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LOCUS OF CONTROL AND RISK BEHAVIOR AMONG COLLEGE STUDENTS

by
Lauren R. Matricardi

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
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Advisor

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ABSTRACT

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LOCUS OF CONTROL AND RISK BEHAVIOR AMONG COLLEGE STUDENTS

2005/06

Dr. Roberta Dihoff and Dr. John Klanderman

Master of Arts in School Psychology

The purpose of this study was to determine the relationship if any between an individual's locus of control (internal or external) and their degree of engaging in risk behavior. Participants were male (N=8) and female (N=24) undergraduate college students from Rowan University. Rotter's Internal-External Locus of Control Scale was used to assess the subject's attributions (internal vs. external) for the outcomes of his or her behavior. To assess the amount of risk behavior in the subjects, items from the National College Health Risk Behavior Survey (NCHRBS) were used. A demographic questionnaire was also used. Regression analysis showed that there was no relationship between Locus of Control and Risk Behavior scores.

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Chapter I: The Problem

Need for Topic

We live in a world that is filled with choices. On an every day basis, we make choices constantly, sometimes unconscious that we are even making them. With so many possible outcomes to our decisions, what determines how we make these decisions? Is it something that we control as individuals or is it determined by a source that is outside of ourselves? Obviously not every individual would make the same decision as the rest of us. What makes one person choose to do one thing, and another person to choose something totally different? More importantly, why would someone make a bad decision, one that could put themselves or someone else in danger? There is a need to examine why individual's make the choices they do, in particular, choosing to engage in risk taking behavior.

One reason for investigating this topic is to examine a clearer understanding of why individuals engage in risk-taking behavior and also to understand any possible ways of controlling this behavior. Engaging in risk-taking behavior can be dangerous not only to the individual involved in the behavior but also to other individuals. It is important to learn more about this topic to give insight into those individual's who engage in risk-taking behavior so they have a better understanding of what determines their decisions. As these individuals become better educated about their behavior, they may be able to make the environment safer for themselves as well as others around them.

Purpose of Study

The purpose of this study was to determine a relationship, if any, between an individual's locus of control (internal or external) and their degree of engaging in risk-taking behavior.

Hypothesis

The two variables being correlated are the levels of locus of control (internal or external) and the degree of risk-taking behavior. It is hypothesized that a person with an external locus of control is more likely to engage in a higher level of risk-taking behavior compared to a person with an internal locus of control. There will be a positive correlation between a higher level of risk-taking behavior and an external locus of control.

Theory/Background

The concept of locus of control was developed by social learning theorist Julian Rotter in 1966. During this time the dominant perspective in clinical psychology was Freud's Psychoanalysis, which focused on people's deep seated instinctual motives of childhood as determining behavior. Rotter however, believed that behavior was guided by the use of reinforcements (Rotter, 1966). The actual name that Rotter had coined was Locus of Control of Reinforcement. Because of his strong belief that behavior is largely guided by reinforcements, Rotter helped bridge behavioral and cognitive psychology. He

discovered that through reinforcements individuals come to hold beliefs about the cause of their actions, and these beliefs then guide what kind of attitudes and behaviors they adopt in the future (Rotter, 1966).

Locus of control is grounded in both the Social Learning Theory (1954), developed by Rotter and the Expectancy-Value Theory (1970), developed by Martin Fishbein. Both theories purport that reinforcements act to strengthen the expectancy that a particular behavior or event will be followed by that same reinforcement in the future (Mearns, 2005). Conversely, once a relationship is established between a behavior and reinforcement, the absence of the reinforcement will reduce or extinguish the expectancy. Expectancies are generalized from specific situations to situations that are perceived as similar or related. These generalized attitudes, beliefs, and expectancies can affect a variety of behavioral choices in many different life situations (Rotter, 1966).

The original model of Locus of Control was developed by Rotter (1966). In this model, Rotter uses a bipolar dimension to express control from internal to external. The internal control is the term used to describe the belief that control for future outcomes resided primarily in oneself, while the external control refers to the expectancy that control is outside of oneself, either in the hands of another person or due to fate/chance. Hundreds of studies have investigated Locus of control on a variety of topics such as personality, motivation, education and health. Rotter saw locus of control as being very general whereas subsequent research suggests that it may be more specific to different domains.

An alternative to Rotter's model was offered by Hannah Levenson (1973). Rather than using a unidimensional concept (internal/external), Levenson's model asserts that there are three independent dimensions: Internality, Chance, and Powerful Others. According to this model, an individual can endorse each of these three dimensions independently and at the same time. For example, a person might simultaneously believe that both oneself and powerful others influence outcomes, but that chance does not.

Definitions

Locus of control refers to an individual's generalized expectations concerning where control over subsequent events resides. In simpler terms, who or what is responsible for what happens. According to Rotter, the concept can be divided into two separate sources of control: internal and external. Internal locus of control is characterized by the belief that the individual's behavior is guided by his/her personal decisions and efforts. External locus of control is characterized by the belief that his/her behavior is guided by fate, luck, or other external circumstances. Risk taking behavior is defined as undertaking a task involving a challenge for achievement or a desirable goal in which there is a lack of certainty or a fear of failure. It may also include the exhibiting of certain behaviors whose outcomes may present a risk to the individual or to those associated with him or her.

