THE PSYCHOLOGICAL CHARACTERISTICS OF ELITE LEVEL WOMEN'S SOFTBALL PLAYERS

BY

TERRI L. KNECHT

Bachelor of Science

Pittsburg State University

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Thesis Approved:

Steven W. Edwards

Thesis Adviser

Sandy K. Gagnstead

John M. Lindsey

Norma N. Durham

Dean of Graduate College

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CHAPTER I

INTRODUCTION

Through experience with athletes at various levels of competition, differences have been noticed among athletes on factors other than just physical ability. These other factors seem psychologically related instead of skill related. These psychological factors often separate successful athletes from unsuccessful athletes. To test this observation, three psychological aspects of personality have been chosen that could be responsible for differences among players of differing ability.

The three psychological factors chosen were attentional style, locus of control, and competitive trait anxiety. Attentional style is a phrase coined by Nideffer to describe the focus of one's attention. The instrument he developed, the Test of Attentional and Interpersonal Style (TAIS, Nideffer 1977), to measure attentional style has been used in many studies and has helped identify some mental characteristics necessary to be successful at a sport or a sport position. In 1966, Rotter published a study in which an instrument (Rotter's I-E) was developed to measure a person's perception of control. The instrument had two categories, internal and external, to describe

the subjects. Internal subjects are persons characterized as believing they control their destiny. External subjects are persons characterized as believing luck, chance, or powerful others control their destiny. Rainer Martens developed the Sport Competition Anxiety Test (SCAT, Martens 1977) to measure competitive trait anxiety. The SCAT has been shown to be a reliable predictor of pre-competitive anxiety or state anxiety. Many studies have investigated the connection between anxiety and performance but no conclusive evidence has been found.

With the completion of this study, this researcher hopes to identify a difference in psychological characteristics between two competitive levels, and show significant differences between the two teams among the three psychological factors. Then, a relationship to the recruiting process will be discussed with regard to the differences, if any, between the two teams.

Statement of Problem

The problem of this study was to compare the psychological characteristics of competitive trait anxiety, attentional style, and locus of control between two softball teams representing two different competitive levels.

Delimitations

The delimitations of this study were:

1. The study sample consisted of two college women softball teams ranked within the top twenty of their respective

levels of play.

2. The measure of competitive trait anxiety was delimited to the Sport Competition Anxiety Test (SCAT).

3. The measure of locus of control was delimited to the Rotter's Internal-External Locus of Control (Rotter's I-E).

4. The measure of attentional style was delimited to the first six sub-scales of Nideffer's Test of Attentional and Interpersonal Style (TAIS).

Limitations

The limitations of this study were:

1. The subjects were not randomly selected but were two pre-existing teams.

2. The instruments are self evaluations of attitudes and personal feelings.

3. The low number of players representing the two competitive levels might have limited the findings.

Assumptions

This study was based on the following underlying assumptions:

1. The subjects for this study were fully cooperative.

2. The subjects answered the instruments honestly.

3. The subjects for this study accurately represented two different levels of play.

Hypotheses

The following hypotheses will be tested at the .05 level:

1. There will be no significant difference in competitive trait anxiety level between the two teams.

2. There will be no significant difference in attentional style between the two teams.

3. There will be no significant difference in locus of control between the two teams.

Definitions

For the purpose of this study, the following definitions are provided:

1. State anxiety: refers to an existing or immediate emotional state characterized by apprehension and tension (Martens 1977).

2. Trait anxiety: a predisposition to perceive certain situations as threatening and to respond to these situations with varying levels of state anxiety (Martens 1977).

3. Competitive trait anxiety: a tendency to perceive competitive situations as threatening and to respond to these situations with feelings of apprehension and tension (Martens 1977).

4. Locus of control: a general expectancy to perceive reinforcement as contingent upon one's behavior (internal) or as the result of forces outside one's control and related to luck, chance, fate, or powerful others (external, Rotter 1966).

Research Design and Statistical Analysis

A causal comparative research design was utilized to determine if any differences existed between the two groups of athletes using three psychological assessments as dependent variables. The dependent variables were: the six sub-scales on the TAIS, the score on the Rotter's I-E, and the score on the SCAT. An independent t-test was used to analyze data from the three dependent variables at a 0.05 significance level. The three dependent variables were: the six sub-scales on the TIAS, the score on the Rotter's I-E, and the score on the SCAT (Gay, 1981).

CHAPTER II

REVIEW OF LITERATURE

The literature available on women is limited and the literature on women's athletics is even more limited. Therefore the literature review for this paper was limited to the literature surrounding the instruments used to collect data.

Competitive Trait Anxiety

The decision to use the Sport Competition Anxiety Test (SCAT) for this study was based on the fact that it is a sport specific instrument. The instrument measures competitive trait anxiety and has been correlated with competitive state anxiety. The SCAT has become a very popular instrument in current research because of its predictive validity. However in this study, the purpose is to test for a difference in competitive trait anxiety within two levels of women's athletics.

