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A CORRELATIONAL VALIDITY STUDY OF SELECT SCALES OF THE
BASIC ADLERIAN SCALES FOR INTERPERSONAL SUCCESS--ADULT FORM
(BASIS-A)
(140 pp.)

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Clinicians who follow the tenets of individual psychology proposed by Alfred Adler (1956), called Adlerians, typically rely on lifestyle interviews and early recollections to determine the beliefs and goals of their clients. These methods take a considerable amount of time and rely heavily on the clinician's expertise. Unfortunately, these techniques are not always practical in the context of today's short-term treatment encouraged by managed care.

Because of the need for diagnostic and treatment efficiency, Adlerians have attempted to expedite the process of assessing lifestyle through quantitative means. One example of these efforts is the Basic Adlerian Scales for Interpersonal Success--Adult Form (BASIS-A).

This study was undertaken to examine the convergent and divergent validity of three content scales of the BASIS-A. The scales investigated were Belonging-Social Interest (BSI), Taking Charge (TC), and Being Cautious (BC). The results of this study raise questions as to the extent these subscales measure the Adlerian themes they purport to measure.

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A dissertation submitted to the
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By

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

This investigation sought to further define selected scales of the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A), a measure of the lifestyles of individuals based upon the tenets of Alfred Adler's (1956) Individual Psychology. Upon further defining the selected scales, it was hoped that the BASIS-A would be improved as a research instrument. This chapter provides the context and rationale for the study, as well as stating the specific predictions of the research.

Adler's Basic Concepts and Theory

Alfred Adler continually refined his theory of personality as his thinking advanced with his career. (Mosak, 1979). Several key aspects of his theory, however, comprise the hallmark of his theoretical conceptualization of personality. It is important to briefly review Adler's basic concepts and theory to provide a foundation for the present investigation.

Alfred Adler (1956) believed that individuals are motivated by a goal to express and fulfill themselves as unique persons, not dominated by irrational instincts

operating on an unconscious level. Thus, people create their own futures, change their own lives, and change society as a whole. In his view, although individual psychology is not a highly systematized structure, it is essentially based on a handful of related concepts. One of these concepts is the striving for superiority (Adler, 1956). This is an innate striving for self-realization, an urge for completion and perfection rather than for superiority in the sense of social domination over other people.

But striving for perfection implies, of course, imperfection which manifests itself as inferiority feelings. These feelings, in turn, generate a motivation for compensation (Adler, 1956). To overcome personal deficiencies, people strive to improve themselves in accordance with their own individual goals and aspirations.

According to Adler (1956), the striving of individuals is not purely self-centered. Adler believed that striving for perfection is a major motivating force behind all behavior (Adler, 1964). In fact, individuals are also shaped by another powerful desire which is another of Adler's concepts, social interest. Referring to an

individual's strong social needs, Adler (1956) suggested that everyone has a basic, innate desire to cooperate and work for the common good of mankind. He further pointed out that humans have an inherent potential for social interest. However, this desire must be cultivated and developed. This concept of social interest is an important foundation of this study.

The Construct of Social Interest

The term social interest first appeared in Adler's book, *The Science of Living* (1929). This was Adler's first book published in English rather than in his native German language. Adler used the word *soziales interesse* in his German writings to represent social interest. However, Ansbacher (1972, 1992) used social interest as the meaning of *Gemeinschaftsgefühl* in the translation of Adler's writings.

The term social interest appears to be the preferred English translation while community feeling is the preferred German translation. The *German Dictionary of Individual Psychology* (Brunner, Kausen, & Titze, 1985) lists over six pages of information regarding community feeling while only having one reference to social interest.

Community feeling encompasses one's feelings toward others and self, inanimate objects, and the present time as well as the future. Community feeling is just that, a feeling, a state of mind. Interest, on the other hand, is the behavioral process through which action is taken. To Ansbacher (1965), "community became then a direction giving ideal" (p. 403) with social interest being "the action line of community feeling" (p. 405).

Crandall (1981) stated that the differences in the evolving definitions of social interest are attributed to it being a broad concept that is part of several psychological categories. Social interest concerns values, motivations, attitudes, feelings, and behaviors. Therefore, depending on the context, social interest (SI) will have different definitions or, at least, different emphases. In addition, Crandall (1981) concluded that Adler's writing lacked precision because his later works were written for the intelligent layman and because Adler's style was somewhat informal and anecdotal.

It should be noted that social interest is an ideal. Adler (1956) pointed out that we do not always "proceed in accordance with social interest" (p. 134). Being humans, we

sometimes forget our relationship to others in the world. As a result, some behaviors, feelings and thoughts will be in accordance with social interest while others will not be.

By combining social interest while striving for superiority, each individual develops his or her own unique personality. This development of one's personality is called lifestyle (Adler, 1956). Lifestyles are set early in life. Once the lifestyle is set, it directs all future experience, determining how individuals perceive the world, what they will learn, and the way they will seek to attain their respective goals (Adler). However, they can be changed later by the creative self which was considered by Adler to be the first cause of all behavior.

The Lifestyle Construct

Instead of talking about an individual's personality in the traditional sense of traits, structures, dynamics, and conflicts, Adler described personality in terms of a style of life, frequently called one's lifestyle or way of making one's place in the world (Mosak, 1971). In sum, lifestyle refers to how individuals live their lives. In Adler's (1956) own words,

The style of life of a tree is the individuality of a tree expressing itself and molding itself in an environment. We recognize a style when we see it against a background of an environment different from what we expect, for then we realize that every tree has a life pattern and is not merely a mechanical reaction to the environment. (p. 89)

Adler believed that at the center of one's lifestyle is a fictional finalism, which refers to a fictional belief about who we are and where we are going, that is, how we make our place in the world.

In addition, Adler (1956) posited that a person's lifestyle is formed in early childhood. By the time the child is four or five years old, he or she has experienced enough of life to have drawn some conclusions about the world and his or her place in it. According to Shulman (1973), the child does not have the concepts and meanings necessary to make accurate interpretations of these experiences. As a result, the child's interpretations are often biased and become fixed and self-reinforcing.

As the lifestyle is developed, the individual formulates opinions of his or her own strengths and abilities. Experiences are often filtered through the lens

of one's opinions, and one's senses receive a subjective image of the experiences rather than the objective facts (Adler, 1956). As a result, behavior then comes from the opinions held by the individual or their lifestyle. The lifestyle is useful in that it allows one to achieve internal consistency, and it affects subsequent responses so that all behavior is organized in terms of the lifestyle (Gushurst, 1971).

The systems of lifestyle classification that most frequently appear in Adlerian literature are those proposed by Adler (1956), Kefir (1972), and Mosak (1971). Most systems consist of four themes or descriptions except Mosak's (1971) which describes 14 themes or lifestyles.

Four Part Systems

Adler (1956) cautioned against the use of lifestyle types, yet he described four lifestyle types based on the degree of social interest and activity shown by the person. Those four types are the useful type, the ruling type, the getting type, and the avoiding type.

The *useful type* is an active person who is prepared for cooperation with others, seeks to contribute to others' well being, and demonstrates a high degree of social

interest. In short, the useful type tries to solve life's challenges in a constructive manner.

According to Adler (1956), the *ruling type* may possess a high or low degree of activity. In either case, a lack of social interest is reflected in a dominant or ruling attitude, evidenced in relationships with others. The more active ruling types attack others directly and may become delinquents, tyrants, or sadists. On the other end of the spectrum, those ruling types with a lesser degree of activity may attack others indirectly by becoming suicidal, drug addicts, or drunkards. Because the purpose of the attacks is to hurt others, this type may also reflect revenge rather than controlling or ruling others.

The *getting type* expects that everything can be gained from others rather than through one's own efforts. This person is dependent and possesses a low degree of both social interest and activity (Adler, 1956).

The fourth type (Adler, 1956) is the *avoiding type*. This type evades the problems of life. These individuals demonstrate a low degree of social interest and a very low activity level.

In addition to Adler, other proponents of Individual Psychology have brought forth their own lifestyle types.

One example is the four part typology of Nira Kefir (1972). Kefir suggested that the number one priority of each individual is the guiding line upon which personality is constructed and by which daily decisions are made (Brown, 1976). The four priorities are control, comfort, pleasing, and superiority.

The person with a *control priority* attempts to control oneself, others, or situations so that the unexpected and humiliation are avoided. Diminished spontaneity and social distance from others are the costs for a person with this priority. The control priority seems to be somewhat related to Adler's ruling type.

An individual with a *comfort priority* seeks whatever brings comfort to him or her. He or she often avoids responsibility, the expectations of others, and stress, with the cost being reduced productivity. This priority is similar to Adler's getting type.

In the *pleasing priority*, individuals focus on pleasing others in order to avoid rejection. The cost of this priority is diminished growth and a discrepancy between one's appraisal of self-worth and one's ideal self-worth.

The last priority is the *superiority priority* in which

one attempts to be better than others. An individual with this priority avoids meaninglessness in life. This can result in the person taking on others' responsibilities and feeling overburdened.

Adler's and Kefir's four-part systems can give direction in helping clinicians understand their clients. This understanding, coupled with counseling and other data gathered from intake interviews, contributes to an individual's understanding of themselves. However, over the years, some Adlerians have felt that limiting themselves to only four typologies has also limited the accuracy of the diagnosis of their clients (Mosak, 1971). As a result, more complex lifestyle systems have been developed.

Complex Lifestyle Systems

Mosak (1971) stated the lifestyle is the central core of personality and is a unified principle of personality unique to each individual. He proposed that it is important to understand that, although one's lifestyle is believed to be formed in childhood, it is not set at this time. As a child grows toward adulthood, the views of life, the world, and self become based on experiences and personal cognitive interpretations of life experiences (Mosak & Shulman, 1971).

Mosak (1971) described typical behaviors exhibited by persons within each of his proposed lifestyle types. However, he cautioned that one cannot predict the specific behaviors corresponding with each lifestyle and can only discuss probable selections of behavior. Although 14 lifestyle types have been named, Mosak (1979) stated this list is not exhaustive and does not contain a description of the construct of the ideal type because of space limitations. The probable behaviors identified with each of the 14 lifestyle types are described below.

The *getter* puts others into his or her service through either active or passive means. Temper, intimidation, charm, or shyness may be used to manipulate others.

The *driver* is in constant motion in an attempt to accomplish all of his or her over ambitious goals. By doing such, the belief is that one can eradicate the fear of being nothing.

The *controller* may want to control life or may want to keep life from controlling him or her. Intellectualization, rightness, and orderliness, as opposed to spontaneity and the expression of feelings, are valued by this type.

The *person who needs to be right* prefers strict guidelines and avoids ambiguity and error, while the *person*

who needs to be superior seeks out situations in which he or she can be the best. Superiority can be attained through being first or best or through being last or worst.

The *person who needs to be liked* tries to please other people, and in doing so, this person may be indecisive and tentative. His or her feelings of self-worth reside in the evaluations of others. In contrast, the *person who opposes everything* in life either passively or actively goes against the wishes or rules of others.

Extremely high moral standards and an unforgiving attitude are shown by *the person who needs to be good*. This moral superiority is often used not only to elevate oneself above others, but also to discourage the other, supposedly inferior, person.

The *victim* usually has feelings of self-pity and resignation and may seek the sympathy of others. He or she may innocently or actively pursue disaster. While both the victim and the *martyr* suffer, the martyr, in the pursuit of nobility, suffers for a principle or cause. Martyrs may suffer in silence or they may publicly display their suffering.

The *baby* uses cuteness and charm to manipulate others. This person's speech is often childlike, and he or she is

usually the youngest in the family constellation.

The *inadequate person* puts other people into his or her service through assumed incompetence. Responsibility is avoided. Activities are usually limited to those areas in which success is guaranteed.

The final two types contrast one another. The *person who avoids feelings* prefers situations for which plans have been made and values logic, rational problem solving, and intellectualization. Diametrically opposed to this person is the *excitement seeker* who pursues new and turbulent experiences which he or she may provoke if he or she is not spontaneously forthcoming.

Wheeler's Lifestyle Research

With Mosak's complex typologies and the four part typologies came concerns about the inclusion of social interest (Wheeler, 1980). After all, Adler's social interest is the foundation of any lifestyle (Adler, 1956). These concerns about social interest have led to work being done by Wheeler.

Based on previous studies by Davis (1979) and Kyser (1979) and on her reading of Adlerian literature, Wheeler (1980) conceptualized eight general lifestyle themes. She

subsumed Mosak's 14 lifestyle types into these eight themes. Brief descriptions of these eight themes follow.

The person who needs to be liked exemplifies the *conforming theme*, while the driver represents the *achieving theme*. The *superiority theme* contains the lifestyle types represented by the person who needs to be good, the martyr, and the person who needs to be superior. The getter comprises the *getting theme*, while the *controlling theme* is made up of the person who needs to be right, the intellectualizer, the baby, and the controller. The *theme of resisting control* is comprised of the excitement seeker and the person who opposes everything. The victim and the inadequate person represent the *theme of discouragement*.

Wheeler (1980) proposed an eighth theme, which she named the *exploiting theme*. This lifestyle theme was based on Dreikurs' (1964) goal of revenge and found no exact representation in Mosak's or any other Adlerian typological system, although it may be similar to Adler's ruling type. It is Wheeler's work with these eight themes that provided the foundation for the creation of the BASIS-A lifestyle assessment (Curlette, Wheeler, & Kern, 1997).

Assessing Lifestyle

Maniacci (1990) formulated the construct of lifestyle assessment as "an applied phenomenological assessment" (p. 9). To do so, he suggested that a lifestyle is the whole of an individual's convictions, attitudes, beliefs and behavior. To further the measurement of lifestyles, Manaster and Corsini (1982) summarized Adler by stating that "what is known as character is essentially the guiding line of a person's lifestyle" (p. 73). Manaster and Corsini later defined lifestyle as a "cognitive organization, a consistent pattern of thinking, and of behaving based on biological and social factors" (p. 77).

Clinicians who follow the tenets of individual psychology proposed by Alfred Adler (1956), called Adlerians, typically rely on lifestyle interviews and early recollections to determine the beliefs and goals of individuals with whom they are working. These methods take a considerable amount of time and rely heavily on the clinician's expertise. Unfortunately, these techniques are not always practical in the context of today's short-term treatment encouraged by managed care. The modern psychotherapeutic treatment paradigm often demands

clinicians hasten the process of therapy and quickly assess and treat their clients.

In answer to these pressures, a number of Adlerians have developed guides or systems of gaining lifestyle information by completing what is sometimes called the *Lifestyle Inventory* (Mosak & Shulman, 1971). Powers and Griffith (1987), Eckstein, Baruth, and Mahrer (1978), and Shulman and Mosak (1988) have all published resources for gathering and interpreting lifestyle information. The information obtained through these cited assessments has been shown to be useful in clinical settings, but it is difficult to empirically interpret and verify their efficacy using research designs (Wheeler, 1996).

Because of the need for diagnostic and treatment efficiency and the need to verify via research, Adlerians have attempted to expedite the process of assessing lifestyle through quantitative means. One example of these efforts is the Basic Adlerian Scales for Interpersonal Success - Adult Form (BASIS-A; Wheeler, Kern, & Curlette, 1993). Wheeler et al. (1993) attempted to create a more empirically based assessment of lifestyle types by developing the BASIS-A. This instrument has provided Adlerians with the ability to assess lifestyle themes based

on Adler's work.

Curlette et al.(1997) state that, "the purpose of the BASIS-A Inventory is to help understand an individual's lifestyle, based on beliefs developed in early childhood and related to present functioning" (p. 1). To accomplish this, the BASIS-A uses 65 5-point items that all begin with the phrase, "When I was a child, I...." The individual then responds to each item by endorsing one of the five Likert responses ranging from strongly agree to strongly disagree (Wheeler, Curlette, & Kern, 1993).

