This is to certify that the

thesis entitled

SELF-ESTEEM IN RELATION TO THERAPIST TYPOLOGY AND BEHAVIOR TYPE

presented by

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has been accepted towards fulfillment
of the requirements for

M.A. degree in Psychology

Norman Abeles

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Norman Abeles

Date 2/16/87

SELF-ESTEEM IN RELATION TO THERAPIST TYPOLOGY AND BEHAVIOR TYPE

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1987

ABSTRACT

SELF-ESTEEM IN RELATION TO THERAPIST TYPOLOGY AND BEHAVIOR TYPE

By

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The possible mediating effects of self-esteem on therapist typology and type A behavior were investigated in relationship to intolerance of ambiguity. In that context, it was hypothesized that therapist typology was related to type A behavior pattern.

There were 135 male undergraduates who completed a questionnaire packet which included the Jenkins Activity Survey, the Tennessee Self Concept Scale, Budner's intolerance of ambiguity scale and the Whitehorn-Betz therapist type scale. The results of inferential analyses on these measures provide no support for the original hypotheses but there are some interesting post-hoc findings. This study empirically sets to rest the possibility of a connection existing between therapist type and type A behavior pattern in a college population. In addition, there is a statistically significant relationship between self-esteem and tolerance of ambiguity for both type A therapists ($p < 0.001$) and type A behavior individuals ($p < 0.01$).

Implications for future research are discussed.

ACKNOWLEDGMENTS

I would like to thank the members of my committee, Dr. Norman Abeles, Chairperson, Dr. Ralph Levine, and Dr. Bertram Karon for their support, consideration and guidance.

In addition, I would like to extend my gratitude to my wife, Sherry, and my family, friends and colleagues who provided the encouragement, support and love that inspired me all along the way to the completion of this thesis.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

1. The A-B Dimension

The A-B variable has been developed in two different areas of research. The first is called the A-B therapist dimension. This line of research stems from the Whitehorn-Betz (1954) study in which type A therapists were found to be more effective with schizophrenic patients than type B therapists. Since then, investigators have examined A-B therapist characteristics in relation to psychotherapy outcome and effectiveness. The other domain of research centers around type A coronary-prone behavior pattern and its relationship to coronary heart disease. This type of research began with Friedman and Rosenman (1974) and has become very popular in recent years. Both areas of study have demonstrated promise and an adequate understanding of the concepts involved is deemed necessary at this point.

Therapist A-B Variable

The therapist A-B variable has been measured by a wide variety of measurement scales. The majority of these scales are generated from the Strong Vocational Interest Blank and the Strong-Campbell Interest Inventory. The Jackson Personality Research Form is another measure used to assess the A-B therapist types. Inventory items are selected on the basis of being able to differentiate between therapist

type.

Type A therapists have been consistently described as submissive, feminine, low in self-esteem, and more directive in therapy. They are also open to emotional experiences and feelings, have strong needs for social approval, are proud of work accomplishments, and are less defensive than type B therapists. There are contradictory findings concerning whether the type A person is rigid or flexible, cautious or spontaneous, and tolerant or intolerant of ambiguity (Berzins et al., 1972, Heaton et al., 1975, Kulberg & Franco, 1976, Treppa & Dods, 1978, and Gervin & Razin, 1973). It could be that type A therapist personalities manifest different traits in different situations and are able to adapt to new environmental conditions easier than type B therapists do.

B therapists are distinguished from A therapists by the following features: They have higher self-esteem, greater self-satisfaction and self-acceptance, greater masculinity, are more dominant, and are somewhat defensive. In addition, they have been described as cognitively oriented, empirical, emotionally controlled, variety-seeking, relatively unaffectionate, and impersonal in their approach to problem-solving. Findings on social aspects and conformity in B therapists have been variable and discrepant. Therefore, no definite conclusions can be made. Again, one might speculate that B therapists adapt to situations differently than type A therapists. Since they

exhibit different traits, the underlying mechanisms may not be the same for A and B therapists.

Numerous characteristics have been attributed to both A and B type therapists. As previously mentioned, some of the research findings have been contradictory while others appear to be consistent across studies (Berzins et al., 1972, Heaton et al., 1975, Kulberg & Franco, 1976, Gervin & Razin, 1973). One major reason for the contradictions is the existence of a variety of different A-B therapist scales. Some of these scales have been found to correlate minimally with each other while others are highly consistent (Seidman, 1972, Shaffer et al., 1978, and Stephans et al., 1975). Therefore, research findings are difficult to compare reliably.

In the past, the A-B therapist variable has been viewed dichotomously. These personality types are now recognized as falling on a continuum (Razin, 1971, Stephans et al., 1975). Some therapists possess both types of characteristics and fall somewhere between the A-B therapist endpoints. Several investigators have suggested that the B therapist may be disappearing (Heaton et al., 1975). It could be that training has changed over the years in the direction of favoring type A characteristics for therapists. Another possibility is that more people with type A therapist characteristics are interested in learning to do therapy and go into the field. If this is the case, B type individuals are still out there but they

are pursuing different vocations. This also implies that maybe type A therapists are more effective therapeutically and B therapists either learn to adopt type A values or they seek out other interests.

Type A Behavior Pattern and Coronary Heart Disease

Type A behavior pattern is measured in two ways. The first is by way of a structured interview developed by Friedman and Rosenman (1974). The second employs a questionnaire called the Jenkins Activity Survey (Jenkins et al., 1970). There are several different forms of the Jenkins Activity Survey that are designed for specific populations. Both of these measures have been used in research on type A behavior pattern.

Type A behavior pattern has been associated with coronary heart disease and atherosclerosis (Dembroski et al., 1979). Type A people are impatient, competitive, insecure, aggressive, striving, ambitious, hard-working, and persistent. They are engaged in a struggle for control and possess a strong sense of time urgency. In addition, they are low in self-esteem or possess inadequate self-esteem, and are socially insecure (Burnam et al., 1975, Science News, 1984, & Sparacino, 1979).

It has been suggested that Type A behavior is a coping strategy for maintaining control over physical and social environments (Burnam et al., 1975). Type A individuals need to master a large number of aspects in the environment. The environment has been implicated in the

emergence of the type A behavior pattern (Dembroski et al., 1978, Sparacino, 1979, and Glass, 1977). It appears that this behavior is viewed in a positive light because of society's apparent encouragement of type A qualities through rewards and reinforcement.

In the terminology of the type A behavior pattern, a type B individual is distinguished as being the opposite of type A or not type A (Price, 1982, and Sparacino, 1979). The difference between type A and B behavior are somewhat fuzzy but they still exist. Research in this area has focused on type A behavior and its relation to coronary heart disease and atherosclerosis. A good overview is presented by Dembroski (1978), Friedman and Rosenman, (1974), and Price, (1982).

2. Possible Relationships between these two constructs: Therapist A-B and Type A Behavior pattern.

Sparacino (1979) points out that while the psychotherapist A-B continuum embodies some coronary-prone traits, it is unrelated to Friedman's and Rosenman's terms concerning type A behavior pattern. However, the similarities deserve closer examination.

Type A behavior pattern appears similar to the type A therapist variable in that these individuals desire control as evidenced by the fact that type A behavior individuals are engaged in a struggle over environmental control and try to master a large number of aspects in the environment (Burnam et al., 1975). Type A therapists are more

controlling by being more directive and interpretive. Additionally, both type A therapists and type A behavior individuals manifest low self-esteem and experience insecurity in social situations. Even though there are these commonalities, there are also differences. It could be that the use of different measures to classify type A therapist do not allow for any reliable comparison of results. Thus, this may still be an empirical issue.

Type A behavior pattern resembles the type B therapist variable in that both display the quality of being able to focus on central tasks and cues and ignore distracting or irrelevant external cues or tasks (Heaton et al., 1975, Matthews & Brunson, 1979). For type A behavior individuals, the suppression of irrelevant cues allows them to focus their attention on task performance. B therapists appear to be more objective in attending to situations that arise in therapy and may filter out irrelevant information. Both type A behavior individuals and B therapist types attend to the task at hand or the central problem and can actively solve it.