Assumptions

Some assumptions of this study that should be mentioned include the notion that all participants of the study were in the same state while answering the questionnaires. It will also be assumed that there were no unusual behaviors in the participants, or any unusual incidents in the classroom that the participants were in while answering the questionnaires.

Limitations

Some limitations that may have an effect on the study may be the social economic status of the participants and the participant's cultural background. Another limitation may be the age of the population that was selected. Undergraduate students may be more prone to risk-taking behavior compared to an adult population simply because of their young age and lack of experience.

Summary

The second chapter will consist of a review of previous research related to locus of control on risk-taking behavior. The third chapter will discuss the design used for the study. The fourth chapter will present the analysis of data collected. The fifth chapter will discuss results of the study as well as limitations and implications for future research.

Chapter II: Review of Research

There has been a multitude of research examining Locus of Control on risk behavior. In the past, researchers have concentrated on a variety of subjects ranging in age from adolescent to late adulthood. The current study investigates Locus of Control on risk behavior in undergraduate University students. The research in the latter part of this chapter relates more to the behavior that is expected in college age students, for example, risky sexual behavior, smoking, and substance abuse. The research in the former part of the chapter relates more to general risk behaviors that may be observed in a variety of age ranges, for example occupational risk, health risks, and criminal behavior.

Occupational Setting

Past studies have examined locus of control and risk-taking in the occupational setting. Studies have shown that individuals with an external locus of control tend to make more risky decisions on the job compared to individuals with an internal locus of control. Janicak (1996) found that measuring locus of control and the level of job hazards of employees could predict the extent to which workers engaged in risky behaviors. The locus of control scale consisted of 24 items while the job hazards were a measure of the probability of no involvement in an accident. Internals chose less risk in the working environment than did externals as measured by worker's compensation

claims. Jones and Wuebker (1993) in a study examining on-the-job accidents found that hospital employees with more external safety locus of control orientations reported significantly more occupational accidents, than workers with more internal safety attitudes. In a similar study using the Accident Locus of Control Scale, Salminen & Klen (1994) found that both forestry workers and construction workers with higher scores on external locus of control tended to take more risks than the subjects with higher scores on internal locus of control.

Automobile Driving

Many past studies have been conducted using the dimension of locus of control in relation to driving-related research. Much of this research is directly related to the amount of possible risk making decisions that are involved with driving. For example, Arthur, Barret, & Alexander (1991) found that individuals with an external locus of control are more likely to be involved in a vehicular accident. In a similar study, Lefcourt (1976) found driving internality to be negatively related and driving externality to be positively related to involvement in fatal accidents. Other studies have shown that individuals with an internal locus of control are more cautious on the road. For example, Diamant & Brousand, (2003) found significant correlations between internal driving locus of control and scores on risk perception and risk coping while driving. Therefore, while driving internals perceive and cope with risk better than externals. In a similar study, Hoyt (1973) reports that relative to externals, internals attribute more

responsibility for road traffic accidents to internal, controllable causes, and report less anxiety when traveling by car. Internals also report more frequent seat-belt use (Williams, 1972).

Money

Locus of control has also been studied in relation to the degree of cautiousness individuals take with their own money. In regards to gambling, it has been found that gambling involvement has been positively related to an external locus of control (Lester, 1980; Schneider, 1986). In a study of college students, Lester (1980) found that undergraduates with a belief in an external locus of control were found to gamble more at games in which luck played a part. Lester conducted his study using 65 college students, giving them Rotter's locus of control scale and asking them if they had gambled in the last fifteen months. He discovered that belief in an external locus of control was positively related to games such as roulette and craps and negatively related to poker, meaning that externally oriented college students are more likely to gamble at activities in which chance plays a large role, e.g. lotteries, slot machines, craps, and roulette, and less likely to gamble at activities in which skill and judgment can play a large role, e.g. poker. Consumer credit has also been studied in relation to locus of control. Tokunaga (1993) found that unsuccessful credit users displayed greater external locus of control, and took fewer steps to retain their money.

Health Risks

Past research has examined the role of health in relation to locus of control. An individual's choice to obtain an unhealthy lifestyle can be seen as making a risky decision. Past research has found that people with a greater perceived control over life are more likely to adopt health promoting behaviors than those with an external view (Wallston, Wallston & DeVellis, 2002). It was also predicted that internals are more likely to practice health promoting behaviors such as getting inoculations (Dabbs & Kirscht, 1971), following a medical regimen (Lewis, Morisky, & Flynn, 1978), and seeking health information (Wallston, Wallston, Kaplan & Maides, 1976).

In a study investigating the health behaviors of university students, Wardle and Steptoe (2001) found that low levels of perceived control and strong beliefs in the role of chance were associated with unhealthy lifestyles. The researchers assessed relationships between internal powerful others and chance health locus of control, health values, and ten health-related behaviors (physical exercise, smoking, alcohol consumption, breakfast, tooth-brushing, seat belt use, and consumption of fruit, fat, fiber and salt) in 4358 female and 2757 male university students from 18 European countries. High chance locus scores were associated with more than 20% reductions in the likelihood of healthy options for six behaviors, while powerful others scores showed more variable associations with healthy actions.