According to Ansbacher (1991), the lifestyle forms early on in life. As children grow, they develop a unique plan that creates a sense of belonging in the world. This plan, or lifestyle, is developed in the context of the first social group, the family, and remains relatively stable throughout life.

Because perceptions and beliefs are developed early through childhood experiences (Curlette et al., 1997), these perceptions are believed to be deeply rooted in how an individual approaches life along three dimensions, also known as life-tasks: (a) work, (b) social relationships, and (c) intimate relationships. The authors (Kern et al., 1997) of the BASIS-A thought, by asking questions about

early childhood experiences among the three dimensions, the respondent was distanced from the present and, thus, the social desirability effect could be minimized on the assessment.

Using the answers to these questions, the BASIS-A inventory claims to measure five cognitive schema or personality styles (Curlette et al., 1997). These five styles are Belonging-Social Interest (BSI), Going Along (GA), Taking Charge (TC), Wanting Recognition (WR), and Being Cautious (BC). In addition, there are five subscales, which add to the interpretation of individual lifestyles. Those five subscales are Harshness (H), Entitlement (E), Liked by All (L), Striving for Perfection (P), and Softness (S). These subscales are also referred to as the *HELPS scales*.

Although the BASIS-A is not noted extensively in most of the helping profession literature, it is a popular measure in studies that examine constructs of Individual Psychology. A search of the PsycINFO database from 1993 (the year the BASIS-A was published) to April 2004 revealed 36 references when searching for *Basic Adlerian Scales for Interpersonal Success* and 41 references when searching for

the term *BASIS-A*. The overlap appeared to be complete except for five additional references when searching for *BASIS-A*. The search included all languages and searched for the terms within the entire body of the text. Only one (Hutner, 1998) of the studies contained in this search examined the psychometric properties of the *BASIS-A*.

The psychometric properties of the *BASIS-A* comprise the concern of the present research. Researchers (Bass, Curlette, Kern, & McWilliams, 2002; Lewis, 2002) have suggested the instrument is deficient in its measurement of lifestyle, as some Adlerians describe the term. This is because the lifestyle is a set of convictions held by an individual that helps them find their place in the world (Mosak, 1968). Furthermore, Adler wrote that the lifestyle of any individual is a singular pattern of thinking, feeling, and acting unique to that individual and representing the context in which all specific manifestations are considered (Adler, 1956). In a sense, the *BASIS-A* attempts to take this uniqueness of each individual and place the person into one of only five lifestyles. A better understanding of the *BASIS-A* is needed; therefore, it is the instrument addressed in this study.

The Origins of the BASIS-A

The BASIS-A evolved in 1978 when Wheeler was working on her dissertation to conceptualize the constructs of lifestyles based on the writings of some prominent Adlerians. Mosak (1959, 1968, 1971, 1977, 1979) wrote extensively on lifestyles, and his writings served as a base for Wheeler's work. The earliest form of the BASIS-A could be found in the Life Style Personality Inventory (LSPI; Wheeler, Kern, & Curlette, 1982).

Using Wheeler's (1980) work, an exploratory factor analysis was performed by Kern et al. (1997) and resulted in four factors that were similar to Dreikurs' (1948) four goals of misbehavior. Additional items relating to the four factors were written by Kern et al., and to demonstrate construct validity, the additional items were judged by "acknowledged experts in Adlerian psychology" (Kern et al., p. 3). The Cochran Q test (Siegal, 1956) was used as an overall test of the inter-judge agreement. The total number of items was 163 and the percentage of agreement on items for each theme, as better than chance, fell between 50% and 82%.

To further the understanding of these new factors,

they were compared to scores on the Depression Adjective Checklist (Earles, 1982), and additional items were added. These items were designed to measure the Adlerian construct of social interest. As a result, there were five factors with Dreikurs' (1948) four mistaken goals of behavior and social interest (Kern et al., 1997).

A second study (Kern et al., 1997) used 1,010 subjects and actually involved two different factor analyses. Using squared multiple correlations for communality estimates and the direct quartimin method for an oblique rotation, the first analysis involved 204 items and produced nine factors. These nine factors were related to their previously defined lifestyle themes and the Social Interest Index, an assessment used in measuring social interest. Items that had a factor coefficient of .25 or greater were considered significant (Mullis, 1984). The second factor analysis focused on the 47 items which related to the deleted items that did not meet the .25 factor coefficient criteria from the prior analysis. This second analysis confirmed that deleting the 47 items was psychometrically sound (Kern et al.).

As a result of the two analyses mentioned above, two

of the factors were combined into one due to the two factors' similar emphasis on the behavior of actively hurting others (Mullis, Kern, & Curlette, 1987). Over time, empirical support was obtained for eight factors. Those themes were *conforming*, *achieving*, *superiority*, *getting*, *controlling*, *resisting*, *discouragement*, and *exploiting*. What eventually evolved from those eight themes was a research instrument known as the Lifestyle Personality Inventory (LSPI).

A series of correlation analyses was conducted to produce the items for the remaining five LSPI themes. According to Kern et al. (1997), "item means, item variances, item scale correlations, and coefficient alphas were used to select items for the final scales" (p. 6). All remaining items of the LSPI were correlated with the five new scales after a reduction of the initial items from the previous scales. As a result, two additional scales from the LSPI were identified, which increased the reliability of two of the scales, the Belonging-Social Interest scale and the Wanting Recognition scale.

What is interesting to note is there are no *r* values associated with the correlations mentioned above. In fact,

no statistics of the transformation of the LSPI to the BASIS-A are found in the technical manual of the BASIS-A. It is only after all the items were selected and a final factor analysis was conducted that statistics were addressed.

A third factor analysis was conducted (Kern et al., 1997) using a new sample of 1,083 subjects and resulted in five well-represented factors which are now known as the BASIS-A. According to Kern et al., a principal components analysis procedure was employed with "squared multiple correlations as the initial communality estimates and a direct oblimin rotation with delta equal to zero" (p. 6). In addition, there were six factors with eigenvalues greater than 1.0, prior to rotation, which accounted for 52.3% of the variance. Items that loaded on each factor yielded regression coefficients ranging from .44 to .79 for Factor 1 (Being Cautious theme), .45 to .85 for Factor 2 (Taking Charge theme), .38 to .65 for Factor 3 (Wanting Recognition theme), .43 to .77 for Factor 4 (Belonging-Social Interest theme), and .45 to .77 for Factor 5 (Going Along theme). According to Kern et al., the sixth factor was "under defined" (p. 6); therefore, it was dropped from

the research.

The reliability of the BASIS-A was presented both in terms of a coefficient alpha and test-retest. The coefficient alpha measured the internal consistency while the test-retest measured the stability. The coefficient alpha reliabilities appeared ideal as higher internal consistency could indicate that the scales were defined too narrowly. Kern et al. (1997) provided the following reliability results. The Belonging-Social Interest scale had a coefficient alpha of .86 with a test-retest of .87. The Going Along scale had a coefficient alpha of .83 with a test-retest of .72 utilizing two weeks between administrations. The Taking Charge scale had a coefficient alpha of .85 with a test-retest of .77. The Wanting Recognition scale had a coefficient alpha of .82 with a test-retest of .66. Finally, the Being Cautious scale had a coefficient alpha of .87 with a test-retest of .80.

Interesting to note are the inter-scale correlations of the BASIS-A. Using the initial $N = 1,083$ data set, Pearson correlation coefficients were calculated. According to Kern et al. (1997), the intercorrelations of the scales were average and within expectations for a test inventory,

ranging from small to moderate. However, a negative correlation ($r = -.52$) between Being Cautious and Belonging-Social Interest "may indicate that people who come from discouraged families tend to have difficulty feeling a sense of belonging in a group" (Kern et al., p. 12). In addition, a negative correlation ($r = -.45$) between Taking Charge and Going Along was found, suggesting that force may be used by some leaders to carry out rules for people to abide. The intercorrelations of the scales are shown in Table 1.

Table 1

Intercorrelations Between Scales for the BASIS-A Inventory

Scales	1	2	3	4	5
1. Belonging-Social Interest	--	.13*	.18*	.21*	-.52*
2. Going Along		--	-.45*	.33*	-.38*
3. Taking Charge			--	.01	.06
4. Wanting Recognition				--	-.23*
5. Being Cautious					--

Note: * $p < .01$, two-tailed.

Additional studies of the BASIS-A were carried out by Kern et al. (1997) using two different groups. Group 1

consisted of undergraduate students ($n = 144$) at a southeastern university in the United States. Group 2 consisted of married couples ($n = 892$) obtained from volunteer organizations, mailing lists of executives, and networking.

Working with these two groups, Kern et al. (1997) looked at the correlations of the BASIS-A Inventory Scales with the LSPI Themes. Their results indicated a high degree of relationship between the two assessments, albeit for one variable from each instrument, which were Wanting Recognition and Theme 1 (Conforming). The following Pearson correlations were calculated and are shown as Group 1 and Group 2 respectively.

Belonging-Social Interest correlated with Theme 8 (.92 and .90) and the Going Along scale correlated with Theme 5 reversed (.91 and .90). In addition, the Taking Charge scale correlated with Theme 3 (.97 and .96), the Wanting Recognition scale correlated with Theme 1 (.79 and .84), and the Being Cautious scale correlated with Theme 6 (.90 and .90).

For the present research project, the focus was on three of the five scales which contribute to the BASIS-A.

Namely, these are the Belonging-Social Interest, Taking Charge and Being Cautious scales. The three scales' construct validity have come into question. These scales will be discussed in greater detail in chapter two. For now, an introduction into the scales themselves will suffice.

Belonging-Social Interest Scale

The Belonging-Social Interest (BSI) scale of the BASIS-A reportedly measures the degree to which a person feels a sense of belonging. If an individual tends to feel as if he or she belongs, this individual will likely be cooperative, extroverted, and interpersonally skilled. At times, such individuals will also display gregarious behaviors (Curlette et al., 1997).

High scores on the Belonging-Social Interest scale are reportedly seen in individuals who are outgoing, friendly, empathic, and cooperative. They also have the ability to handle high levels of stress (Curlette et al., 1997). Conversely, low scores are reportedly seen in individuals who appear quiet, sensitive, shy, and sad (Curlette et al.). Low scores tend to be indicative of individuals who are less comfortable in group settings, even introverted.

Very low scores characterize individuals who are more prone to be sad and lonely, lacking self-confidence, and even depressed (Curlette et al.).

The following nine items of the BASIS-A (Wheeler et al., 1993) are used in assessing the Belonging-Social Interest scale:

1. Enjoyed playing with other children.
2. Felt sure of myself in several areas.
3. Felt like I belonged.
4. Fit in well with a group.
5. Felt accepted by other children.
6. Felt equally at ease as a leader or follower.
7. Was outgoing.
8. Enjoyed being with other children.
9. Liked working in a group.

In order to better understand the BSI scale, it is helpful to know its background research. The BSI scale originated out of research on the Lifestyle Personality Inventory (LSPI; Wheeler et al., 1982), a research version of the BASIS-A which preceded its current form. Theme 8 of the LSPI specifically looked at social interest. Theme 8 has been found to correlate ($r = .39$) with the Millon

Behavioral Health Inventory Sociable Style scale (Johnston, 1988). In addition, Johnston found a positive correlation ($r = .25$) between Theme 8 and the Fundamental Interpersonal Relations Orientation Expressed Inclusion scale (FIRO-B). Lasley, Rousche, and Wheeler (1993, as cited in Curlette et al., 1997), found that the BSI scale correlated positively with the Myers-Briggs Extraversion scale ($r = .46$) and the Extraversion scale of the 16PF ($r = .38$).

Others, such as Sauls (1987), have found similar results with different populations. A population of buyers and purchasing agents showed an association ($r = .39$) between Extraversion-Introversion on the MBTI (Myers-Briggs Type Indicator) and Theme 8 of the LSPI. Kern et al. (1997) suggested that high scorers on Theme 8 "would tend to be extroverted and prefer the external world of people, objects, and actions" (p. 30).

Johnston (1988) found that Theme 8 of the LPSI and the three Millon Behavioral Health Inventory scales of Alienation ($r = -.50$), Inhibited Style ($r = -.50$), and Social Introversion ($r = -.36$) yielded negative correlations. Other negative correlations were found between Theme 8 and the Minnesota Multiphasic Personality Inventory (MMPI; Boynton, 1989). In particular, the Social

Introversion scale ($r = -.35$) and the Discomfort in Social Situations scale ($r_s = -.36, -.21$) correlated negatively with Theme 8. However, Adler (1931) believed that extraversion was not a requirement for social interest.

Also interesting to note are the negative correlations found between the BSI scale and other well-known personality assessments. Researchers Morton-Page and Wheeler (1991) found negative correlations between Theme 8 and the Beck Depression Inventory. Specifically, they reported a correlation of Theme 8 with the Beck Depression Inventory (BDI) of $r = -.45$, and with the MMPI Depression scale an r of $-.44$. White (1990) found a similar correlation ($r = -.41$) between Theme 8 and the MMPI Depression scale. These researchers suggested that those who score lower on the social interest theme also score higher (or more depressed) on the Beck Depression Inventory. Therefore, one could conclude that social interest and depression are conversely related.

In a study of pain patients, Johnston (1988) found negative correlations between Theme 8 of the LPSI and Scale 4 of the MMPI, which was confirmed in Boynton's 1989 study ($r_s = -.28, -.21$). Scale 4 is thought to measure family problems, rebelliousness, and potential acting out. White

(1990) also reported negative relationships with several subscales of Scale 4: Pd1, which reflects an unpleasant family situation ($r = -.22$); and Pd4A and Pd4B, which indicate people who feel socially alienated and are insensitive to others ($r_s = -.30, -.25$). In addition, White found a negative relationship with the F scale ($r = -.36$). The F scale purportedly measures unusual responding. She also found that the Family Problems (FAM) subscale, which reflects family discord and hostile feelings toward family members, correlated negatively ($r = -.28$) with Theme 8.

In looking at the Belonging-Social Interest (BSI) scale and the research associated with it, as summarized above, it appears to measure more a sense of belonging rather than social interest. Lewis (2002) proposed that perhaps the authors of the BASIS-A overlooked the ethical aspects of social interest. Lewis consistently found positive correlations between the BSI scale and drinking behaviors, raising questions about the construct validity of the BSI scale. The BSI scale should correlate positively with attributes such as positive values (Ansbacher, 1991), empathy (Ansbacher, 1991), and goodness toward others (Adler, 1956).

With a better understanding of the BSI scale of the

BASIS-A, one ought to be able to draw a stronger conclusion about its usefulness as a measure of social interest. Therefore, the argument for conducting research to better define the scale has a clear foundation.

Taking Charge Scale

The Taking Charge (TC) scale reportedly reflects an individual's preference for being a leader. The scale distinguishes the degree to which a person is directive and controlling (Curlette et al., 1997). Individuals scoring high on this scale are viewed by self and others as domineering, headstrong, confrontive, assertive, persuasive, and influential. Furthermore, they are more apt to take on leadership roles and responsibilities. As scores on this scale decrease, the need to assert and exhibit dominance-related behaviors decreases (Curlette et al.).

The following eight items of the BASIS-A (Wheeler et al., 1993) are used to assess the Taking Charge scale:

1. Liked telling others what to do.
2. Bossed the other children.
3. Felt I had a lot of power.
4. Was bossy.
5. Wanted to control the other children.

6. Was good at showing people who was the boss.
7. Wanted to be in charge at school activities.
8. Felt important when I could get the other children to do what I wanted.