One could speculate that the type A & B therapist variable is a subset of the type A behavior pattern. That is, type A behavior pattern can be split further into the apparently distinct categories of type A & B therapists. It could also be that there are some type A & B therapists who exhibit type A behavior pattern and others who do not. However, if this was the case, type A & B therapists would

have similar characteristics and not be distinguished too easily from one another. Another possibility is that type A behavior pattern corresponds to just the type A therapist variable. The failure to use one standard instrument to classify type A and B therapists makes this unclear. The assessment instruments for type A behavior pattern and type A and B therapists have not been studied empirically. Furthermore, it is just possible that the comparison of the A-B therapist typology with type A behavior may enrich the overall conceptual scheme.

3. Comparison of A-B Therapist and Type A behavior pattern.

In comparing these two types, one might speculate as to how these types compare on a common variable. One such variable of interest is how type A and B therapists as well as type A behavior individuals tolerate ambiguity in different situations. Burke and Weir (1980) found that greater type A's (extreme on type A behavior pattern scale) were more rigid and had stronger needs for social approval. Since these A's were more outgoing but also had these rigid personalities, they suggested that type A's had difficulty with uncertain or ambiguous situations. These people were more outgoing in purposeful community groups which suggests a need for social recognition. They also tended to take a direct and rational approach to situations which created tension and were less likely to divert their attention to other activities. This behavior points to a focus of

attention in order to decrease tension as quickly as possible. Ambiguous situations could hamper this process. In addition, if type A behavior individuals are rigid in their approach to different situations, then their tolerance of ambiguity might be low and they could have trouble dealing effectively with unstructured events. The type of situations or conditions which might cause this behavior to arise remain open to question.

Heaton, Carr, and Hampson (1975) state that type B therapists are more successful at attending to relevant proprioceptive cues and ignoring distracting external cues in complex perceptual tasks. It is proposed that the B therapist may approach a problem in a relatively empirical rather than intuitive way. The type A therapist is more responsive to objectively irrelevant internal and external stimuli. One might speculate that the type A therapist may be more in tune with the subjective experience of a client. This might also indicate that type A's attend to ambiguous conditions while B therapists are able to ignore ambiguity. It would seem that A therapists are more occupied with other things and find it hard to attend to what is relevant. Frustration may result from an inability to stay on task and they therefore become intolerant of ambiguous conditions. It is possible that A therapists would be more effective with client's who had trouble with ambiguous situations. They might understand what the client is experiencing better than type B therapists would and

therefore be more effective with that type of client.

Keenan and McBain (1979) investigated type A behavior pattern in relation to role stress and work-related outcomes. They used Budner's (1962) scale of intolerance of ambiguity. They found a significantly stronger association between role ambiguity and dissatisfaction for those with type A personality. They also discovered a higher correlation between role ambiguity and job satisfaction in the 'intolerant of ambiguity' group than in the 'tolerant of ambiguity' group. Role ambiguity was significantly associated with psychological strain in the 'intolerant of ambiguity' group. They concluded that those high in intolerance of ambiguity seemed less able to cope with role ambiguity. This suggests that these individuals have difficulties with ambiguous roles and need to know specifically what their role is in order to be effective and satisfied with job performance. It also implies that these same people are concerned with doing their job and getting it done. This is consistent with the literature (Burnam et al., 1975, and Dembroski et al., 1978). By doing their job, they get satisfaction and reinforcement which adds to their sense of self-worth and furthers their goal of attaining higher status. The ambiguity of role hampers this effort.

Matthews and Brunson (1979) contend that type A behavior individuals actively inhibit or suppress their attention to task-irrelevant peripheral events that might

distract them from task performance. Again, getting the job done and finished quickly is very important to them. Those individuals exhibiting type A behavior pattern appear to have problems with ambiguous situations. Clarification of the relation between tolerance of ambiguity and both therapist type and type A behavior pattern is important.

4. Other Correlates of Therapist A-B and Type A Behavior Pattern.

The possibility that the relationship between both therapist A-B and type A behavior pattern and tolerance of ambiguity is not linear appears to be a reasonable supposition. It is highly probable that some type of mediating factor or factors is involved. Some potential variables that could play the part of a mediator are conformity, need for environmental control, masculinity, and self-concept.

Conformity

Conformity is one possible correlate to consider. Heaton, Carr, and Hampson (1975) describe type B therapists as reflecting values of conformity and deference while type A therapists are more spontaneous. This apparent difference would suggest that type A therapists may be able to tolerate ambiguous situations better since they behave more spontaneously. It would seem that the desire to conform would be in conflict in an ambiguous situation. It would probably be difficult to determine what would be an appropriate response if ambiguous conditions existed.

The findings involving the variable conformity have not been entirely consistent. Rothman (1971) predicted that type B therapists would exhibit 'socially dependent conforming' behavior and the opposite was found to be true. It has also been suggested that A & B therapists respond to patients in a differentiated rather than a global or unidimensional fashion (Goodwin et al., 1978). This implies that therapists do not conform to any one pattern of interaction with their clients. The actual relationship between A-B personality and conformity is unclear. Further consideration of conformity as a mediator is not warranted at this point.

Need for Environmental Control

The need for environmental control is another possible correlate. It has been studied and reviewed in relation to type A behavior pattern (Burnam et al., 1975, Dembroski et al., 1978, Matthews & Brunson, 1979, Sparacino, 1979, and Glass, 1977). Need for environmental control in A and B therapists can be inferred from their personality features. Type B therapists are portrayed as being dominant while type A's are submissive (Berzins et al., 1972). Type A therapists have also been described as being more directive and interpretive whereas B therapists are less leading and more facilitative (Heaton et al., 1975). In one instance, type B therapists are more controlling (ie. dominant) and in another they are less leading and controlling. The same contradiction exists between the A therapist and

environmental control. Even if there was a consistent pattern, these are personality characteristics and they may not reflect a need for environmental control as much as a disposition.

Type A behavior individuals are viewed as being engaged in a struggle for environmental control (Glass, 1977). They appear to need control in order to succeed at different tasks. If an ambiguous situation were to come up, it would seem that a loss of control would result. It has been proposed that type A behavior pattern is a coping strategy for maintaining control over both physical and social environments (Burnam et al., 1975). It would follow that type A behavior individuals would not perceive themselves as having control in an ambiguous situation and would therefore have difficulty coping with the situation. Since it is unclear whether or not need for environmental control is a factor for the A-B therapist types, further elaboration of this element as a mediating factor seems unnecessary.

Self-Concept

Self-concept is still another potential correlate. There are a wide array of operational definitions of self-concept (Wylie, 1974). In addition, there are a number of related terms that have been used (ie. self-esteem, self-acceptance, self-regard, self-worth, etc.). Self-concept has been examined in relation to both type A behavior pattern and therapist type A-B.

Price (1982) maintains that type A behavior pattern is exhibited only in response to environmental conditions that threaten a person's sense of self-esteem and self-worth. These type A's have a need to accomplish something or else they feel inadequate. A threat to their self-esteem appears to drive them harder. They put pressure on themselves to solve problems, meet deadlines, and to move up the social ladder. Yet, they are often uncomfortable in interpersonal relationships and feel awkward and insecure when in groups. They often obtain rewards in life from seeking achievement rather than from socializing with people (Jenkins et al., 1977). It seems like type A behavior individuals need to appear socially adequate by striving to accomplish more and more.

Hansson and Hogan (1983) propose that social imperceptiveness is part of the type A behavior syndrome. Since these individuals are less comfortable in social groups, it could be that they do not perceive how to act socially. They spend a majority of their time pursuing achievement oriented tasks and may ignore the interpersonal aspects of their lives. If they are aware of their inadequate social skills, lowered self-esteem could result. They might attempt to regain their sense of self-esteem by further exaggerating their achievement striving. It could also be that social situations are ambiguous or unclear to the type A behavior individual and therefore they have difficulty under those conditions.

