

IS INDIVIDUALISM IN THE U.S. ARMY DETRIMENTAL TO HEALTH?

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Is Individualism in the U.S. Army Detrimental to Health?

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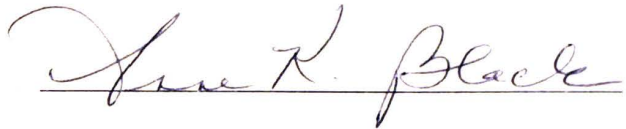
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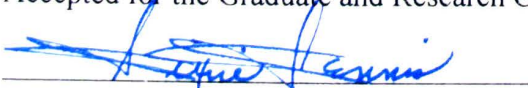
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ABSTRACT

MELISSA M. LECCESE. Is Individualism in the U.S. Army Detrimental to Health?

(Under the direction of DR. ANNE BLACK).

The purpose of this study was to investigate whether or not individualism in the U.S. Army was detrimental to a soldier's overall health. Social attitudes/beliefs of Army soldiers were investigated, specifically full self-reliance and competition, which are common subcategories of individualism. Data was collected via an electronic survey measuring individualism, general health, and risk-taking behavior of military soldiers attending Austin Peay State University (APSU) during the Spring semester of 2012. Correlational analysis was performed to determine a relationship between individualism and overall health. Age and rank data were also analyzed. The results of the study indicated no significant correlation between individualism and overall health. There was a significant difference in rank with regard to self-reliance, and enlisted soldiers were more self-reliant than officers. There was no significant difference in rank with regard to competition. There was no significant correlation between individualism and age. This sample had lower risk-taking scores than expected from the Army as a whole. Additionally, this study was stronger in the horizontal dimension than in the vertical dimension, which is consistent with previous research studies. Cultural attitudes have important consequences for the functioning of societies, of groups within societies, and of individual members of such groups. The findings of this study may be useful for development of future programs and interventions designed to improve the overall health of our fighting force.

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CHAPTER I

Introduction

Individualism is deeply woven into American culture and social institutions and often symbolizes the freedom of the American way of life (Greene, 2008). To contemporary Americans, being an individualist is not only a good thing; it is inherent to being American (Oyserman, Coon, & Kemmeleimer, 2002). The term *individualism* appears to have its roots in the French Revolution and was first used to describe the negative influence of individual rights on the well-being of the commonwealth (Oyserman et al., 2002). In this usage, *individualism* describes a worldview antagonistic to community and collective social structure (Oyserman et al., 2002). Much of the current research on individualism confirms this feared negative influence on American society. Greene (2008) cites several other studies that indicate cultural excesses of individualism are associated with social problems such as high divorce rates, environmental destruction, interpersonal violence, incivility, high violent crime rates, and widespread self-absorption.

Conversely, a study interested in the effect of individualism on subjective well-being found a positive influence. Okazaki (1997) found that anxiety and depression correlated negatively with individualism. In other words, those exhibiting anxiety and depression were less likely to hold individualistic attitudes. Conflicting results in individualism studies make it clear that this topic is a complex one. The study of individualism is theoretically challenging because depending on social location, region, culture, and even individual idiosyncrasies, individualism may imply the protection of individual rights, individual wealth, personal growth, nonconformity, self-fulfillment,

outdoor adventure, individual achievement, 'rugged individualism,' and/or the 'American spirit' (Greene, 2008).

This challenge is exemplified by a conference paper presented at the American Sociological Association Annual Meeting in 2008 by Paul Lachelier. Lachelier coined the terms "Ebenezer's individualism" and "intimate individualism." Ebenezer's individualism, named for Charles Dickens' famous character Ebenezer Scrooge, referred to traits of selfishness and isolation. Intimate individualism referred to devotion to friends and family and the propensity toward isolation from those who are not family and friends. Lachelier (2008) interviewed 35 young Americans and found more evidence of devotion to friends and family than selfishness and isolation. He concluded that the problem of individualism in our society is not that Americans are selfish and isolated from each other, but that connections occur in private circles of similitude far more than in communities of diverse citizens (Lachelier, 2008). Lachelier's conclusion did not consider all the elements of studying this complex issue. The author found a parallel to Lachelier's intimate individualism in Oyserman et al. (2002), called familialism. Familialism is defined as relatedness to family, seeking harmony with family members, or supporting and seeking advice from family. Oyserman et al. (2002) notes that authors disagree as to whether familialism is separate from collectivism; the essential core of collectivism; or an important element of collectivism that is distinct from a non-kin focused type of collectivism. Collectivism is often used as a measurement of comparison with individualism. While Lachelier's conclusion may have value, his study does not clearly define the terms of the individualism-collectivism construct. He classified an aspect of collectivism (familialism) as another type of individualism, which he called

