	.26100	.38302	.22432
V42	.25958	.26389	.27463	.18825	.21092	.15588	.21422	-.01800	.16679	.49964

Appendix. I
continued

ITEM	V115	V103	V104	V112	V113	V110	V16	V58	V45	V70
V115	1.00000									
V103	.36057	1.00000								
V104	.22178	.55594	1.00000							
V112	.23501	.34152	.35660	1.00000						
V113	.04798	.28753	.30877	.27637	1.00000					
V110	.23605	.33988	.58263	.38526	.19103	1.00000				
V16	.09687	.10832	.13941	.15674	.05952	.10219	1.00000			
V58	.18137	.26494	.27738	.26810	.10296	.29019	.264.00	1.00000		
V45	.13524	.25682	.22671	.09194	.26197	.14066	.12057	.20093	1.00000	
V70	.21082	.24183	.27749	.39634	.12763	.27869	.45566	.56494	.17475	1.00000
V71	.08737	.11938	.16695	.08927	.09959	.05618	.45304	.35354	.12236	.48261
V72	.24619	.16210	.21334	.19096	.07301	.17074	.33343	.24417	.12110	.28422
V42	.27445	.36209	.32703	.26682	.09724	.23786	.29966	.39772	.18530	.38092

ITEM	V71	V72	V42
V71	1.00000		
V72	.43618	1.00000	
V42	.24608	.21611	1.00000

APPENDIX J

TABLE J.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS:
STAGE 5 CORRECTED ITEM-TOTAL CORRELATION
ALPHA IT ITEM DELETED

Appendix J

Table J.1

Assessment of Adult Adjustment Patterns: Stage 5 Corrected Item-Total Correlation Alpha if Item Deleted

Item	Corrected Item-Total Correlation	Alpha If Item Deleted
V24	.54086	.88359
V41	.44827	.88516
V26	.44827	.88507
V27	.48354	.88432
V17	.26740	.88834
V18	.31519	.88775
V46	.51192	.88450
V47	.35738	.88701
V36	.33101	.88774
V37	.59333	.88234
V10	.45961	.88484
V130	.53070	.88400
V132	.47898	.88456
V127	.42662	.88556
V128	.24204	.88897
V126	.33787	.88729
V77	.31076	.88775
V78	.23018	.88991
V74	.36320	.88673
V124	.50894	.88414
V115	.44405	.88529
V103	.50377	.88393
V104	.51792	.88365
V112	.39913	.88603
V113	.26288	.88933
V110	.46483	.88479
V16	.46541	.88500
V58	.47608	.88497
V45	.27955	.88840
V70	.60125	.88297
V71	.43636	.88551
V72	.46210	.88512
V42	.52494	.88351

APPENDIX K

TABLE K.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS: STAGE 8 CORRELATION MATRIX