Weidner and Andrews (1983) found that type A behavior females engage in more self-blame for important, undesirable life events than non-type A's. They suggest that the self-blame attribution could be a mediator between type A behavior, helplessness and heart disease. It seems to follow that an increase in self-blame would probably result in a decrease in self-esteem and self-acceptance.

DeGregorio and Carver (1980) divide self-esteem into a "social" component and an "instrumental" component. "Instrumental" self-esteem is not based on interpersonal competence. They found that "social" self-esteem was lower among type A behavior individuals who were low in masculinity. This suggests that social situations might be difficult for these people, especially if they appear to be ambiguous. Being low in masculinity implies that type A behavior individuals with more feminine characteristics might value "social" self-esteem more. This could cause them to increase their achievements in order to impress others and increase their esteem.

In relation to type A and B therapists, self-concept appears to be a factor. Treppa and Dods (1978) suggest that A-B scales assess different attributes for men and women. They failed to find an association between the 19-item University of Kentucky A-B scale and male medical student's value orientation or level of anxiety. For women, they found type A personality to be associated with anxiety proneness, low self-esteem, emotional and

interpersonal constriction and introversion, and a dependence and reliance on others for approval. This points to a possible relationship between self-esteem and therapist personality type. Generalizing these findings was cautioned because a limited female sample was used and both the male and female samples were homogeneous. However, these results do indicate interpersonal difficulties and a need for approval similar to individuals who display type A behavior pattern. Encountering an ambiguous situation could cause an increase in introversion and constriction. This might lower the self-esteem of that person and increase the level of anxiety.

Kulberg and Franco (1976) found type B therapists score higher on self-esteem than type A's do. They also describe type A's as being more feminine. Type B therapists have been associated with more masculine terms. It has been theorized that a masculinity-femininity variable is one dimension that underlies the A-B scale (Berzins et al., 1972, and Goodwin et al., 1973). There appears to be some type of relationship between A-B therapist type, self-concept, and masculinity-femininity. A closer examination of the self-concept variable and its' relationship to A-B personality and type A behavior pattern is in need of further elaboration.

5. The Relationship of Self-Concept to A-B Therapist Types and Type A Behavior Pattern

In general, self-concept has numerous definitions and applications. Horrocks and Jackson (1972) define self-concept as cognitive-affective constructions that represent inner views capable of being projected to external environments for feedback and evaluations. The 'self' is a mediating process which presents, interprets, and defines environmental effects as they occur in time. The individual is seen as the locus of reference for this process. Gergen (1971) states that a person's conception of self depends to an important degree on how they see themselves in relation to others. The environment also plays a key role in influencing self-concept. It appears that the environment is an important part of the self-concept and there seems to be an interaction between the 'self' and the outside world.

Other theorists view self-concept a little differently. Raimy (1971) sees self-concept as "a learned perceptual system which not only influences behavior but is itself altered and restructured by behavior and unsatisfied needs and may have little or no relationship to external reality." In this sense, self-concept appears to be more self-contained and within the person. Rosenberg (1979) goes one step further and calls self-concept pictures of the self. He divides the self into three categories. The first is named the extant self which is how an individual

sees themself. The second is called the desired self which is how the individual would 'like' to see themselves. The third region is the presenting self or how the individual shows themself to others. This all seems to tie together to give a self-picture that the individual displays out in the 'real' world. It appears likely that each element would change over time.

Yawkey (1980) maintains that the self-concept is a dynamic process that is continually changing throughout a person's life span. He separates three different components of self-concept: The physical self; the social self; and the cognitive (intellectual) self. These three components are affected by the ability to control the self (to affect change in the environment) and by a high degree of self-esteem. Self-esteem is defined as the capacity to evaluate and in turn accept and respect the self in this case. One could speculate that the relationship between both A-B therapist type and type A behavior pattern and tolerance of ambiguity is mediated by self concept. In particular, the social self component appears to be a viable element.

McGuigan and Seidman (1971) suggest differences in self-concept and self-acceptance may be reflected in the quality or adequacy of interpersonal interactions. They found a trend for increased B therapistness to be related to higher self-esteem using the Tennessee Self-Concept Scale. B therapist also report higher self-satisfaction or

self-accceptance than A therapists do. A trend towards greater self-esteem of B therapists is consistent with their greater masculinity.

Type A behavior individuals are described as being insecure (Friedman & Rosenman, 1974). They exhibit feelings of interpersonal insecurity and discomfort in social groups and seem to have an inability to obtain satisfaction from social situations (Jenkins et al., 1977). This social insecurity points to a possibly important correlate of type A behavior pattern. Friedman has conducted group counseling with type A's in order to ease the intensity of type A behavior and improve their self-esteem (Science News, 1984). The preliminary results appear to be successful. Friedman maintains that type A behavior pattern stems from insecurity and inadequate self-esteem.

Self-Concept in relation to both A-B therapist types and type A behavior pattern appears to be an important factor. The present study was designed to explore the possible influence of self-concept on: (I) The relationship between therapist type and tolerance-intolerance of ambiguity. (II) The relationship between type A behavior pattern and intolerance of ambiguity. The following predictions were made: (Ia) Individuals classified as B therapists will have higher self-esteem than individuals classified as type A therapists. (Ib) Individuals in the type A therapist category will

have lower self-esteem compared to the B therapists. (Ic) Individuals in the type B therapist category will be tolerant of ambiguity. (Id) Individuals classified as type A therapists will be intolerant of ambiguity. (IIa) Type A behavior individuals will have lower self-esteem compared to non-type A behavior pattern individuals. (IIb) Individuals exhibiting type A behavior pattern will be intolerant of ambiguity.

In addition, it is hypothesized that both A and B therapists will display type A behavior pattern characteristics. It is predicted that type A therapists will score higher on the JAS than B type therapists. Specifically, there appear to be more similarities between type A behavior pattern individuals and type A therapists than with type B therapists.

The manner in which each hypothesis and prediction will be tested is contained in the methods section under the subheading statistical analysis.

METHOD

Participants

Participants (Ps) for the present study were selected from a college student population. The sample consisted of 135 male undergraduates enrolled in introductory psychology courses at Michigan State University.

The mean age for male Ps was 20.05 years for Spring quarter and 21.21 years for Summer quarter. Therapist type A Ps had a mean age of 20.4 years, whereas therapist type B Ps had a mean age of 20.5 years. The difference in mean age for therapist type A and B Ps was statistically non-significant. Age variability was negligible. This sample represents a student population of undergraduates who range in age between 18 and 31.

Instruments

Participants were asked to fill out the Whitehorn & Betz Therapist A-B scale (WB-23), the Tennessee Self Concept Scale (TSCS), Budner's Intolerance of Ambiguity scale, and the Jenkins Activity Survey form T (JAS-student version). The surveys were contained in a packet and there was a separate answer sheet for each instrument. The questionnaires were randomly ordered in the packets to control for participant response set. Each answer sheet was marked with a number that identified the order of the

questionnaires in the packets but not the volunteer. Demographic information along with some background information was requested of participants on the last page of each packet. Participants could not be identified by this information. This helped encourage spontaneity in responding to the questions contained in the packet and decrease defensiveness.

Whitehorn-Betz Therapist A-B Scale

The Whitehorn-Betz therapist A-B scale (WB-23) was derived from the Strong Vocational Interest Blank (SVIB) Form M. This instrument classifies individuals as type A therapists, type B therapists, or type AB therapists (A distinct A-B therapist type cannot be determined). Such occupations and interests as "Carpenter" (item 19), "toolmaker" (item 94), "Cabinet making" (item 189), are rated by participants on the following scale: L = like, I = indifferent, and D = dislike. Personal characteristics such as "Have mechanical ingenuity" (item 368) and "Follow up subordinates effectively" (item 381) are rated by participants using Y for yes, N for no, and ? for cannot decide. The WB-23 is scored by assigning a weight of 1 to items that are consistent with type A therapists and a 0 to items consistent for type B therapists. Scores range from 0 to 23. High scores indicate characteristic type A therapist responses.

