THE RELATIONSHIP OF ADOLESCENT RISK-TAKING TO SELF-ESTEEM AND OTHER SELECTED VARIABLES

By

DENISE LYNN NOBIS MORRIS

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

1983

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
December, 1993

OKLAHOMA STATE UNIVERSITY

THE RELATIONSHIP OF ADOLESCENT
RISK-TAKING TO SELF-ESTEEM
AND OTHER SELECTED
VARIABLES

Thesis Approved:

Thesis Adviser

Dean of the Graduate College

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to so many people who provided help and encouraging words while working throughout my graduate program. I cannot say thank you enough to Dr. Beulah Hirschlein who spent her summer working diligently so that I could finish. Dr. Kay Murphy and Dr. Mona Lane, the other committee members, who gave so many supportive words and good advice. To Dr. Iris McPherson for all her help with the statistical program writing, thank you. Thank you to Pat Bowen for his expertise in word processing.

To the administration and students who participated in the study, I extend sincere thanks. Without their involvement, the study would not have been possible.

Finally to my husband Rick and my daughters Robin and Erin, thank you for your support and encouragement even when I was not around to be "mom" and "wife". To my parents Martin and Marilyn Nobis for the many hours of child care so I could go to class, thank you. Without all of you, this degree would not have been possible.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Adolescence is a time of growth and conflict for young people. Younger adolescents (12-14) are concerned with the physical changes in their bodies and fitting in with their peer group. Middle adolescence (15-17) is considered the most stressful period of the stage of adolescence (Harper & Marshall, 1991). Underlying much of this conflict is how teens perceive their own self or their self-esteem.

Self-esteem has been linked to many adolescent problems. Academic achievement, substance abuse, antisocial acts, adolescent pregnancy, suicide and other self-destructive behaviors have been linked to a person's self-esteem (Beane, 1991). Self-esteem programs in school settings are based on the theory that people, including young people, will not hurt themselves if they like themselves (Beane, 1991).

Risk taking behaviors among adolescents is a growing concern. What makes a person participate in risk taking behaviors? Finney (1978) stated that the American culture values success. Status, success, and risk are all part of American cultural values. A person who has fulfilled these cultural values, is viewed as more valuable than a person

who has not fulfilled the cultural values. Therefore, a person gains status by being successful in the risks he takes.

As discussed earlier, self-esteem has been linked to many adolescent problems. Can adolescent risk taking be a product of self-esteem? Wyatt (1990) hypothesized that persons with a high level of self-worth would be more likely to take risks. The results of his study showed that the hypothesis was not confirmed. In contrast to Wyatt's results, Josephs, Larrick, Steel, and Nisbett (1992) found that a person with a high self-esteem seemed to take more risks than a person with a low self-esteem.

Another aspect of risk taking focuses on which gender participates more actively in risk taking behavior. Much of the research suggests that males participate in more risk taking behaviors than females (Lyng, 1990; Levenson, 1990; Newcomb & McGee, 1991; and Thorson & Powell, 1990). However, Wyatt's (1990) research found that gender had no significant effect on risk taking behavior.

Problem Statement

For many years, self-esteem has been extensively researched as a construct that guides behavior (Grusec & Lytton, 1988; Kernis, Grannemann, & Barclay, 1992). Self-esteem is influenced by many things in the environment such as parents, media, school and peers. A person's level of self-esteem helped to make choices to participate in an

activity (Kernis, et al, 1992). Risk taking seems to be an activity that occurs in the presence of others. In fact, risk taking may be enhanced when others are present (Marzuk, Tardiff, Smyth, Stajic, & Leon, 1992).

Risk taking is an issue because of the waste of potential due to death or injury. Records from the Oklahoma Department of Public Safety (1993) showed that 25 persons between the ages of 14 and 21 years-of-age were killed on Oklahoma roads during January, February, and March of this year. Another 2,554 persons in that age group were injured. The report also noted that injuries from motorcycle accidents for 14 to 21 year olds numbered 24 and deaths 2. When drinking was involved, the number of deaths and injuries increased. Male drivers were involved in accidents more often than females (Oklahoma Department of Public Safety, 1993). The negative outcomes of such behaviors can be devastating. Expenses incurred by risk taking behaviors are passed on to the family and society. Fines, attorney fees, and jail terms are an example of these expenses.

Purposes and Objectives

The purpose of this research project is to determine if a relationship exists between adolescent risk taking and self-esteem. Do adolescents with a high self-esteem participate in risk taking behaviors less often than adolescents with a low self-esteem?

This study will focus on the following objectives: 1) to determine if the level of self-esteem varies with risk taking behaviors, and 2) to examine relationships between demographic variables such as age, gender, family structure, number of children in the family, birth order, and academic achievement and risk taking behaviors.

Hypotheses

The hypotheses for this study are as follows:

1. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their scores on Coopersmith's Self-Esteem inventory.
2. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their age.
3. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their gender.
4. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their family structure.
5. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and the number of siblings in the family.

6. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and birth order.
7. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their self-reported grade point averages.

Assumptions

The assumptions concerning this study are:

1. The subjects responded truthfully to the questionnaires.
2. The instruments measured the constructs under consideration.
3. The subjects participated voluntarily.
4. The influence of social desirability was minimized by procedures which protected confidentiality.

Limitations

This study did not involve a random sample of students. The students at the high school are mostly a white population. Minorities are confined to one black student and eight foreign exchange students. Therefore, results of this study may not be generalized to other populations.

Definitions

Thorson & Powell (1989) defined risk taking as an "expression of personality traits that influence an individual's behavior beyond situational variables."

Risk taking behaviors as used in this study define behaviors that have a consequence that could cause injury or death or entail a fine of money or a jail term (Lyng, 1990). Examples of such behaviors include fast driving, sky diving, riding motorcycles or using drugs. An extreme example of such a behavior would be Russian roulette. Thorson and Powell (1987) used the term lethal behaviors instead of risk taking behaviors in their research.

Sensation seeking is defined by Zuckerman (1984) as a biologically based dispositional variable that reflects individual differences in optimal levels of arousal. Sensation seeking therefore, is a trait that a person exhibits and should not be considered a synonym for risk taking.

Harper and Marshall (1991) defined adolescence as the developmental period of transition from dependent childhood to self-sufficient adulthood.

Many definitions exist for self-esteem. This study will use Coopersmith's (1981) definition as the individual's feeling of personal worth and evaluative attitude toward self in social, academic, family, and personal areas of experience.

Summary

Chapter I has provided an introduction to the topic to be investigated, including a statement of the problem, purposes and objectives of the study, hypotheses, assumptions, limitations, and definitions.

A review of literature is presented in Chapter II that pertains to risk taking, risk taking and age, risk taking and gender, risk taking and family structure, risk taking and self-esteem and risk taking and academic achievement.

The research design used in this study including selections of the sample and instrumentation is described in Chapter III.

Chapter IV presents an analysis of the data and results obtained during the study. An explanation of the data is also included in this chapter.

A summary of the study is contained in Chapter V. Recommendations for further study of this subject are also described in this chapter.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The chapter begins with a perspective of risk taking as described by various researchers. The review of literature includes five areas related to the study. The review contains a discussion of risk taking, risk taking and age, risk taking and gender, risk taking and family structure, risk taking and self-esteem, and risk taking and academic achievement. The chapter concludes with a summary of the literature.

Risk Taking

Risk taking ... What is it? According to Levenson (1990), risk taking is defined as "any purposive activity that entails novelty or danger sufficient to create anxiety in most people."

Many people actively seek experiences that involve a high potential for injury or death (Lyng, 1990). Examples of such activities include hang gliding, sky diving, scuba diving and mountain climbing. These are but a few of the sport activities that fall into the risky behavior category. Illicit drug use, Russian roulette, and driving fast are

also considered risky behaviors (Marzuk, et al., 1992; Thorson & Powell, 1990).

Lyng (1990) in his research on voluntary risk taking or "edgework" found that many people participate in these behaviors. He described edgeworkers as people who have a high regard for their abilities to deal with danger. According to Lyng (1990) edgework centers on a person's ability to maintain control of a situation that is almost chaotic.

Arnett (1989) described his theory of adolescent risk taking behavior as a combination of adolescent egocentrism and sensation seeking. His observations came from two studies concerning adolescent drunk driving and adolescent sexual intercourse. In the drunk driving study, Arnett found that adolescents who had driven while drunk and not had an accident perceived their chances of having an accident as low. The sexual intercourse study mirrored the results of the drunk driving study. Adolescents who had experienced sexual intercourse without contraception and not experienced a pregnancy were more likely to repeat the behavior. The results showed that these adolescents perceived a lower risk than adolescents who had not participated in the above mentioned activities (Arnett, 1989).

Sorrentino, Raso-Knott, and Hewitt (1992) sought to explain risk taking in games of chance and skill. They

found that monetary payoffs increased caution in risk taking for all persons.

In a later article by Arnett (1991), he related heavy metal music to reckless behavior in adolescents. Arnett (1991) found that boys and girls who listened to heavy metal music were more likely to have casual, unprotected sex; have higher drug usage and have a higher capacity for sensation seeking. Girls who liked heavy metal music reported a lower self-esteem than their peers (Arnett, 1991). Arnett cautioned readers about concluding that heavy metal music causes the problems in the study. He concluded by saying that many adolescents follow their impulses to whatever feels good and because in part they enjoy reckless behavior (Arnett, 1991).