Gerson and Deshaies (1978) studied 107 female college softball players participating in a national tournament. The researchers found a significant relationship between competitive trait anxiety and competitive state anxiety. They also found a significant relationship between the pre-game anxiety and batting average.

The SCAT has been supported by many studies as having predictive validity. Martens, Rivkin, and Burton (1980) using 105 female high school volleyball players and their predominantly female coaches showed that the SCAT was predictive of pre-game state anxiety. Similarly Wandzilak, Potter, and Lorentzen (1982) investigated the effectiveness of competitive trait anxiety to predict pre-game state anxiety. The subjects were 93 female high school volleyball players. The results demonstrated that the SCAT was a significant predictor of pregame anxiety. Another study using collegiate women's volleyball players by Martens and Simon (1976) resulted in a similar conclusion. Martens and Simon used Spielberger's State-Trait Anxiety Inventory (STAI) to compare with the scores on the SCAT. The researchers discovered a high correlation between the scores on the SCAT and the STAI. Martens and Gill (1976) tested the construct validity of the SCAT by testing the hypothesis that a person high in competitive A-trait respond in competitive situations with higher levels of A-state than persons low in competitive A-trait. The results of this study supported the hypothesis. High SCAT subjects manifested higher levels of A-state than low SCAT subjects. In another study, Sonstroem and Bernardo (1982) found the SCAT to be significantly related to pre-game state anxiety but not significantly related to performance.

A study conducted by Foster (1971) attempted to identify the personality structure of highly skilled female softball and basketball players. No significant results were found in

personality among athletes at different performance levels. One factor did prove significant throughout the study. Successful subjects scored higher vn the relaxed end of Q4 (relaxed-tense) from Catell's 16 Personality Factor Test than unsuccessful athletes. No specific personality traits could be stated because of lack of significant findings.

Attentional Styles

The Test of Attentional and Interpersonal Style (TAIS) was developed by Robert Nideffer. The test consists of seventeen sub-scales dealing with attention and interpersonal style but only the first six sub-scales associated with attention were used in this study.

Nideffer believes that athletic performance is closely related to attentional style and, once this is assessed, predicting athletic performance in a variety of situations becomes possible. He also suggests that attention can be viewed in terms of both width and direction. Width of attention can be thought of in terms of how much information an individual must attend to. This can be narrow or broad depending on the situation. Direction refers to whether the athlete is paying attention to his/her own thoughts and/or feelings (internal cues), or things going on around him/her (external cues).

It is though that attention cannot be directed internally and externally at the same time, so therefore, it is necessary for an athlete to be able to shift from one focus to another.

Figure 1 shows four types of attention that develop when the dimensions of width and direction are combined (Nideffer 1981).