Whitehorn and Betz (1960, 1975) found 23 items out of 400 on the SVIB which type A and type B physicians gave

contrasting responses at statistically significant levels between .02 and .05 by the Chi Square test. They also discovered that four vocations detect definite differences in interest patterns. Type A physicians score high on lawyer and certified public accountant vocations while type B physicians score high on printer and mathematics-physical science teacher occupations. The differences between the two doctor groups was statistically significant at the .001 level by the Chi Square test.

The WB-23 correlates relatively highly with other variants of the original A-B scale. The product moment correlation of five different versions ranged from 0.55 ($p < .02$) to 0.95 ($p < 0.01$) (Chartier, 1974). Kemp and Stephans (1971) found the WB-23 to be the most reliable measure of type A-B therapists using a Chi Square test on the distribution frequency which was statistically significant ($p < .05$). However, the ability of the scales to accurately identify type B therapists is poor compared to classification of type A therapists. By selecting individuals who score high in the B therapist range, the accuracy of identification increases. They also discovered the correlation between the WB-23 and the percent-patient-improved measure was 0.433 and significantly different from zero ($p < 0.005$, $df = 70$). This supports claims that the WB-23 is a valid measure.

Intolerance of Ambiguity (Budner, 1962)

The intolerance of ambiguity scale is a 16-item inventory consisting of three types of ambiguous situations designed to estimate an individual's degree of tolerance or intolerance of ambiguity. Intolerance of ambiguity is defined as the "tendency to perceive (ie. interpret) ambiguous situations as sources of threat." Tolerance of ambiguity is defined as the "tendency to perceive ambiguous situations as desirable." (Budner, 1962). The three types of situations are characterized by novelty, complexity, or insolubility. There are eight positively worded items and eight negatively worded items. This minimizes the tendency to agree or disagree regardless of item content. Example situations are: "The sooner we all acquire similar values and ideals the better" (item 8; positive), and "I would like to live in a foreign country for a while" (item 9; negative). All items are rated by participants on a six point Likert scale, from "Strong Agreement" (+7) to "Strong Disagreement" (+1). The negatively worded items are scored in the reverse direction. A score of four is given for any omissions. The final score is obtained by adding across all items. High scores mean the individual is intolerant of ambiguous situations.

The ambiguity scale was compared with the Edwards' Scale of Social Desirability (31-item version) utilizing different sample populations. The correlations between the two scales was statistically nonsignificant (Budner, 1962).

Suggesting the ambiguity scale is relatively independent of social desirability response tendencies.

Reliabilities for sixteen independent samples were computed using Cronbach's alpha formula. The mean of the ambiguity scale in these samples was .49. This coefficient is somewhat low yet the construct is complex and probably multidimensional. The more complex the measure, the lower the reliability estimates. Also, since the scale is relatively free of both acquiescent and social desirability response tendencies, the reliability estimates may be deflated. Use of alpha rather than the half-split coefficient which tends to overestimate reliability figures, could be a factor too. Overall, the instrument appears to have acceptable reliability. A test-retest correlation of .85 was obtained from a group of fifteen graduate students over an interval ranging from two weeks to two months (Budner, 1962).

Budner's ambiguity scale (1962) was compared to three other tolerance of ambiguity scales to ascertain the criterion-oriented validity. The measures were found to intercorrelate moderately well (all $p < .05$, two-tailed test). This suggests that the scales are measuring a common dimension, which in all probability is intolerance of ambiguity. Steps to help insure content validity have been mentioned previously ie. Participant acquiescent and social desirability response tendencies.

A Clinical psychologist, a high school english

teacher, a sociology graduate student, and a secretary made ratings of tolerance-intolerance of ambiguity based on fifteen short autobiographies. The secretary's ratings correlated weakly with the other raters. Excluding the secretary's ratings, intercorrelations ranged from 0.71 to 0.87. The interjudge agreement on ratings demonstrated support for this particular ambiguity scale (Budner, 1962, Robinson & Shaver, 1972).

Overall, this scale appears to be a valid and reliable measure of intolerance of ambiguity. The scale is self-administered and takes about ten minutes to complete.

Tennessee Self Concept Scale (TSCS)

The Clinical and Research (C & R) Form of the TSCS is a 100-item inventory of self descriptive statements designed to portray the individual's self concept and level of self-esteem. Such statements as "I like my looks just the way they are" (item 9), "I am as smart as I want to be" (item 44), "I do not forgive others easily" (item 89) are rated by participants on a five point Likert scale, from "completely true" (+5) to "completely false" (+1). Half of the items in the scale are negatively worded to control for response set ie. the tendency to agree or disagree regardless of item content. Participant responses are recorded on an answer sheet. They are carbon copied through to a score sheet where response numbers for the negative items have been reversed. Thus high scores uniformly mean positive self description.

An additional feature of the scale is the inclusion of a "defensiveness" scale (SC scale). The SC scale is composed of ten items taken from the L-scale of the Minnesota Multiphasic Personality Inventory. High scores on this scale indicate a healthy openness and a capacity for self-criticism. Low scores suggest scores on the other ninety items are artificially high because the person may be defensive and is deliberately attempting to create a favorable image of themselves (Burns, 1979). As such, the SC score served as a validity index.

The Total P score is the single most important index of self-esteem on the scale. It provides an overall level of an individuals' self-esteem. High scores designate people who like themselves, feel they are of value and worth, and have confidence. Low scores indicate doubt about self worth. Participants may appear anxious, depressed, unhappy, or they may lack self confidence. In addition, participants who frequently choose the middle response (+3) suggests they are being defensive.

Test-retest reliability for the relevant scores ranges between .88 and .92 (Congdon, 1958, Fitts, 1965). Fitts also reports that "distinctive features in individual profiles are still present for most persons a year or more later" (Ibid., p. 15). Four types of validation procedures (ie., (1) content validity, (2) discrimination between groups, (3) correlations with other personality measures, and (4) personality changes under particular conditions)

tend to support the scale as an accurate, valid measure of self-esteem. Content validity was achieved using seven independent judges. The final items used in the scale were those for which perfect agreement on item content (item represents either a positive or negative self-evaluation) was achieved (Fitts, 1965).

Fitts demonstrated significant differences (mostly at the 0.001 level) between patients (N = 369) and non-patients (N = 626) for the scales used in the present study. He also reports that Congdon (1958), Havener (1961), and Wayne (1963) found similar patient versus non-patient differences.

Evidence for construct validity is demonstrated in a study conducted by Ashcraft and Fitts (1964). They used an experimental group (N = 30) of patients who had been in therapy for an average of six months and a no-therapy control group (N = 24) who had been waiting for therapy for an average of 6.7 months. All participants were measured on a test-retest basis with the TSCS. Significant changes in predicted directions on 18 of the 22 variables were found for the therapy group. Of these, self-esteem (Total P score) was significantly higher for the therapy group while remaining unchanged for the control group.

Jenkins Activity Survey (JAS) Form T

The student version of the JAS is a 44-item questionnaire of which 42 items contribute to the overall assessment of the type A-B behavior pattern dimension. It

is a brief and interesting measure that is non-threatening to people. Typical questions are: "Has your spouse or some friend ever told you that you eat too fast?" (item 7) and "How would your spouse (or closest friend) rate you?" (item 18). For item 7, the response "yes, often" is scored type A and the responses "yes, once or twice" and "No, no one has told me this" are scored as type B answers. The number of answers students can choose from varies from two to five answer choices per question. The student JAS is scored by assigning weights of one to type A responses and a zero to type B responses. A high positive score indicates that the person exhibits type A behavior pattern.

Participants in this study were assigned to the type A category if they scored in the upper third of the scale using the median of the entire sample as the midpoint. A participant was classified as type B if they scored in the lower third below the median. By using relatively extreme JAS scores, the scales accuracy is increased. The JAS is least accurate in categorizing people who score in the middle range.