Lightfoot (1989) proposed that adolescent risk taking with friends helps to create a "bond" between friends and define the boundaries of a friendship group. Her study focused on 30 adolescents defined as "close" friends. Each was a member of a discrete friendship group. The data indicated that adolescents perceived risk taking as a means for creating private experiences and shared knowledge specific to their friendship group (Lightfoot, 1989).

Newcomb and McGee (1991) assessed persons over a five year period from adolescence to young adulthood using Zuckerman's Sensation Seeking Scale. The adolescents were first surveyed in high school, grades 10 to 12, to determine participation in deviant behaviors and the impact of

sensation seeking on these behaviors. The adolescents were surveyed again when they were in grades 11 or 12 and four years later when they were in their early 20's. Newcomb and McGee (1991) found that sensation seeking and general deviance declined as the person grew towards adulthood.

The relationship between cocaine use and risk taking was studied by Marzuk, et al. in 1992. They found that cocaine use and the risk taking behavior of Russian roulette were linked. Marzuk, et al. (1992) also found that risk taking behaviors were enhanced by the presence of others. In other words, risk taking behaviors were more likely to occur if peers were present.

The following questions emerged after reviewing the literature on risk taking. What characteristics does a risk taker possess? Is risk taking used as a bonding experience between friends in friendship groups? Do adolescents participate in risk taking behaviors because their perception of the consequences has been minimized? The remainder of the chapter is focused on risk taking as it is related to the variables of age, gender, family structure, academic achievement and self-esteem.

Risk Taking and Age

According to Thorson and Powell (1989, 1990), young persons were found to have more risk taking behaviors. Adolescence is a time where peer groups become important as reference points (Grusec & Lytton, 1988). Pressure from

peers may be one factor that causes young persons to take risks. Newcomb and McGee (1991) found in their study that lasted over a five year period the incidents of sensation seeking went down as the person reached young adulthood. This factor of risk taking and age is very apparent in the automobile insurance industry as premium rates go down as the individual ages.

Steinberg (1993), studied adolescent risk taking as a decision making process. Each individual evaluates consequences of an action differently. Adolescents may evaluate the consequences of risky behaviors as "worth it".

Furby and Beyth-Marom (1990) also looked at adolescent risk taking from a decision making perspective. Their review of literature found that little is known about adolescents' ability to make decisions. The decisions adolescents make need to be researched further before conclusions can be drawn. Furby and Beyth-Marom (1990) also stated that there is little evidence that adolescents engage in risky behavior more often than adults.

Arnett (1989) found that scores on measures of sensation seeking declined with age. By the time a person reaches young adulthood, the sensation seeking trait has declined considerably from adolescence. A second factor of Arnett's (1989) study found that if a person engaged in risk taking behavior long enough, that person would suffer the consequences. For example, by the time a person reached

young adulthood they may have gotten a ticket for drunk driving.

Risk Taking and Gender

There are numerous studies that have found that there is a gender difference involved in risk taking. In all studies, males were found to be the bigger risk takers (Arnett, 1991; Miller, 1990; Thorson & Powell, 1987, 1989, & 1990). Thorson and Powell (1989) found that in their study of 535 university students, men were significantly higher in both lethal behaviors and sensation seeking.

In an article on the big (t) thrill personality, Miller (1990) stated that in general, men are more apt than women to take physical risks. She stated that some scientists have hypothesized that the hormone testosterone has an effect on risk taking. Men produce more testosterone than women do.

Wyatt (1990) studied a group of undergraduate students to determine risk taking and risk avoiding behavior with gender being one of the variables. Even though there was some evidence supporting the argument that males take more risks than females, Wyatt found that for most of the questionnaire, gender was not a significant factor.

Risk Taking and Family Structure

Little information was found on the relationship of family structure and risk taking. There is a wealth of

information concerning family structure and socialization (Thomson, McLanahan, & Curtin, 1992), family structure and substance use (Flewelling & Bauman, 1990), and family structure and intercourse (Flewelling & Bauman, 1990; Young, Jensen, Olsen, & Cundick, 1991). Studies relating to family structure and academic achievement (Zimiles & Lee, 1991) and family structure and self-esteem (Barber, Chadwick, & Oerter, 1992) are also present in the literature. Since many of these variables may have an impact on risk taking behaviors, they will be reviewed in this section.

Family Structure and Socialization

Thomson, et al. (1992) studied intact families, single-parent families and step-parent families as to socialization of children. Even though differences were small, children not living with their two original parents exhibited more problem behaviors and lower attainments. Children in single-parent families have the lower attainments and are more likely to engage in problem behaviors (Thomson, et al., 1992).

Family Structure and Substance Use

Adolescent substance use has been linked with family structure in several studies (Flewelling & Bauman, 1990; Melby, Conger, Conger, & Lorenz, 1993). Melby, et al. (1993) found that adolescent tobacco use was determined by parenting styles and sibling tobacco use. Older siblings

who used tobacco influenced younger siblings to use tobacco. Parents who had harsh, inconsistent parenting behaviors had adolescents that used tobacco products (Melby, et al., 1993).

Flewelling and Bauman's (1990) research on family structure and substance use determined that children who lived in a single parent household were more likely to smoke cigarettes. The family environment is important in determining substance use in early adolescence.

Manners and Smart (1992) found that family structure did not have as much influence on alcohol use as it did on sexual intercourse. Using alcohol was associated with race. White students were more likely to use alcohol than black students. These findings were from a six-year longitudinal study which focused on family structure, sexual experience and alcohol use. The findings for sexual experience will be reported in the next section.

Family Structure and Intercourse

The age for first time intercourse is continuing to drop. In 1988, four percent of twelve-year-olds reported that they were sexually active (McCoy, 1988). Young et al. (1991) found that for both males and females a two parent family lowers the entry into sexual experience. The research also indicated that teenagers from single-parent homes had a higher frequency of intercourse than teenagers in two-parent homes. These findings were again found to be

true in Flewelling and Bauman's (1990) research on family structure as a predictor of adolescent sexual intercourse. Step-parent families and single-parent families had adolescents who reported higher incidents of sexual behavior (Flewelling & Bauman, 1990).

As indicated earlier, Manners and Smart (1992) found that family structure was associated with sexual intercourse. Girls from single-parent families were more likely to engage in sexual intercourse. Traditional families had the highest proportion of virgins with blended families next.

Parental influences on adolescent sexual behavior are believed to delay sexual intercourse (Brooks-Gunn & Furstenberg, 1989). Poor communication between parents and teens indicated the likelihood of earlier initiation of sex, smoking and drinking. Parental supervision was also found to be associated with later onset of intercourse. Teens from single-parent households were more likely to have engaged in sexual intercourse (Brooks-Gunn & Furstenberg, 1989).

Family Structure and Academic Achievement

A longitudinal study conducted by Zimiles and Lee (1991) used data gathered from 58,000 high school students during their sophomore and senior years. Achievement test scores for intact families were higher than for single or

step-parent families. Students from single-parent families scored the lowest.

Steinberg, Elman, and Mounts (1989) studied parenting styles and academic achievement. They found that authoritative parenting facilitated an adolescents' academic success. Adolescents surveyed in the study had to describe their parents parenting style. Those adolescents who described their parents treatment of them as warm, democratic, and firm were more likely to do better in school.

Cherian (1990) studied the relationship of broken and intact families and academic achievement. An ANOVA of the data showed that academic achievement for both boys and girls decreased as their family size increased. Children in small families out performed those in large families.

Hanushek (1992) again showed that being in a small family favored higher academic achievement. The data also showed that birth order in small families had a minor effect on performance but in large families birth order had a more severe effect on performance. The first born and last born children of a large family had a greater advantage over middle children in the family because of the amount of attention received from the parents. Older children and youngest children received more attention because the family is smaller at those times in the life cycle.

Family Structure and Self-Esteem

In a study by Barber, et al. (1992), parental support and controlling behaviors were associated with adolescent self-esteem. The study looked at parental behaviors and self-esteem in families living in the United States and Germany. Barber et al. (1992) found that for United States parents there was a significant association between parental support and controlling behaviors and adolescent self-esteem. This finding was not significant for German parents which indicated a difference in socialization patterns.

In a study of rural teens, Hall and Rowe (1991) found that adolescent self-esteem is influenced more by discord within the family rather than family structure. Self-esteem scores obtained by using the Coopersmith Self-Esteem Inventory (SEI) were analyzed by family type. The family types analyzed were two parent, single-parent, and step-parent. Self-esteem scores approached statistical significance when comparing teens from step-parent and two-parent families. Self-esteem scores were higher for two-parent families. The SEI gives a total self-esteem score, and is further subdivided in subscales: general, social, home, and school. The sub-scale of home on the SEI showed that mean scores were lower for teens with step-parent families than the other two family types (Hall & Rowe, 1991).

Risk Taking and Self-esteem

As mentioned earlier, self-esteem has been related to academic achievement, substance abuse, anti-social acts, adolescent pregnancy, suicide, and other self-destructive behaviors. Self-esteem curriculum is found in most schools and other adolescent extra-curricular activities.