Criminal Behavior

Studies investigating locus of control have also be associated with criminal behavior. It is obvious that decisions leading up to criminal behavior involve a high level of risk. One study analyzed the relationship of risk-taking and locus of control among incarcerated drug users between the ages of 14 and 21 (Crisp & Barber, 1995). The results showed that those with an internal locus of control knew they were taking risks in the decisions they made, while those with an external locus of control showed a greater tendency to believe that they were invulnerable to such risks. Researchers who conducted a number of similar studies investigating the same age group found that juvenile delinquents are more likely to have an external locus of control (Baguena & Diaz 1991; Nair, 1994; Shaw & Scott, 1991).

Similar results have been found in adults. Casual attributions for offending, and for sexual arousal and sexual behavior, were investigated for 50 males convicted of child sex offences. These attributions were compared with those obtained from 150 males convicted of one of three other criminal offences: rape, property offences and violent offences against persons. In semi-structured interviews, the Offence and Sexual Arousal and Behavior Attribution Questionnaires were administered. In contrast to child sex offenders, the other three groups all attributed their sexual arousal and sexual behavior to external, unstable and controllable causes. (McKay, Chapman, & Long, 1996).

Suicidal Ideation

The association of locus of control on suicidal ideation has also been investigated. Locus of control has been found to influence suicidal ideation in both adults and adolescents (Vilhjalmsson, Krisjansdottir, & Sveinbjarnardottir, 1998; Goldney, 1982; Pearce & Martin, 1993). It has also been cited that lack of control over outcomes of ones life correlate with suicidal ideation (Budner & Kumler 1973; Lester, 1989; Topal & Reznikoff, 1982). There is also an influence on adolescents. DeMan & Leduc (1994) reported that adolescents with high suicidal ideation do not feel that they can personally influence what happens to them but believe that outcomes are determined by chance and powerful others. In a repeated measures longitudinal study, participants were 2603, 2485, and 2246 school students aged 13, 14, and 15, respectively, from 27 South Australian Schools. Among the 13, 14, and 15 year olds, Martin, Richardson, Bergen, Roeger, & Allison (2004) found that those individuals admitting to suicidal thought, plans, threats, and attempts had higher external locus of control scores than those not reporting suicidal behavior. In the study, perceived academic performance, self-esteem and locus of control were all significantly associated with suicidal ideation.

Unplanned Pregnancy

There has also been a variety of research examining the association of locus of control and unplanned pregnancy in adolescents. In one study of 165 female junior and senior high school students, Segal & Ducette (1973) found that among the white middle

class women, it was externals who had significantly higher incidence of pregnancy compared to internals. In another study by Steinlauf (1979), using Levenson's internal and chance scales, it was reported that for 155 single women, the internals reported significantly fewer unplanned pregnancies.

In a similar study by McIntyre, Saudargas, & Howard, (1991) data on 13 female adolescents who had experienced a pregnancy were compared with those on 38 female adolescents who had not experienced a pregnancy to test the hypothesis that teenagers who experience a pregnancy have external attributions of control over their life events. The Nowicki-Strickland Locus of Control Scale for Children was administered to determine their beliefs about causes of events in their lives. All the girls were white and matched for socioeconomic status, housing, and cultural background. It was found that having an external locus of control is a significant predictor of pregnancies occurring early in adolescence.

Health of Unborn Child

It has also been discovered that individuals with an external locus of control tend to take more risks with the health of their unborn child while pregnant. Labs & Wurtele (1986) developed the Fetal Health Locus of Control (FHLC) Scale, which measures the extent to which pregnant women feel personally responsible for the health of their unborn baby. High internal subscale scores have been associated with greater lifestyle changes and positive health behaviors during pregnancy (Walker, Cooney & Riggs, 1999).

Haslam & Draper (2000) demonstrated that pregnant women who have higher internal FHLC scores are more convinced about the health risks of smoking during pregnancy. Additionally, it was found that pre-contemplative smokers were less likely to increase their folic acid, vitamin and iron intake during pregnancy and had higher external FHLC scores.

Sexual Behavior

Much research has been conducted investigating the associations between locus of control and risky sexual behavior. In a study of realistic and unrealistic control beliefs, Zuckerman, Knee, Kieffer & Gagne (2004) found that participants high in realistic control belief reported having sex less often, and when in relationships took more time before engaging in sexual activity. Participants high in unrealistic control belief were more likely to engage in careless sexual activity. Thus, they had more sexual partners, and reported using condoms less often.

Lundy (1972) conducted an investigation to identify personality correlates associated with use or nonuse of contraceptives among 600 single female students attending 5 small liberal arts colleges in the Midwest. Students completed a booklet containing Rotter's Locus of Control Scale, Rokeach's Dogmatism Scale, Rosenberg's Self-Esteem Scale, and a questionnaire on sexual, personal, and demographic data. Of the respondents who reported being sexually active (47% of the sample), 45% indicated use

of contraceptives. As hypothesized, contraceptive users were significantly more internalizing than the sexually active, non-contraceptive users.