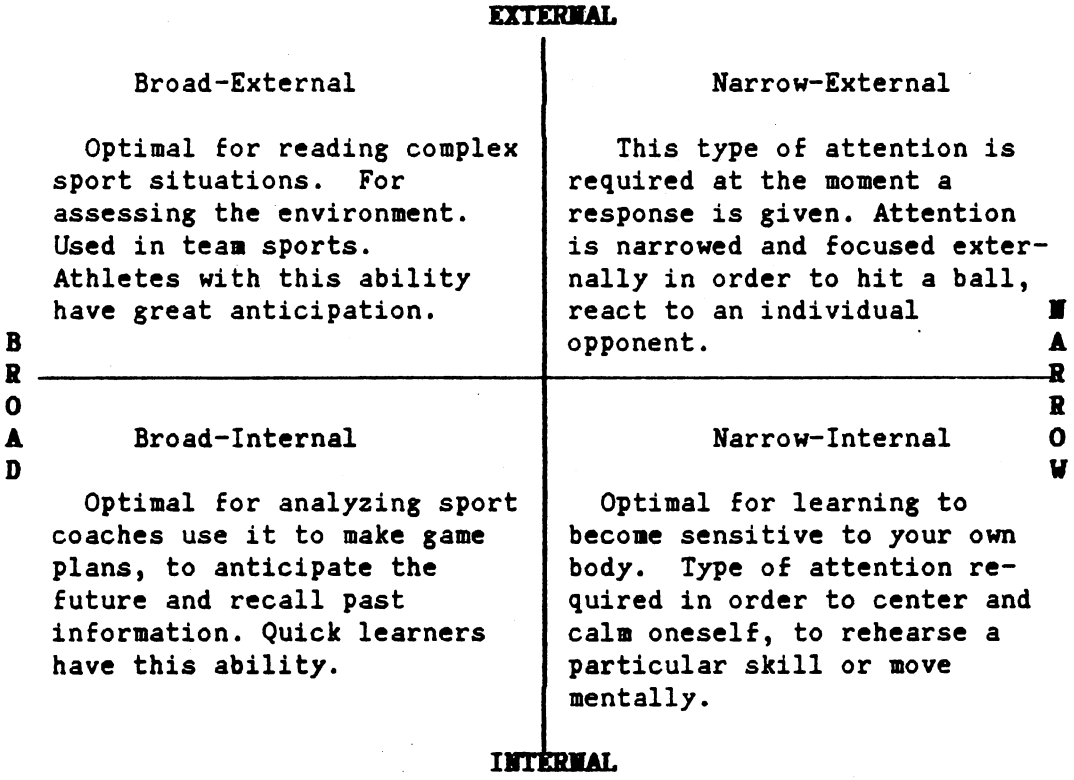

Figure 1. Attention in Athletics

Each individual has a dominant attentional focus that can be a predictor to they type of sport situations they can best attend to. As a result, this also can identify sport situations where the individual will be more inclined to make a mistake (Nideffer, 1981, figure 2).

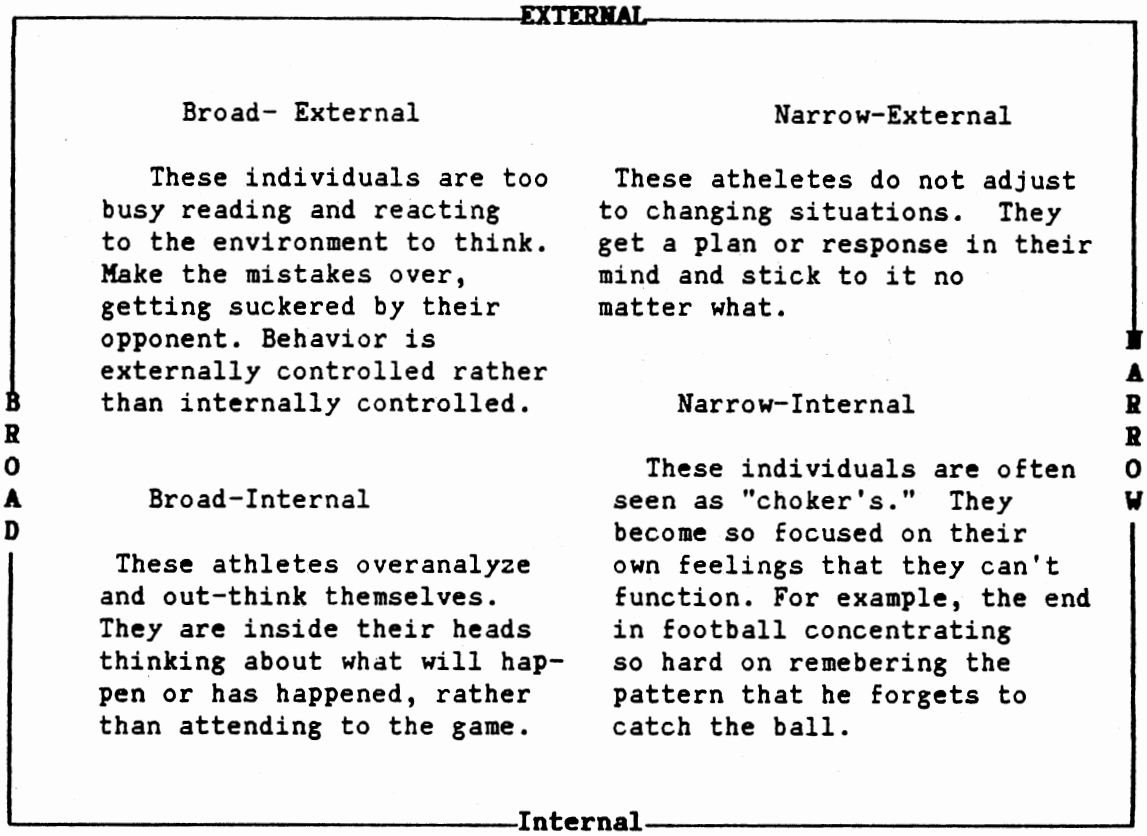

Figure 2. Attentional Errors

The last two sub-scales deal with the narrowing of attention (NAR) and reduced attentional focus (RED). High scores on the NAR indicate the person believes that he/she can effectively narrow attention when necessary. A high score on the RED indicates that person makes mistakes because his/her attention has become too narrow.

A considerable amount of research has been done that describes the relationship between attention and anxiety. First, as anxiety increases the tendency is to depend on one's dominant

attentional style whether it is appropriate for the situation. Secondly, as pressure increases, attention has a tendency to narrow involuntarily. Therefore, in a situation where the ability to integrate several things would be appropriate, may become difficult. Finally, the narrowing of attention is followed by an increase in internal focus (Nideffer, 1977).