The student version of the JAS was found to show only a modest correlation with the Structured Interview developed by Rosenman and Friedman to measure type A behavior pattern (Glass, 1977). A correlation of .30 (.33 with correction for unreliability of Structured Interview) was obtained on the A-B dimension (MacDougall et al., 1979). It is important to remember that JAS scores have

also been related to the severity of atherosclerosis which can contribute to coronary risk. A failure to agree strongly with the Structured Interview does not discredit the JAS as a valid measure of coronary-prone behavior by itself. The JAS is still a valid means of measuring some of the ways in which behavior contributes to coronary risk (MacDougall et al., 1979, Jenkins et al., 1974).

The test-retest correlation of the JAS for the type A scale, the speed & impatience scale, and the job involvement scale ranged between .64 and .74 for the years 1965, 1966, & 1969. In addition, type A behavior pattern appears stable over time with ninety percent of participants having less than ten points difference in their scores between the 1965 and 1969 surveys (Jenkins et al., 1974).

Pittner and Houston (1980) found the split-half of the JAS form T to be .82 for a group of 218 male undergraduates in a general psychology course. The JAS displays moderate reliability and the reliability should increase with the use of relatively extreme JAS scores to insure maximum accuracy of type A-B categorization.

Procedure

The assessment instruments were group administered during special sessions held outside of the regular class time. An announcement was made in class about the time and place of the study. Students were invited to participate if they were interested in obtaining extra course credit.

When students arrived at the special session, they received a packet containing the assessment questionnaires. Instructions were placed at the beginning of each questionnaire and were self explanatory. Participants were asked to fill out the questionnaires completely and return them to the front of the room when they finished. The packets were checked for completeness. Participants were given credit after everything checked out. Participation was voluntary.

Statistical Analysis

The statistics proposed here for data analysis were formulated prior to data collection. The predictions (Ia-Id & IIa-IIb) made previously will be tested by initially obtaining a Pearson product-moment correlation coefficient for each relationship described. This coefficient "r" describes the strength of association between the two variables contained in each of the predictions. A t-test, incorporating "r", will be used to test the statistical significance of the resulting associations between variables. Each of these predictions will be evaluated against the null hypothesis that no significant associations will be found.

In order to test for possible mediating effects of self-esteem in the relationship between therapist type and intolerance of ambiguity, a partial correlation will be used to partial self-esteem out of each variable. If self-esteem does influence this relationship, then the expected

correlation between these two measures with self-esteem partialed out will be zero. This analysis will be carried out for both A and B therapist types. In addition, the correlation between type A behavior pattern and intolerance of ambiguity is predicted to be zero after self-esteem is partialed out. This will demonstrate that self-esteem does act as a mediating factor. These correlations will then be tested for statistical significance.

To test the relationship between therapist type and type A behavior pattern, a one-tailed t-test will be carried out. The results will be evaluated against the null hypothesis that there is no significant differences in mean scores on the JAS between type A and B therapists. Individuals who are neither an A or B type therapist will be expected to score lower on the JAS than A and B therapist types. Their score will serve as a point of reference to compare the A and B therapist scores.

RESULTS

Data was collected both Spring and Summer Quarter. The number of male participants was 106 and 29 respectively. The Spring distribution was approximately normal with slightly more scores falling in the middle range. The Summer group distribution was fairly flat.

The means, standard deviations, along with a t-test are contained in Table 1 for the four measurement variables. It is noted that there is a significant difference between the Spring and Summer group scores on both the WB scale and the TSCS. In both cases, the Summer scores are approximately equal to the group norms generated from previous studies while the Spring scores are variant. The standard deviations for the Spring and Summer WB groups are smaller than the group norms (SD = 4.56) while the TSCS standard deviations are slightly larger. Age was not a mediating factor in these differences. Thus the scores in the WB sample are less variable than previous sample norms and the Spring scores on the TSCS are significantly deflated from both the Summer group ($p = 0.036$) and the TSCS norms.

Table 1

Means, Standard Deviations and T-tests
for Spring and Summer Groups.

Group	Mean	SD	T*	DF	PROB
Budner Spring	55.255	10.005			
Budner Summer	54.310	7.788			
			0.542	56	0.590
WB Spring	14.057	2.559			
WB Summer	12.793	2.993			
			2.075	39.9	0.045
JAS Spring	12.642	4.990			
JAS Summer	13.276	5.867			
			0.532	39.8	0.598
TSCS Spring	328.415	34.197			
TSCS Summer	345.103	37.474			
			2.164	41.6	0.036

Spring N = 106; Summer N = 29

* T is for separate variances.

Budner = Budner's intolerance of ambiguity scale scores
WB = Whitehorn-Betz therapist type scale scores
JAS = Jenkins Activity Survey scores
TSCS = Tennessee Self-Concept scale scores

Additionally, the mean scores and range of scores on the Budner ambiguity scale were slightly elevated in comparison to the norms for other college populations but the Spring and Summer scores were not significantly different statistically in this sample ($p = 0.590$). The scores on the Jenkins Activity Survey (student version) were not discrepant from previous norms or between the Spring and Summer groups.

There was a statistically significant relationship between quarter (Spring and Summer) and age of student ($r = 0.23$; $N = 135$; $t = 2.73$; $p < .01$). The Summer quarter students were older than the Spring quarter students. The mean ages were 21.21 and 20.05 respectively.

Table 2

Overall correlation matrix.

	Couns	WB	Age	Budner	JAS	TSCS	HD
Couns	1.000						
WB	0.066	1.000					
Age	0.070	-0.072	1.000				
Budner	-0.028	0.019	-0.068	1.000			
JAS	-0.046	0.120	-0.122	0.030	1.000		
TSCS	-0.002	0.086	0.074	-0.122	0.124	1.000	
HD	-0.020	-0.148	-0.010	0.081	-0.068	0.003	1.000

N = 135

Couns = Previous counseling or therapy
WB = Whitehorn-Betz therapist scale
Age = Age of participant
Budner = Budner intolerance of ambiguity scale
JAS = Jenkins Activity Survey
TSCS = Tennessee Self-Concept Scale
HD = Family history of heart disease

Table 2 presents the overall correlation matrix between the four measurement instruments used and adds in three additional variables to examine relationships made post-hoc. The supplemental variables are age, family history of heart disease, and previous counseling or therapy. No statistically significant relationships were found between any of the variables in this matrix. The hypotheses made prior to analysis are tested below by breaking up the overall correlation matrix by the variables of interest and inspecting the correlations for each group.

It was hypothesized that B type therapists would display higher self-esteem than type A therapist individuals and students classified as A type therapists will have lower self-esteem compared to B therapists. The difference in scores between these two groups was not statistically significant ($t = 1.665$, $d.f. = 78$, $p = 0.10$). However, these scores were in the opposite direction of that predicted. The mean score on the Tennessee Self-Concept Scale was 335.78 for A type therapists and 322.71 for B type therapist participants. The mean score for AB therapist type people was 337.37 which is similar to the A type scores. This finding demonstrates that B type therapist individuals tend to score lower on the Tennessee Self-Concept Scale than the other two groups.

In addition, Table 2 contains a correlation of 0.086 that was found between the therapist type and self-concept variables. This correlation confirms the above finding

that there is no statistically significant relationship between self-concept as measured by the Tennessee Self-Concept Scale and therapist type. Therefore, B therapists do not have higher self-esteem than type A therapists and on the average, they tend to score lower on the TSCS than type A therapist individuals.

Table 3

Correlations for B Therapist Types.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	-0.047	1.000		
JAS	0.071	-0.047	1.000	
TSCS	-0.024	-0.405*	0.124	1.000

N = 45

*Statistically significant correlation, $t = -2.91$; $p < 0.001$

It was predicted that type B therapists would be tolerant of ambiguity. Table 3 shows that the correlation between tolerance of ambiguity and B type therapist is approximately zero. This result fails to confirm the hypothesized relationship between these two variables. The correlation between self-esteem and B type therapist is -0.405. This result is statistically significant. Within the B therapist type group, the lower a B type therapist scores on the WB scale, the higher their self-esteem scores. Their self-esteem scores decrease as their score moves closer to the type A therapist side of the WB scale.