Self-esteem is thought to plunge during the time of adolescence which is considered a stressful time for most teenagers (Harper & Marshall, 1991).

Research of gender differences in self-esteem usually find that girls have a lower self-esteem than boys (Arnett, 1991; Harper & Marshall, 1991). Arnett (1991), in his study of heavy metal music and reckless behavior, found that girls who listened to heavy metal music reported lower self-esteem than boys who listened to heavy metal music. The girls also had higher incidence of reckless behavior such as shoplifting, vandalism, sexual behavior, and drug use.

Harper and Marshall (1991) surveyed 209 ninth grade students to discover if there is a difference between gender and self-esteem. They found that girls reported a significantly lower self-esteem than boys.

Wyatt (1990) hypothesized that persons with a high self-esteem would take more risks than persons with a low self-esteem. However, his study of university students found that this hypothesis was not supported. Wyatt (1990) concluded that self-esteem is not a predictor of risk taking

behavior but may influence the risk taking behavior when the outcome is under a person's control.

Lyng's (1990) work on the concept of edge-work determined that those who engage in high risk experiences have a personality that seeks high sensation activities. This sensation seeking personality may have a higher arousal level which edgeworkers attempt to reach through risky situations (Miller, 1990).

This section concludes with a study by Josephs, et al. (1992) that suggests that low self-esteem people are much more concerned about protecting their self-esteem than persons with a high self-esteem. Josephs, et al. also found that if a person's self-esteem is threatened, low self-esteem people take fewer risks than high self-esteem people. High self-esteem people see the world as full of opportunities whereas low self-esteem people see the world as a place that can humiliate and depress.

Risk Taking and Academic Achievement

The literature search found no articles specific to the area of risk taking and academic achievement. Therefore this section of the literature review focused on self-esteem and academic achievement and risk taking and self-esteem to see if there is a relationship between the variables.

As stated earlier, persons with a low self-esteem take fewer risks than a person with a high self-esteem (Josephs, et al. 1992). Harper and Marshall (1991) also found in

their survey of ninth grade students that girls with low self-esteem had higher levels of problems with home and family. Boys with low self-esteem had problems in the area of social and psychological relations.

Arnett (1991) determined that girls who listened to heavy metal music had higher incidence of shoplifting, vandalism, sexual behavior and drug use. Boys reported high incidence of drunk driving, marijuana use and casual sex. Girls in Arnett's (1991) study also reported lower self-esteem.

The argument of self-esteem and academic achievement found that an adolescents' self-esteem can be affected if academic achievement is important to them (Santrock, 1993). Adolescents had the highest level of self-esteem when they were successful in activities that were important to them.

This researcher hypothesized that there is no relationship between risk taking and academic achievement.

Summary

The review of literature included information on risk taking and its relationship to the following variables: age, gender, family structure, number of children in the family, birth order, self-esteem, and academic achievement.

Risk taking appeared to decrease as a person reached adulthood. If a person engaged long enough in a risk taking behavior, they would eventually suffer the consequences. As a person reached adulthood, the sensation seeking trait

decreased. An adult no longer had as high a sensation seeking trait and therefore participated in less risk taking behavior.

In most of the research, males were found to take more risks than females. One explanation may be linked to the hormone, testosterone, which males produce more of than females. Our society also places males in an aggressive role. Males are expected to be the aggressor which may explain why they take more risks than females.

It was not clear from the literature if family structure had a direct relationship to risk taking. Family structure did have a link to substance use and sexual intercourse which are risk taking behaviors. Adolescents from intact families had less incidence of substance use and sexual intercourse. Students from intact families also had the highest achievement scores. The research then indicated that the size of a family and birth order had an affect on achievement. Smaller families had students with higher achievement scores and first born and last born children had advantages over middle children on academic tests.

Research was mixed on the issue of self-esteem and risk taking. In one study, girls who reported having a low self-esteem engaged in risk taking behaviors such as shoplifting, vandalism and sexual behavior. Boys who participated in risky behaviors such as drug use, drunk driving, and casual sex did not report a low self-esteem. Self-esteem may have

an influence on risk taking and not be a predictor of risk taking.

No literature was found that specifically addressed risk taking and academic achievement. The researcher hypothesized that there is no relationship between risk taking and academic achievement.

Chapter III describes the research design for this study, the participants in the study, the instruments used, the method of collecting data, and the analysis of the factors.

CHAPTER III

METHODOLOGY

Introduction

The topic addressed in this study was the relationship of risk taking behavior to age, gender, family structure, number of siblings in the family, birth order, self-esteem, and academic achievement. The data presented in this study describe the adolescents' self-evaluation of self-esteem and their tendency to participate in risk taking behaviors. The data also document any gender differences as related to the above stated variables as well as each variable's relationship to risk taking.

A null hypothesis was formed for risk taking and each of the variables. This chapter describes the research design used in this study. Included are discussions of the hypotheses, instrumentation, selection of the subjects, procedures for collecting data, and statistical analyses.

Research Design

This study was designed to collect information regarding adolescents and risk taking behavior. The risk taking characteristics of students in one northwest Oklahoma high school were examined.

The research method used for this study can be classified as descriptive research. Best & Kahn (1989) stated that descriptive research has the following characteristics: 1) is non-experimental, 2) deals with the relationships between variables, 3) tests hypotheses, and 4) develops generalizations, principals, and theories that have universal validity.

The information collected in this study can be used to help teachers, parents and others associated with adolescents to better understand them. Knowledge gained can be used in future research and for recommendations in planning prevention programs.

The data for this study consisted of adolescents' self-reported assessments of self-esteem and risk taking behaviors. The research design included analyzing the relationships of these data.

Coopersmith (1981) defined self-esteem as the evaluation a person makes of himself, a personal judgment of worthiness. This evaluation usually remains consistent over a period of time but short-lived changes can and do occur.

Risk taking behavior as described by Thorson and Powell (1987) include an individual's orientation to danger, orientation toward bravery and adventure, thrill seeking, and safe or unsafe habits.

Hypotheses. The study examined the following hypotheses:

1. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their scores on Coopersmith's Self-Esteem Inventory.
2. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their age.
3. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their gender.
4. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their family structure.
5. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and the number of siblings in the family.
6. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and birth order.
7. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their self-reported grade point average.

Instrumentation

This research project utilized questionnaires as the method of collecting data. Questionnaires are generally used to obtain information concerning individual's perceptions and behaviors. Instruments used in this research included a background information sheet regarding age, gender, grade in school, family structure, and grade point average; the Coopersmith Self-Esteem Inventory (SEI) (Coopersmith, 1981); and the Lethal Behaviors Scale (LBS) (Thorson & Powell, 1987). Permission to use the SEI and the LBS was obtained from the appropriate sources. Correspondence can be found in Appendix A. Copies of these instruments may be found in Appendix B.

Coopersmith Self-Esteem Inventory. The instrument used to determine self-esteem was designed by Stanley Coopersmith (1981). The adult form of the SEI was used in this study. The Adult form of the SEI was adapted by Coopersmith from the School Short form and is intended for use with persons 15 years of age and older. The Adult SEI contained 25 items for which the respondent answered "like me" or "unlike me". Each time a response corresponded with the scoring key a value of 1 is recorded. The total of corresponding answers was then multiplied by 4 for a total score. The higher the score, the higher the self-esteem. The possible scores range from 0-100. Reliability scores for the SEI instrument range from .70 to .88 (Coopersmith, 1981). This reliability

score refers to the student form of the instrument. The SEI instrument proved to be a valid instrument for measuring self-esteem. When scores were correlated with the Lorge-Thorndike Intelligence Test, the obtained coefficient was .30 (Coopersmith, 1981).

Lethal Behaviors Scale. The Lethal Behaviors Scale (Thorson & Powell, 1987) focused on dangerous behaviors in which people engage. When the Lethal Behaviors Scale was given to 399 adolescents and adults, four principal factors emerged. These principals were: orientation toward danger and violence, bravery and adventure, thrill seeking and fast driving, and safe or unsafe habits (Thorson & Powell, 1987). The Cronbach alpha reliability for the scale is .622 (Thorson & Powell, 1990).

The Lethal Behaviors Scale consisted of 21 items. The items were given values of 1-3. A score of 1 indicated a safe response, a score of 2 indicated a neutral or skipped response and a score of 3 indicated a dangerous response (Thorson & Powell, 1987). The possible range of scores for the Lethal Behaviors Scale was 21 to 63, with the higher score indicating more lethal behavior (Thorson & Powell, 1990). Six questions on the scale dealt with the subject of driving.

A copy of the instruments and instructions for administering them were submitted to the Institutional Review Board at Oklahoma State University. The Board

approved the use of the questionnaires with human subjects. A copy of the approval form may be found in Appendix C.

Population and Sample

The subjects for this study consisted of students who were enrolled at one northwest Oklahoma high school. The size of the school is 2A as classified by the Oklahoma Secondary School Activities Association a designation applied to schools with enrollments from 210 students to 353 students. Student enrollment for the high school used for the survey was 272.