Vallerand (1983) investigated the relationship between athletes' attentional style and a performance component, decision making (DM). The subjects were 59 male basketball players divided into three groups good, average, and poor decision makers. A panel of expert judges were used to rate the players as good, average, or poor decision makers as they completed fast break drills and a short scrimmage. All of the subjects also completed the first six sub-scales plus information processing (INFP) scale of the TAIS. It was hypothesized that good, relative to average, and poor decision makers would score higher on the BET, BIT, NAR, and INFP, but lower on the OET, OIT, and RED scales. Overall, no meaningful and consistent relationships appeared to exist between attentional style as measured by the TAIS and DM. Vallerands conclusion was that the TAIS does not predict DM and does not seem to be sensitive enough to pick up differences in attentional style between performers of different levels.

In a study by Albrecht and Feltz (1987) the conclusion that the TAIS may not be sensitive enough was supported. Albrecht and Feltz developed a baseball/softball batting specific version of

the six attentional sub scales contained in the original TAIS. Fifteen collegiate baseball players and fourteen collegiate softball players served as subjects. The subjects were given the B-TAIS and the six attentional sub scales of the TAIS to assess their attentional style. The subjects also completed the SCAT and the Competitive State Anxiety Inventory-2 (CSAI-2; Martens, Burton, Vealey, Bump, and Smith, 1982) to measure competitive anxiety. It was hypothesized that scores on the NAR would be positively correlated with seasonal batting performance. Scores on the sub scales OET, OIT, and RED were hypothesized to be negatively correlated with seasonal batting performance. The final hypothesis was that the level of competitive trait anxiety experienced by the baseball/softball batters would be positively correlated with the OIT and RED sub scales. The results showed the sport task-specific B-TAIS to have greater construct validity than the TAIS. The B-TAIS data appeared to better fit the intuitive and theoretical relationship among competitive anxiety levels, attentional focus, and athletic performance.

The task of hitting a baseball/softball is thought to carry with it a narrow-external attentional demand (Nideffer, 1978, 1981) so athletes successful at such a task should possess such a characteristic. If all attentional demands of softball can be identified and measured, then it would be reasonable to assume that successful players could be identified.

Locus of Control

The instrument used to measure locus of control was Rotter's Internal-External Locus of Control (I-E). Locus of control refers to the way in which people perceive their control over what happens to them. This belief system may be conceptualized as existing on a continuum ranging from internal at one end and external at the other. Persons characterized as internal, believe that they control their destiny. Externals believe their lives are controlled by luck, chance, or powerful others. The I-E was used in this study to compare the locus of control using two competitive levels of women softball players.

Finn and Straub (1977) conducted a study with Dutch and American women softball players using the I-E. The results showed the American players to be more internally oriented and the Dutch to be more externally oriented. They also found the American battery (pitcher/catcher) to be significantly more internal than the Dutch battery. A limitation of the study was the language barrier and the translation of the I-E into the Dutch language.

Gilliland (1974) conducted a study using 90 students separated into six groups. The groups consisted of males in team sports, males in individual sports,
and females in team sports, and females in individual sports, male and female nonparticipants. An analysis of variance on I-E scores showed no significant effect of sex, athletic involvement, or their interaction. These results indicate no significant

differences between male and female athletes or nonparticipants in athletics with regard to locus of control.

Lynn, Phelan, and Kiker (1969) compared team sport participants, individual sport participants, and nonparticipants and found that team sport participants were more internal than individual sport participants or nonparticipants. Kleiber and Hemmer (1987) compared males and females who participated in organized sport with those who played for fun or not at all. They found female participants in organized sport were the most internal.

Hall (1980) used the I-E to examine the effect of locus of control and trait anxiety on post-performance state anxiety. Results showed a significant relationship between locus of control and A-trait and A-state. External showed a higher A-trait which was consistent with previous literature (Butterfield 1964; Feather, 1967; Strassberg, 1973; Watson, 1967). Lower A-state of internals prior to performance was also consistent with previous literature (Phares, 1976). This investigation suggests that internal-external locus of control seems to provide indications as to why some individuals experience greater anxiety than others at certain periods prior to, during, and after competition.

The I-E has been used in over six hundred studies (Rotter, 1966). It has proven reliability and validity, and is considered a creditable instrument that makes it relevant to this study.

CHAPTER III

PROCEDURES

The problem of this study was to determine if a significant difference in competitive trait anxiety, locus of control, and attentional style existed between female junior college softball players and Division I softball players.

Preliminary Procedures

Selection of the Subjects

Subjects for this study were female athletes participating in softball. The athletes were deliberately chosen from Crowder College (a junior college) and Oklahoma State University (a NCAA division I university). The teams were selected because of their ranking within the top ten of their division and were judged to be of comparable ability considering their level of play. A total of twenty-six athletes participated. Fourteen at the junior college level and twelve at the Division I level. The athletes ranged from age eighteen to twenty-four.