This finding follows in the direction of the prediction that type B therapists would have higher self-esteem than individuals classified as type A therapists. However, this pattern does not hold up for the A or AB therapist groups, so this prediction is not supported.

Table 4

Correlations for A Therapist Types.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	-0.033	1.000		
JAS	-0.123	-0.072	1.000	
TSCS	-0.531*	-0.006	0.062	1.000

N = 41

* Statistically significant correlation, t = -3.91; p < 0.001

It was hypothesized that type A therapists would be intolerant of ambiguity. A correlation of -0.033 was obtained for this relationship as is shown in Table 4. This correlation is not statistically significant and demonstrates that there is not a relationship between A therapist type and intolerance of ambiguity.

Type B behavior individuals did not possess higher self-esteem than type A behavior people as was hypothesized. The mean scores were 327.22 and 337.58 respectively for each group. The AB behavior pattern group had a mean score of 330.74 which was inbetween the other two group scores. The difference between the scores was not

statistically significant (t = 1.416, d.f.= 91, p = 0.16). It should be noted that these mean scores were contrary to the initial predictions. This suggests that type B behavior individuals tend to have lower self-esteem as measured by the Tennessee Self-Concept Scale than type A behavior pattern people but this is only a trend which does not reach statistical significance.

Table 5

Correlations for Type A Behavior Students.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	-0.140	1.000		
JAS	-0.027	0.058	1.000	
TSCS	-0.364*	-0.106	0.114	1.000

N = 48

*Statistically significant correlation, t = -2.65; p < 0.01

It was hypothesized that individuals who scored high on the JAS (Type A behavior pattern) would be intolerant of ambiguity. The correlation in Table 5 demonstrates that no statistically significant relationship exists between intolerance of ambiguity for the type A behavior group.

The effects of self-esteem as a mediating variable were not substantiated. As there was no relationship between variables before self-esteem was partialed out, this same result was obtained when self-esteem was taken out of the appropriate factors. Thus self-esteem does not

function as a mediating variable between intolerance-tolerance of ambiguity and either therapist type or Type A behavior pattern.

Table 6

T-test on JAS Scores Between A and B Therapist Types.

Group	N	Mean	SD
Type A	41	13.488	5.095
Type B	45	11.511	4.635

Separate Variances T = 1.876; DF = 81.1; PROB = 0.064
Pooled Variances T = 1.884; DF = 84.0; PROB = 0.063

Table 6 shows the result of a t-test computed to establish whether or not type A therapists score higher on the JAS than type B therapists as hypothesized. A strong trend was found in the data that supports this prediction. The finding approaches statistical significance ($p = 0.064$) indicating that type A therapists do score higher on the JAS than B therapist types do. The mean score for AB therapist types was 13.35 with a standard deviation of 5.58. This result does not differ significantly from the A therapist type mean but does follow the same trend of A therapist type individuals scoring higher on the JAS than the B therapist type. Thus on the JAS, A therapist type students and AB therapist type students obtain approximately the same scores. This finding is counter to

the initial prediction that AB therapist types would score lower on the JAS than either the A or B therapist type students.

Examining the correlation matrices in the Tables above, it is apparent that no relationship exists between therapist type and type A behavior pattern. The largest correlation was 0.12 which was not statistically significant. Therefore therapist type and type A behavior pattern are not related as was hypothesized.

In Table 4, there is a large negative correlation between tolerance of ambiguity and self-esteem for the type A therapist. As self-esteem decreases, intolerance of ambiguity increases. Conversely, the more tolerant of ambiguity the individual, the higher their self-esteem. This result is statistically significant.

There is a statistically significant negative correlation between self-esteem and tolerance of ambiguity for type A behavior pattern individuals (refer to Table 5). The more intolerant of ambiguity a type A behavior person, the lower their self-esteem and the more tolerant of ambiguity they are, the higher their self-esteem. It is noted that this finding is in the same direction as that obtained for the type A therapist individuals.

Table 7

Correlations for AB Therapist Types.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	-0.004	1.000		
JAS	0.113	-0.084	1.000	
TSCS	0.232	0.064	0.106	1.000

N = 49

Table 7 contains the correlations between measures for those students classified as AB therapist types. None of the correlations are statistically significant. The largest correlation was 0.232 for the relationship between scores on the Budner scale and the Tennessee Self-Concept Scale. This finding is in the opposite direction to that found between these two variables for the A type therapist. However, this relationship is not statistically significant.

Table 8

Correlations for Type B Behavior Students.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	0.012	1.000		
JAS	0.102	-0.023	1.000	
TSCS	-0.193	0.066	-0.054	1.000

N = 45

Table 8 contains the correlation matrix for type B behavior pattern individuals. The largest correlation (-0.193) was between Budner scale scores and the Tennessee Self-Concept Scale scores but this was not statistically significant.

Table 9

Correlations for Non A or B Behavior Students.

	Budner	WB	JAS	TSCS
Budner	1.000			
WB	0.171	1.000		
JAS	-0.162	0.089	1.000	
TSCS	0.205	0.267	-0.056	1.000

N = 42

Table 9 displays the resulting correlations among measures for individuals who were not classified in the A or B behavior pattern categories based on their JAS scores. The two highest correlations were between Tennessee Self-Concept Scale scores and both therapist type and Budner intolerance-tolerance of ambiguity scale scores. However, these correlations were not found to be statistically significant.

DISCUSSION

The following hypotheses were made: (1) Individuals classified as B therapists will have higher self-esteem than individuals classified as type A therapists. (2) Individuals in the type A therapist category will have lower self-esteem compared to the B therapists. (3) Individuals in the type B therapist category will be tolerant of ambiguity. (4) Individuals classified as type A therapists will be intolerant of ambiguity. (5) Type A behavior individuals will have lower self-esteem compared to non-type A behavior pattern individuals. (6) Individuals exhibiting type A behavior pattern will be intolerant of ambiguity. (7) Self-concept influences the relationship between therapist type and tolerance-intolerance of ambiguity. (8) Self-concept influences the relationship between type A behavior pattern and intolerance of ambiguity. (9) Both A and B therapists will display type A behavior pattern characteristics but type A therapists will score higher on the JAS than B type therapists. None of these were supported.

Possible reasons for this lack of support are given below. It is probable that the characteristics used to classify students into the different groups were not salient enough in this population. Lack of clarity as far

as which characteristics the students possess or ascribe to themselves would make it difficult to accurately classify them into the different groups. It could be that the assessment instruments were not sensitive to the possibility of subtle variations in the characteristics that were targeted here. This would further complicate the classification process. In addition, some of the conceptual links that are involved might be theoretical abstractions that have no basis in reality or they are severely limited in their scope. This could restrict the ability to generalize the theoretical concepts beyond a specialized group of individuals. Studying other populations such as college students would not uphold the theories because they were too confining or just speculation. All of these explanations might contribute to the lack of support for the hypotheses in this study. In order to explore further the lack of significant findings, several post-hoc analyses were then made. The following findings merit discussion.

Group Differences among Participants

The significant difference between the Spring and Summer groups on the Whitehorn-Betz scale was found because there were twice as many students classified as B type therapists than A type therapists in the Summer group. The Spring group had an equal number of students in each category. This indicates that more students who score on the B end of the therapist scale were enrolled Summer

quarter or that a greater number of B type therapists participated in the Summer data collection compared to A type therapists.

There was also a significant difference between the Spring and Summer groups on the Tennessee Self Concept Scale scores. It is possible that students experience more stress during Spring quarter and this leads to decreased self-esteem. Another explanation could be that since the Summer group data was gathered early in the quarter and the Spring quarter data was collected during the second half of the term, that a student's self-esteem tends to decrease as the quarter progresses.

The scores on each of the measures used were close to group norms generated from other studies. Where they deviated could be attributed to the restricted age range and time in the quarter of data collection. This student population is representative of previous subject samples that have been studied.