For convenience, a non-random sample was used. All students enrolled at the school were asked to participate. The students were surveyed during English classes since all students are required to take the course. Students in honors English classes, regular English classes and one Special Education English class were given the questionnaire. Three classes of Special Education were excluded because of a time restraint. Approximately eight students make up those three classes. The number of students absent for that day totaled five. Twenty-one other students could not participate because of other tests that had to be administered during their English class time. One international student elected not to take the survey because of a language barrier. A total of 238 responses (87.5%) were received. Sixty-seven students surveyed were later excluded because of not possessing a driver's license or

permit which prevented them from answering six items on the LBS. The number of usable surveys was 171.

Data Collection

An appointment was made with the principal of the high school to explain the nature of the study and to ask permission to survey the students. The school counselor was included in the discussion since she had access to the teachers and students class schedules in her office and the principal thought she would be a help to the researcher.

Each of the teachers who taught English was asked if their class could participate in the study. All of the teachers agreed to this. A time was set up with each teacher during the nine weeks test schedule, May 20 and 21, 1993. Nine weeks tests are given on two days. Even hour classes tests were given on Thursday and odd hour classes were given on Friday. Surveying of the students took place on the hours when tests were not given. Three of the English classes took the survey on Wednesday to accommodate the researcher's schedule.

After the scheduling was completed, each teacher was given a time schedule, an explanation of the surveys, and a copy of the surveys.

The researcher conducted the surveying of the students. Each class was told by the teacher that the researcher would be there that day. All classes were read the same script and instructions with emphasis placed on not writing their

names on the surveys. The total length of time in the classroom was no longer than 20 minutes. The class was thanked for their participation and the completed surveys were placed in a locked filing cabinet. As stated earlier, a copy of the instruments completed by the students may be found in Appendix A.

Letters were sent to administrators thanking them for participating in the project. Thank you cards were sent to the instructors after the surveys had been completed.

Analysis of Data

Once the surveys had been completed by the students, the scores were calculated for the Thorson Lethal Behaviors Scale and the Coopersmith Self-Esteem Inventory. Scores were recorded in spaces provided on the instruments. The scores were then rechecked for accuracy. The data were then entered into the computer from the surveys using the Conversational Monitor System (CMS) in the Oklahoma State University computer lab. The data were again checked for accuracy.

Once all data had been entered into the computer and checked, analyses of the data were done with the help of the SAS (1990) computer program.

Drew and Hardman (1985) outlined the characteristics for the four types of descriptive data. Nominal data have numbers assigned to them to distinguish one object from another. Nominal data can be counted. Ordinal data can

tell a direction of difference. The ranks denote "greater than" or "less than." Interval data possess all the properties of ordinal and nominal data and have the ability to determine the magnitude of a difference. The data obtained in this study fit the criteria for interval data.

Pearson Correlation Coefficient

Pearson correlations can be used with either interval or ratio data. The Pearson product-moment correlation *r* is a popular technique to use because it provides a stable estimate of relationship (Drew & Hardman, 1985).

The Pearson *r* is the most commonly used correlational technique. The Pearson r has limits of +1 to -1. For a value of +1 the relationship is perfect and positive. For a value of -1 the relationship is perfect, but negative. A negative correlation means that high scores for one variable are associated with low scores of another variable. The sign indicates the direction of the relationship. The closer the value is to 1, the stronger the relationship. The closer the value is to 0, the weaker the relationship. If the correlation is 0, there is no relation at all between the variables. Correlations were computed for the total scores on the Thorson Lethal Behaviors Scale and the total scores on the Coopersmith's Self-Esteem Inventory. The correlation coefficient was also used to examine an association between the individual factor scores within the

Thorson Lethal Behaviors Scale and total scores on Coopersmith's Self-Esteem Inventory.

Chi-Square Analysis

The chi-square analysis can be used with nominal or ordinal data. It tests the independence of a variable, the idea that one variable is not affected by, or related to, another variable (Best & Kahn, 1989). The chi-square analysis is a non-parametric test with no underlying assumptions. The chi-square analysis was used to examine the relationship of each item on the Thorson Lethal Behaviors Scale (LBS) with each of the seven background variables. Scores on the LBS were arbitrarily assigned to two categories: high (38 or above) and low (0 to 37). Two categories for each of the background variables were established. Additional categories were more narrowly established for family structure and grade point averages.

T-Test

A t-test is a parametric statistical analysis used for comparing two means (Drew & Hardman, 1985). This test uses the means of the two groups to determine any significant differences between the groups.

Assumptions for the t-test are as follows:

1. scores must be interval
2. scores must be independent
3. populations are normally distributed

4. populations must have the same variance

The population used in this study was not a random sample. Because the t-test is robust, it is appropriate to use even when some assumptions are violated (Best & Kahn, 1989). The t-test was conducted to compare male and female scores on the Lethal Behaviors scale (total) and the male and female scores on each of the Lethal Behaviors Scale factor scores.

Data Analysis Plan

A data analysis plan for this study is summarized in Table I. The table includes the hypotheses, the questionnaire items from the two instruments used to test each hypothesis, and the statistical procedure used to test each hypothesis.

Table I

SUMMARY OF DATA ANALYSIS PLAN

Hypothesis	Questionnaire Items	Statistical Test
1. There is no relationship between scores on Thorson's LBS and scores on Coopersmith's SEI.	Thorson's LBS (total) with Coopersmith's SEI	Pearson *r*
	Thorson's LBS factors[a] with Coopersmith's SEI	Pearson *r*

Table I (Continued)

Hypothesis	Questionnaire Items	Statistical Test
2. There is no relationship between scores on Thorson's LBS and age.	Thorson's LBS (total) and age	Chi-square
	Thorson's LBS factors[a] and age	Chi-square
3. There is no relationship between scores on Thorson's LBS and gender.	Thorson's LBS (total) and gender	Chi-square t-Test
	Thorson's LBS factors[a] and gender	Chi-square t-Test
4. There is no relationship between scores on Thorson's LBS and family structure.	Thorson's LBS (total) and family structure	Chi-square
	Thorson's LBS factors[a] and family structure	Chi-square
5. There is no relationship between scores on Thorson's LBS and number of siblings in the family.	Thorson's LBS (total) and number of siblings in the family	Chi-square
	Thorson's LBS factors[a] and number of siblings in the family	Chi-square
6. There is no relationship between scores on Thorson's LBS and birth order.	Thorson's LBS (total) and birth order	Chi-square
	Thorson's LBS factors[a] and birth order	Chi-square
7. There is no relationship between scores on Thorson's LBS and academic achievement.	Thorson's LBS (total) and academic achievement	Chi-square
	Thorson's LBS factors[a] and academic achievement	Chi-square

[a]Thorson's LBS Factor I includes questions 1, 3, 9, 11, 14, 17, and 18.
Thorson's LBS Factor II includes questions 2, 4, 13, 19, and 21.
Thorson's LBS Factor III includes questions 6, 7, 8, 12, 15, and 20.
Thorson's LBS Factor IV includes questions 5, 10, and 16.

Summary

Chapter III included information on the research design including the hypotheses, instrumentation, data collection, population and sample, and methods of data analysis. Chapter IV will explore the results of the data analysis.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to determine if a relationship existed between adolescent risk taking and self-esteem. The objectives of this study were 1) to determine if the level of self-esteem varies with risk taking behaviors, and 2) to examine relationships between demographic variables such as age, gender, family structure, number of siblings in the family, birth order, and academic achievement, and risk taking behaviors. This chapter describes the demographic characteristics of the population, discusses the analyses of the data, and presents conclusions.

Description of Respondents

A non-random group of 171 students from one northwest Oklahoma high school comprised the sample. The total population of the school was 272 students. Freshmen, sophomores, juniors, and seniors participated in the study. Based on the classification guidelines of the Oklahoma Secondary School Activities Association, the school is

considered a class 2A school. Enrollment size for class 2A can range from 210 students to 353 students. All students were asked to participate in the study. Of the 272 students, 8 students in Special Education classes were excluded, 5 students were absent, and 21 other students were taking other tests during the time of the surveying. The total number of students who participated in the study was 238. Sixty-seven students surveyed were later excluded because of not possessing a driver's license or permit. One questionnaire failed to supply a birth date and grade point average so was excluded from those analyzed.

Demographic characteristics of the sample are summarized in Table II. The sample consisted of 52.0% males (n=89) and 48.0% females (n=82). Freshmen accounted for 2.9% of the sample, 33.9% were sophomores, 32.7% were juniors, and 30.4% were seniors. See Table II for an explanation of the seven demographic variables.

The ages of the respondents ranged from 15 years and 6 months to 19 years and 6 months of age with 39.2% of the students at age 16 years and 11 months and below. Family structure of the respondents showed that 59.6% came from two-parent families; 40.4% of the respondents came from all other categories.