Most research concerning the Taking Charge (TC) scale was conducted on the original Theme 3 of the LSPI. Theme 3 of the LSPI, originally labeled Controlling Active, is now referred to as Taking Charge (Curlette et al., 1997). In Wheeler and Acheson's (1993) research, Theme 3 correlated positively ($r = .59$) with the Dominance scale of the Personality Research Form. Their research indicates a person's need to control the environment of others and relates to expressing opinions forcefully and enjoying the role of leadership. Furthermore, the researchers found a correlation ($r = .45$) with the Aggression scale, signifying the Taking Charge trait being construed as negative. According to Jackson (1984), the Aggression scale described people as enjoying an argument, being easily annoyed, and even willing to hurt others to get their way.

Further research (Wheeler & Acheson, 1993) between the Autonomy scale of the Personality Research Form (Jackson, 1984), which measures the need to be free of restraints, Theme 3 correlated positively ($r = .26$) and represented

individuals scoring high on the TC scale (Theme 3) as preferring to not be controlled by others. Similarly, the Defence scale correlated positively ($r = .27$) also. The Defence scale measures a readiness to defend oneself against harm.

Positive correlations ($r = .26$) have also been found between Theme 3 and the Expressed Control scale of the Fundamental Interpersonal Relations Orientation (FIRO-B; Johnston, 1988). The Expressed Control scale reflects taking on responsibilities involved in a leadership role. In addition, White (1990), using the same instruments, found a positive correlation with assertiveness in college students ($r = .27$).

Wheeler (1990) determined a person scoring high on Taking Charge to be an outgoing, spontaneous, and enthusiastic person who takes dominant roles in interpersonal relationships. This belief stems from a negative correlation ($r = -.27$) found between the Repression scale of the MMPI and Theme 3. It is interesting to note how similar characteristics were reported in individuals who scored high on the BSI scale. This could lead to the conclusion that perhaps the BSI and TC scales are related.

Sauls (1987) found a negative correlation ($r = -.35$) between the Extraversion-Introversion dimension of the Myers-Briggs Type Indicator (MBTI) and the Taking Charge theme. The Extraversion-Introversion dimension was scaled so that low scores indicate extraversion and high scores indicate introversion. Sauls suggested that there might be a tendency for high scorers on Taking Charge to prefer the external world of objects, actions, and people. Lasley et al. (1993) made similar conclusions between the Taking Charge scale and the Judging scale of the MBTI ($r = -.21$). Lasley et al. wrote their results suggested that high TC scorers prefer an orderly life, like making decisions, and coming to closure.

The Taking Charge scale has been questioned as a measure of leadership when compared to Adler's ideas of leadership (Lewis, 2002). Lewis' research showed Taking Charge to be a significant predictor of total consequences of alcohol consumption for men and frequency of binge drinking for women. Lewis suggested the scale measures the tendency of others to force and persuade others rather than to lead. He further stated that the TC scale may be missing the ethical aspects of leadership.

Bertelson (1991) found the following correlations with

the Taking Charge theme in a clinical population. He found positive correlations with several personality disorders on the MCMI-II (Millon Clinical Multiaxial Inventory-II): Narcissistic ($r = .38$), Aggressive/Sadistic ($r = .35$), Antisocial ($r = .33$), Histrionic ($r = .31$), Paranoid ($r = .30$), Passive-Aggressive ($r = .27$), and Borderline ($r = .27$). In addition, Bertelson noted that Theme 3 correlated with a history of occupational problems ($r = .23$), a history of abuse ($r = .23$), and a history of legal problems ($r = .21$). These findings imply high scores on Taking Charge (Theme 3) can be associated with dysfunctional behavior.

With a better understanding of the Taking Charge scale, one could draw a conclusion that perhaps the scale is not as well defined as it should be. There appear to be aspects of both dominance and leadership measured by the scale. Thus, the argument for conducting research to better define the scale has a foundation.

Being Cautious Scale

High scores on the Being Cautious scale are seen in individuals who may appear as approaching life cautiously and sensitive to cues from the family and/or society. If

their cautiousness becomes inflated, chances they may avoid conflict, become oversensitive, or even be codependent increase. The low scorers on this scale might appear as being able to cope objectively with life situations. Perhaps their family environment was predictable and trusting and would allow exploration later in life without overwhelming cautiousness or dependency on others. (Curlette et al., 1997).

The following eight items are used in assessing the Being Cautious scale:

1. Could not be honest with my parent(s).
2. Had a parent who felt I was hopeless.
3. Felt inadequate at home.
4. Had a parent who was angry with me.
5. Wanted to hurt a parent.
6. Thought one of my parents was mean.
7. Was afraid of my parent(s).
8. Just could not seem to do anything right at home.

The Being Cautious (BC) scale originated from research on Theme 6 (Resisting Control) of the LSPI (Bertelson, 1991). Bertelson found a correlation with being abused ($r = .66$), having an addicted parent ($r = .42$), having a history

of family conflict ($r = .27$), and having an eating disorder ($r = .25$). Using the MMCI-II on a clinical population, Bertelson (1991) found more positive correlations with dysfunctional behaviors. These correlations occurred between Theme 6 (Being Cautious) and the following MMCI-II scales: Borderline ($r = .54$), Passive/Aggressive ($r = .53$), Antisocial ($r = .46$), Self-Defeating ($r = .41$), Aggressive/Sadistic ($r = .38$), Avoidant ($r = .36$), and Paranoid ($r = .32$).

Conversely, Newbauer (1995), in a study of child custody cases, found negative correlations with the Parental Support ($r = -.37$) and Autonomy ($r = -.55$) scales of the Parent-Child Relationship Inventory. These scales reflect the amount of practical help and emotional support a person receives as a parent and the ability of that parent to promote a child's independence.

White (1990) also found a negative correlation ($r = -.37$) between Theme 6 and the Social Support scale of the Coping Resources Inventory for Stress (CRIS). The Social Support scale measures the satisfaction with family and friends as potential buffers to cope with stressful situations. This finding was bolstered when Kern et al. (1996) found an even greater correlation ($r = -.59$) between

the BC scale and the BASIS-A.

Two of the authors of the BASIS-A now suggest that a low score on the BC scale could indicate a form of social interest (Curlette & Kern, 2002). Curlette and Kern suggested the first sense of belonging, typically found in the family unit, demonstrates how an individual feels as though they belong. They further suggested that this sense is indicative of social interest or community feeling, according to Ansbacher's (1991) definition. This insight into the Being Cautious scale stemmed from research (Bass, 2000) in which a meta-analysis on social interest was conducted.

Curlette and Kern (2002) pointed to prior research (Bass, 2000), which bolsters their new stance on the BC scale. The meta-analysis reviewed 124 empirical studies on social interest. There were a total of five instruments that measured social interest within the 124 studies. The average correlations between pairs of the instruments ranged from .08 to .22. Assessments that should be measuring the same construct should have much higher correlations, perhaps in the .70 to .90 range. They further suggested that these results, along with Ansbacher's (1991) reification of social interest, imply the instruments are

measuring different aspects of social interest.

With a better understanding of the Being Cautious scale, one could draw a conclusion that the scale is not as well defined as it should be. The argument for conducting research to better define the scale now has a foundation.

Review of Assessing Lifestyle

Thus far, Adlerian lifestyles as well as the use of lifestyle information in a therapeutic situation have been discussed in detail. In addition, the need for an assessment measuring Adlerian lifestyles in a more expedient way has been discussed. Details regarding the design process of such an assessment were discussed which were shown to have evolved into the BASIS-A. Finally, some existing questions about the BASIS-A have been reviewed, which lead to the problem addressed in this research document.

Statement of the Problem

According to Anastasi and Urbina (1982), all personality test interpretation ultimately concerns construct validity. Construct validity addresses the extent to which personality tests measure the theoretical constructs or traits the personality tests' authors claimed

to measure (Anastasi & Urbina, 1982). Construct validation usually involves a weaving together of information from a variety of sources and conceptually establishing relationships to the construct of interest (Cronbach & Meehl, 1955). A test is said to possess construct validity if its referents relate to the network of data that constitute the construct.

Campbell and Fiske (1959) argued an assessment instrument has construct validity if it correlates with the variables with which it conceptually should correlate, establishing convergent validity, and does not correlate with variables theoretically different from the concepts measured by the assessment instrument, establishing discriminant validity. According to the Campbell and Fiske definition of construct validity, the BASIS-A appears to encounter concerns. Specifically, the BSI, TC, and BC scales have been questioned in research by Lewis (2002) as well as Curlette and Kern (2002).

As mentioned previously, Lewis (2002) conducted research using the BASIS-A to explore possible relationships between alcohol related behaviors and lifestyle. In his results, he concluded there are problems

regarding the BSI and TC scales of the BASIS-A. Lewis' research has raised questions as to the extent to which the BSI scale of the BASIS-A measures the Adlerian concept of social interest. The BSI scale correlated positively with frequency of binge drinking ($r = .22$), quantity of alcohol consumption ($r = .20$), and total consequences of alcohol consumption ($r = .19$). Lewis suggested that the scale may be missing items to assess the ethical dimensions of social interest. As a result, he further suggested that the scale appears to measure extraversion and sociability rather than social interest.

Frequent binge drinkers presented a significantly higher Belonging-Social Interest mean score when compared to those who abstained or were non-binge drinkers (Lewis, 2002). This finding implies that frequent binge drinkers tend to be more outgoing, feel more accepted, and become supportive of others in social situations. This result raises questions about the construct validity of the BASIS-A, given how the results show a convergence with items from which they should conceptually diverge.

Lewis (2002) further contended that a consistent finding in his research was "the positive association between Belonging-Social Interest and most alcohol related

variables" (p. 190). He further noted the results as surprising given that Adlerians use social interest as a barometer of psychological health. In addition, the foundation of substance use and problems develop as a result of selfish pleasure-seeking behaviors without social interest (Dreikurs, 1990).

The Taking Charge scale correlated significantly, although with a low value ($r = .13$, $n = 273$), with total consequences of alcohol consumption (Lewis, 2002). The consequences of alcohol consumption were described by Lewis as having a hangover, missing class at a university, being unable to focus on lectures, forgetting what one did, having sex with someone who would have been avoided if sober, etc. According to Wheeler et al. (1994), high scorers on Taking Charge adopt an assertive, take-charge approach to life and take responsibility in leadership positions. Low scorers tend not to be interested in leading groups and prefer to follow others. Lewis (2002) points out that, for men, the positive association between Taking Charge and total consequences of alcohol consumption resulted in more consequences occurring.

From an Adlerian perspective, the notion of leadership appears to conflict with the TC scale of the BASIS-A

(Lewis, 2002). According to Adler (1956), a foundation for leadership requires strongly developed social interest, self-confidence, and optimism as well as great preparation and training in how to cooperate with others. Lewis advocated the BASIS-A as failing to assess any ethical dimension involved in leadership. He believed the instrument measures persuasiveness and dominance, perhaps, rather than leadership. As an example, Lewis found a positive correlation between binge drinking and the Taking Charge scale. That is, college-aged men reportedly assume a leadership role in getting their peers to join them in drinking to excess. While this is a leadership role, it appears to lack an ethical base with what is known about excessive alcohol consumption. Thus, the TC scale's construct validity can be questioned.

Regarding the Being Cautious scale's validity, a recent article published by two of the authors of the BASIS-A (Curlette & Kern, 2002) questions their own analysis of the scale. In the article, they hypothesize that the Being Cautious scale might also be an indicator of social interest. This new insight into the scale came about through a reification of the original translation of the German word *Gemeinschaftsgefühl* (Ansbacher, 1991). The word

has usually been translated as social interest or community feeling with social interest being adapted by most. However, Ansbacher's (1991) insight reinforced that the term is more in line with community feeling.

Ansbacher (1991) proposed that the translation of Gemeinschaftsgefühl reflects more a notion of community feeling rather than social interest. There are subtle differences between community feeling and social interest. However, Adler himself rarely clarified the two. In one of his writings, Adler wrote that social interest was "the action-line of community feeling" (as quoted in Ansbacher, 1992, p. 405). As Ansbacher (1991, 1992) pointed out, social interest is limited to involvement with humans where community feeling is identified with life in general.

As a result, the authors of the BASIS-A questioned the understanding of social interest they held when designing their instrument (Curlette & Kern, 2002). They suggested the Being Cautious scale could be a measure of social interest based upon Ansbacher's (1991) work and concluded further research is needed. Thus, the BC scale's construct validity can be questioned.

Because of these validity questions, the BSI, TC, and BC scales require deeper understanding. The BSI's role in

measuring social interest, the TC's ability to measure leadership, and the BC's measurement of caution and/or social interest need validation. Therefore, the present research project was proposed.

Purpose of the Study

The purpose of the current investigation was to examine the convergent and divergent validity of three of the content scales of the BASIS-A: (a) Belonging-Social Interest, (b) Taking Charge, and (c) Being Cautious. The Campbell and Fiske (1959) approach to the assessment of construct validity was used.

Rationale for the Study

This investigation was designed to aid in better understanding what exactly the Belonging-Social Interest, Taking Charge, and Being Cautious scales of the BASIS-A measure. Given that the BASIS-A is the most promising and widely used measure of Adlerian lifestyle concepts available to date (Watkins, 1994), this study has provided important insights into the extent to which these subscales are appropriate operationalizations of their corresponding Adlerian constructs.

Chapter Summary

This chapter has laid the groundwork for the research project. Several steps have been taken to outline the theoretical constructs. Background information implied the BASIS-A may not properly measure the constructs it purports to measure. As a result, the statement of the problem was formed.

The purpose of the study was to examine the convergent and discriminant validity of three scales from the BASIS-A. The three scales were: (a) Belonging-Social Interest, (b) Taking Charge, and (c) Being Cautious. A correlational analysis was used to examine the validity of the BASIS-A scales.

The research question was, "To what extent do the three content scales of the BASIS-A – Belonging-Social Interest, Taking Charge, and Being Cautious – measure social interest, preference for being a leader, and cautiousness as well as social interest, respectively?"

This chapter laid the foundation for the study. The next chapter describes the methodology employed by the researcher to collect and analyze the data. Further discussion of the instruments used in the study is in the

following chapter as well.

CHAPTER II

METHODS

Previous portions of the present study introduced the concerns about the three subscales of the BASIS-A under study and reviewed the literature pertinent to the major variables of the investigation. The purpose of this chapter is to present and discuss the methodology to be employed during the research to achieve its objectives and answer the questions posed by the investigator in the first chapter. Specifically, the sections below explain the study's research design, participants, measures, procedures, data analysis, and hypotheses.

Research Design

The investigation used a modified matrix (Campbell & Fiske, 1959) to evaluate the construct validity of the three selected BASIS-A subscales. As such, the study employed a cross-sectional (all measures done at the same period in time), correlational (use of statistical correlation to explore relationships) research design. In this type of design, all variables collected are treated as dependent variables, and no causality among the variables can be inferred (Campbell & Stanley, 1963).

Participants

An a priori statistical power analysis revealed that a sample size of 150 participants would yield statistical power of .93, assuming a medium correlation ($r = .30$) and a two-tailed level of significance with an alpha of .01. This statistical power of .93 exceeds the power level of .80 recommended by Cohen (1988).

A minimum of 150 participants consisting of students and business people was sought. The students were enrolled in either graduate or undergraduate classes at a public university in Ohio or Texas. In addition, the business people were employed by a Fortune 500 company in the Dallas, Texas, area. The sample included participants representing a mixture of ethnic backgrounds and both genders. The participants were age 18 and older.

Participants were not offered financial compensation for their participation. However, some participants may have received credit toward a class grade by their professors.

This study was approved by the Institutional Review Board of Kent State University (see Appendix A).

Measures

Participants completed a battery of assessment instruments. The battery included the Basic Adlerian Scales for Interpersonal Success—Adult Form (BASIS-A), the Social Interest Scale (SIS), and the 16 Personality Factors 5th Edition questionnaire (16PF). The SIS was used to evaluate the convergent validity of selected scales of the BASIS-A. To demonstrate convergent validity, measures of related items or constructs should be highly and positively correlated. Select scales from the 16PF were used to evaluate both the convergent validity and divergent validity of selected scales of the BASIS-A. To demonstrate divergent validity, measures of different or unrelated items or constructs should not be highly correlated or could even be negatively correlated.