Selection of Instruments

Three instruments were used in this study. The Sport Competition Anxiety Test (SCAT, Martens, 1977) was used to

determine the competitive trait anxiety of each subject. Rotter's Internal-External Locus of Control (Rotter's I-E, 1966) was used to measure the subjects' locus of control. The first six sub-scales of the Test of Attentional and Interpersonal Style (TAIS, Nideffer, 1981) were used to determine the attentional style of each athlete.

The SCAT has a test-retest reliability of 0.77 and a reliability of 0.85 using analysis of variance. The content validity was rated on a 1-7 scale by a panel of experts in the field and had a mean score of 6.5. The concurrent validity was determined by correlating the SCAT with the Trait Anxiety Inventory for Adults (Spielberger et, al., 1970) and resulted in a correlation coefficient of 0.44 (Martens, 1975).

The Rotter's I-E was used to measure locus of control. Rotter's I-E was tested for internal consistency, reliability, and validity. Internal consistency was calculated using item analysis and factor analysis that resulted in high internal consistency. Test-retest reliability over a one month period ranged from 0.55 to 0.83 (Finn and Straub, 1977). According to Rotter, "The Most significant evidence of the concurrent validity of the scale are from correlations with behavioral criteria" (Rotter, 1966).

The first six sub-scales of the TAIS were used to measure attentional focus. The first six sub-scales deal with attentional focus ranging from broad internal focus to broad external focus, the tendency to be overloaded by external or

internal stimuli, and a narrow focus of attention and the ability to reduce attention. The TAIS' internal consistency median was 0.53. The test-retest reliability over a two week period ranged from 0.60 to 0.93 with a median of 0.83. The TAIS was correlated with many other psychological instruments to test its construct validity. The construct validity was demonstrated through several studies (Nideffer, 1981).

Operational Procedures

Administering the Measuring Instruments

The instruments were given to the subject groups separately. The subjects were asked not to identify themselves and to honestly answer all questions. For each instrument, verbal instructions were given on how to complete the answer sheet and written instructions were also attached. During the testing procedures, there were no verbal interactions among subjects. No time limit was imposed for the completion of the test packet.

The junior college coach was contacted and a date was chosen on a non-game, non-practice day. The team was at the end of their season before post season play began. The three instruments were administered simultaneously as a packet. Fourteen athletes were available to complete the instrument packet. All of the athletes completed the packet within an hour.

The Division I coach was contacted and a date was chosen on a non-game, practice day. The team was at the end of their season before post season play began. The instruments were given

as a packet after the completion of practice. Twelve athletes were available to complete the instrument packet. All of the athletes completed the packet within an hour.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter has been organized to better facilitate the discussion of the statistical data relative to the previously stated hypotheses. This chapter contains the following sections: (a) analysis of data according to locus of control, competitive trait anxiety, and attentional style and (b) discussion of results.

Analysis of Data

Locus of Control

The scores of the I-E were relatively low for both teams with no significant difference between the two teams. The means were 8.6 $\pm$ 4.38 for the JUCO team and 7.8 $\pm$ 3.10 for the Division I team. Low scores on the I-E, 0-10, indicate more internal characteristics. Both teams having means below ten indicated that, as a whole, both teams feel in control of their surroundings and the things that happen to them.

Competitive Trait Anxiety

The mean scores on the Sport Competition Anxiety Test (SCAT) showed little or no difference between the two teams when

standard deviation was considered. The JUCO's mean score was 19.4 ± 5.03 and the Division I's mean score was 19.6 ± 5.35.

Attentional Style

The scores on the six sub-scales of the Test of Attentional and Interpersonal Styles (TAIS) indicate no significant difference among the teams. The raw scores on the TAIS were converted to T-scores then the means were calculated. The means and the t values are charted in table 1. The results of the scores were very similar for both teams which indicated similar attentional styles.

TABLE 1

MEANS AND T VALUES

	MEAN	STANDARD DEVIATION	T-VALUE
BET JUCO	53.4	11.00	-0.74
Division I	50.02	11.40	
OET JUCO	56.4	10.32	0.49
Division I	58.2	7.21	
BIT JUCO	51.7	7.0	-1.54
Division I	46.3	10.30	
OIT JUCO	57.4	13.32	-0.72
Division I	53.8	12.04	
NAR JUCO	53.9	10.42	0.33
Division I	55.2	9.74	
RED JUCO	53.0	12.50	-0.16
Division I	52.2	12.50	

Discussion of Results

Results from the Rotter's Internal-External Locus of Control (I-E) put both teams into the category of internal. Internal meaning that a person believes that they control their own destiny. The scoring for the I-E is the lower the score the more internal, the higher the score the more external. The higher skilled athletes show more internal characteristics. These results are consistent with previous literature (Finn and Straub, 1977).

The team results from the Sports Competition Anxiety Test (SCAT) were so close that they are discussed as one score. The SCAT scale ranges from 10 (low competitive A-trait) to 30 (high competitive A-trait). The results of the SCAT (19.5) fell right in the middle of high and low characterizing these teams as having moderate competitive trait anxiety. The similarity of the two scores show the similarity of the perceived threat of competition no matter what the level of competition might be.