TABLE II

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

N=171

Demographic Characteristic				Frequency	Percent	Cumulative Percent
Grade						
9				5	2.9	2.9
10				58	33.9	36.8
11				56	32.7	69.6
12				52	30.4	100.0
Age						
Yrs	Mos	Yrs	Mos			
15	6	15	11	14	8.2	8.2
16	0	16	11	53	31.0	39.2
17	0	17	11	56	32.7	71.9
18	0	18	11	42	24.6	96.5
19	0	19	6		3.5	100.0
Gender						
Male				89	52.0	52.0
Female				82	48.0	100.0
Family Structure						
Single				24	14.0	14.0
Two-Parent				102	59.6	73.7
Guardian				7	4.1	77.8
Parent/Step				29	17.0	94.7
Other				9	5.3	100.0
Children in Household						
One				37	21.6	21.6
Two				55	32.2	53.8
Three				47	27.5	81.3
Four/More				32	18.7	100.0
Birth Order						
Oldest				69	40.4	40.4
Next to Oldest				12	7.0	47.4
Middle				26	15.2	62.6
Next to Youngest				7	4.1	66.7
Youngest				48	28.1	94.7
Only				9	5.3	100.0

TABLE II (Continued)

Demographic Characteristic	Frequency	Percent	Cumulative Percent
GPA			
4.01 & higher	5	2.9	2.9
3.51 -4.0	38	22.2	25.1
3.01 -3.50	52	30.4	55.6
2.51 -3.0	40	23.4	78.9
2.01 -2.50	29	17.0	95.9
1.51 -2.0	6	3.5	99.4
1.01 -1.50	1	.6	100.0

The number of children living in the household at the present time were: one child (21.6%), two children (32.2%), three children (27.5%), and four or more children (18.7%). Birth order of the respondents showed that 40.4% were the oldest children, 26.3% were middle children, and 28.1% were the youngest children. Only children made up 5.3% of the sample.

Self reported grade point averages revealed that 55.6% of the students reported a grade point average of 3.01 or higher.

Findings

Risk taking scores on the Lethal Behaviors Scale were hypothesized to have no relationship with the variables of age, gender, family structure, number of children in the family, birth order, academic achievement, and scores on the

self-esteem inventory. The following section describes the relationships found between risk taking and the variables stated above.

Risk Taking and Age

Results of the chi-square analysis indicated that age was not significantly related to risk taking. When comparing students total scores on the LBS to risk taking, 67% of the students age 15 years and 6 months to 16 years and 11 months were among the higher scoring students on the LBS and 65% of the students age 17 years to 19 years and 6 months had high scores of 37 or above. Table III outlines the chi-square analysis for the Lethal Behaviors Scale Scores and age.

TABLE III

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND AGE

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	1	.519	.471
LBS Factor I	1	.642	.423
LBS Factor II	1	.000	.985
LBS Factor III	1	.252	.616
LBS Factor IV	1	.163	.686

Risk Taking and Gender

As stated in Chapter II, research showed that risk taking was highly associated with gender. Males took more risks than females. Table IV illustrates male and female risk taking behaviors according to scores on Thorson's Lethal Behaviors Scale.

TABLE IV

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND GENDER

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	1	48.385	.001
LBS Factor I	1	39.824	.001
LBS Factor II	1	15.030	.001
LBS Factor III	1	12.798	.001
LBS Factor IV	1	30.281	.001

Males were much higher than females in risk taking behaviors. Males comprised 52.0% of the population and 89.8% of males had Lethal Behaviors Scale scores that were considered high. A high score for the Lethal Behaviors Scale was above 37. Forty percent of the females had Lethal Behaviors Scale scores that were considered high. Gender

was significantly associated with all four Lethal Behaviors Scale factors.

Factor I of the LBS was also associated with gender. Factor I is a general orientation toward danger. This factor includes activities such as a preference for violence in TV and movies, experimentation with dangerous drugs, a greater likelihood to attempt hang gliding or sky diving, and a greater tendency to own a motorcycle or a gun. Seventy-nine percent of all the males participating in the study scored in the high range on orientation toward danger. The females were almost equally divided with 56% of the females scoring in the high range and 44% of the females scoring in the low range.

Gender was significantly associated with Factor II, orientation toward bravery. Factor II included activities such as intervening in a crime, and preference for activities such as mountain climbing and cave exploration. Again, males (67%) were the greater risk takers. Only 38% of the females said that they would participate in risk taking behaviors that were oriented toward bravery.

The third factor deals with thrill seeking activities. Activities such as fast driving and more frequent automobile accidents are clustered in this factor. Again, gender was significantly associated with this factor. The males (75%) were more likely to participate in thrill seeking activities compared to 49% of the females.

Analysis of Factor IV showed that males (91.0%) were more likely to participate in unsafe habits. Females again were almost equally divided with 53.6% of females participating in unsafe habits.

A t-test was also used to analyze risk taking and gender. Results of the t-test are shown in Table V.

TABLE V

RESULTS OF t-TEST FOR DIFFERENCES BETWEEN LETHAL BEHAVIORS SCALE SCORES BY GENDER

Scores	N[a]	df	Mean	Std. Dev.	Probability
LBS Scores	89	157.2	42.2	4.8	.001
	82	169.0	34.5	5.8	.001
LBS Factor I	89	163.7	11.1	2.0	.001
	82	169.0	8.4	1.5	.001
LBS Factor II	89	152.9	12.4	2.1	.001
	82	169.0	10.5	2.7	.001
LBS Factor III	89	162.0	12.6	2.4	.002
	82	169.0	11.0	2.7	.002
LBS Factor IV	89	167.8	6.0	1.6	.001
	82	169.0	4.4	1.6	.001

[a]For each score, the first N represents males and the second N represents females.

Risk Taking and Family Structure

Chi-square analysis of risk taking and family structure showed no significant relationship on the total LBS score. Students of all family structures were equally divided

between high and low risk taking behaviors. Family structure had no relationship to three of the four factors on the Lethal Behaviors Scale. Students were assigned to family structure categories in two different ways. First, two groups were used to determine if those who lived in two-parent families were different from those who lived in families of other types. Secondly, three groups were identified to determine if there were differences among those who lived in two-parent families, those who lived in single-parent families, those who lived in step-parent families, and those who lived in all other types. See Tables VI and VII for a presentation of the results.

TABLE VI

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND FAMILY STRUCTURE[a]

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	1	.073	.787
LBS Factor I	1	4.542	.033
LBS Factor II	1	.008	.930
LBS Factor III	1	.828	.363
LBS Factor IV	1	3.822	.051

[a]Families were divided into two groups for this analysis. The groups were two-parent and all others.

TABLE VII

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND FAMILY STRUCTURE[a]

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	3	1.293	.731
LBS Factor I	3	4.757	.191
LBS Factor II	3	2.633	.452
LBS Factor III	3	1.533	.675
LBS Factor IV	3	4.248	.236

[a]Families were divided into four groups for this analysis. The groups were single-parent, two-parent, step-parent, guardian, and other.

Factor I was found to be significantly associated with family structure. Students who lived in two-parent families had lower scores on the LBS than students living in other family structures.

Likewise, the number of children in the family had no relationship to risk taking on the total Lethal Behaviors Scale. The number of children in the family was not associated to any of the Lethal Behaviors Scale factors. Table VIII presents the chi-square analysis for LBS scores and the number of children in the family.

Birth order was also not significantly associated to risk taking behaviors. Results of the chi-square analysis can be found in Table IX. In each of the analyses, oldest children had more responses in the high range on the Lethal Behaviors Scale.

TABLE VIII

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND THE NUMBER OF CHILDREN IN THE FAMILY

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	1	.000	.997
LBS Factor I	1	.405	.524
LBS Factor II	1	.066	.797
LBS Factor III	1	.682	.409
LBS Factor	1	1.530	.216

TABLE IX

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND BIRTH ORDER

N=162[a]

Scores	df	Chi-square Value	Probability
LBS (Total)	2	1.789	.409
LBS Factor I	2	2.544	.280
LBS Factor II	2	1.717	.424
LBS Factor III	2	4.136	.126
LBS Factor IV	2	1.480	.477

[a]Only children were excluded from the analysis.

Risk Taking and Academic Achievement

Although academic achievement was not significantly associated to scores obtained on the Lethal Behaviors Scale

total scores, grade point average was associated with two of the four Lethal Behaviors Scale factors.

Factor I, orientation toward danger, was significantly associated with grade point averages. Students (65%) with grade point averages of 3.01 and higher were less likely to participate in risk taking behaviors. Eighty-one percent of the persons with 3.0 and below grade point averages were more likely to take risks involving orientation toward danger.

Grade point average was also associated with Factor IV, safe or unsafe habits. Respondents (77%) with a grade point average of 3.0 or less were more likely to participate in unsafe habits. Not wearing a seat belt and smoking are Factor IV behaviors. Tables X and XI illustrate the relationships between grade point average and the two factors.

TABLE X

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND GPA[a]

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	1	2.441	.118
LBS Factor I	1	4.759	.029
LBS Factor II	1	.066	.797
LBS Factor III	1	.581	.446
LBS Factor IV	1	4.663	.031

[a]GPA's were divided into two groups. Group 1 had GPA's of 3.01 and higher. Group 2 had GPA's of 3.0 and lower.

TABLE XI

SUMMARY OF CHI-SQUARE RESULTS FOR LETHAL BEHAVIORS SCALE SCORES AND GPA[a]

N=171

Scores	df	Chi-square Value	Probability
LBS (Total)	2	2.509	.285
LBS Factor I	2	4.773	.092
LBS Factor II	2	3.512	.173
LBS Factor III	2	.726	.695
LBS Factor IV	2	5.577	.062

[a]GPA's were divided into three groups.
Group 1 had GPA's of 3.51 and higher.
Group 2 had GPA's of 3.50-2.50.
Group 3 had GPA's of 2.51 and below.