Basic Adlerian Scales for Interpersonal Success - Adult Form (BASIS-A)

The BASIS-A has roots in Alfred Adler's theory of Individual Psychology. The assessment purports to "identify how one's individual life-style, based on one's perceptions and beliefs of early childhood experiences, contributes to how the individual solves problems related to the tasks of

work, social, and intimate relationships" (Kern et al., 1997).

The instrument claims to measure five lifestyle types: Belonging-Social Interest, Going Along, Taking Charge, Wanting Recognition, and Being Cautious. These lifestyle themes are believed to be carried over from childhood and, therefore, impact functioning as an adult (Kern et al., 1997).

Kern et al. (1997) recommended that the BASIS-A be used to "help identify the degree to which a person possesses the common themes that help to define one's lifestyle" (p. 15). The BASIS-A manual provides the summation described below of each of the scales. However, there is no real mention of why these descriptors are used other than "innumerable conversations with Adlerian clinicians such as Jon Carlson, Oscar Christensen, Don Dinkmeyer, Jr., Don Dinkmeyer, Sr., Eva Dreikurs Ferguson..." (p. 6).

According to the BASIS-A interpretive manual (Kern et al., 1997) the following descriptors are given for the scales:

Belonging-Social Interest. High scorers on

Belonging-Social Interest may be characterized as friendly, accepting, cooperative, gregarious, warm, assertive, empathic, and good natured. They may also possess high level stress coping strategies. Those exhibiting low scores may be characterized as quiet, shy, introspective, and sensitive. If the need to belong becomes exaggerated, they may be seen as lonely, sad, alienated, depressed, and anxious. (p. 27).

Going Along. High scorers on Going Along may be characterized as rule driven, obedient, agreeable, polite, forgiving, preferring structure and routine, and disliking conflict. If the need to go along with others becomes exaggerated, the person could be seen as rigid, moralistic, intolerant of change, and unassertive. Low scorers on Going Along may be characterized as individualistic, independent, and aggressive. If the need to assert one's independence becomes exaggerated, the person could be seen as argumentative, intolerant of routine, and rebellious. (p. 31)

Taking Charge. Individuals high on Taking Charge

could be described as leaders, assertive, strong, forceful, outgoing, and persuasive. If the desire to be in charge becomes exaggerated, the person may be seen as domineering, self-centered, opinionated, confrontive, controlling, authoritative, and easily angered. (p. 34)

Wanting Recognition. High scorers on Wanting Recognition could be described as approval seeking, pleasing, success oriented, achievement oriented, accommodating, agreeable, and socially sensitive. If the desire to seek approval and success becomes exaggerated, the individual may exhibit stress-related difficulties, eating disorders, and difficulties using social support systems related to the family. (p. 38)

Being Cautious. High scorers on Being Cautious will approach life tasks as either being very sensitive to the cues of family and society and cautious about what they do, or become unpredictable in approaching life tasks. The cautious approach could be characterized as sensitive, compassionate, and valuing personal beliefs and feelings. If the need to be cautious becomes exaggerated, they could be seen as

hypersensitive, conflict avoiding, and codependent. As this exaggerated approach to deal with life's tasks continues, there becomes a higher likelihood that discouragement, sadness, and mistrust will develop within the individual, which may well interfere with their ability to interact with others. This could also be exhibited with random styles in which the individual may participate in high risk, irresponsible, and hurtful behavior toward self and others. (p. 42-43)

For purposes of this research, only three of the scales were used, namely, the Belonging-Social Interest, the Taking Charge, and the Being Cautious scales. The previous brief descriptions of all five of the scales provide an overview of the instrument. Detail on the three selected scales for this research was provided in Chapter I.

BASIS-A Format

The BASIS-A asks participants to respond to 65 statements that follow from the sentence stem, "When I was a child, I...". Participants respond to a Likert scale representing the following five choices: strongly disagree, disagree, indifferent, agree, and strongly agree. Each item

on the BASIS-A is scored according to a five point numbering system. The majority of the items (48) are arranged with strongly disagree equal to 1, disagree equal to 2, indifferent equal to 3, agree equal to 4, and strongly agree equal to 5. Seventeen items are reverse scored, as these items are negatively phrased statements. For these seventeen items, strongly disagree equals 5, disagree equals 4, indifferent equals 3, agree equals 2, and strongly agree equals 1. The inventory does not provide an overall lifestyle score; rather, it provides a score for each of the five lifestyles: Being Cautious, Taking Charge, Wanting Recognition, Belonging-Social Interest, and Going Along.

BASIS-A Development

In over 20 years of development, the BASIS-A (originally the LSPI) has been subjected to research. This includes a series of three factor analytic studies to address the construct validity of the inventory as discussed in Chapter I. The first two factor analytic studies were performed on the LSPI, and the third factor analysis was specific to the BASIS-A. This third factor analysis was conducted with a 1,083 person normative

sample. The subject pool was comprised of undergraduate college students, graduate students, clinical patients, teachers, and individuals from various other occupations. Most participants were from the southeastern region of the United States (Curlette et al., 1997).

The analysis revealed five well represented factors, which became the five BASIS-A lifestyle themes. All the items loaded on a factor and ranged from .44 to .79 for Factor 1 (Being Cautious), .45 to .85 for Factor 2 (Taking Charge), .38 to .65 for Factor 3 (Wanting Recognition), .43 to .77 for Factor 4 (Belonging-Social Interest), and .45 to .77 for Factor 5 (Going Along). These loadings suggested "a high degree of support for the five scales of the BASIS-A Inventory and the items assigned to those scales" (Kern et al., 1997, p. 8).

Some items loaded onto more than one factor. Item 33 loaded on both Factor 2 (.52) and Factor 4 (.43). Item 34 loaded on both the third (.42) and the sixth (.54) factors. Item 39 loaded on Factor 3 (.38), Factor 5 (.30), and Factor 6 (.47). Item 11 loaded on both Factor 1 (.44) and Factor 4 (.47). Finally, item 37 loaded on both the fifth (.45) and the sixth (.33) factors. All of these items

remained in the final version of the BASIS-A. However, the sixth factor was removed from the third analysis and the final version of the BASIS-A due to being "under defined" (Kern et al., 1997, p. 6).

The preceding description of all of the scales and the discussion of the formulation of said scales should suffice in providing overall information on the BASIS-A scales. From this point, the focus of the study was on the Belonging-Social Interest, the Taking Charge, and the Being Cautious scales as these were the scales investigated in this research.

Social Interest Scale (SIS)

The SIS (Crandall, 1975) was formulated around Ansbacher's (1991) definition of social interest, namely, "a person's interest in the interest of mankind" (p. 37). Furthermore, due to Adlerian theory being value-based (Ansbacher, 1991), scale items were constructed with this value orientation in mind. Twenty-four paired items consisting of personality traits comprise the SIS. According to Crandall (1991), the SIS consists of 24 pairs of values that require the respondent to select which of the two values they prefer. He further stated that each

pair of values includes one closely related to social interest and one less relevant. To control for social desirability, the two traits within each pair were constructed to be equal, as nearly as possible, on general social desirability, while maximizing the difference in their relevance to social interest.

Item analysis resulted in a 15-item scale. The scale also includes nine *buffer* or foil pairs that are not scored. Scores consist of the number of social interest traits that are chosen and can range from 0 to 15. The scale is self-administered and usually takes about five minutes to complete.

The SIS has been found to possess good reliability and validity across a number of studies (Watkins, 1994). In fact, some Adlerians have noted that Crandall's scale is the best fit for assessing an individual's social interest (Mosak, 1991; Watkins, 1994). Such notions are due, in part, because an instrument which places emphasis on values is consistent with the basic tenets of Individual Psychology (Ansbacher, 1991). Crandall (1975) noted that value choices might be less influenced by a social desirability response set as compared to the "more common technique of asking people to describe their own

characteristics, common behaviors, etc." (p. 188).

According to Crandall (1991), the test-retest reliability of the SIS was .82 ($N = 37$) over 5 weeks and .65 ($N = 40$) over 14 months. Internal consistency measures included a coefficient alpha of .73 ($N = 246$) using the Kuder-Richardson Formula 20. The Kuder-Richardson Formula 21 yielded a reliability of .71 ($N = 1,784$).

Several validity studies have also been conducted (Crandall, 1982) and have shown the SIS to correlate positively with empathy ($r = .40$) using Mehrabian and Epstein's (1972) empathy scale, cooperation ($r = .32$) with the two-person Prisoner's Dilemma game (Vinacke, 1969), equality ($r = .30$), and peace ($r = .32$) with Rokeach's Value Survey (1973). The SIS has also been found to correlate negatively with hostility ($r = -.50$), self-centeredness ($r = -.44$), and depression ($r = -.38$) using the Multiple Affect Adjective Check List (Zuckerman & Lubin, 1965).

The SIS places an emphasis on values and measures social interest by looking at an individual's values. As pointed out earlier, an emphasis on values is consistent with the basic tenets of Individual Psychology (Ansbacher, 1991). With its emphasis on values and its proven validity,

the SIS is a credible measure to be used for this study. As such, the SIS should either confirm or refute the Belonging Social Interest scale of the BASIS-A.

16 Personality Factor 5th Edition (16PF)

The 16PF was designed as a broad measure of personality. It contains 185 items that comprise 16 bipolar personality factor scales, and 5 global factor scales. In addition, an impression management index that assesses social desirability is included (Russell & Karol, 1994).

Each of the 16 bipolar scales of the 16PF has a right-side pole and a left-side pole. The right-side pole is the high-score range or plus side (+). The left-side pole is the low-score range or minus side (-). For example, high scorers on Factor A (Warmth) are described as warm (A+); low scorers are described as reserved (A-). Individual scale descriptions of the 16PF scales can be found in Appendix B.

In developing the 16PF, the 16 primary factors proved to be intercorrelated. These relationships led to the exploration of a higher order factor structure and to the discovery that small clusters of the primary scales comprise second order factors of personality (Conn & Rieke,

1994). In the 5th edition of the 16PF, these factors are termed *global* to better reflect the broad personality domains that they represent. The global factors are Extraversion (EX), Anxiety (AX), Tough-Mindedness (TM), Independence (IN), and Self-Control (SC; Russell & Karol, 2002).

For each global factor, a set of primary scales load onto the global construct. In other words, the scale set contributes to, or makes up, the global construct. For example, Warmth (A+), Liveliness (F+), Social Boldness (H+), Forthrightness (N-), and Group-Orientation (Q2-) compose the scale set that contributes to the Extraversion global factor. The individual primary scales which make up the five global factors can be found in Table 2.

Specifically the Extraversion, Anxiety, Tough-mindedness, Independence, and Self-control global factors of personality were used in this study. The researcher hoped, by using the broader global factors, the correlations with the BASIS-A scales would be more defined. The expected correlations can be reviewed in Table 1 in the preceding chapter.

Table 2

Primary Scales of the Five Global Factors of the 16PF

Five Global Factors	Primary Scales
Extraversion (measures Extraversion vs. Introversion)	Warmth (A+) Liveliness (F+) Social Boldness (H+) Privateness (N-) Self-Reliance (Q2-)
Anxiety (measures Anxious vs. Unperturbed)	Emotional Stability (C-) Vigilance (L+) Apprehension (O+) Tension (Q4)
Tough-mindedness (measures Tough Minded vs. Receptive)	Warmth (A-) Sensitivity (I-) Abstractedness (M-) Openness to Change (Q1-)
Independence (measures Independent vs. Accommodating)	Dominance (E+) Social Boldness (H+) Vigilance (L+) Openness to Change (Q1+)
Self- Control (measures Self controlled vs. Unrestrained)	Liveliness (F-) Rule-Consciousness (G+) Abstractedness (M-) Perfectionism (Q3+)

Note. Minus Sign(-) = Left meaning; Plus sign(+) = Right meaning.

The 16PF (Cattell, Cattell, & Cattell, 1993) has wide applicability as a research instrument due to its solid empirical support (Krug, 1981). The test provides a comprehensive view of personality dimensions, assessing relatively independent traits (Cattell, Eber, & Tatsuoka, 1970). By choosing as solid of an assessment as the 16PF,

the researcher hoped the instrument would lend itself to better defining the BASIS-A.

The manual for the 16PF reports that the process used to develop the questionnaire was psychometrically sound (Russell & Karol, 1994). As indicated in the 16PF manual, the factors included in the 16PF were conceptually and empirically derived and confirmed originally through factor analyses. The psychometric data for the 5th edition was normed using 4,449 respondents. A stratified random sample of 2,500 respondents was used to create the final normative sample. The sample's stratification was based on gender, race, age, and educational variables, with the target number for each variable based upon the 1990 U.S. Census figures (Russell & Karol, 1994). The test-retest reliability coefficients for the 16PF over a two-week period ranged from .69 to .86 with a mean of .80 for the primary factors. The two-month interval reliability ratings dropped to a mean of .70 (McLellan, 1995). The Cronbach alpha coefficients for the 16PF were calculated on the general population norm sample of 2,500 adults and the values ranged from .64 to .85 with an average of .74 (Russell & Karol, 1994). This is important because the internal reliability of a test provides a source of

evidence that all items on a scale assess the same construct (Nunnally, 1978). As discussed in Chapter I, it is the internal reliability of the BASIS-A in question. Therefore, the above results for the 16PF add to the credibility in selecting it for this study.

Rationale for Instrument Selection

The following section describes the rationale used to include each of the individual instruments used in the modified correlational analysis. In doing so, the researcher hoped the selected BASIS-A scales would be better defined.

Belonging-Social Interest

According to Individual Psychology (Adler, 1957), we are socially embedded. In other words, we develop and live in a social context. As Adler himself said, "In order to know how a man thinks, we have to examine his relationships to his fellow men..." (Adler, 1957, p. 34). Adler (1956) further believed that social interest is the cornerstone of mental health or good adjustment. Psychological well-being has been connected to social support as Watkins (1985) found the more friends and close relatives people have, the higher their social interest.

Adler (1956) considered empathy as a piece of social interest or social feeling. He considered empathy as the ability to "see with the eyes of another, to hear with the ears of another, to feel with the heart of another" (p. 135). He further argued this ability to identify with others must be trained, and it can be trained only if one grows up in relation to others and feels a part of the whole.

According to Hogan (1969), empathy refers to the ability to assume another person's perspective and to vicariously experience another's emotions. Research with the Hogan Empathy Scale (HES) has indicated that empathic individuals are less anxious, less depressed, more likeable, and better adjusted (Chlopan, McCain, Carbonell, & Hagan, 1985).

Using a sample of 212 university undergraduates, researchers Rieke, Guastello, and Conn (1994) collected data using the 16PF and the HES. Their results indicated that the most significant global factor scales discriminating between the high and low groups were Extraversion and Anxiety. The most significant primary factor scales were Social Boldness (H+; $r = .43$), Emotional Stability (C+; $r = .40$), Warmth (A+; $r = .42$), and

Vigilance (L+; $r = -.40$).

With these results, possibilities opened to using the 16PF as both a measure of convergent and divergent validity with regards to the Belonging-Social Interest scale of the BASIS-A. As for convergent validity, based on the research noted above and from a cursory view, the 16PF has one global scale that could indicate convergent validity of the BSI scale. The Extraversion scale includes interpersonal Warmth (A+), a stimulation-seeking type of sociability called Liveliness (F+), Social Boldness (H+), Forthrightness (N-), and the need to affiliate with other people, especially in groups, called Group Orientation (Q2-).

In addition to the 16PF, Crandall's (1975) Social Interest Scale was used as a measure to indicate the convergent validity of the BSI scale. As mentioned earlier, the SIS measures social interest according to an individual's values.