The SCAT is known for it's predictive validity of state anxiety. In a study using female volleyball players a high correlation was proven between the SCAT and Spielberger's State-Trait Anxiety Inventory (STAI, Martens and Simon, 1976). The researchers used scores on the SCAT and Spielberger's Trait Anxiety Inventory and correlated both with scores from the STAI and the results indicated that the SCAT was a more reliable predictor of state anxiety. With the possibility of state anxiety scores from both teams being similar would be likely. This would indicate that the reactions to a stressful situation such as a game would be similar.

The results of the six sub-scales of the TAIS were not significant

but did show some interesting comparisons. The six sub-scales were paired into three groups for this discussion: broad external attentional focus (BET) and overloaded by external stimuli (OET), broad internal attentional focus (BIT) and overloaded by internal stimuli (OIT), and narrow attentional focus (NAR) and reduced attentional focus (RED). After pairing, each team's scores some interesting differences could be seen, even though no significant results were found.

As shown on table 1, the scores on the BET and OET for the Division I team were about one standard deviation apart. The BET score was at the mean and the OET score was about one standard deviation above the mean. The higher the score on the OET the more the athletes make mistakes because they become confused and overloaded by external stimuli. The differences among the paired scores showed some confusion and overloading of the Division I players by external stimuli. The Juco scores were about a half a standard deviation apart which indicated some overload caused by external stimuli.

The score for the Juco's BIT was at the mean and the OIT was about one standard deviation above the mean. The higher the OIT score the more the subjects make mistakes because they become confused and overloaded by internal stimuli. The differences between the paired scores indicate some confusion and overload among the Juco players caused by internal stimuli. The Division I scores for the BIT and OIT were right around the mean. The difference in the scores was about a half a standard deviation apart showing some possible overload from internal stimuli.

The NAR scores and the RED scores for both teams were near the

mean. A high score on the NAR indicates that the athlete can effectively narrow her attention as needed. The Division I team was one standard deviation above the mean indicating they see themselves as being able to narrow their focus of attention a little better than the norm. A high score on the RED indicates the athlete makes mistakes because they narrow their attention too much.

Of all the categories discussed the BET/OET and the BIT/OIT indicated the biggest differences among the teams. Relating the results of this study to the recruiting process was an initial purpose of this study. After analyzing the results, using these specific instruments to assist in the recruiting process would not be advised.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter contains a summary of this study, the findings from the analysis of the data collected, conclusions, and recommendations for further study.

Summary

The primary purpose of this study was to determine if significant differences existed between junior college softball players and Division I softball players with regard to competitive trait anxiety, locus of control, and attentional style. Competitive trait anxiety was determined by scores obtained from the Sport Competition Anxiety Test. Locus of control was determined by scores obtained from Rotter's Internal-External Locus of Control. Attentional style was determined by scores obtained from the first six sub-scales of the Test of Attentional and Interpersonal Styles.

A total of twenty-six subjects were administered the instruments. The subjects were classified as junior college athletes or Division I athletes. There were fourteen junior college athletes and twelve Division I athletes involved in the study.

Findings

The data collected in this study were analyzed and yielded the following findings:

1. Ho There is no significant difference in competitive trait anxiety between the two teams. Hypothesis one was accepted as there was no significant difference in scores of competitive trait anxiety between the teams.

2. Ho There is no significant difference in attentional style between the two teams. Hypothesis two was accepted as there was no significant difference in scores of attentional style between the teams.

3. Ho There is no significant difference in locus of control between the two teams. Hypothesis three was accepted as there was no significant differences in scores in locus of control between the teams.

Conclusions

Within the limitations of this study:

The three psychological factors of locus of control, competitive trait anxiety, and attentional style were found to be unrelated to competitive level.

Recommendations

In reviewing the methods, procedures and results of this study, the author believes the following recommendations to be in order:

1. The sample group tested should be expanded to include a wider variety of skill levels.

2. The study should be replicated comparing age and years of

experience with skill level and the three psychological factors.

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APPENDIXES

APPENDIX A

TEST OF ATTENTIONAL AND INTERPERSONAL STYLE

INSTRUCTIONS:

Please read the following questions and mark the appropriate answer in the box to the right hand side. There are no right or wrong answers so choose the one that fits you best. Please be sure to answer all the questions.