Risk Taking and Self-Esteem

The Pearson correlation coefficient found that self-esteem and risk taking were highly correlated. The total score received on the Lethal Behaviors Scale was not correlated to the score on the Self-Esteem Inventory. However, self-esteem was significantly correlated to three of the four factors of the Lethal Behaviors Scale. Correlations for the total scores and the factor can be found in Table XII.

Factor I, orientation toward danger, was significantly correlated to self-esteem scores at the .02 alpha level. Students scoring high on the Self-Esteem Inventory also scored higher on the Lethal Behaviors Scale.

TABLE XII

SUMMARY OF RESULTS FOR CORRELATIONS OF LETHAL BEHAVIORS SCALE SCORES AND SELF-ESTEEM INVENTORY SCORES

N=171

Scores	Pearson's *r*	Probability
LBS (Total)	.439	.059
LBS Factor I	.803	.019
LBS Factor II	.152	.109
LBS Factor III	.985	.001
LBS Factor IV	.789	.020

Factor III, thrill seeking, was significantly correlated at the .001 alpha level. Persons scoring high on the Self-Esteem Inventory were the ones scoring high on the Lethal Behaviors Scale.

Safe or unsafe habits were the focus of Factor IV. Again, persons with the higher Self-Esteem Inventory scores also had the higher Lethal Behaviors Scale scores.

Table XIII summarizes the results of the analyzed data. Asterisks indicate that the result was significantly associated to the variable.

Summary

The findings of this study revealed that there were significant relationships between risk taking and the variables: gender, family structure, academic achievement, and self-esteem. No relationships were significant

concerning risk taking and age, number of children in the family, and birth order.

TABLE XIII

SUMMARY OF SIGNIFICANT ASSOCIATIONS OF DATA ANALYSIS PLAN

Variable	Thorson LBS (Total)	LBS Factor I	LBS Factor II	LBS Factor III	LBS Factor IV
Age					
X^2 test					
Gender					
X^2 test	*	*	*	*	*
Gender					
t test	*	*	*	*	*
Family Structure					
X^2 test		*			
Family Structure					
X^2 test					
Number of Siblings					
X^2 test					
Birth Order					
X^2 test					
GPA					
X^2 test		*			*
GPA					
X^2 test					
SEI Score					
Pearson r		*		*	*

Pearson correlation coefficients were not significantly correlated for total scores on the Self-Esteem Inventory and the total scores on the Lethal Behaviors Scale. The total SEI scores were correlated to Factors I, III, and IV of the LBS.

A chi-square analysis of the total LBS scores to each of the seven variables revealed significant relationships between risk taking and gender.

A chi-square analysis for each of the four factors showed significant relationships between all the variables except age, number of siblings in the family, and birth order. Factor I revealed significant relationships with the variables: gender, family structure, and academic achievement. Gender was the only variable related to Factor II and gender was the only variable related to Factor III. Factor IV was related to gender and academic achievement.

T-test procedures revealed significant relationships between gender and risk taking. Males scored significantly higher than females on lethality.

Chapter V includes a summary of the findings and recommendations for further study.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

Introduction

This study was conducted to examine the relationship between risk taking and the variables of age, gender, family structure, number of siblings in the family, birth order, self-esteem and academic achievement. This chapter includes a summary and discussion of the research, a summary of the findings, and recommendations for further study.

Summary and Discussion

Objectives

The objectives of this study were: 1) to determine if the level of self-esteem varies with risk taking behaviors, and 2) to examine relationships between demographic variables such as age, gender, family structure, number of siblings in the family, birth order, and academic achievement, to risk taking behaviors.

Hypotheses

The hypotheses tested in this study were:

1. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their scores on Coopersmith's Self-Esteem Inventory.
2. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their age.
3. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their gender.
4. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their family structure.
5. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and the number of siblings in the family.
6. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their birth order.
7. There is no relationship between adolescents' scores on Thorson's Lethal Behaviors Scale and their self-reported grade point averages.

Research Design

A descriptive research design was used in this study. Information concerning demographic characteristics, adolescents' existing self-esteem, and risk taking behaviors

was gathered, and associations among these conditions were investigated.

Population and Sample

The population for this study consisted of all students in one northwest Oklahoma high school. A non-random sample was used as a matter of convenience. Of the 272 students enrolled in the high school, 238 students (87.5%) answered the questionnaires. Sixty-seven questionnaires were later omitted because the students did not possess a driver's license or permit. Students were surveyed in English classes because English is required of all students.

Instruments

The questionnaire that was used in this study contained three parts (Appendix B). The first part consisted of a background information sheet. Demographic variables requested were age, gender, grade in school, family structure, and grade point average.

The second part of the questionnaire was the Thorson Lethal Behaviors Scale (LBS) (Thorson & Powell, 1987). The Cronbach alpha reliability for this scale was .622 (Thorson & Powell, 1990).

The third part of the questionnaire was the Adult Form of Coopersmith's Self-Esteem Inventory (SEI) (Coopersmith, 1981). The inventory measured the adolescents' self-esteem.

Reliability scores for the SEI instrument ranged from .70 to .88 (Coopersmith, 1981).

The first part of the questionnaire adequately collected the information concerning the demographic characteristics of the sample; however the researcher was present to provide clarification when needed.

The Thorson Lethal Behaviors Scale seemed to be an adequate instrument for measuring lethal behaviors.

The Coopersmith Self-Esteem Inventory (SEI) seemed to be a good measure of self-esteem. More research utilizing the Adult Form of the SEI needs to be conducted to improve the reliability and validity of the instrument.

Analysis of Data

The analysis of the data were the t-test, chi-square, and Pearson correlation coefficient. T-test analyses were performed on the total LBS score, the four factors of the Lethal Behaviors Scale and the variable gender.

Chi-square analyses were performed on the total Lethal Behaviors Scale score and each of the variables. The variables were age, gender, family structure, number of siblings in the family, birth order, academic achievement, and self-esteem. Chi-square analyses were also performed on the four Lethal Behaviors Scale factors and each of the seven variables.

Pearson's product-moment correlation coefficients were used to analyze the total scores on the Lethal Behaviors

Scale and the total scores on the Self-Esteem Inventory. Pearson's correlation coefficients were also used on the scores of the four Lethal Behaviors Scale factors and the total scores of the Self-Esteem Inventory.

Discussion of the Results

Demographic Characteristics. The sample consisted of 89 males and 82 females. Freshmen comprised 2.9% of the sample, sophomores comprised 33.9% of the sample, 32.7% of the sample were juniors, and 30.4% of the sample were seniors.

Regarding family structure, 59.6% of the students lived in two-parent homes, 14.0% lived in single-parent homes, 17.0% lived in step-parent homes and 9.4% of the students lived with a guardian or in other situations.

The number of students with one or two children in the family was 53.8% and 46.2% of the sample had three or more children in the family. Birth order of the respondents revealed that 40.4% were the oldest child in the family, 26.3% were middle children, and 28.1% were the youngest child in the family. Only children comprised 5.3% of the sample. Grade point averages of the students found that 55.2% of the sample had an average of 3.01 or above.

Results of Hypotheses. The primary purpose of this research project was to determine if a relationship existed between adolescent risk taking and self-esteem. An analysis

of this question revealed that there was a significant association between adolescent risk taking and self-esteem. A chi-square and t-test analysis were used to determine relationships between risk taking and each of the six demographic variables: age, gender, family structure, number of siblings in the family, birth order, and academic achievement.

For Hypothesis 1, using Pearson correlation coefficient analysis, a significant association was not found between total scores on Thorson's Lethal Behaviors Scale and total scores on Coopersmith's Self-Esteem Inventory. Significant associations were found between scores on the Self-Esteem Inventory and Factors I, III, and IV of the Lethal Behaviors Scale. In each case, the correlations were positive. Students receiving a high score on the Self-Esteem Inventory also received a high score on the Lethal Behaviors Scale.

A chi-square analysis was performed on Hypothesis 2. No significant relationships were found between scores on Thorson's Lethal Behaviors Scale and age. Students in both age categories were equally divided between high and low scores on the LBS.

Hypothesis 3 examined the relationship between risk taking and gender. A significant relationship was found between risk taking and gender. Chi-square analysis also confirmed significant relationships between gender and all of the factors on the Lethal Behaviors Scale. Males took

more risks than females. A t-test procedure of the four factors and gender found the same relationships.

Hypothesis 4 examined the relationship between risk taking and family structure. Using a chi-square analysis, there was no relationship found between scores on Thorson's Lethal Behaviors Scale and family structure. No association was found between family structure and three of the four factors on the LBS. Factor I was significantly associated with family structure. Students who lived in a two-parent family were less likely to take risks oriented toward danger.

Using a chi-square analysis for Hypothesis 5 and Hypothesis 6, there was no significant relationship found between risk taking and the number of siblings or risk taking and birth order. A chi-square analysis of the four LBS factors and the number of siblings, and the four LBS factors and birth order found no significant relationships.