While these two scales measured convergent validity, divergent validity was also measured. There are two global factors of the 16PF that could indicate divergent validity of the BSI scale. Those factors are Anxiety and Tough-Mindedness.

The Anxiety scale consists of a tendency to be Reactive (C-) rather than adaptive, distrustful and Vigilant (L+), worrying and Apprehensive (O+), and Tense (Q4+). Anxious people may tend to make a poor social impression and may appear to lack confidence or assertive ambition. Therefore, this scale should indicate divergent validity.

Tough-minded people tend to be Reserved (A-), Utilitarian (I-), Grounded (M-), and Traditional (Q1-). Tough-Minded people may portray a sense of being established, possibly to the point of being set or fixed. That is, they may not be open to other points of view, to unusual people, or to new experiences. As a result, tough-mindedness should indicate divergent validity with the BASIS-A.

Taking Charge

As indicated previously by White (1990), the Taking Charge scale of the BASIS-A has been shown to correlate negatively with the Regression scale of the MMPI ($r = -.27$). This correlation suggests that individuals scoring high on the TC scale would be outgoing, enthusiastic, and prefer the dominant role in interpersonal

relationships. However, as pointed out earlier, the propensity for dominance measured with the BASIS-A might not contain a regard for ethical leadership traits.

Researchers have identified and validated ethical leadership traits. For example, in 1954, Cattell and Stice developed the original 16PF Leadership Potential equation. They used the fourth edition of the 16PF and based the study on a group of military leaders. However, the generalizability of the results would need to be transferable to the non-military population.

Guastello and Rieke (1993) published a review of leadership and management research using the 16PF to determine the generalizability of the Leadership Potential equation and other 16PF traits as useful predictor variables in personnel selection. They found that Leadership Potential had an average correlation of .75 with membership in successful leadership groups. Guastello and Reike also found that Leadership Potential correlated with job performance ($r = .55$) and with other self-reported indicators of leadership potential ($r = .46$). Thus, the Leadership Potential equation proved its transferability to the general population.

Based on the research noted above that shows the

16PF's ability to measure leadership, as well as face validity, two global scales of the 16PF could lend themselves to the convergent validity of the Taking Charge scale. Those scales are the Extraversion and the Self-Control scales. These global scales have solid overlap of primary scales contained in the Leadership Potential Equation.

The Extraversion scale includes interpersonal Warmth (A+), a stimulation-seeking type of sociability called Liveliness (F+), Social Boldness (H+), Forthrightness (N-), and Group Orientation, which is the need to affiliate with other people, especially in groups (Q2-). The Self-Control scale concerns curbing one's urges. High scorers tend to be able to inhibit their impulses and may do so in several ways. For example, self-controlled people can be Serious (F-), Rule-Conscious (G+), practical and Grounded (M+), and/or Perfectionistic (Q3+) as a means to self control. In contrast to self-controlled people, unrestrained people tend to follow their urges more. This can be reflected in several ways including spontaneity and Liveliness (F+), Expedience (G-), Abstractedness (M+), and/or in a Tolerance of Disorder (Q3-).

There is one global scale of the 16PF which could

indicate the divergent validity of the TC scale. The Anxiety scale consists of a tendency to be Reactive (C-) rather than adaptive, distrustful and Vigilant (L+), worrying and Apprehensive (O+), and Tense (Q4+). As mentioned earlier, anxious people may tend to make a poor social impression and may appear to lack confidence or assertive ambition. Therefore, this scale would indicate divergent validity with the Taking Charge scale of the BASIS-A.

Being Cautious

As noted in Chapter I, two of the BASIS-A authors (Curlette & Kern, 2002) now believe the Being Cautious scale might measure a form of social interest in addition to cautiousness. As such, Crandall's SIS was used in the present study to measure convergent validity for the Being Cautious (BC) scale. This scale served as an initial measure of social interest. In addition, cautiousness was measured, which was the main focus on this scale.

High scorers on the BC scale approach life cautiously and might even be codependent and unable to adjust to life situations. Inversely, low scorers felt safe growing up and trusted their parents and siblings which allowed for

exploration and experimentation. One could argue that low scorers are mentally stable and are able to adjust to life as needed.

As a general construct, psychological adjustment addresses overall emotional stability, general satisfaction with life, and successful adaptation to life. Highly adjusted individuals are emotionally mature and maintain good control over their emotions (Walter, 1993). They usually can adapt to change and can cope with stress (Krug & Johns, 1986).

In a study to determine whether different personality characteristics relate to emotional, social and occupational adjustment, Conn and Rieke (1994) used the 16PF and a shortened version of the Adjustment Inventory, Adult Form (Bell, 1961). The Adjustment Inventory is a 160-item questionnaire measuring adjustment on five scales: Home, Health, Social, Emotional, and Occupational. The shortened version excludes the Home and Health scales as they were deemed irrelevant to the study. It would have been ideal to have had the results if those scales were included, as the Home scale appears to be in the same vein as the Being Cautious scale.

The results showed that social adjustment related to

the Independence global factor of the 16PF through the Dominance (E; $r = .45$) and Openness to Change (Q1; $r = .30$) scales. Emotional adjustment correlated significantly with Dominance (E; $r = .18$), Social Boldness (H; $r = .30$), Sensitivity (I; $r = -.18$), Abstractedness (M; $r = -.34$), and Self-Reliance (Q2; $r = -.24$).

The convergent validity of the Being Cautious scale could be indicated by the Independence global factors of the 16PF. As mentioned earlier, the Independence scale includes tendencies to be Dominant (E+), Socially Bold (H+), Vigilant (L+), and Open to Change (Q1+). A strong element of social forcefulness is evident in Independence (Russell & Karol, 2002). Therefore, low scores on Being Cautious should correlate with Independence.

The divergent validity of the BC scale could be indicated by the Tough-Mindedness global factor of the 16PF. As mentioned previously, Tough-Minded people tend to be Reserved (A-), Utilitarian (I-), Grounded (M-), and Traditional (Q1-). In fact, Tough-Minded people may not be open to other points of view, to new experiences, or other people.

Summary of Instruments

Because of the lack of research using the BASIS-A and other well-known personality assessments, this proposal must rely upon the face validity of such scales and the limited research available. The purpose of this study was to gain greater definition of selected scales of the BASIS-A.

The expected correlation symbols (positive versus negative) of the selected BASIS-A scales with the selected 16PF scales and the SIS are summarized below in Table 3.

Table 3

Expected Validity of Selected Basis A Scales with the SIS and Selected 16PF Global Factor Scales

Scales	Selected Basis A Scales		
	Belonging-Social Interest	Taking Charge	Being Cautious
Selected 16PF Global Scales			
Extroversion	+	+	
Anxiety	-	-	
Tough-minded	-		-
Independence			+
Self-control		+	
SIS	+		+

Note. Plus sign(+) indicates convergent validity. Minus sign(-) indicates divergent validity.

Procedures

Research procedures complied with APA ethical guidelines (American Psychological Association, 2002). In accordance with these guidelines, the anonymity and confidentiality of participants was maintained by identifying all participants by a code number only.

All participants had the opportunity to request a copy of a summary of the findings. In order to offer this opportunity, a Findings Request form was developed. All participants who submitted a Finding Request received a summary at the conclusion of the research.

The Findings Request form was the first page of the research packets. The research packets also contained the rest of the research measures, collated in a random order. This was done to remove the chance that any one form could consistently influence another.

As many of the research packets were distributed to the potential participants in a university classroom setting, individual faculty members were approached to request permission to enter their classrooms and invite the students to participate in the study. Other participants from the business community were approached at their place

of employment.

Administrations began with the primary investigator or designee providing a brief description of the purpose and requirements of the study and answering the potential participants' questions. Individuals who agreed to participate were given the Informed Consent form, which was reviewed with them verbally by the investigator. Each participant read and signed the Informed Consent form before being given a complete research packet. When the participants completed the materials in the packet, the primary investigator collected the packets. The estimated time to complete the battery of assessments was 75 minutes. The findings requests were collected separately from the measures to ensure confidentiality of the participants.

Data Analysis

As multiple correlations were calculated, the conservative a priori alpha of .01 was used to achieve statistical significance in this analysis instead of the traditional .05 level. This conservative alpha controlled for a cumulative Type I error. Data collected in this study was analyzed using the Statistical Package for the Social Sciences (SPSS) for Windows.

The description of the sample was obtained by calculating the descriptive statistics for all the demographic variables. Descriptive statistics were also calculated for all dependent variables (scale scores). The dependent variable distributions were examined to ensure the variables correlated had similar distributions. Bivariate scatter plots among all variable pairs were constructed to assess the adherence to linearity.

Once it had been determined that the variables had similar distributions (shapes) and held linear relationships, correlations were calculated. All hypotheses were tested by calculating Pearson product-moment correlations for the selected BASIS-A subscales with the SIS and 16PF scales to evaluate convergent and divergent validity.

Research Hypotheses

Hypothesis 1

If the Belonging-Social Interest scale of the BASIS-A measures social interest, then this scale would demonstrate the highest correlations with measures assessing this construct and the lowest correlations with measures assessing differing constructs.

To evaluate the construct validity of the Belonging-Social Interest scale, correlations were calculated for BSI with the following scales:

1. Convergent validity--SIS and the 16 PF Extraversion global scale.
2. Divergent validity--The Anxiety and the Tough-Mindedness global scales of the 16PF.

Hypothesis 2

If the Taking Charge scale of the BASIS-A measures preference for being a leader, then this scale would demonstrate the highest correlations with measures assessing this construct and the lowest correlations with measures assessing differing constructs.

To evaluate the construct validity of the Taking Charge scale, correlations were calculated for TC with the following scales:

1. Convergent validity--The Extraversion and the Self-Control global factors of the 16PF.
2. Divergent validity--The Anxiety global factor of the 16PF.

Hypothesis 3

If the Being Cautious scale of the BASIS-A measures

cautiousness, then this scale would demonstrate the highest correlations with measures assessing cautiousness and the lowest correlations with measures assessing differing constructs.

In addition, the BASIS-A authors suggested (Curlette & Kern, 2002) that this scale may also measure social interest. As such, the convergent validity of this scale was measured using the SIS.

To evaluate the construct validity of the Being Cautious scale, correlations were calculated for BC with the following scales:

1. Convergent validity--The Independence global factor of the 16PF and the SIS.
2. Divergent validity--The Tough-Mindedness global factor of the 16PF.

Chapter Summary

This chapter has described the measurements and the methodology employed to collect and analyze the pertinent data for the purpose of examining the study hypotheses. The initial section explained the research design. A minimum of 150 business people and/or students enrolled in either graduate or undergraduate classes at a public university in

Ohio and/or Texas were the participants. The sample was not constructed to sample for representative ethnic background or gender issues although information on those variables was collected.

Following the research design section, subsequent sections explained the measures, procedures, and data analyses employed. In addition, three hypotheses were presented. This information has laid the groundwork for the actual study itself. The following chapter presents the collected and analyzed data to either accept or reject the hypotheses.

CHAPTER III

RESULTS

Chapter III provides the results of the data analysis related to this study. The chapter begins with a review of the research questions combined with the results of the study. Featured next is an overview of the participants including age and race.

Research Questions

The purpose of the investigation was to examine the convergent and divergent validity of three of the content scales of the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A): Belonging-Social Interest (BSI), Taking Charge (TC), and Being Cautious (BC). A modified analysis was used to examine the validity of the BASIS-A scales. As such, the study employed a cross-sectional (all measures done at the same period in time), correlational (use of statistical correlation to explore relationships) research design. All variables collected were treated as dependent variables and no causality among the variables was inferred (Campbell & Stanley, 1963).

Participants completed a battery of assessment instruments. The battery included the Basic Adlerian Scales

for Interpersonal Success-Adult Form (BASIS-A), the Social Interest Scale (SIS), and the 16 Personality Factors 5th Edition questionnaire (16PF).

Three hypotheses were established before the study began. Each of these hypotheses is described below.

Hypothesis 1

The first hypothesis examined the relationship between the Belonging-Social Interest (BSI) scale of the BASIS-A with the SIS, and the Extraversion, Anxiety and Tough-mindedness global factors of the 16PF. To evaluate the construct validity of the BSI, correlations were calculated with the following scales:

1. Convergent validity--SIS and the 16 PF Extraversion global scale.
2. Divergent validity--The Anxiety and the Tough-Mindedness global scales of the 16PF.

Hypothesis 2

The second hypothesis examined the relationship between the Taking Charge (TC) scale and the Extraversion, Self-control, and Anxiety global factors of the 16PF. To evaluate the construct validity of the TC scale, correlations were calculated with the following scales:

1. Convergent validity--The Extraversion and the Self-Control global factors of the 16PF.
2. Divergent validity--The Anxiety global factor of the 16PF.

Hypothesis 3

The third hypothesis examined the relationship between the Being Cautious (BC) scale with the Independence and Tough-mindedness global factors of the 16PF. In addition, the BASIS-A authors (Curlette & Kern, 2002) suggested that the BC scale may also measure social interest. As such, the convergent validity of the BC scale was measured using the SIS.

To evaluate the construct validity of the BC, correlations were calculated with the following scales:

1. Convergent validity--The Independence global factor of the 16PF and the SIS.
2. Divergent validity--The Tough-Mindedness global factor of the 16PF.

Socio-Demographic Characteristics of the Sample

A total of 141 individuals participated in this study. Of these, 50 (35.5%) were male, and 91 (64.5%) were female. The participants ranged in age from 16 to 82, with an

average age of 39.30 ($SD = 11.10$). Table 4 shows the breakdown of the participant's ages by four categories with most (44%) between the ages of 30 and 39. Table 5 shows the participants' ethnicity; most ($n = 130$, 92.2%) were Caucasian.

Table 4

Frequencies and Percents of Participants' Ages by Category

Age	Frequency	Percent
Under 30	23	16.3
30-39	62	44.0
40-49	29	20.6
50+	27	19.1
Total	141	100.0

Table 5

Frequencies and Percents of Participants' Ethnicities

Ethnicity	Frequency	Percent
Caucasian	130	92.2
African American	2	1.5
Hispanic	5	3.5
Asian American	4	2.8
Total	141	100.0

Results

The results of the study are presented in Table 6. Before those results are presented, it is appropriate to look at the structure of the scales with reference to scoring.

Scales

For BASIS-A, BSI, TC, and BC were computed by adding the eight items in each of the categories. BSI: $\alpha = .86$, TC: $\alpha = .86$, BC: $\alpha = .89$.

For SIS, the SIS total score was computed by assigning a "1" for the 15 high social interest questions and summing them ($\alpha = .64$).

The five global scales of the 16PF were computed by first creating the 16 factors, then weighting them. The results are presented in Table 6 below.

Table 6

Primary Scales Weighting of the Five Global Factors of the 16PF

Five Global Factors	Primary Scales and Scoring Weight
Extraversion (measures Extraversion vs. Introversion)	Reserved v. Warm (.3) Serious v. Lively (.3) Shy v. Socially Bold (.2) Private v. Forthright (.3) Self-Reliant v. Group Oriented (.3)
Anxiety (measures Anxious vs. Unperturbed)	Emotionally Stable v. Reactive (.4) Trusting v. Vigilant (.3) Self-Assured v. Apprehensive (.4) Relaxed v. Tense (.4)
Tough-mindedness (measures Tough Minded vs. Receptive)	Warm v. Reserved (.2) Sensitive v. Utilitarian (.5) Abstracted v. Grounded (.3) Open to Change v. Traditional (.5)
Independence (measures Independent vs. Accommodating)	Deferential v. Dominant (.6) Timid v. Bold (.3) Trusting v. Vigilant (.2) Traditional v. Open to Change (.3)
Self- Control (measures Self-controlled vs. Unrestrained)	Lively v. Serious (.2) Expedient v. Rule-Conscious (.4) Abstracted v. Grounded (.3) Tolerates Disorder v. Perfectionistic (.4)

Hypothesis 1

The first hypothesis examined the relationship between

the BSI scale of the BASIS-A with the SIS, and the Extraversion, Anxiety, and Tough-mindedness global factors of the 16PF (see Table 7). BSI was significantly negatively correlated with Anxiety as hypothesized. Therefore, as anxiety increased, BSI decreased. However, BSI was not statistically related to SIS nor the Tough-mindedness global scale of the 16PF.