Test of Attentional and Interpersonal Style		Never	Rarely	Sometimes	Frequently	All the time
1.	When people talk to me I find myself distracted by the sights and sounds around me.	❑	❑	❑	❑	❑
2.	When people talk to me I find myself distracted by my own thoughts and ideas.	❑	❑	❑	❑	❑
3.	All I need is a little information and I can come up with a large number of ideas.	❑	❑	❑	❑	❑
4.	My thoughts are limited to the objects people in my immediate surroundings.	❑	❑	❑	❑	❑
5.	I need to have all the information before I say or do anything.	❑	❑	❑	❑	❑
6.	The work I do is focused and narrow, proceeding in a logical fashion.	❑	❑	❑	❑	❑
7.	I run back and forth from task to task.	❑	❑	❑	❑	❑
8.	I seem to work in "fits and starts" or "bits and pieces."	❑	❑	❑	❑	❑
9.	My thoughts and associations come so rapidly I can't keep up with them.	❑	❑	❑	❑	❑
10.	The world seems to be a booming buzzing brilliant flash of color and confusion.	❑	❑	❑	❑	❑
11.	When I read it is easy to block out everything but the book.	❑	❑	❑	❑	❑

		Never	Rarely	Sometimes	Frequently	All the time
12.	I focus on one small part of what a person says and miss the total message.	❑	❑	❑	❑	❑
13.	I have difficulty clearing my mind of a single thought or idea.	❑	❑	❑	❑	❑
14.	I think about one thing at a time.	❑	❑	❑	❑	❑
15.	I get caught up in my thoughts and become oblivious to what is going on around me.	❑	❑	❑	❑	❑
16.	I theorize and philosophize.	❑	❑	❑	❑	❑
17.	My interests are broader than most people's.	❑	❑	❑	❑	❑
18.	My interests are narrower than most people's.	❑	❑	❑	❑	❑
19.	It is easy for me to direct my attention and focus narrowly on something.	❑	❑	❑	❑	❑
20.	It is easy for me to focus on a number of things at the same time.	❑	❑	❑	❑	❑
21.	It is easy for me to keep thoughts from interfering with something I am watching or listening to.	❑	❑	❑	❑	❑
22.	It is easy for me to keep sights and sounds from interfering with my thoughts.	❑	❑	❑	❑	❑
23.	Happenings of objects grab my attention.	❑	❑	❑	❑	❑

		Never	Rarely	Sometimes	Frequently	All the time
24.	It is easy for me to keep my mind on a single thought or idea.	❑	❑	❑	❑	❑
25.	I am good at picking a voice or instrument out of a piece of music that I am listening to.	❑	❑	❑	❑	❑
26.	With so much going on around me, it's difficult for me to think about anything for any length of time.	❑	❑	❑	❑	❑
27.	When I get anxious or nervous my attention becomes narrow and I fail to see important things that are going on around me.	❑	❑	❑	❑	❑
28.	I am good at quickly analyzing complex situations around me, such as how a play is developing in football or which of four kids started a fight.	❑	❑	❑	❑	❑
29.	At stores I am faced with so many choices I can't make up my mind.	❑	❑	❑	❑	❑
30.	In a room filled with children or out on a playing field, I know what everyone is doing.	❑	❑	❑	❑	❑
31.	It is easy for me to keep my mind on a single or sound.	❑	❑	❑	❑	❑
32.	I am good at rapidly scanning crowds and picking out a particular person or face.	❑	❑	❑	❑	❑

		Never	Rarely	Sometimes	Frequently	All the time
33.	I get confused trying to watch activities such as a football game or circus where a number of things are happening at the same time.	❑	❑	❑	❑	❑
34.	I have so many things on my mind that I become confused and forgetful.	❑	❑	❑	❑	❑
35.	On essay tests my answers are(were) too narrow and don't cover the topic.	❑	❑	❑	❑	❑
36.	It is easy for me to forget about problems by watching a good movie or by listening to music.	❑	❑	❑	❑	❑
37.	In games I make mistakes because I am focused on what one person does and forget about the rest.	❑	❑	❑	❑	❑
38.	I can plan several moves ahead in complicated games like bridge and chess.	❑	❑	❑	❑	❑
39.	I have difficulty telling how others feel by watching them and listening to them talk.	❑	❑	❑	❑	❑
40.	People have to repeat things to me because I become distracted by irrelevant sights or sounds around me.	❑	❑	❑	❑	❑
41.	On essay tests my answers are (were) too broad, bringing in irrelevant information.	❑	❑	❑	❑	❑
42.	I make mistakes because my thoughts get stuck on one idea or feeling.	❑	❑	❑	❑	❑

		Never	Rarely	Sometimes	Frequently	All the time
43.	I get confused at busy intersections.	❑	❑	❑	❑	❑
44.	I am good at glancing at a large area and quickly picking out several objects, such as in those hidden figure drawings in children's magazines.	❑	❑	❑	❑	❑
45.	I get anxious and block out everything on tests.	❑	❑	❑	❑	❑
46.	I can figure out how to respond to others just by looking at them.	❑	❑	❑	❑	❑
47.	I have tendency to get involved in a conversation and forget important things like a pot on the stove, or like leaving the motor running on the car.	❑	❑	❑	❑	❑
48.	It is easy for me to bring together ideas from a number of different areas.	❑	❑	❑	❑	❑
49.	Sometimes lights and sounds come at me so rapidly they make me lightheaded or dizzy.	❑	❑	❑	❑	❑
50.	People have to repeat things because I get distracted by my own irrelevant thoughts.	❑	❑	❑	❑	❑
51.	People pull the wool over my eyes because I fail to see when they are obviously kidding by looking at they way they are smiling or listening to their joking tone.	❑	❑	❑	❑	❑