Summer quarter students were older than the Spring quarter students which fits intuitively since older students tend to enroll during the Summer and in night classes more so than younger undergraduates. However, the age difference was only one year and a few months. Age was not found to be a mediating factor in any of the relationships that were tested here.

Differences Between A and B Therapist Types on the TSCS

The findings show that type A therapists score higher on the Tennessee Self Concept scale than do type B therapists counter to what was hypothesized. This result was not statistically significant at the 0.05 level but had a probability of 0.10 for a two-tailed t-test. The correlation between therapist type and self-concept confirms this trend. One might speculate that type B therapist individuals are more "open". They are more willing to admit their insecurities or deficiencies on the Tennessee Self Concept Scale (TSCS) and therefore score lower than type A therapists. This speculation is contrary to the findings of a previous study that found B therapists to be somewhat defensive compared to type A therapists (Kulberg & Franco, 1976). In this study, every student except two were within the normal limits on the defensiveness scale contained in the TSCS. In light of this, it appears that the role of defensiveness is unclear. Another possibility could be that type A therapist participants need to present themselves in a socially favorable manner. Rothman (1971) points out that type A therapists display more 'socially dependent conforming' behavior. However, the mean score for each therapist type group was less than previous norms suggesting that the difference may be due to restrictions in the sample. It could be that factors like being out of college, working full-time, and/or starting a family contribute to

expressions of higher self-esteem. A common theme might be having more prestige after college and a greater sense of accomplishment.

Therapist Type and Tolerance of Ambiguity

B therapist type students were not tolerant of ambiguity as was expected. Classification as a type B therapist does not dictate whether an individual will be tolerant or intolerant of ambiguity. Knowing someone is a type B therapist does not allow one to accurately predict tolerance of ambiguity. These two variables appear to be unrelated.

Type B therapist participants were found to score higher on self-esteem as their scores on the Whitehorn-Betz therapist scale decreased. This finding partially confirms the relationship trend uncovered by McGuigan and Seidman (1971) stating that increased B therapistness is related to increased self-esteem. However, in this study the type A therapist participants scored higher on the TSCS than the B therapists which was contrary to their outcome. McGuigan and Seidman (1971) discerned that type B therapists report higher self-acceptance and attain a higher level of social competence than type A therapists. This indicates that the type A therapist people in this study were more self-accepting and maintained a level of social competence that was equal to or greater than B therapist type students. It could be that the environmental situation did not threaten the type A person's social competence and they tended to

answer the questions in a more "open" style. Another study demonstrated that type A therapists are more likely to answer questions in a socially desirable direction than B therapists (Kulberg & Franco, 1976). This factor may contribute to their more "open" response style. In contrast, the B therapist type students became more self-accepting as their scores decreased on the WB scale. This suggests that the degree of type B therapist, from moderate to extreme, is important.

No relationship was detected for type A therapist people in relation to intolerance of ambiguity as was hypothesized. It appears that type A therapists were no less tolerant of ambiguity than the general population. No distinction can be made on the basis of these two variables alone. However, there might be another variable operating here. Some variable other than age or self-esteem may determine which type A therapist individuals are intolerant of ambiguity and which people are tolerant of ambiguity. If this is the case, this variable still needs to be identified.

Type A and B Behavior Pattern in Relation to the TSCS

Students in the type A behavior pattern group obtained greater mean scores on the TSCS compared to the type B behavior pattern group. This indicates that type A behavior pattern individuals tend to possess higher self-esteem than type B behavior people. This outcome was contrary to what was expected. It is possible that type A

behavior is tied in with maintaining control over physical and social environments as Burnam, Pennebaker, and Glass (1975) suggest. This could result in type A behavior individuals rating themselves higher on the self concept scale to maintain some sense of control over their environment. Another possibility is that the TSCS is measuring something other than the "social" self-esteem that tends to make these people feel inadequate. It is also probable that type A behavior student's self-esteem was not threatened by the questionnaires so that they were able to relax and take more time to answer the questions in a way that is representative of this group when the situational stress is low.

Type A Behavior Pattern and Intolerance of Ambiguity

Type A behavior pattern individuals did not manifest intolerance of ambiguity as predicted. They scored on both sides of Budner's ambiguity scale revealing no clear form of representation on this particular variable. Knowing someone displays type A behavior does not reveal how they will respond to ambiguous situations. These two variables may not be related at all or some other factor might determine which students are intolerant of ambiguity. This remains a question for future investigation.

Self-Concept as a Mediator Variable

Self-esteem did not mediate the relationship of the ambiguity scale with either therapist type or type A behavior pattern. Self-esteem did have a direct connection

with Budner's intolerance-tolerance of ambiguity scale for individuals classified as type A therapists and those who displayed type A behavior pattern. It appears that some other variable may mediate this relationship and it seems to be specific to the two categories just mentioned. The reason self-esteem was not a mediating variable was because there were no meaningful correlations among the variables that self-esteem was supposed to mediate. Even when self-esteem was partialed out to determine if it might mediate in the direction opposite of what was hypothesized, the result was again no statistically significant correlations among variables.

Relationship Between the JAS and Type A and B Therapists

A strong trend was discovered in the relationship between scores on the JAS for the A and B therapist types. As predicted, the type A therapist types scored higher on the JAS than the type Bs. However, the AB therapist types scored approximately the same as the A types which ran counter to what was hypothesized. It is possible that most of the A therapist type students might actually belong in the AB category or vice versa. This would mean that the cutoff scores were either not extreme enough or some AB therapist types are really type As. However, the fact remains that both AB and A type student scores were higher on the JAS than those for the B type therapist individuals. This indicates that type Bs display less type A behavior pattern than the other two groups. Examining the scores

more closely shows that all three therapist types are contained within the JAS category of neither type A or B behavior pattern. Therefore none of the therapist type groups can be classified on either end of the JAS. This confirms the position that therapist type and type A behavior pattern are distinctive entities despite any similarities between them. It is possible that several items on the JAS are tapping into differences between B therapist types and the other two. Thus the difference in scores on the JAS.

No relation was found between the JAS which measures type A behavior pattern and the Whitehorn-Betz scale which classifies therapist type. Even though these two factors are not directly related, they seem to have some commonalities. Specifically, there appears to be some element shared by both the type A therapist group and the type A behavior pattern individuals. This results in obtaining the same kind of relationship between the self-esteem and the tolerance-intolerance of ambiguity variables in each case. What that common element is remains to be answered. One possibility is that these individuals possess more traditionally "feminine" type characteristics. They may present themselves as more sensitive, more submissive, and/or more emotional in different situations. The circumstances that elicit these characteristics would probably vary for each group. These similar elements could mediate the relationship between self-esteem and

intolerance of ambiguity for both groups. This possibility will need to be investigated empirically before any conclusions can be drawn. The fact remains that the hypothesis stating that a direct relationship existed between these two factors was not substantiated. This finding empirically sets to rest the idea of any direct connection existing between type A behavior pattern and the type A therapist in a college population. The similarities are still present and one of these similarities probably accounts for the relationship between self-esteem and intolerance of ambiguity but this is an indirect connection at best.

Self-Esteem and Tolerance of Ambiguity

A statistically significant correlation was obtained between self-esteem and scores on the Budner tolerance-intolerance of ambiguity scale for students grouped in the type A therapist category. Even though this result was not hypothesized directly, it does fit intuitively. As self-esteem decreases, this group becomes increasingly intolerant of ambiguity. Tolerance of ambiguity increases as self-esteem improves for these people. It seems like something could be mediating the relationship between tolerance of ambiguity and self-esteem for the type A therapist person. A therapists have been described in previous studies as more sensitive, submissive, and feminine than B therapists (Schill & Sulewski, 1982; Berzins et al., 1972; Kulberg & Franco, 1976). Goodwin,

Geller, and Quinlan (1973) found that type A therapists were more likely to ascribe to themselves characteristics traditionally regarded as "feminine" such as submissiveness, succorance, and nurturance. The degree of femininity may function as a mediating variable between ambiguity and self-esteem. In this case, this would hypothetically translate into the more extreme the feminine characteristics, the lower their self-esteem and the more intolerant of ambiguity they are. Another possibility is that coping strategies are somehow related to self-esteem. The way a person approaches an ambiguous situation may affect their level of self-esteem. This has implications for the flexibility of a person verses a more rigid position. The data on this has been contradictory up to this point (Treppa & Dods, 1978; Gervin & Razin, 1973).