Hypothesis 2

The second hypothesis examined the relationship between the Taking Charge scale of the BASIS-A with the Extraversion, Self-control, and Anxiety global scales of the 16PF (see Table 7). Taking Charge was not statistically related to any of these variables.

Hypothesis 3

The third hypothesis examined the relationship between the Being Cautious scale of the BASIS-A with the SIS and the Independence and Tough-mindedness global scales of the 16PF (see Table 7). BC was negatively correlated with SIS as hypothesized. As SIS increased, BC decreased. However, BC was not statistically related to Independence nor Tough-mindedness.

Table 7

Correlations Among BASIS-A Scales and SIS and 16 PF Global Scores

Scale Type	BSI	TC	BC
SIS	.100	-.135	-.228**
Extraversion (16PF Global Factor)	.110	.056	.052
Anxiety (16PF Global Factor)	-.218**	.020	.227**
Tough-mindedness (16PF Global Factor)	.025	.145	-.095
Independence (16PF Global Factor)	.186*	.330***	.074
Self-control (16PF Global Factor)	.296***	-.043	-.118

Note. $n = 141$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Chapter Summary

Chapter III presented the results of the data analysis related to this investigation. In addition, a summary of the study participants was also presented.

CHAPTER IV

DISCUSSION

This investigation was undertaken to examine the convergent and divergent validity of three content scales of the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A). The scales investigated were Belonging-Social Interest (BSI), Taking Charge (TC), and Being Cautious (BC). To examine the validity of the BASIS-A scales, a modified correlational analysis was used. Chapter IV provides the limitations of this study, a summary and interpretation of key findings, and a discussion of and recommendations relative to the findings of the study's potential impact on the BASIS-A. Further, it includes implications for professional practice involving the BASIS-A and recommendations for future research.

Limitations

The participants in this research comprised a convenience sample of both college students and business personnel. The students were enrolled in either graduate or undergraduate classes at a public university in Ohio or at a public university in Texas. The business personnel participating in the study were employed by a Fortune 500

company in Dallas, Texas. The lack of a randomly selected sample from a broader population precludes generalizability of the results to other, less defined populations.

A second limitation is that the measures utilized to collect data were self-report. Steps were taken to provide anonymity with the assessment packets by assigning numbers to each packet and to the corresponding assessments enclosed in the packets. However, as with any self-report instrument, especially personality related instruments, some participants may not have responded in a manner reflective of their honest beliefs (Heppner, Kivlighan, & Wampold, 1999).

Summary and Interpretation of Key Findings

The purpose of the investigation was to examine the convergent and divergent validity of three of the content scales of the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A): Belonging-Social Interest (BSI), Taking Charge (TC), and Being Cautious (BC). These scales were investigated based on other research (Lewis, 2002) suggesting there might be some validity issues with the BASIS-A scales. The results are outlined below in relation to their corresponding hypotheses.

Hypothesis 1

The first hypothesis examined the relationship between the Belonging Social Interest (BSI) scale of the BASIS-A and the Social Interest Scale (SIS) and with the Extraversion, Anxiety, and Tough-mindedness global factors of the 16PF. Positive correlations between the BSI scale, the SIS, and the 16PF Extraversion global scale were expected. Following Adlerian thought the expected negative correlations for the BSI scale were the Anxiety and Tough Mindedness global scales of the 16PF.

The BSI showed a significant negative correlation ($r = -.218$) with the Anxiety global scale as hypothesized. Therefore, as Belonging-Social Interest increased, anxiety decreased. However, BSI was not statistically significantly related to the SIS or to the Extraversion and Tough-mindedness global scales of the 16PF.

If the BSI scale measured social interest, one would have thought it would have had a significant positive correlation with the Social Interest Scale (SIS). The SIS has been found to have good reliability and validity across a number of studies (Watkins, 1994). In addition, some Adlerians have noted that the SIS is the best fit for

assessing an individual's social interest (Mosak, 1991; Watkins, 1994). Such notions are due, in part, because the SIS places emphasis on values in a manner consistent with the basic tenets of Individual Psychology (Ansbacher, 1991).

According to the thoughts of Kern et al. (1997), the BSI scale should have correlated positively with the Extraversion scale. They suggested high scorers on the BSI scale would tend to be extroverted. In addition, Boynton (1989) found a negative correlation between the BSI and the social introversion scale and the discomfort in social situations scale of the Minnesota Multiphasic Personality Inventory (MMPI). However, Adler (1931) believed, as this study suggests, that extraversion was not a requirement for a person having social interest.

It was also hypothesized that the BSI scale would correlate with the Tough-minded scale of the 16PF. Even though previous research (Conn & Rieke, 1994) depicted tough-minded people as reserved, grounded, and traditional and portraying a sense of being established, the present investigator was unable to establish a significant correlation between the BSI scale and the Tough-mindedness scale of the 16PF.

A surprising finding of this study was the significant positive correlation between the BSI scale and the Self-control global factor of the 16PF ($r = .296$). Descriptors used for the Self-control global factor include "serious," "careful," "dutiful," "grounded," "practical," and "self-disciplined." It is interesting to note that some of these descriptors are similar to those of the Tough-minded scale, which as discussed, did not show a significant correlation.

Another unexpected finding was that the BSI scale was significantly positively correlated with the Independence global factors of the 16PF ($r = .186$). At face value, this correlation would seem contrary to Belonging-Social Interest. Some of the descriptors used for the primary factor scales contained in the Global Independence scale include "dominant," "forceful," "assertive," "thick-skinned," "suspicious," "skeptical," and "wary."

Although this study did not hypothesize a correlation for the Independence global factor, the assumption was that any relationship would be negative. The authors of the BASIS-A suggested that Belonging-Social Interest measures the degree to which a person feels a sense of belonging. If an individual tends to feel as if he or she belongs, one may think it is likely that the individual will be

cooperative, extroverted, and interpersonally skilled. At times, they will also display gregarious behaviors (Curlette, Wheeler, & Kern, 1997). Therefore, this positive correlation was striking and unexpected. However, it may be expected that a person with high social interest could do "the right thing" regardless of the thoughts of others.

Based upon these results for the first hypothesis, only one of the four scales used to validate the BSI scale of the BASIS-A resulted in the expected outcome. Further, two unexpected correlations were found. One of these unexpected correlations, the positive correlation of the SSI and the Independence global scale of the 16PF, showed incongruity with the BASIS-A and fundamental Adlerian concepts.

Hypothesis 2

The second hypothesis examined the relationship between the Taking Charge scale (TC) of the BASIS-A with the Extraversion, Self-control, and Anxiety global scales of the 16PF. The expected positive correlations for the TC scale were with the Extraversion and the Self-Control global scales of the 16PF. The expected negative correlation for the TC scale was with the Anxiety global

scale of the 16PF. However, the TC scale was not statistically related to any of these variables.

As with the analysis of the BSI scale, the TC scale showed an unexpected correlation. The TC scale had a significantly positive correlation with the Independence global factor of the 16PF ($r = .330$). Although this correlation was not hypothesized, the correlation was somewhat logical as the descriptors used for the primary scales which make up the Independence global factor are "dominant," "forceful," "assertive," "open to change," "vigilant," "suspicious," and "socially bold." According to Wheeler et al. (1994), high scorers on Taking Charge adopt an assertive, take-charge approach to life and take responsibility in leadership positions. Low scorers tend not to be interested in leading groups and prefer to follow others.

Therefore, for the second hypothesis, which is related to the TC scale, no significant or expected correlations were found. Additionally, one correlation resulted, even though it was not hypothesized. Although this correlation is logical, the three variables tested were expected to have shown significant correlations. They did not, thus putting the validity of the TC scale further into question.

Hypothesis 3

The third hypothesis examined the relationship between the Being Cautious scale (BC) of the BASIS-A with the SIS and with the Independence and Tough-mindedness global scales of the 16PF. The expected positive correlations (convergent) for the BC scale were with the SIS and the Independence global scale of the 16PF. The expected negative correlations (divergent validity) for the BC scale was with the Tough Mindedness global scale of the 16PF.

The BC scale was negatively correlated with SIS as hypothesized. As SIS increased, the BC scale decreased. However, the BC scale was not statistically significantly related to Independence nor Tough-mindedness.

Despite the lack of significant correlations between the BC Scale and Independence or Tough-mindedness, the BC scale did correlate with another factor of the 16PF. The BC scale showed a significant positive correlation ($r = .227$) with the Anxiety global factor. One could assume that anxiety and being overly cautious might be related. As Curlette et al. (1997) suggested, high scores on the Being Cautious scale are seen in individuals who may appear as approaching life cautiously and as being sensitive to cues

from the family and/or society. If their cautiousness becomes inflated, chances are that they may avoid conflict, become oversensitive, or even be codependent.

Thus, in retrospect, one might have expected a low to moderate correlation between BC and anxiety. Some of the descriptors used for the Anxiety global factor include "reactive," "suspicious," "skeptical," "apprehensive," "worried," and "tense." Given these descriptors, a relationship between high scorers of the BC scale and the Anxiety global factor are understandable.

Although this unexpected correlation was logical, two of the hypothesized correlations were not found in this study. Only one hypothesized correlation of the BC scale was found. A logical conclusion could be made that the lack of correlations between the 16PF scales and the BASIS-A subscales indicates some weakness in the BASIS-A constructs.

Discussion

This section of Chapter IV offers discussion related to the aforementioned findings. The discussion is organized according to findings relevant to each of the selected scales of the BASIS-A. In addition, explanation, analyses,

and critiques are provided.

Belonging-Social Interest

The Belonging-Social Interest (BSI) scale of the BASIS-A reportedly measures the degree to which a person feels a sense of belonging. This sense can be toward any group such as family or peers. If an individual tends to feel as if they belong, it is likely that the individual will be cooperative, extroverted, and interpersonally skilled. At times, they will display gregarious behaviors (Curlette et al., 1997).

High scores on the Belonging-Social Interest scale are reportedly seen in individuals who are outgoing, friendly, empathic, and cooperative. They have the ability to handle high levels of stress (Curlette et al., 1997). Conversely, low scores are reportedly seen in individuals who appear quiet, sensitive, shy, and sad (Curlette et al.). Low scores tend to be indicative of individuals who are less comfortable in group settings, even introverted. Very low scores characterize individuals who are more prone to be sad and lonely, lacking self-confidence, and even depressed (Curlette et al.).

The BSI scale was thought to conceptually correlate

positively with attributes such as empathy (Ansbacher, 1991) and goodness toward others (Adler, 1956). However, as is the case with the findings of this study, other researchers (Crandall, 1981; Curlette, Kern, Gfroerer, & Whitaker, 1999) have concluded among the instruments known to measure social interest, all appear to measure different aspects of the construct. Further evidence of social interest being multi-dimensional can be found in the low intercorrelations of prior research (Bubenzer, Zarski, & Walter, 1991; Curlette et al., 1997; Hedberg & Huber, 1995). The attempt of the BSI scale to operationally define social interest appears to confirm the conceptual multidimensionality of the term. Rotter's (1962) statement that it would be "unlikely that any one operational definition [of social interest] would please most Individual Psychologists" (p.8) seems apropos.

However, beyond indicating that social interest is multi-dimensional, the results of the present study confirm that the BSI scale may not even be measuring concepts that are Adlerian in nature. If it were measuring Adlerian concepts, one might have expected that more than one of the expected correlations would have occurred.

Taking Charge

The Taking Charge (TC) scale reportedly reflects an individual's preference for being a leader. The scale distinguishes the degree to which a person is directive and controlling (Curlette et al., 1997). Individuals scoring high on this scale are viewed by self and others as domineering, headstrong, confrontive, assertive, persuasive, and influential. Furthermore, they are more apt to take on leadership roles and responsibilities. As scores on this scale decrease, the need to assert and exhibit dominance-related behaviors decreases (Curlette et al., 1997).

The positive correlation between the TC scale and the Independence global factor, although not hypothesized, did reflect some congruity. The Independence global factor has descriptors such as "dominance", "assertive", "forceful", and "socially bold" which are in harmony with the definition of Curlette et al. (1997) for TC. However, finding this sole correlation is concerning. Additional correlations, as hypothesized, should theoretically have been found, particularly a positive correlation with Self-control. Perhaps the TC scale measures persuasiveness and

dominance rather than leadership, as Lewis (2002) pointed out. As an example, Lewis found a positive correlation between binge drinking and the Taking Charge scale. That is, college-aged men reportedly assumed a leadership role in getting their peers to join them in drinking to excess. While this is a leadership role, it appears to lack an ethical base with what is known about excessive alcohol consumption. This type of leadership is more akin to having followers or those with no direction. Lewis' findings and the present study results further substantiate that the TC scale is not measuring what Adler might have considered leadership.

In fact, Adler's beliefs about leadership are not as focused on dominance-related characteristics as are those of Curlette, et al. (1997). According to Adler (1956), a foundation for leadership requires strongly developed social interest, self-confidence, and optimism as well as great preparation and training in how to cooperate with others. Furthermore, Adler (1964) believed that everyone strives for superiority, in the sense of doing a very good job. The degree of social interest that the individual displays sets the direction of their striving. If the individual is interested in the welfare of others, as a

leader should be, then his or her striving is manifested in caring, compassion, social cooperation, and contribution to the common welfare (Mosak, 1991). It is when there is a low degree of social interest that we see individuals seeking gain at the expense of others. Based upon this undertaking of the Adlerian concept of leadership, the results of this study corroborate Lewis' (2002) belief that the TC scale measures leadership concepts that are not based in Adlerian thought.

Being Cautious

High scores on the Being Cautious scale are seen in individuals who may appear as approaching life cautiously and as being sensitive to cues from the family and/or society. If their cautiousness becomes inflated, chances are that they may avoid conflict, become oversensitive, or even be codependent. The low scorers on this scale might appear as being able to cope objectively with life situations. Perhaps their family environment was predictable and trusting which would allow exploration later in life without overwhelming cautiousness or dependency on others (Curlette et al., 1997).

Wheeler (1990) found a correlation ($r = .28$) of Theme

6 (being cautious) of the Life Style Personality Inventory, which later became the BASIS-A, and the anxiety scale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). This matches the current study's positive correlation between the BC scale and the Anxiety global factor of the 16PF. Both lend to defining of the Being Cautious scale as a measure of anxiety. The MMPI-2 and the 16PF are widely used personality inventories in the helping profession, so it would make sense that any correlation of the BASIS-A would suggest scale validity, which was not the case.

Adler (1956) sees anxiety as a safeguarding mechanism used by individuals as a means to avoid challenges. This striving to avoid meeting challenges would manifest itself in the form of anxiety and panic attacks. Adler considered self guarding behaviors, such as this, as originating as interpersonal phenomena. The behaviors are seen as protecting the individual from one of three threats—namely a threat to the physical self, a social threat, and a fear of loss of self-esteem (Adler, 1956). This study's resulting correlation between the BC scale and the Anxiety scale of the 16PF has implied that a high score on the cautiousness scale could indicate a means of protecting or guarding oneself.

Furthermore, Adler (1956) pointed out that anxiety could be considered an increased inferiority feeling within the first five years of childhood. Given the BASIS-A reportedly assesses the individual's childhood experience, perhaps this partially explains the correlation found in this study. Even so, a positive correlation between the BC scale and anxiety does not seem to reflect the Adlerian concept of Social Interest.