Appendix K

Table K.1

Assessment of Adult Adjustment Patterns:
Stage 8 Correlation Matrix

ITEM	V157	V149	V141	V205	V218	V219	V257	V258	V161	V154
V157	1.00000									
V149	.03751	1.00000								
V141	.21172	.28383	1.00000							
V205	.29981	.09358	.22130	1.00000						
V218	.09285	.12713	. 28651	.49189	1.00000					
V219	.07736	.26736	.32295	.24482	.28126	1.00000				
V257	.01023	.14237	.11769	.00253	.12851	.43415	1.00000			
V258	.14862	.16124	.13413	.15592	.11661	.40346	.41304	1.00000		
V161	-.14153	.04142	.17044	.08098	.20290	.16331	.08199	.01318	1.00000	
V154	-.03901	.10876	.02763	.16783	.15880	.13644	.02303	.04411	.23682	1.00000
V202	.12966	.12138	.21303	.15999	.15549	.14937	.09194	.07190	.12754	.07044
V188	.00499	.14539	-.09322	-.03896	-.06950	.08984	.10352	.10328	.03127	-.08353
V158	.22701	.22662	.09940	.56723	.24550	.13902	-.05850	.04456	-.04859	.17338
V181	.44544	.05255	.27930	.50550	.23939	.23473	.02748	.19749	.02523	.10364
V191	.21610	.11574	.14680	.32063	.26702	.28147	.27199	.22404	.04578	.20116
V183	.06749	.24461	.10217	.28348	.20950	.41210	.19273	.31232	.11269	.13545
V214	.01206	.11182	.22390	.21240	.11072	.43250	.31543	.31878	.04964	.09904
V229	.12118	-.00361	.11964	.24179	.07717	.24733	.08536	.20272	.10713	.14781
V168	.07068	.27757	.18723	.14989	.12501	.30488	.22100	.21418	.10686	-.07626
V201	.10605	.12927	.30362	.26958	.11529	.27648	.04755	.11217	.23567	.16879
V199	.05156	.07084	.29955	.25280	.14502	.27184	.19181	.18293	.19831	.06533
V206	.07716	.10001	.22993	.19627	.26254	.23329	.13010	.10930	.10082	.06695
V209	.00758	.02725	.04701	.04986	.11256	.15231	.08283	.16711	.01917	-.04353
V249	-.06162	.01376	.03541	-.04214	-.03032	.20111	.11788	.14605	-.03231	-.06525
V148	-.22190	.04820	.09597	.10051	.08219	.18389	-.00492	.11582	.04770	.07169

Appendix K
continued

ITEM	V202	V188	V158	V181	V191	V183	V214	V229	V168	V201
V202	1.0000									
V188	.19092	1.00000								
V158	.11433	.05042	1.00000							
V181	.16920	.04118	.28119	1.00000						
V191	.16596	-.13549	.13059	.28506	1.00000					
V183	.10979	.11397	.17803	.13610	.15069	1.00000				
V214	.08146	.00242	.11813	.16710	.18096	.23585	1.00000			
V229	.10146	-.08322	.05619	.27881	.28555	.11758	.12197	1.00000		
V168	.04249	.10864	.08654	.17745	.16153	.11586	.20684	.25060	1.00000	
V201	.24643	-.03152	.08448	.24045	.23533	.09877	.17390	.43569	.29047	1.00000
V199	.20860	-.03613	.12752	.10203	.13987	.18790	.20198	.17328	.25729	.41956
V206	.15972	-.04813	-.01937	.13723	.15536	.26405	.22839	-.00559	.23778	.29962
V209	.25834	.07840	-.10346	.22888	.07958	.16901	.23173	-.00187	.18500	.13446
V249	.05845	.01191	-.17352	.05606	.12545	-.01404	.06761	.27639	.15877	.33887
V148	.11545	-.12137	.03436	.05881	.06266	.02517	.19447	.01797	.10422	.09847

ITEM	V199	V206	V209	V249	V148
V199	1.00000				
V206	.19581	1.00000			
V209	.14952	.36124	1.00000		
V249	.16908	.12116	.20903	1.00000	
V148	.13273	.20168	.26172	.07474	1.00000

APPENDIX L

TABLE L.1

ASSESSMENT OF ADULT ADJUSTMENT PATTERNS:
STAGE 8 CORRECTED ITEM-TOTAL CORRELATION
ALPHA IF ITEM DELETED

Appendix L

Table L.1

Assessment of Adult Adjustment Patterns:
Stage 8 Corrected Item-Total Correlation
Alpha if Item Deleted

Item	Corrected Item-Total Correlation	Alpha If Item Deleted
V157	.19137	.79606
V149	.29082	.79110
V141	.40075	.78495
V205	.50133	.78017
V218	.39105	.78589
V219	.60716	.77641
V257	.31665	.78929
V258	.41191	.78398
V161	.18265	.79529
V154	.18313	.79637
V202	.33714	.78828
V188	.03250	.80426
V158	.25798	.79249
V181	.45335	.78247
V191	.41168	.78442
V183	.40135	.78617
V214	.41093	.78416
V229	.33233	.78852
C168	.39477	.78609
V201	.47284	.78307
V199	.40629	.78604
V206	.36974	.78673
V209	.28001	.79114
V249	.16382	.79612
V148	.17024	.79757

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