In a similar study of 212 college women, MacDonald (1970) reported that nonusers of contraception were significantly more likely to think their lives were externally controlled. Furthermore, a study of 50 students demonstrated that the internally oriented respondents indicated a significantly higher preference for the use of oral contraceptives (Dignan, 1979). In another study of college students, the AIDS Multidimensional Health Locus of Control Scale (MHLOC) was used. It was reported that there was a significant positive relationship between scores on the AIDS MHLOC and African American college students self reported frequency of condom use. Higher internal scores predicted frequent condom use.

Similar findings were discovered among prostitutes. One hundred nineteen female prostitutes were interviewed about their sex behavior and condom use, their working attitude, and perception of risk in an attempt to combine qualitative and quantitative research methods to gain insight into the determinants of condom use in prostitution. Health locus of control and attributions concerning an unpleasant proceeding of client contacts were assessed by means of item lists. Prostitutes were identified as either consistent condom users, selective risk takers, or risk takers. Findings indicated that female prostitutes attributed unprotected sex with clients to powerlessness and an inability to control protection of their health (DeGraf, VanZessen & Straver, 1993).

It was also found among Puerto Rican women who had little perceived control in their relationship that they were unwilling to negotiate safer sex with their male partners for fear of disrupting the relationship (Harrison, Norris, Kay, Dixon, Peters, & Moore, 1996). One hundred eighty-seven Puerto Rican women, ages 18-35, attending 2 comprehensive health clinics in the Bronx, New York, were recruited and interviewed. Power (or lack of power) was operationalized as: education, employment, and relationship factors, including decision-making, commitment, investment, perceived alternatives to the relationship, and physical and verbal abuse.

Among gay men, it was found that those with a high internal locus of control were more likely to practice safer sex behaviors than externals (Fisher & Misovich, 1990). In a similar study 526 gay men who patronized gay bars in three cities completed measures of sexual behavior covering the previous 3 months and psychological measures theoretically pertinent to AIDS risk. Perceived peer norms concerning the acceptability of safer sex practices and AIDS health locus of control scores, were associated with high-risk and precaution-taking behavior. It was found that gay men who scored lower on the internal scale, reflected belief that likelihood of infection of HIV was largely a function of luck, chance, and powerful-other external factors (Kelly, St.Lawrence, & Brasfield, 1990).

Smoking

Past research has investigated the association between locus of control and the risky behavior of smoking. One study conducted with adolescents reported that

adolescents who feel little personal control over their lives are more likely to smoke, (Webster, Hunter & Keats, 1984). This is especially true in the case of teenage girls smoking (Williams, 1973). Five hundred and seven students 14- to 16-years-old gave self-report responses to a substance use questionnaire, the Norwicki-Strickland Locus of Control Scale, and The Piers-Harris Children's Self-Concept Scale. Adolescents with external locus of control or low self-esteem "behavior" were more influenced by their peers to smoke, and girls with low social status were more influenced by their friend's smoking and drinking than boys.

Similar studies have suggested that individuals with an external locus of control are likely to have tried smoking, started smoking, and have been influenced by their peers to smoke more than those with an internal locus of control (Webster et al., 1994). Results from research on stopping smoking have been shown that internals are far more likely than externals to be affected by the Surgeon General's report and are more likely to stop smoking (James, Woodruff, & Werner, 1965). In another study, internals were found to profit more from a stop smoking program than externals and are more likely to reduce their smoking rate than externals (Best & Steffy, 1975).

Substance Abuse

The use of substance abuse and the relationship of locus of control has also been studied in the past. In a study examining Scottish adolescents, it was found that increased experimentation with alcohol consumption and drug experimentation was linked to those

individuals with a high external locus of control (Karatzias, Power, & Swanson, 2001). Bearinger & Blum (1997) suggest that adolescents who perceive that they have control over their situations can more effectively avoid taking the harmful risks of substance abuse. In contrast, beliefs concerning lack of control make adolescents more vulnerable to substance use in response to peer pressures (Webster et al., 1994).

Similar results have been found in longitudinal studies. A sample of 9th-grade students (1,293 individuals) attending schools in Iceland, was surveyed and followed up 3 years later. The relationship between perceived control and substance use is examined concurrently at age 14 for experimentation with tobacco and alcohol and longitudinally (14-17 years of age) for daily smoking, heavy drinking, and illicit drug use. The results of concurrent analyses indicate that adolescents who expressed more personal control were less likely to have smoked and to have had a drink at age 14. Those girls who showed less personal control at 14 were more likely to have tried illicit drugs at age 17, compared to girls who showed more personal control (Adalbjarnardottir & Rafnsson, 2001).

Summary

Generally, according to past research, findings were that individuals with an external locus of control are more likely to be engaged in, or put themselves in a variety of risky situations. Also, according to past research, the opposite relationship has been found. Those individuals with an internal locus of control are less likely to be engaged or put themselves in risky situations.