		Never	Rarely	Sometimes	Frequently	All the time
52.	I can spend a lot of time just looking at things with my mind almost a complete blank except for the things that I see.	❑	❑	❑	❑	❑

APPENDIX B

SPORT COMPETITION ANXIETY TEST

ILLINOIS COMPETITION QUESTIONNAIRE
Form A

Directions: Below are some statements about how persons feel when they compete in sports and games. Read each statement and decide if you HARDLY-EVER, or SOMETIMES, or OFTEN feel this way when you compete in sports and games. If your choice is HARDLY-EVER, blacken the square labeled A, if your choice is SOMETIMES, blacken the square labeled B, and if your choice is OFTEN, blacken the square labeled C. There are no right or wrong answers. Do not spend too much time on any one statement. **Remember** to choose the word that describes how you *usually* feel when competing in sports and games.

		Hardly-Ever	**Sometimes**	**Often**
1.	Competing against others is socially enjoyable.	A ❑	B ❑	C ❑
2.	Before I compete I feel uneasy.	A ❑	B ❑	C ❑
3.	Before I compete I worry about not performing well.	A ❑	B ❑	C ❑
4.	I am a good sportsman when I compete.	A ❑	B ❑	C ❑
5.	Before I compete I worry about making mistakes.	A ❑	B ❑	C ❑
6.	Before I compete I am calm.	A ❑	B ❑	C ❑
7.	Setting a goal is important when competing.	A ❑	B ❑	C ❑
8.	Before I compete I get a quesy feeling in my stomach.	A ❑	B ❑	C ❑

9.	Just before competing I notice my heart beats faster than usual.	A ❑	B ❑	C ❑
10.	I like to compete in games that demand considerable physical energy.	A ❑	B ❑	C ❑
11.	Before I compete I feel relaxed.	A ❑	B ❑	C ❑
12.	Before I compete I am nervous.	A ❑	B ❑	C ❑
13.	Team sports are more exciting than individual sports.	A ❑	B ❑	C ❑
14.	I get nervous wanting to start the game.	A ❑	B ❑	C ❑
15.	Before I compete I usually get up tight.	A ❑	B ❑	C ❑

APPENDIX C

ROTTER'S INTERNAL-EXTERNAL

Instructions

Each item consists of a pair of alternatives lettered A or B. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Your answeres to this inventory are to be recorded on the answer sheet below. Be sure to find an answer sheet and circle the appropriate letter.

ROTTER'S SCORE SHEET

1.	A	B
2.	A	B
3.	A	B
4.	A	B
5.	A	B
6.	A	B
7.	A	B
8.	A	B
9.	A	B
10.	A	B
11.	A	B
12.	A	B
13.	A	B
14.	A	B
15.	A	B
16.	A	B
17.	A	B
18.	A	B
19.	A	B
20.	A	B
21.	A	B
22.	A	B
23.	A	B
24.	A	B
25.	A	B
26.	A	B
27.	A	B
28.	A	B
29.	A	B

ROTTER'S INTERNAL-EXTERNAL LOCUS OF CONTROL

1.a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.

2.a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.

3.a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.

4.a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.

8.a. Heredity plays the major role in determining one's personality.
b. It is one's experiences in life which determine what they're like.

9.a. I have often found that what is going to happen will happen.
9.b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10.a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

10.b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11.a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.

12.a. The average citizen can have an influence in govenrment decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.

13.a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14.a. There are certain people who are just no good.
b. There is some good in everybody.

15.a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.

16.a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17.a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
b. By taking an active part in political and social affairs the people can control world events.

18.a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck."

19.a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.

20.a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.

VITA

Terri L. Knecht

Candidate for the Degree of

Master of Science

Thesis: THE PSYCHOLOGICAL CHARACTERISTICS OF ELITE LEVEL WOMEN'S SOFTBALL PLAYERS

Major Field: Physical Education

Biographical:

Personal Data: Born in St. Joseph, Missouri, July 16, 1966, the daughter of Darrell G. and Caroline S.

Education: Graduated from Savannah Senior High School, Savannah, Missouri, in May 1984; received Bachelor of Science Degree in Physical Education from Pittsburg State University, May, 1989; completed requirements for the Master of Science degree at Oklahoma State University in July, 1991.

Professional Experience: Teaching Assistant, Department of Health, Physical Education, and Leisure, Oklahoma State University, August, 1988, to May, 1989.