From the discussion thus far, there is incongruency concerning which dimension of social interest the BSI scale measures. In addition, the TC scale apparently measures non-Adlerian leadership traits. Lastly, the BC scale seems to focus on anxiety, which does not translate into social interest. To understand how such an incongruency developed, a deeper discussion into the origins of the BASIS-A could help.

Before delving into the specifics of Wheeler's work, a review of construct validation procedures is warranted. Crocker and Algina (1986) described four procedures frequently utilized in construct validation. Regardless of the specific technique used, the steps that are generally followed include (a) formulating a hypothesis about how those who differ on the proposed construct do in fact

differ in relation to other constructs already validated, (b) selecting or developing a measurement instrument that consists of items specifically representing the construct, (c) gathering empirical data so the hypothesized relationships can be tested, and (d) determining if the data are consistent with the hypothesis.

Wheeler's (1979) dissertation was the origins of the BASIS-A. In her studies, Wheeler conceptualized eight general life style themes which were described in detail in Chapter Two. After she conducted her initial factor analysis, she was left with five themes. Wheeler's research could be considered faulty in that, rather than following the dictates of Crocker and Algina (1986), she attempted to create items that measured what her questionnaire reported rather than refining her initial instrument in ways that pursued the original constructs. The result is a transition from theoretical research to empirical based research.

Wheeler went from the theoretical perspective to the empirical perspective when she abandoned her eight themes and went with the five themes found in her initial factor analysis. If she would have refined her initial instrument, she could have firmed up her theory of eight lifestyle themes and thus created an instrument efficaciously

measuring those themes.

Following her dissertation, Wheeler's (1980) original eight themes were further modified. Wheeler, Kern, and Curlette (1986) used Wheeler's questionnaire and performed an exploratory factor analysis. The results would become the basis of the LSPI. This initial analysis resulted in four factors similar to Dreikur's four goals of misbehavior (Kern et al., 1986). The fact that only four factors were found could suggest that the LSPI moved even further away from Wheeler's original research of eight themes.

Between the exploratory factor analysis mentioned above and a second factor analysis, research (Kern et al., 1986) was conducted using the Wheeler questionnaire and the Depression Adjective Checklist (Earles, 1982) resulting in a fifth factor, namely, social interest. The additional items used to create the social interest scale were written by Wheeler et al. (1982), yet no research exists depicting how those items were created.

With the research completed for developing the LSPI, thus far, Wheeler's (1980) work shrank from eight themes to five. The suggestion of five themes seems to fit with the Big 5 personality factors which are found in widely used personality assessments such as the 16PF (Cattell et al,

1993). One could suggest that Wheeler's initial results of five factors and the LSPI, in its current state of five factors, would fit the Big 5 factor theme.

However, Mullis (1984) conducted a second factor analysis by using the 204 items of the LSPI and the BMDP4M software package (Frane & Jenrich, 1979) to yield nine factors. Two of the factors were combined because of similarities (Mullis, Kern, & Curlette, 1987) which resulted in eight factors and the eventual creation of the LSPI.

Kern et al. (1987) reported that research was conducted using the LSPI over a decade and this research suggested that "some of the elaboration provided by the eight themes could be given up without too much loss of information or potential usefulness as a clinical instrument" (p. 5). Once again, just as Wheeler had shifted, the researchers devolved from the theoretical perspective to the empirical perspective.

The LSPI now consisted of eight themes once again after two factor analyses. The eight themes of the LSPI were used in the creation of the BASIS-A. The BASIS-A has been shown, in this study, to correlate with non-Adlerian characteristics. There appears to have been some over

simplification, on Wheeler's part, when creating the work which eventually led to the formation of the BASIS-A. This lack of construct validation has carried to the BASIS-A, and one could conclude that this has contributed to the correlations mentioned earlier. As a result of this study, implications for both researchers and clinicians need to be discussed with regards to the use of the BASIS-A.

Implications for Professional Practice

Social interest is the basic tenet of Individual Psychology. Adlerians typically rely on lifestyle interviews and early recollections to determine the beliefs and goals of individuals with whom they are working. Unfortunately, these techniques are not always practical in the context of today's short-term treatment encouraged by managed care. As a result, Adlerian clinicians have attempted to shorten this process through the use of assessments such as the BASIS-A.

Mosak (1995) has documented that the European trained Adlerian clinicians are opposed to the use of standardized assessments because they think the ideographic uniqueness of the individual is lost in the categorization process. Perhaps the American trained clinicians should follow this

belief more closely, unless or until a more validated assessment is available. Adler himself posited a similar stance.

Adler (1964) stated that if a clinician believes, for example, the results when hearing a descriptor such as "criminal" or "schizophrenic" to describe a patient that "he (the clinician) will not be free from misunderstandings that will arise between him and the person whom he is treating" (p.127). As a practicing clinician of Individual Psychology, one would best be able to meet the needs of his or her clients if he or she is able to be flexible and to adapt to each client's lifestyle. This flexibility can be limited if the clinician relies solely on standardized assessments, such as the BASIS-A, to understand their client's lifestyle.

This study demonstrates that if standardized assessments are used by clinicians, the BASIS-A should probably not be one of them. Based on the evidence of this study, this researcher contends some of what the BASIS-A measures is not Adlerian based. Perhaps the BASIS-A measures other characteristics such as personality traits. However, there are numerous personality instruments available to clinicians to get an overall "snapshot" of

their client. As far as finding out a client's lifestyle, it would be best to use one therapy session to explore the uniqueness of the client.

Recommendations for Future Research

The results of this study raise questions as to the extent the BASIS-A subscales measure the Adlerian themes it purports to measure. Researchers (Curlette & Kern, 2002) have shown that even the authors of the BASIS-A are aware of some of the limitations of their instrument. From this study, the BASIS-A lacked some expected correlations; therefore, the BASIS-A may ultimately be an invalid measure of social interest.

Beyond not resulting in expected correlations, this study resulted in further unexpected correlations corroborating concerns that the assessment may not be measuring concepts from an Adlerian basis. For example, one scale, the TC scale, measures leadership based upon a concept that appears to be different from Adler's concept of leadership. In addition, the BC scale appears to measure anxiety rather than social interest. Based upon the results of this study, there is insufficient evidence that the BASIS-A should not be used as a clinical or research tool

at all. A clinician would be able to serve their client's needs by using a proven personality assessment such as the 16PF rather than the BASIS-A.

Given this evidence, as well as the previous discussion of Wheeler's and others' construct validation missteps, further research should focus on a new direction or perhaps back to an old. Perhaps future research could look at the eight themes of the LSPI and see if and how they correlate with the original work of Wheeler's eight themes. By focusing research on Wheeler's original eight themes, an improved instrument could eventually result. This could require multiple studies as tools to measure and refine the original themes. However, it appears that such work to improve the instrument to measure for its intended purpose will be more useful than continued work on determining what the current instrument measures.

Perhaps an R-Type study in which both a confirmatory and exploratory factor analysis examined the dimensions that define lifestyle would be useful to practitioners and researchers of Individual Psychology. Such a study conducted on Wheeler's original instrument could lend itself to refining her initial eight themes. If the confirmatory factor analysis fails then the exploratory

factor analysis could determine how many and what themes could be accounted for. The research conducted would need to be transparent and explicitly delineated so future researchers could see the biases in defining the themes. In doing so, the future researchers could make their own judgments about the critical choices made during the original research.

Chapter Summary

Chapter IV began with a comment on the study's limitations, which concerned sampling issues and self-report measures. This was followed by a summary and interpretation of key findings and a discussion of the study's impact on the Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A). In addition, suggestions for professional practice were discussed including less reliance on standardized assessments, specifically on the BASIS-A given the lack of evidence from this study that the BASIS-A should be used in the future as a clinical tool. Finally, a recommendation for future research was made to refine Wheeler's initial instrument as well as to encourage the ceasing of research regarding what the BASIS-A measures.

APPENDIXES

APPENDIX A

Institutional Review Board Approval

APPENDIX A

Institutional Review Board Approval

KENT STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPLICATION FOR APPROVAL TO USE HUMAN RESEARCH PARTICIPANTS

LOG NUMBER 05-245

Form can be downloaded from <http://www.kent.edu/rags-alpha/forms/>

Please type all information. **HANDWRITTEN FORMS WILL NOT BE ACCEPTED.** Move through the document using TAB or Mouse. Do not use the enter Key. To mark a box, click with the mouse.

Name: Darren J. Miller
Telephone: 214-923-2893 Address: 6679 Hunters Pkwy Frisco, TX 75035 Email: darren@privatelogic.com

Department: ACHVE FacultyRank/StudentStatus: Doctoral Candidate

Project Title: Using a modified multitrait-multimethod analysis to assess the construct validity of select Basic Adlerian Scales for Interpersonal Success - Adult form (BASIS-A) scales.

Type of Project: ☐ FACULTY RESEARCH ☐ External Funded (Agency:) Include copy of proposal
STUDENT DIRECTED RESEARCH (Advisor:)
☐ Thesis ☒ Dissertation ☐ Course Requirement (Course #:)
☐ Other (Specify:)

Duration of Project: Starting Date: 11/15/2004 (But not before approval is obtained)
Ending Date: 02/27/2005

I certify that the research procedures for this project and the method of obtaining consent (if any), as approved by the Kent State University Institutional Review Board, will be followed during the period covered by this research project. Any future changes will be submitted for Board review and approval prior to implementation.

If this project involves approval/permission from other institutions, the principal investigator (and the faculty advisor if the PI is a student) must sign below to certify the following statement: "I/we will not begin research at other institutions before having obtained their permission to do so."

Darren J. Miller 11/12/04 Principal Investigator Date
Donald L. Palmer 11/18/04 Faculty Advisor (If PI is a student) Date

Action Taken:

By REVIEWER :

By KSU INSTITUTIONAL REVIEW BOARD:

☒ Level I, Category II
☐ Level II, Category
☐ Level III, To Full Board

☒ Approved, Level I
☐ Approved, Level II
IRB Comments:

Project Involves:

☐ Deception
☐ Waiver of Consent

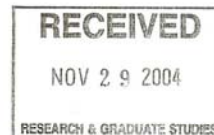
R. Scott Olds 11/23/04 Primary Reviewer Date

Heather Lee 12-2-04 Administrator, IRB Date

Co-Reviewer (Level II) Date

IRB Level III Action:

☐ Approved ☐ Disapproved ☐ Contingent Approval (Comments or Contingencies):



APPENDIX B

16PF Scale Descriptors

APPENDIX B

16PF Scale Descriptors

The 16PF is designed as a broad measure of personality. It contains 185 items that compromise the 16 bipolar personality factor scales, five global factor scales, and an impression management index that assess social desirability (Russell & Karol, 1994). Each scale contains 10-15 items. The scales and their bipolar descriptors are listed below:

1. *Warmth* (factor A)—reserved, impersonal vs. warm, outgoing
2. *Reasoning* (factor B)—concrete vs. abstract
3. *Emotional Stability* (factor C)—emotionally changeable vs. emotionally stable
4. *Dominance* (factor E)—deferential, cooperative vs. dominant, forceful
5. *Liveliness* (factor F)—serious, restrained vs. lively, animated
6. *Rule-Consciousness* (factor G)—expedient, nonconforming, vs. rule conscious, dutiful
7. *Social Boldness* (factor H)—shy, threat-sensitive vs. socially bold

8. *Sensitivity* (factor I)—utilitarian, objective vs.
sensitive, aesthetic
9. *Vigilance* (factor L)—trusting, unsuspecting vs.
vigilant, wary
10. *Abstractedness* (factor M)—grounded, practical vs.
abstracted, imaginative
11. *Privateness* (factor N)—forthright, genuine vs.
private, discreet
12. *Apprehension* (factor O)—self-assured, unworried
vs. apprehensive, worried
13. *Openness to Change* (factor Q1)—traditional vs.
open to change
14. *Self-reliance* (factor Q2)—group oriented,
affiliative vs. self-reliant, solitary
15. *Perfectionism* (factor Q3)—tolerates disorder vs.
perfectionism
16. *Tension* (factor Q4)—relaxed, placid vs. tense,
high energy

Russell and Karol (1994) offer further descriptions of each of the factors contributing to the scales (pp. 30-56).

Warmth (factor A). This scale addresses the tendency to be warmly involved with people versus the tendency to be more reserved socially and

interpersonally. Reserved people tend to be more cautious in involvement and attachments and prefer to work alone. Warm behavior tends to be more socially desirable, although extreme scores can indicate an extreme need for people and for close relating.

Reasoning (factor B). The reasoning scale concerns the ability to solve problems. The scale measures verbal reasoning, numeric reasoning, and logical reasoning.

Emotional stability (factor C). This scale concerns feelings about coping with day-to-day life and its challenges. Higher scorers tend to take life in stride and to manage events and emotions in a balanced, adaptive way. Low scores feel a certain lack of control over life. Low scorers tend to react to life, whereas high scorers make adaptive and proactive choices in managing their lives.

Dominance (factor E). This factor involves the tendency to exert one's will over others versus accommodating other's wishes. Most high scores tend to be forceful, vocal in expressing their wishes and opinions even when not invited to do so, and pushy about obtaining what they want. These individuals tend

to be more aggressive and assertive. In contrast, low scorers tend to avoid conflict by acquiescing to the wishes of others and are willing to put aside their wishes and feelings.

Liveliness (factor F). High scorers are enthusiastic, spontaneous, attention seeking, lively, and drawn to stimulating social situations. Extreme scores may reflect a flighty quality that is seen as unreliable, immature, or inappropriate for certain situations requiring restraint or decorum. Low scorers tend to take life more seriously. They are quieter, more cautious, and less playful. They tend to inhibit their spontaneity, sometimes to the point of appearing constricted. While they may be regarded as mature, they may not be perceived as fun or entertaining.

Rule-consciousness (factor G). This factor addresses the extent to which cultural standards or right and wrong are internalized and used to govern behavior. Higher scorers tend to perceive themselves as strict followers of rules, principles, and manners. They depict themselves as rule-bound, conscientious, and preserving. They may be perceived as inflexible or self-righteous because of their dogmatism. Low scorers

tend to avoid rules and regulations, either because they have a poorly developed sense of right from wrong, or because they ascribe to values that are not solely based on conventional mores. Their behavior may be perceived as unpredictable unless their guiding principles are known.

Social Boldness (factor H). High scorers consider themselves to be bold and adventurous in social groups, and show little fear of social situations. They tend to initiate social contacts and are not shy in the face of new social settings. Low scorers tend to be socially timid, cautious, and shy; they find speaking in front of a group to be a difficult experience. Low scores highly correlate with low self-esteem.

Sensitivity (factor I). This factor focuses on people's sensitivities and sensibilities. Higher scorers tend to base judgments on personal tastes and aesthetic values, whereas low scorers tend to have a more utilitarian focus. Sensitive people rely on empathy and sensitivity in their considerations. Utilitarian people attend more to how things operate or work.

Vigilance (factor L). This factor relates to the tendency to be vigilant about others' motives and intentions. High scorers expect to be misunderstood or taken advantage of and they experience themselves separate from others. At the extreme, these individuals show mistrust and may evidence animosity. Low scorers tend to expect fair treatment, loyalty, and good intentions from others. Trust tends to be related to a sense of well-being and satisfactory relationships. Extreme low scorers may be taken advantage of because they do not give enough thought to people's motives.

Abstractedness (factor M). This factor addresses the type of things to which people give thought and attention. Abstract people are more oriented to internal mental processes and ideas rather than to the practical. Grounded people tend to focus on their senses, observable data, and the outer realities of their environment. High scorers are occupied with thinking, imagination, and fantasy and may get lost in thought, Low scorers may think in a practical and down-to-earth manner, although they may not be able to generate possible solutions to problems. High scorers

can be highly creative but may not take into account practical realities.