Chapter III: Design of Study

Subjects

Thirty-two undergraduate university students (ages 18 to 37) participated in the study. (See Table 3.1, Figure 3.1). There were 24 female participants and 8 male participants. (See Figure 3.2). All students were recruited through the psychology subject pool at Rowan University and received research credit for their participation. Subjects signed an informed consent form and completed a demographic questionnaire along with 2 other instruments including Rotter's Locus of Control Scale and a risk assessment questionnaire adapted from The College Student Risk Behavior Survey.

Table 3.1 Descriptive Statistics of Participants

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	32	18	37	20.19	3.374
GENDER	32	1	2	1.75	.440
Valid N (listwise)	32				

Figure 3.1 Age of Participants

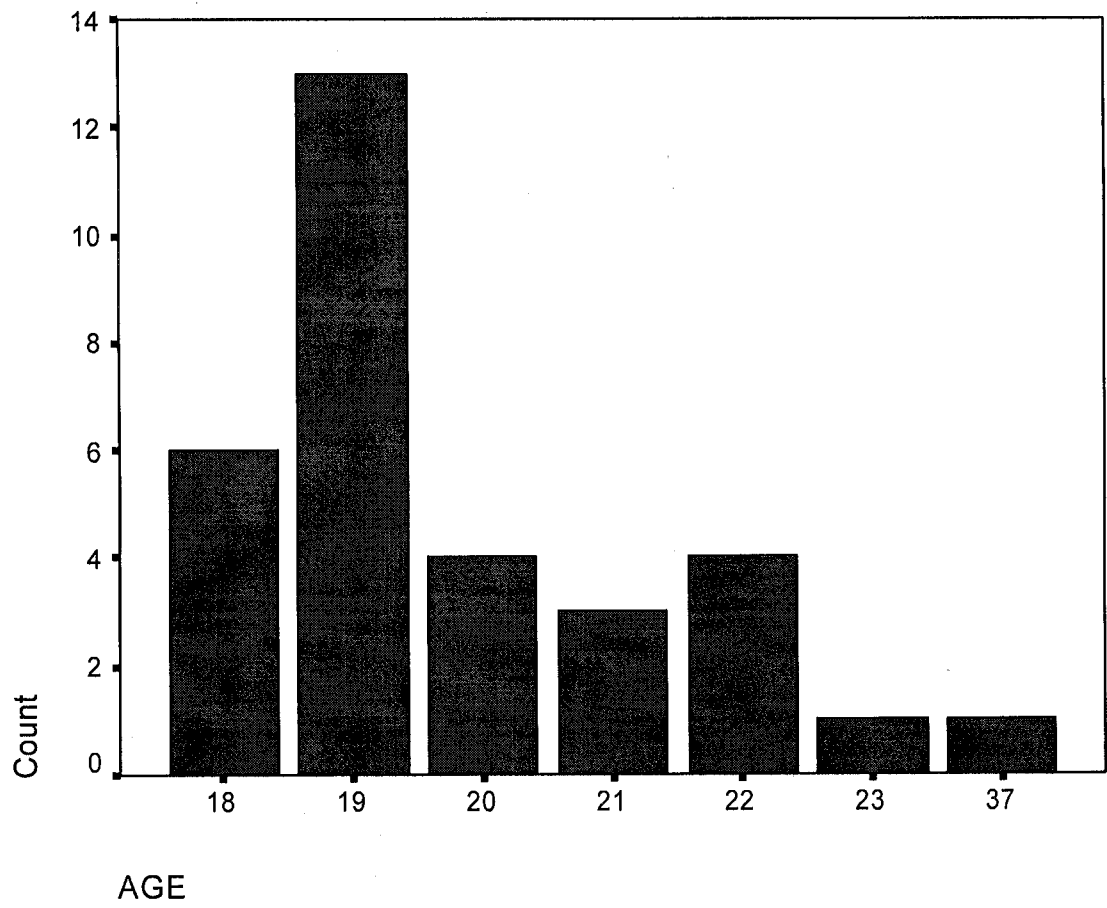
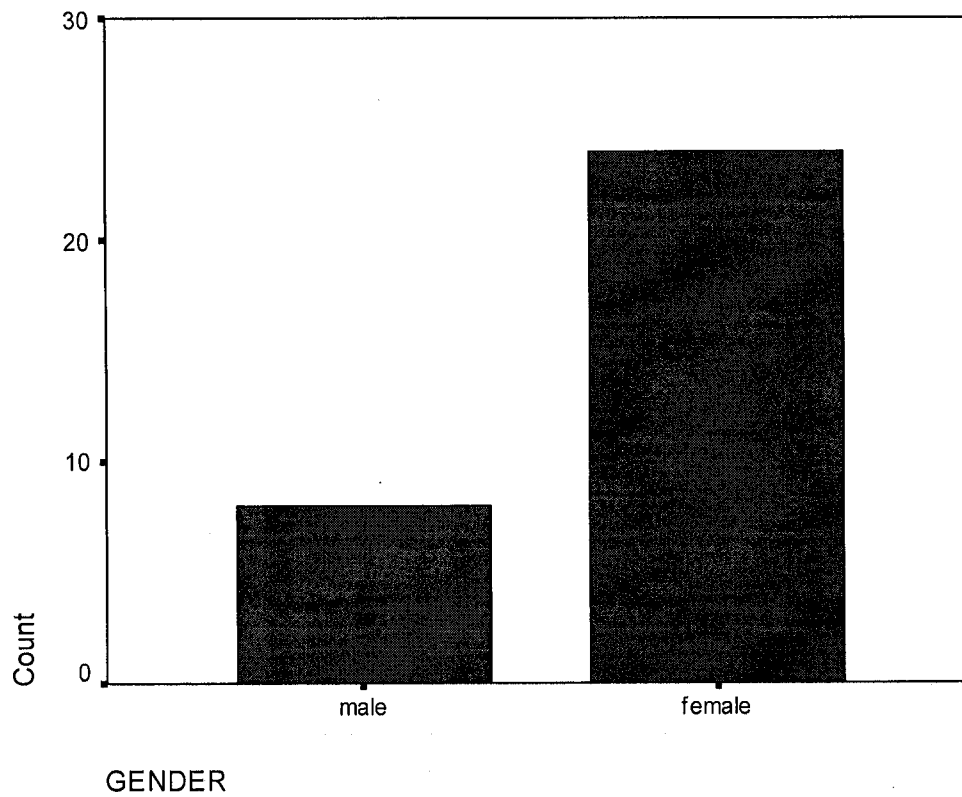