A chi-square analysis was also used to examine Hypothesis 7. The analysis indicated a significant association between risk taking and academic achievement on Factors I and IV. There was not a significant relationship between academic achievement and the total Lethal Behaviors Scale score. The results showed that the higher the grade point average, the fewer risks were taken. Students who had grade point averages of 3.0 and lower were much more likely to take risks. The largest group of risk takers were students who had grade point averages of 2.50 and below.

Hypothesis 1, hypothesis 3, hypothesis 4, and hypothesis 7 were rejected. Hypothesis 2, hypothesis 5, and hypothesis 6 were not rejected. While some of the analyses revealed some associations between the variables and risk taking, the associations were not significant enough to reject the hypotheses.

Implications

Adolescents frequently engage in risk taking behaviors which impact their family and society both financially and emotionally. Adolescent risk taking causes stress throughout a community. Schools and other organizations have taken on the challenge to try and curb certain risk taking behaviors with education. Based on the results of this study, the following statements regarding the value of the research findings were made.

1. Adolescent self-esteem was found to be associated with risk taking. Students with a high self-esteem were more likely to take risks. This finding could be because adolescents with a high self-esteem are more confident in their abilities, therefore they may participate in higher risk activities. Students with lower self-esteem are not as confident in their abilities and therefore, may not participate in high risk activities as much. Males reported a higher self-esteem than females.

2. This study did not identify any significant associations regarding risk taking and age. The literature

showed that adolescents took more risks than young adults. This sample did not cover older age groups which might have revealed some significant associations between risk taking and age. Therefore, further research should continue to examine the relationships between risk taking and age.

3. As with previously mentioned research, risk taking and gender were significantly associated. Males consistently scored higher on risk taking. Our society promotes an image of the "ideal" male as rugged and tough. Risk taking may be one way for adolescent males to prove their masculinity. Although females scored lower on the Lethal Behaviors Scale than males, it is worthy to mention that on Factor III, thrill seeking, females participated in thrill seeking activities just as often as males. As male and female roles are redefined, the differences between genders may be minimized.

4. Risk taking was associated with academic achievement on Factors I and IV of the Lethal Behaviors Scale. Factor I is the orientation toward danger, which includes activities such as experimentation with dangerous drugs, preference for violence in movies and television, and the greater likelihood to attempt hang gliding or sky diving. Factor IV includes safe and unsafe habits, such as wearing seat belts, driving safely, and nonsmoking. Students with a higher grade point average were less likely to participate in these risk taking behaviors. Most of the prevention programs presented in school are aimed at the

activities in these two factors. It is possible that students with a higher grade point average are more likely to weigh the consequences of such activities and choose not to participate.

5. Family structure was found to be associated with risk taking on Factor I of the Lethal Behaviors Scale. Students living in two-parent families were less likely to take risks oriented toward danger than students living in other family structures. The literature supports the positive aspects of living in a two-parent, smaller family as the optimum situation. This study found only one LBS factor that was significantly associated with family structure.

6. The Pearson correlation coefficient showed that risk taking was significantly associated with self-esteem. Students with the higher Self-Esteem Inventory scores also had the higher Lethal Behaviors Scale scores. Males consistently reported higher self-esteem scores. This finding is consistent with the literature that females generally report lower self-esteem than males.

7. The findings of this study reveal a need for parent education focused toward parenting of adolescents. Parent education may have an impact on reducing certain risk taking behaviors such as smoking and sexual intercourse.

8. Professionals who work with adolescents need to have staff development programs that focus on understanding risk taking behaviors of adolescents. Further training may

include prevention programs aimed at reducing risk taking behaviors.

Recommendations for Further Study

This study was undertaken to determine if a relationship existed between risk taking and self-esteem, and risk taking and age, gender, family structure, number of siblings in the family, birth order and academic achievement. Further studies of risk taking should provide educators and others that work with adolescents some underlying information that would help in improving curriculum and methods for interacting with adolescents. The following are suggestions for further research.

1. Further development of scales and instruments that measure other risk taking behaviors such as: Russian roulette, body piercing, and gang related behavior.

2. Continue to examine the relationship between risk taking and gender to see if the differences between males and females decrease.

3. Further examine the relationship between self-esteem and risk taking. This may be an area where curriculum interventions would be the most useful.

4. Continue to study the relationship of risk taking and age. Adults may be taking risks just as often as adolescents.

REFERENCES

Arnett, J. (1989, April). Understanding reckless behavior in adolescence. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO. (ERIC Document Reproduction Service No. ED 313152)

Arnett, J. (1991). Heavy metal music and reckless behavior among adolescents. Journal of Youth and Adolescence, 20, 573-592.

Barber, B. K., Chadwick, B. A., & Oerter, R. (1992). Parental behaviors and adolescent self-esteem in the United States and Germany. Journal of Marriage and the Family, 54, 128-141.

Beane, J. A. (1991). Sorting out the self-esteem controversy. Educational Leadership, 49, 25-31.

Best, J. W., & Kahn, J. V. (1989). Research in Education (6th ed.). Englewood Cliffs, NJ: Prentice-Hall.

Brooks-Gunn, J., & Furstenberg, F., Jr. (1989). Adolescent sexual behavior. American Psychologist, 44, 249-257.

Cherian, V. I. (1991). Relationship between size of broken and intact families and academic achievement. The Journal of Social Psychology, 131 (1), 125-127.

Coopersmith, S. (1981). Self Esteem Inventories, Consulting Psychologists Press, Palo Alto, CA.

Drew, C. J., & Hardman, M. L. (1985). Designing and Conducting Behavioral Research. New York: Pergamon.

Finney, P. (1978). Personality traits attributed to risky and conservative decision makers: Culture values more than risk. The Journal of Psychology, 99, 187-197.

Flewelling, R. L., & Bauman, K. E. (1990). Family structure as a predictor of initial substance use and sexual intercourse in early adolescence. Journal of Marriage and the Family, 54, 368-378.

Furby, L., & Beyth-Marom, R. (1990). Risk taking in adolescence: A decision-making perspective. Washington, DC: Carnegie Council on Adolescent Development (ERIC Document Reproduction Service No. ED 323020)

Grusec, J. E., & Lytton, H. (1988). Social Development: History, Theory, and Research. New York: Springer-Verlag.

Hall, A. M., & Rowe, G. P. (1991). Self-esteem of rural teens. Journal of Extension, 29, 16-17.

Hanushek, E.A. (1992). The trade-off between child quantity and quality. Journal of Political Economy, 100, 84-117.

Harper, J. F., & Marshall, E. (1991). Adolescents' problems and their relationship to self-esteem.Adolescence, 26, 799-810.

Josephs, R. A., Larrick, R. P., Steele, C. M., & Nisbett, R. E. (1992). Protecting the self from the negative consequences of risky decisions. Journal of Personality and Social Psychology, 62, 26-38.

Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1992). Stability of self-esteem: assessment, correlates, and excuse making. Journal of Personality, 60, 621-644.

Levenson, M. R. (1990). Risk taking and personality.Journal of personality and Social Psychology, 58, 1073-1080.

Lightfoot, C. (1989, April). Taking risks and making friends: A narrative perspective on adolescents' adventures. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO. (ERIC Document Reproduction Service No. 305993).

Lyng, S. (1990). Edgework: A social psychological analysis of voluntary risk taking. The American Journal of Sociology, 95, 851-887.

Manners, P., & Smart, D. (1992, April). Family type as a predictor of sexual intercourse and alcohol use in young adolescents. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 344129).

Marzuk, P. M., Tardiff, K., Smyth, D., Stajic, M., & Leon, A. C. (1992). Cocaine use, risk taking, and fatal Russian roulette. The Journal of the American Medical Association, 267, 2635-2637.

McCoy, K. (1989). Is your child flirting with sex? Reader's Digest, 135, 111-115.

Melby, J. N., Conger, R. D., Conger, K. J., & Lorenz, F. O. (1993). Effects of parental behavior on tobacco use by young male adolescents. Journal ofMarriage and the Family, 55, 439-454.

Miller, A. (1990, February). The big t(thrill) personality. Working Woman, pp. 76-78.

Newcomb, M. D., & McGee, L. (1991). Influence of sensation seeking on general deviance and specific problem behaviors from adolescence to young adult-hood. Journal of Personality and Social Psychology, 61, 614-629.

Oklahoma Department of Public Safety. (1993). Summary of Motor Vehicle Traffic Collisions (January - March, 1993). Oklahoma City, OK: Author.

Santrock, J. W. (1993). Adolescence: An Introduction (5th ed.). Dubuque, IA: Brown and Benchmark.

SAS Institute Inc. (1990). SAS Language: Reference, Version 6, First Edition Cary, NC: SAS Institute Inc.

Sorrentino, R. M., Raso-Knott, P. A., & Hewitt, E. C. (1992). Risk-taking in games of chance and skill: Informational and affective influences on choice behavior. Journal of Personality and Social Psychology, 62, 522-533.

Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. Child Development, 60, 1424-1436.

Steinberg, L. (1993). Adolescent risk-taking. Adolescence. New York: McGraw-Hill.

Thomson, E., McLanahan, S. S., & Curtin, R. B. (1992). Family structure, gender, and parental socialization. Journal of Marriage and the Family, 54, 368-378.