A similar finding was uncovered between self-esteem and intolerance of ambiguity for individuals who were classified in the type A behavior group. Again, as self-esteem decreases, intolerance of ambiguity increases. The relationship seems to point to a mediating variable that is common to both the type A behavior person and the A type therapist individual. Thus it appears that there may be some similarity among these two factors.

Other Participant Groups

No formal predictions were made for the AB therapist type group. The correlation matrix in Table 7 shows that none of the correlations calculated were statistically

significant. It is noted that the correlation between the ambiguity scale and the Tennessee Self Concept Scale is positive and it is in a direction opposite from the statistically significant correlation obtained for the type A therapist individuals. For the AB person, if they possess low self-esteem, then they are more likely to display increased tolerance for ambiguity. This pattern indicates that AB therapist types differ from type A's with respect to the relationship between tolerance of ambiguity and self-esteem. Again, it is emphasized that the correlation between these two variables for the AB therapist type student is not statistically significant but a directional pattern does exist among the correlations that resulted.

There were no statistically significant relationships found for type B behavior pattern students. Even though no hypotheses were generated for this group, correlations were obtained to determine if these individuals demonstrated any outcomes that would differentiate them from the type A behavior pattern people. The results show that this analysis failed to clarify the situation. Since no predictions were made using the variables contained in Table 8, further elaboration on this group is deemed unnecessary at this point.

No predictions were made regarding students classified as displaying non A or B behavior pattern characteristics. There were no significant correlations for this group. It

was noted that the correlation between the Budner ambiguity scale and the Tennessee Self Concept Scale was positive. It was in the opposite direction of those correlations obtained for type A behavior and type A therapist individuals. Even though this is not statistically significant, these students differ from the other two groups. If the correlation was larger, people with low self-esteem would be tolerant of ambiguity and those high in self-esteem would be intolerant of ambiguity. As it stands here, most these people tend to possess low self-esteem or are mostly tolerant of ambiguity but this is only speculation. The number of students is relatively small within this group. A larger sample may add clarity to this resulting pattern in the data.

Additional Variables

Three additional variables were not originally addressed in the initial predictions. The age variable has already been discussed elsewhere. The remaining two variables will be reviewed here.

Family history of heart disease was one of these variables and it was compared to scores on the JAS. It was postulated post-hoc that a family history of heart disease would be related to JAS scores. However, there were a very small number of students who indicated such a history. The fact that no relation was discovered here could be spurious and probably does not have much validity. It could be that most type A behavior people in this sample have not yet

encountered problems with heart disease in their family or they might not have remembered their family history. It is also possible that they might not know their family health background. Studying an older population or gaining access to health records is another way to approach this question.

Previous counseling was the other variable that was examined. A post-hoc prediction that students who had been involved in counseling would be distinguished on the Whitehorn-Betz therapist scale. This speculation was not substantiated. Again, the number of students who indicated that they had previous counseling was very small. A larger sample would clarify this question but it is beyond the scope of this particular study.

Future Directions

The hypotheses in this study were not supported. If this study were to be repeated, I would change some things. First, I would expand the age range of the sample population and go beyond a college age population. I would also stop collecting data during Summer quarter because that part of the sample was different from the Spring quarter group on two of the variables investigated. I would want to collect data during the regular school year to maintain consistency and minimize any possible confounds. A longitudinal or cross-sectional method of investigation might have added some clarity to the variables of interest. In addition, I would study the type A behavior pattern and therapist type variables separately.

Again, I would want to include a broader spectrum of participants and possibly screen them using a shortened version of the WB scale. This would allow me to collect data only on those participants who fit into the desired categories. For the type A behavior pattern group, I would score the Jenkins Activity survey first to determine if a particular participant should continue with the rest of the questionnaires. This would have eliminated participants who were not in the target groups.

Some ideas for future research have been touched on already. Other suggestions would be to take a closer look at the relationship between self-esteem and tolerance of ambiguity for both the type A therapist and the type A behavior pattern individual. Another possibility would be to uncover exactly why the students' self-esteem scores were higher in the Summer. Finally, the relationship between self-esteem and type A behavior pattern could also be clarified.

Summary

In conclusion, while none of the hypotheses were supported, there were some interesting findings. Briefly summarized, the most intriguing discoveries were: (1) This study empirically sets to rest the possibility of a connection existing between therapist type A and type A behavior pattern at least as far as a college population is concerned. These are two distinctly different variables. (2) Twice as many B therapist people participated Summer

quarter compared to A therapist type students. Equal numbers of each group were involved Spring quarter. In addition, self-esteem scores were higher Summer term than Spring term. This suggests that Summer school students are a different population and researchers should consider whether they should be included in the data pool with regular school year participants. (3) The type A behavior pattern group obtained greater mean scores on the Tennessee Self Concept Scale compared to the type B behavior pattern group. (4) There was a statistically significant relationship between self-esteem and tolerance of ambiguity for both type A therapists and type A behavior pattern individuals. As self-esteem decreases, both groups become increasingly intolerant of ambiguity. This result was not hypothesized directly but did fit intuitively. These findings are the highlights of this investigation and though none of these results were initially hypothesized, they can guide future research efforts in this area.

Examining some possible reasons why the hypotheses in this study were not supported can help to clarify where researchers should go from here. It is possible that the characteristics used to classify students into the different groups were not salient enough in this population. Lack of clarity as far as which characteristics students have or ascribe to themselves would make it difficult to accurately classify them into the different groups. It could be that the assessment

instruments were not sensitive to the possibility of subtle variations in the characteristics that were targeted here. This would further complicate the classification process. In addition, some of the conceptual links that are involved might be theoretical abstractions that have no basis in reality or they are severely limited in their scope. This could restrict the ability to generalize the theoretical concepts beyond a specialized group of individuals. The result would be unsupported hypotheses for other populations such as college students because the theories were confining or just speculation. All of these explanations might contribute to the lack of significant findings in this study. These biases should be considered when researchers set out to investigate this area in the future.

APPENDICES

APPENDIX A

DEMOGRAPHIC SHEET

APPENDIX A

DEMOGRAPHIC SHEET

Age: _____ Sex: Male Female

Year in school: Fresh Soph Junior Senior Other _____

Major: _____

Parents Occupation: Father: _____

Mother: _____

Have you ever had personal counseling: Yes No

If Yes, how long? _____

Health Status

Have you or any member of your family been hospitalized in the last 2 years? Yes No

If so, who and for what reason? _____
_____

Have you or any member of your family had any of the following?

	YES	NO	Relation
Heart Disease	_____	_____	_____
Cancer	_____	_____	_____
Other Serious Disorders	_____	_____	_____

If so, what disorder? _____

How would you rate your Physical health now?

Excellent Good Fair

APPENDIX B

CONSENT FORM

APPENDIX B

CONSENT FORM

This study is being conducted by Rob Graham, a graduate student in psychology working under the supervision of Dr. Norman Abeles, Ph.D. The study is intended to examine the relationship between interests and attitudes in relation to different situations or circumstances that occur in real life. This packet contains four questionnaires designed to explore a variety of interests, opinions, attitudes, and behavior. The questionnaires take approximately one hour to complete. Participation is voluntary and you will be given extra credit for taking part in this study. Return of the questionnaire packet constitutes consent to take part in this scientific study. Should this experiment cause you duress, you are free to discontinue the experiment without penalty. Do Not put your name on any of the materials. Your answers will be kept strictly confidential and you will remain anonymous. Results of this study will be made available on request. Please work quickly and quietly. Answer each question. If you have any questions, raise your hand and someone will assist you. Begin.

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