Figure 3.2 Number of Participants



Materials

A demographic questionnaire was given to the subjects asking them to respond on four items including their gender, age, year in school, and academic major.

Rotter's Internal-External Locus of Control Scale was used to assess the subject's attributions (internal vs. external) for the outcomes of his or her behavior (Rotter, 1966). The measure consists of 29 forced choice items, with each item consisting of an external belief and an internal belief. The scale possesses a fairly high test-retest reliability (.72) and good discriminant validity as supported by low correlations with intelligence, social desirability, and political liberalness (Lester & Bishop, 1997). A total score is computed for the participant's external beliefs. A high score, (greater or equal to 12) represents a high external locus of control. A lower the score, (less than 12) represents a more internal locus of control.

Items from the National College Health Risk Behavior Survey (NCHRBS) were used to assess the amount of risk behavior of the subjects. Some items were discarded from the original survey which were irrelevant to the present study. The revised scale consisted of 44 forced-choice items, reflecting various dimensions of college student risk behavior including driving record, tobacco use, drug and alcohol use, and sexual behaviors, etc. A high score on the NCHRBS represents a high degree of risk behavior. A low score on the NCHRBS represents a low degree of risk behavior. The Center for Disease Control (CDC) has conducted two test-retest reliability studies of the National College Health Risk Behavior Survey. The questionnaire was administered on two occasions, 14 days apart. Approximately three fourths of the items were rated as having a substantial or higher reliability ($\kappa = 61\%--100\%$), and no statistically significant

differences were observed between the prevalence estimates for the first and second times that the questionnaire was administered.

Procedure

All participants were given an informed consent form before completing the study. A demographic questionnaire and two measures were administered to all participants. For the Locus of Control Scale, participants were asked to choose which of the two statements for each item they most agree with. For the NCHRBS, participants were asked to provide answers to the questions based on their own personal past experiences.

Hypothesis

Participants who score high on the Locus of Control Scale will also have a high score on the NCHRBS. Inversely, participants who have a low score on the Locus of Control Scale, will also have a low score on the NCHRBS.

Analyzing Data

The current study is a correlational study. A correlation coefficient was calculated to determine a relationship if any between locus of control and risk behavior. A Pearson's r was applied to calculate the correlation coefficient.

Summary

Participants completed a demographic questionnaire and two instruments (LOC Scale & NCHRBS) to determine locus of control and their level of risk behavior. Two scores were obtained and a relationship was examined between the two variables. A correlation coefficient was calculated to determine the relationship.

Chapter IV: Analysis of Data

The following chapter summarizes results obtained from the study. As previously stated, the purpose of this study was to determine a relationship if any between a person's locus of control and their amount of participation in risk behavior. It was hypothesized that a person with an external locus of control (high locus of control score) will participate more in risk behavior (high risk score).

Out of a possible score of 23, scores on the locus of control survey ranged from 1 (highly internal) to 15 (moderately external), with the median score being 7.16. (Figure 4.1, Table 4.1). Scores on the risk behavior survey ranged from 5 (low risk behavior) to 63 (high risk behavior), with a median score of 26.37. (Figure 4.2, Table 4.1)