Privateness (factor N). This factor addresses the tendency to be forthright and personally open versus being private and non-disclosing. Low scorers tend to talk about themselves readily; they are genuine, and self-revealing. High scorers tend to be personally guarded and, at the extreme, may maintain their privacy at the expense of developing close relationships.

Apprehension (factor O). High scorers tend to worry about things and feel apprehensive and insecure, although this person can anticipate dangers in a situation and can see how actions might have consequences. Low scorers tend to be more self-assured, neither prone to apprehensiveness nor troubled about their sense of adequacy. They present themselves as confident and self-satisfied, and in the extreme, may block out awareness of negative elements of self.

Openness to change (factor Q1). High scorers tend to think of ways to improve things and enjoy experimenting. When the status quo is perceived as

unsatisfactory, these individuals are inclined to change it. Low scorers tend to prefer traditional ways of looking at things, and do not question the way things are done. They prefer to be predictable and familiar, even if life is not ideal.

Self reliance (factor Q2). This factor tends to be more about maintaining contact or proximity to others. High scorers are self-reliant, enjoy time alone, and prefer to make decisions for themselves. Low scorers are group oriented, prefer to be around people and like to do things with others. Self-reliant people may have difficulty in working alongside others and may find it hard to ask for help. Group oriented people may find difficulty in making decisions without help.

Perfectionism (factor Q3). High scorers want to do things right. They tend to be organized, keep things in their proper place, and plan ahead. They tend to be most comfortable in highly organized and predictable situations and may find it difficult to deal with unpredictability. Low scorers leave more things to chance and tend to be more comfortable in a disorganized setting. Low scorers may be perceived as

unorganized, unmotivated, and unprepared.

Tension (factor Q4). This scale is associated with nervous tension. High scorers tend to have a restless energy and to be fidgety when made to wait. While certain amounts of tension can be focused effectively and can motivate action, extremely high scores can lead to impatience and irritability. Low scorers tend to feel more relaxed and tranquil. They are patient and slow to become frustrated. At the extreme, a low level of arousal can make them unmotivated and disinclined to change or push themselves.

Each scale of the 16PF has a right-side pole and a left-side pole. The right-side pole is the high-score range or plus side (+). The left-side pole is the low-score range or minus side (-). For example, high scorers on factor A (warmth) are described as warm (A+); low scorers are described as reserved (A-).

REFERENCES

REFERENCES

- Adler, A. (1929). *The science of living*. New York: Greenberg.
- Adler, A. (1931). *What life should mean to you*. New York: Prestige.
- Adler, A. (1956). *The Individual Psychology of Alfred Adler*. New York: Basic Books.
- Adler, A. (1957). The progress of mankind. *Journal of Individual Psychology*, 13, 1-4.
- Adler, A. (1964). *Social interest: A challenge to mankind* (J. Linton & R. Vaughan, Trans.). New York: Capricorn. (Original work published 1933)
- American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct*. Washington, DC: Author.
- Anastasi, A., & Urbina, S. (1982). *Psychological testing* (7th Ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.
- Ansbacher, H. L. (1965). Sensus privatus versus sensus communis. *Journal of Individual Psychology*, 21, 48-50.
- Ansbacher, H. L. (1972). Adlerian techniques of psychotherapy: Proceedings of the Fourth Brief

- Psychotherapy Conference [Special issue]. *Journal of Individual Psychology*, 28(2), 121-122.
- Ansbacher, H. L. (1991). The concept of social interest. *Individual Psychology: Journal of Adlerian Theory, Research & Practice*, 47(1), 28-46.
- Ansbacher, H. L. (1992). Alfred Adler's concepts of community feeling and of social interest and the relevance of community feeling for old age. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice*, 48(4), 402-412.
- Bass, M. L. (2000). *Social interest: A theoretical and empirical explication*. Unpublished doctoral dissertation, Georgia State University.
- Bass, M. L., Curlette, W. L., Kern, R. M., & McWilliams, A. E., Jr. (2002). Social Interest: A meta-analysis of a multidimensional construct. *Journal of Individual Psychology*, 58(1), 4-34.
- Bell, H. M. (1961). *Manual for the Adjustment Inventory*. Palo Alto, CA: Consulting Psychologists Press, Inc.
- Bertelson, S. K. (1991) *Clinical correlates of life styles patterns found in psychiatric inpatients*. Unpublished doctoral dissertation, Georgia State University.

- Boynton, R. D. (1989). *Drug addiction, life style personality factors and psychopathology*. Unpublished doctoral dissertation, Georgia State University.
- Brown, J. F. (1976). *Practical applications of the personality profiles*. Clinton, MD: B. & F. Associates.
- Brunner, R., Kausen, R., & Titze, M. (Eds.). (1985). *Wörterbuch der Individualpsychologie*. München Basel, Germany: Reinhardt.
- Bubenzer, D. L., Zarski, J. J., & Walter, D. A. (1991). Measuring social interest: A validation study. *The Journal of Individual Psychology*, 47, 124-135.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNally.
- Cattell, R. B., Cattell, A. K., & Cattell, H. E. (1993). *Sixteen Personality Factor Questionnaire, Fifth Edition*. Champaign, IL: Institute for Personality and Ability Testing, Inc.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1970).

Handbook for the 16PF. Champaign, IL: Institute for Personality and Ability Testing, Inc.

Cattell, R. B., & Stice, G. F. (1954) Four formulae for selecting leaders on the basis of personality. *Human Relations*, 7(4), 493-507.

Chlopan, B. E., McCain, M. L., Carbonell, J. L., & Hagan, R. L. (1985). Empathy: Review of available measures. *Journal of Personality and Social Psychology*, 48, 635-653.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Conn, S. R., & Rieke, M. L. (1994). *The 16PF Fifth Edition technical manual*. Champaign, IL: Institute for Personality and Ability Testing, Inc.

Crandall, J. E. (1980). Adler's concept of social interest: Theory, measurement, and implications for adjustments. *Journal of Personality and Social Psychology*, 39, 481-495.

Crandall, J. E. (1981). *Theory and measurement of social interest: Empirical tests of Alfred Adler's concept*. New York: Columbia University Press.

- Crandall, J. E. (1982). Social interest, extreme response style, and implications for adjustment. *Journal of Research in Personality, 16*, 82-89.
- Crandall, J. E. (1991). A scale for social interest. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice, 47*(1), 106-114.
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Belmont, CA: Wadsworth.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*, 281-302.
- Curlette, W. L., & Kern, R. M. (2002). Measuring *Gemeinschaftsgefühl*. *Journal of Individual Psychology, 58*(1), 1-3.
- Curlette, W. L., Kern, R. M., Gfroerer, K. P., & Whitaker, I. Y. (1999). A comparison of two social interest assessment instruments with implications for managed care. *The Journal of Individual Psychology, 55*, 62-71.
- Curlette, W. L., Wheeler, M. S., & Kern, R. M. (1997). *BASIS-A inventory technical manual*. Highlands, NC: TRT Associates, Inc.
- Davis, J. B., Jr. (1979). Reliability and validity issues of Adlerian life style analysis. (Doctoral

- Dissertation, Georgia State University, 1979).
- Dissertation Abstracts International*, 39(10), 5060B.
- Dreikurs, R. (1948). *The challenge of parenthood*. New York: Hawthorne.
- Dreikurs, R. (1964). *Children: The challenge*. New York: Hawthorne.
- Dreikurs, R. (1990). *The new approach to discipline*. New York: Plume.
- Earles, T. D. (1982). Adlerian life style and clinical depression in mothers of disturbed children. (Doctoral Dissertation, Georgia State University, 1982).
- Dissertation Abstracts International*, 43(6), 1834A.
- Eckstein, D., Baruth, L., & Mahrer, D. (1978). *Life style: What it is and how to do it*. Dubuque, IA: Kendall/Hunt.
- Frane, J., & Jenrich, R. I. (1979). Factor Analysis. In W. J. Dixon and M. B. Brown (Eds.), *BMPD biomedical computer programs p-series*. (pp. 656-684). Los Angeles: University of California Press.
- Guastello, S. J., & Rieke, M. L. (1993). *The 16PF and leadership: Summary of research findings 1954-1992*. Champaign IL: Institute for Personality and Ability Testing.

- Gushurst, R. S. (1971). *The reliability and concurrent validity of an idiographic approach to early recollections*. Unpublished doctoral dissertation, University of Chicago.
- Hedberg, C., & Huber, R. J. (1995). Homosexuality, gender, communal involvement, and social interest. *The Journal of Individual Psychology*, 51, 244-252.
- Heppner, P., Kivlighan, D., Jr., & Wampold, B. (1999). *Research design in counseling* (2nd Ed.). Pacific Grove, CA: Brooks/Cole.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Counseling and Clinical Psychology*, 33, 307-316.
- Hutner, B. D. (1998). The "BASIS-A Inventory" and the "Rorschach Inkblot Method": An exploratory correlative study. (Doctoral Dissertation, Adler School of Professional Psychology, 1997). *Dissertation Abstracts International*, 58(1), 5646.
- Jackson, D. N. (1984). *Personality research form manual* (3rd Ed.). Los Angeles: Western Psychological Services.
- Johnston, T. B. (1988). *Validation of the Life Style Personality Inventory and the prediction of success in treating pain*. Unpublished doctoral dissertation, Georgia State University.

- Kefir, N. (1972). *Priorities*. Unpublished manuscript.
- Krug, S. E. (1981). *Interpreting 16PF profile patterns*.
Champaign, IL: Institute for Personality and Ability
Testing, Inc.
- Krug, S. E., & Johns, E. F. (1986). A large scale cross-
validation of second-order personality structure
defined by the 16PF. *Psychological Reports*, 59(2b),
683-693.
- Kyser, L. L. (1979). A study of the Adlerian life style in
relation to psychiatric diagnosis. (Doctoral
dissertation, Georgia State University, 1978).
Dissertation Abstracts International, 39(10), 5563B.
- Lasley, T., Rousche, E., & Wheeler, M. S. (1993).
*Extroversion on the Life Style Personality Inventory
and the Myers-Briggs Type Indicator*. Unpublished
manuscript.
- Lewis, T. F. (2002). *Exploring alcohol-related behaviors
through an Adlerian theoretical framework*. Unpublished
doctoral dissertation, Kent State University.
- Manaster, G. J., & Corisini, R. J. (1982). *Individual
psychology: Theory and practice*. Itasca, IL: F. E.
Peacock.

- McLellan, M. J. (1995). Review of the 16PF 5th Edition. In J.C. Conoley & J. C Impara(Eds.), *The 12th mental measurements yearbook*. Lincoln, NE: Buros Institute of Mental Measurement of the University of Nebraska-Lincoln.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40, 525-543.
- Morton-Page, D., & Wheeler, M. S. (1997). *Early loss, depression, and lifestyle themes*. Paper presented to the Southeastern Psychological Association, New Orleans.
- Mosak, H. H. (1954). The psychological attitude in rehabilitation. *American Archives of Rehabilitation Therapy*, 2, 9-10.
- Mosak, H. H. (1968). The interrelatedness of the neuroses through central themes. *Journal of Individual Psychology*, 15, 193-198.
- Mosak, H. H. (1971). Lifestyle. In A. G. Nikelly (Ed.), *Techniques for behavior change* (pp.77-81). Springfield, IL: Charles C. Thomas.
- Mosak, H. H. (1977). *On purpose: Collected papers*. Chicago, IL: Adler School of Professional Psychology.

- Mosak, H. H. (1979). Mosak's typology: An update. *Journal of Individual Psychology*, 35(2), 192-195.
- Mosak, H. H. (1991). "I don't have social interest": Social interest as a construct. *Individual Psychology: The Journal of Adlerian Theory, Research & Practice*, 47(3), 309-320.
- Mosak, H. H. (1995). Adlerian psychotherapy. In R.J. Corsini & D. Wedding (Eds.), *Current Psychotherapies* (5th ed, pp. 51-84). Itasca, IL: F. E. Peacock.
- Mosak, H. H., & Shulman, B. H. (1971). *The lifestyle inventory*. Chicago: Alfred Adler Institute.
- Mullis, F. Y. (1984). Factor analysis of the Wheeler-Kern-Curlette Life Style Personality Inventory. (Doctoral dissertation, Georgia State University, 1984). *Dissertation Abstracts International*, 45, 682B.
- Mullis, F. Y., Kern, R. M., & Curlette, W. L. (1987). Life-style themes and social interest: A further factor analytic study. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice*, 43, 339-352.
- Newbauer, J. (1995). *BASIS-A and child custody*. Paper presented at the Midwinter Meeting of the Society for Personality Assessment, Atlanta, GA.

- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Powers, R. L., & Griffith, J. (1987). *Understanding lifestyle: The psycho-clarity process*. Chicago: Americas Institute of Adlerian Studies.
- Rieke, M. L., Guastello, S. J., & Conn, S. R. (1994). *The 16PF Fifth Edition technical manual*. Champaign, IL: Institute for Personality and Ability Testing, Inc.
- Rotter, J. B. (1962). An analysis of Adlerian psychology from a research orientation. *The Journal of Individual Psychology*, 18, 3-11.
- Russell, M. T., & Karol, D. (1994). *16PF Fifth Edition Administrator's Manual*. Champaign, IL: Institute for Personality and Ability Testing, Inc.
- Sauls, M. B. (1987). A manager matching strategies model for buyers: A discriminant analysis based on Adlerian and Jungian theory. (Doctoral Dissertation, Georgia State University, 1987). *Dissertation Abstracts International*, 49(3), 906B.
- Siegal, S. (1956). *Nonparametric statistics*. New York: McGraw-Hill.

- Shulman, B. H. (1973). What is lifestyle? In B. H. Shulman (Ed.), *Contributions to Individual Psychology* (pp.16-44). Chicago: Alfred Adler Institute.
- Shulman, B. H., & Mosak, H. H. (1988). *Manual for lifestyle assessment*. Philadelphia: Accelerated Development.
- Vinacke, W. E. (1969). Variables in experimental games: Toward a field theory. *Psychological Bulletin*, 71(4), 293-318.
- Walter, V. (1993). *Personal Career Development Profile manual*. Champaign, IL: Institute for Personality and Ability Testing.
- Watkins, C. E., Jr. (1985). An examination of the relationship between social interest and self-management effectiveness. (Doctoral Dissertation, University of Tennessee, 1984). *Dissertation Abstracts International*, 45(10), 3101.
- Watkins, C. E., Jr. (1994). Measuring Social Interest. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice*, 50(1), 69-96.
- Wheeler, M. S. (1980). Factor analysis of an instrument developed to measure Adlerian lifestyles. *Dissertation Abstracts International*, 40, 5032B.

- Wheeler, M. S. (1990). *Validity of the Life Style Personality Inventory*. Paper presented to the Southeastern Psychological Association, Atlanta, GA.
- Wheeler, M. S. (1996). Using the BASIS-A Inventory: Examples from a clinical setting. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice*, 52(2), 104-118.
- Wheeler, M. S., & Acheson, S. K. (1993). Criterion-related validity of the life style personality inventory. *Individual Psychology: The Journal of Adlerian Theory, Research, and Practice*, 49(1), 51-57.
- Wheeler, M. S., Kern, R. M., & Curlette, W. L. (1982). *Wheeler-Kern-Curlette life style inventory*. Unpublished manuscript.
- Wheeler, M. S., Kern, R. M., & Curlette, W. L. (1986). Factor analytic scales designed to measure Adlerian life style themes. *Individual Psychology*, 42, 1-16.
- Wheeler, M. S., Kern, R. M., & Curlette, W. L. (1993). *BASIS-A inventory*. Highlands, NC: TRT Associates.
- White, P. E. (1990). *A multidimensional analysis of the mental health of graduate counselors in training*. Unpublished doctoral dissertation, Georgia State University.

Zuckerman, M., & Lubin, B. (1965). Normative data for the Multiple Affect Adjective Check List. *Psychological Reports*, 16(2), 438.