Thorson, J. A., & Powell, F. C. (1987). Factor structure of a lethal behaviors scale. Psychological Reports, 61, 807-810.

Thorson, J. A., & Powell, F. C. (1989). Construct validity of the lethal behaviors scale. Psychological Reports, 65, 844-846.

Thorson, J. A., & Powell, F. C. (1990). To laugh in the face of death: The games that lethal people play.Omega, 21 (3), 225-239.

Wyatt, G. (1990). Risk taking and risk avoiding behavior: The impact of some dispositional and situational variables. The Journal of Psychology, 124, 437-447.

Young, E. W., Jensen, L. C., Olsen, J. A., & Cundick, B. P. (1991). The effects of family structure on the sexual behavior of adolescents. Adolescence, 26, 977-986.

Zimiles, H., & Lee, V. E. (1991). Adolescent family structure and educational progress. Developmental Psychology, 27, 314-320.

Zuckerman, M. (1984). Sensation seeking: A comparative approach to a human trait. The Behavioral and Brain Sciences, 7, 413-471.

APPENDIXES

APPENDIX A

CORRESPONDENCE

April 13, 1993

To Whom It May Concern:

I would like to introduce myself as a graduate student with Oklahoma State University in the Family Relations and Child Development Department. I am currently working on my Master's thesis with Dr. Beulah Hirschlein.

The topic of my research is risk taking behaviors of adolescents. Because I believe that self-esteem could play a significant role in risk taking behaviors, I would like to use the Coopersmith Self-Esteem Inventory to determine an adolescent's level of self-esteem.

Thank you for your consideration in this matter.

Sincerely,

Denise Morris
Graduate Student

Dr. Beulah Hirschlein
Professor
Family Relations & Child Development

University of Nebraska at Omaha

Department of Gerontology
College of Public Affairs
and Community Service
Omaha, Nebraska 68182-0202
(402) 554-2272

April 14, 1993

Ms. Denise Morris
706 West Columbia
Enid, Oklahoma 73701

Dear Denise,

Thanks for your call Tuesday. Yes, you have my permission to use our Lethal Behaviors Scale for your master's thesis at Oklahoma State University.

I'm enclosing reprints of the three articles we've written about the LBS. My interest is in death anxiety, and since lethal behaviors and death anxiety seem to be fairly separate constructs, we've not done too much with the LBS in the past couple of years.

Because the Interstate speed limit has gone down and then up again during the life of the Scale, I would recommend altering Item #8 to read: "Do you usually drive over 65 when you are on an Interstate Highway?" Also, don't change Items 5 and 10, but I wouldn't be surprised if the passage of time has changed behaviors relative to seat belt use and smoking.

Anyway, that's what's interesting about doing research, to find out if what you suspect is true really is true. Please share your results with me!

And, just for the heck of it, I'm enclosing two additional articles on other scales we've done recently.

Sincerely,

James A. Thorson
Jakob Isaacson Professor & Chair

APPENDIX B

INSTRUMENTS

BACKGROUND INFORMATION

1. My GRADE is: (Circle one) 9 10 11 12

2. My AGE is: month _____ day _____ year _____

3. My SEX is: (Circle one) Male Female

4. Living in my household I have: (Make an X beside the statement most true for you)

   _____ A SINGLE PARENT

   _____ BOTH BIOLOGICAL PARENTS

   _____ A GUARDIAN

   _____ ONE BIOLOGICAL PARENT AND ONE STEP-PARENT

   _____ OTHER (specify) _____

5. The number of children in my family household, including myself is/are: (mark with an X)

   _____ one _____ three

   _____ two _____ four or more

6. In my family, I am: (mark with an X)

   _____ the oldest child _____ next to the youngest child

   _____ next to the oldest child _____ the youngest child

   _____ middle child _____ an only child

7. Your estimated Grade Point Average (GPA) from grade 9 to present:

   _____ 4.01 or higher _____ 2.01 - 2.50

   _____ 3.51 - 4.0 _____ 1.51 - 2.0

   _____ 3.01 - 3.50 _____ 1.01 - 1.50

   _____ 2.51 - 3.0 _____ 1.00 or less

LETHAL BEHAVIORS SCALE

Below are some questions regarding the way you behave, feel and act. After each question, circle the response that represents your usual way of acting or feeling.

1.	Do you enjoy watching movies or TV shows that have a lot of violence?	Yes	No
2.	If you saw a crime being committed, would you most likely try to interfere?	Yes	No
3.	Do you feel that you are a safe driver?	Yes	No
4.	Are you the kind of person who would enjoy mountain climbing?	Yes	No
5.	When driving, do you most often use seatbelts?	Yes	No
6.	Do you ever take chances or do dangerous things for the thrill of it?	Yes	No
7.	Have you had three or more auto accidents since you became a driver (whether or not they were your fault)?	Yes	No
8.	Do you usually drive over 65 when you are on an Interstate Highway?	Yes	No
9.	Have you ever experimented with dangerous drugs?	Yes	No
10.	Do you smoke?	Yes	No
11.	Have you ever gone sky-diving or hang-gliding?	Yes	No
12.	Do you have regular physical checkups?	Yes	No
13.	When you are ill, do you try to tough it outwithout seeing a doctor?	Yes	No
14.	Have you ever gone scuba-diving?	Yes	No

15.	When driving, do most of the other cars on the road pass you?	Yes	No
16.	Have you ever driven a motorcycle?	Yes	No
17.	Do you own a motorcycle?	Yes	No
18.	Do you own a gun?	Yes	No
19.	Are you the kind of person who would enjoy exploring a cave?	Yes	No
20.	When driving, do you generally pass most of the other cars on the highway?	Yes	No
21.	Would you like to pilot your own airplane?	Yes	No

ADULT FORM SEI

Coopersmith Inventory

Stanley Coopersmith, Ph.D.
University of California at Davis

Please Print

Name _____ Age _____

Institution _____ Sex: M___ F___

Occupation _____ Date _____

Directions

On the other side of this form, you will find a list of statements about feelings. If a statement describes how you usually feel, put an X in the column "Like Me." If a statement does not describe how you usually feel, put an X in the column "Unlike Me." There are no right or wrong answers. Begin at the top of the page and mark all 25 statements.

	x4 =	

Consulting Psychologists Press, Inc.
3803 E. Bayshore Road • Palo Alto, CA 94303

Like Me	Unlike Me	
☐	☐	1. Things usually don't bother me.
☐	☐	2. I find it very hard to talk in front of a group.
☐	☐	3. There are lots of things about myself I'd change if I could.
☐	☐	4. I can make up my mind without too much trouble.
☐	☐	5. I'm a lot of fun to be with.
☐	☐	6. I get upset easily at home.
☐	☐	7. It takes me a long time to get used to anything new.
☐	☐	8. I'm popular with persons my own age.
☐	☐	9. My family usually considers my feelings.
☐	☐	10. I give in very easily.
☐	☐	11. My family expects too much of me.
☐	☐	12. It's pretty tough to be me.
☐	☐	13. Things are all mixed up in my life.
☐	☐	14. People usually follow my ideas.
☐	☐	15. I have a low opinion of myself.
☐	☐	16. There are many times when I would like to leave home.
☐	☐	17. I often feel upset with my work.
☐	☐	18. I'm not as nice looking as most people.
☐	☐	19. If I have something to say, I usually say it.
☐	☐	20. My family understands me.
☐	☐	21. Most people are better liked than I am.
☐	☐	22. I usually feel as if my family is pushing me.
☐	☐	23. I often get discouraged with what I am doing.
☐	☐	24. I often wish I were someone else.
☐	☐	25. I can't be depended on.

APPENDIX C

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Date: 05-19-93 **IRB#:** HES-93-029

Proposal Title: ADOLESCENT RISK TAKING

Principal Investigator(s): Beulah Hirschlein, Denise Morris

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

PROVISION RECEIVED AND APPROVED

Signature: Marcia L. Tilley
Chair of Institutional Review Board

Date: May 19, 1993

VITA

Denise Lynn Nobis Morris

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIP OF ADOLESCENT RISK-TAKING TO SELF-ESTEEM AND OTHER SELECTED VARIABLES

Major Field: Family Relations and Child Development

Biographical:

Personal Data: Born in Topeka, Kansas, January 2, 1961, the daughter of Martin and Marilyn Nobis. Married, May 14, 1983 to Richard Morris. Two daughters Robin and Erin Morris.

Education: Graduated from Chisholm High School, Enid, Oklahoma, in May, 1979; received Bachelor of Science Degree in Home Economics Education and Community Services from Oklahoma State University at Stillwater, May, 1983; completed requirements for the Master of Science degree at Oklahoma State University in December, 1993.

Professional Experience: Vocational Home Economics Teacher, Chisholm High School, Enid, Oklahoma, August, 1990-present; DAYBREAK Coordinator, Wheatland Professional Services, Enid, Oklahoma, September, 1988-May, 1990; Vocational Home Economics Teacher, Helena-Goltry High School, Helena, Oklahoma, August, 1983-May, 1988.

Professional Memberships: American Vocational Association, Oklahoma Vocational Association, National Education Association, Oklahoma Education Association, Chisholm Education Association.