Figure 4.1 Locus of Control Scores

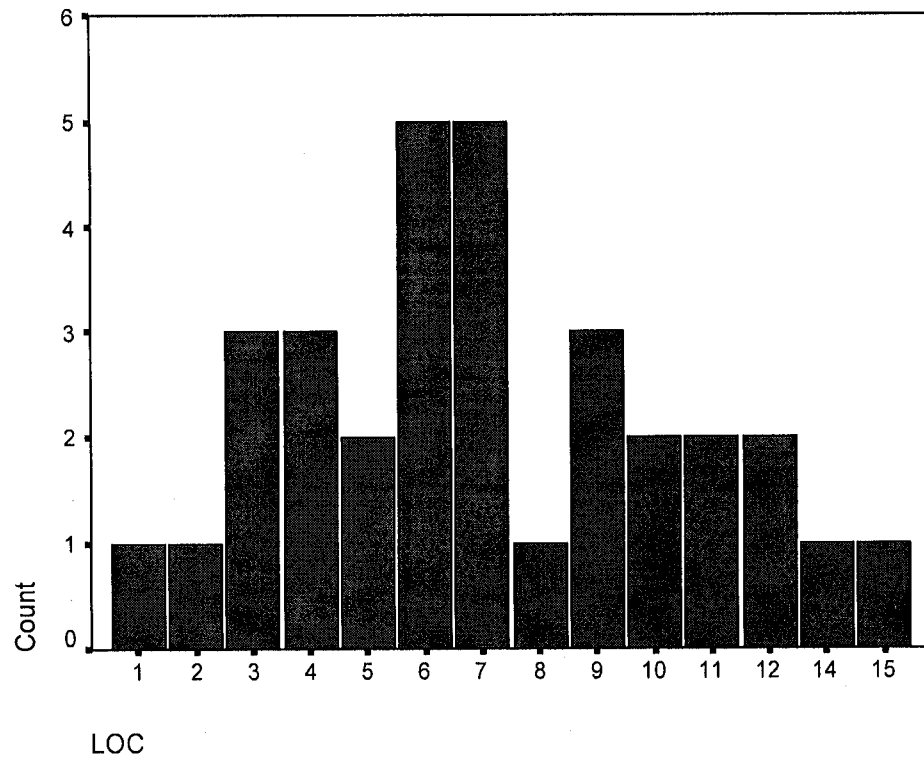


Figure 4.2 Risk Behavior Scores

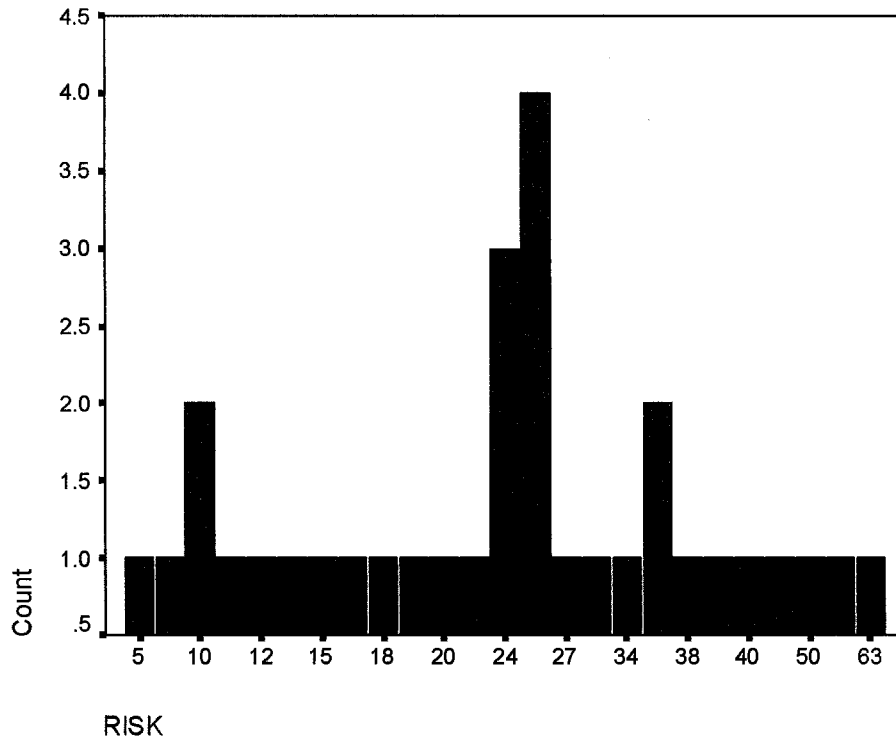


Table 4.1 Descriptive Statistics of Locus of Control Scores and Risk Behavior Scores

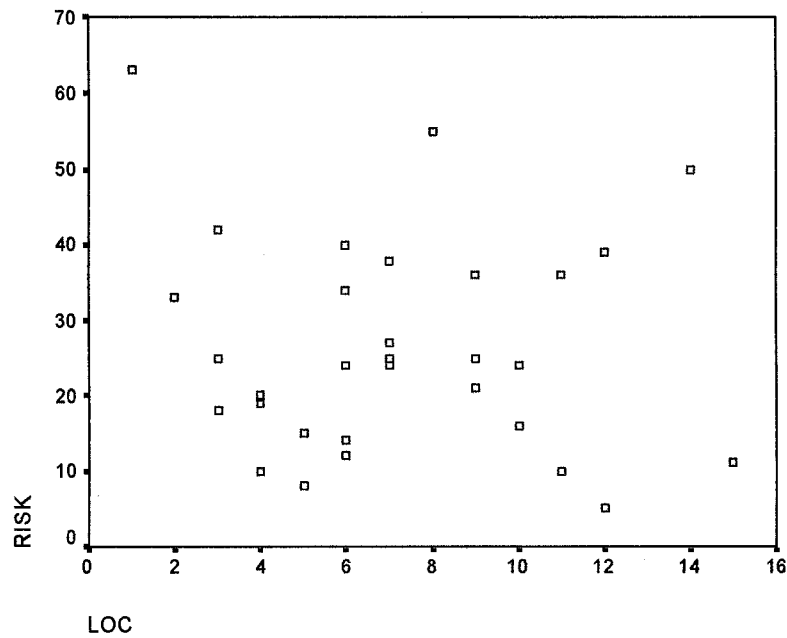
	N	Minimum	Maximum	Mean	Std. Deviation
LOC	32	1	15	7.16	3.474
RISK	32	5	63	26.37	14.043
Valid N (listwise)	32				

A Pearson correlation was used to determine the relationship, if any between scores of locus of control and risk. Analysis of data confirmed no significant relationship between locus of control score and risk score, ($r = -.100$, $p = .587$). (See Table 4.2)

Table 4.2 Correlations of Locus of Control Scores and Risk Behavior Scores

		RISK	LOC
RISK	Pearson Correlation	1	-.100
	Sig. (2-tailed)	.	.587
	N	32	32
LOC	Pearson Correlation	-.100	1
	Sig. (2-tailed)	.587	.
	N	32	32

Figure 4.3 Scatterplot of Locus of Control Scores and Risk Behavior Scores



Even though there was no relationship found between scores of locus of control and risk behavior, there were some interesting observations when scoring the risk behavior surveys. The majority of participants scored relatively high on the sections dealing with alcohol use and sexual behavior regardless of their locus of control scores. This observation may have had a significant effect on the results. This issue will be discussed further in the next chapter.

In summary of the results, data analysis concluded that scores of locus of control and risk behavior were not correlated, thus no relationship between a person's locus of control and amount of participation in risk behavior can be confirmed. The following chapter will further discuss results focusing on conclusions, limitations, and implications for future research.

Chapter V: Summary and Conclusions

Summary

College students are faced with decisions on a daily basis. For some of these students it is a relatively new freedom to be able to make decisions on their own without the advice of parents or teachers. Some decisions may involve a slight amount of risk, while other decisions involve even a higher amount of risk. It comes down to the individual to make those choices as to whether they will act and involve themselves in a risky situation or not. The current study researched locus of control as a factor that may influence that individual's choice to engage in risk behavior.

Participants completed a demographic survey, a locus of control survey, and a risk behavior survey. It was hypothesized that individuals who scored highly on the locus of control survey (externally oriented) would also score highly on the risk behavior survey suggesting a relationship between locus of control and risk behavior. Inconsistent with past research on the topic, the current study failed to find a significant relationship between locus of control and risk behavior.

Discussion

There are many factors that could have interfered with the results of the current study, the first being a small sample size. Participants were recruited through the psychology subject pool at Rowan University. In exchange for extra credit the students

agreed to participate in current research projects that are being conducted on campus. There was a low turn-out rate in the beginning of the spring semester when the current study was being conducted, thus resulting in a lower number of participants that originally planned. The prospected number of participants was between 50-100, however at the end of data collection only 32 participants had been surveyed.

Another factor that may have interfered was the use of some of the items on the risk behavior survey. One large section of the survey inquires about specific hard drug use currently and in the past. These questions did not apply to many of the participants, resulting in a much lower score on the risk behavior survey. However, a participant that was not involved with drug use could very much still be involved in making risky decisions apart from being involved with drug use. It would be important to address a wide variety of issues that could involve risk in the survey. Even the exclusion of certain risky topics from the survey may have also interfered with results.

Another limitation may have been that the risk survey was too general. All of the past research on the topic investigated risk based on a single narrow topic such as driving, sexual behavior, alcohol use, etc. (Arthur, Barret, & Alexander, 1991; Zuckerman, Knee, Kieffer & Gagne, 2004; Karatzias, Power, & Swanson, 2001). The current study investigated risk behavior from a wide variety of topics and compiled a score based on several different topics associated with college student decision making. Results of the current study may have shown a significant relationship if a narrower topic of risk commonly associated with college students was surveyed.

Implications

One implication for future research would be to consider the differences in risk behavior between college students, specifically between freshman students and senior students. It would be interesting to see any differences between age, maturity level, and academic year of the students. It may also be beneficial to perform a longitudinal study between the students from freshman through senior year to see any changes in amount of risk behavior throughout their college career.

It may also be interesting to investigate risk behavior and locus of control between high school students compared to college students. There may be differences with the amount of risky decisions from the high school years compared to college years because of the new found independence of the college environment.

Another implication for future research may be to investigate any differences between male and female risk taking and how that relates to locus of control. Men and women have very different attitudes when it comes to making choices. It would be interesting to study those differences.

The last implication for future research would be to explore any other personality traits that may be associated with making risky decisions. There could be a variety of factors that may influence a person's decision to partake in risk behavior. It would be interesting to see what other traits may be connected to risk behavior.

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