intimate individualism (Lachelier, 2008). It is important to note that the presence of individualism does not necessarily preclude all aspects of collectivism. Many studies have found it is inaccurate to conceptualize the two as polar opposites. This will be explained later in this introduction. Lachelier's study is provided here as an example of the complexities involved in this topic and represents the potential for substantial confusion.

Greene (2008) provided an alternate view of individualism consisting of three separate yet related ideologies instead of a single belief set. The three ideologies he proposed include self-willed wealth, full self-reliance, and high self-esteem (Greene, 2008). Self-willed wealth pertains to economic success as an individual's primary goal and a valid measure of human worth (Greene, 2008). Full self-reliance pertains to individual self-reliance as the primary measure of individual worth (Greene, 2008). High self-esteem pertains to realizing 'unlimited' individual potentials and loving oneself as primary goals (Greene, 2008). These three ideologies are interrelated in complex ways that will be explained further in chapter two.

The challenge of disentangling the multiple facets of individualism carries over into studying and measuring it accurately. Per Oyserman et al. (2002), many researchers conceptualize individualism as the opposite of collectivism; however, it is probably more accurate to conceptualize individualism and collectivism as worldviews that differ in the issues important in each culture. The core element of individualism is the assumption that individuals are independent of one another (Oyserman et al., 2002). A formal definition states that individualism is a focus on rights above duties, a concern for oneself and immediate family, an emphasis on personal autonomy and self-fulfillment, and the

basing of one's identity on one's personal accomplishments (Oyserman et al., 2002). The core element of collectivism is the assumption that groups bind and mutually obligate individuals (Oyserman et al., 2002).

In view of the complexity of this concept, there is some debate in the literature about whether individualism and collectivism are best thought of as opposite ends of a single dimension or whether they are two separate dimensions (J.A. Vandello, personal communication, April 30, 2011). As a result, two different measurement constructs are commonly used in individualism research. The first is a unidimensional construct, in which states that are high on individualism are low on collectivism and vice versa (J.A. Vandello, personal communication, April 30, 2011). In contrast, there is some research showing that at the individual level, individualism and collectivism are independent dimensions. Some measurement scales have separate subscales measuring each, and a person can be high on both individualism and collectivism or low on both. This is called an orthogonal construct (J.A. Vandello, personal communication, April 30, 2011). This individual level study will treat individualism and collectivism as independent dimensions (orthogonal construct) and a measurement tool with subscales will be used accordingly.

Triandis and Gelfand (1998) propose an additional component for the study of individualism. They argue that both individualism and collectivism may be horizontal (emphasizing equality) or vertical (emphasizing hierarchy) and that this is an important distinction. They use an analogy to explain this concept. For instance, a "bird" is defined in zoology by two attributes (wings and feathers) and hundreds of species of birds are defined by other attributes. Individualism and collectivism may be defined by

four attributes (vertical collectivism, horizontal collectivism, vertical individualism, horizontal individualism) and different species of these constructs (Korean and Japanese collectivism) can be defined by additional attributes. Triandis and Gelfand (1998) suggested that there are many kinds of individualism and collectivism. For instance they argued that American individualism is different from Swedish individualism; likewise the collectivism of the Israeli kibbutz is different from Korea collectivism (Triandis & Gelfand, 1998). It is very appropriate to include the vertical/horizontal dimension in this study since the vertical dimension emphasizes hierarchy, and a rank system is inherent to the organization of the Army. Triandis & Gelfand (1998) found from a review of previous research that vertical collectivism was captured by some of the measurements, however, vertical individualism, which stresses competition narrowly, was not measured by any of the scales developed by other researchers. Triandis & Gelfand (1998) clearly state that further research was needed with populations that are more likely to be vertical, such as military personnel.

As a member of the military, the author was interested in the relationship of individualism to overall health of military members. Health is a broad topic area and many studies have been conducted in relation to numerous aspects of health. The author was interested in health as it pertained to risk for disease as opposed to studying existing disease. The author assessed health in terms of quality of life and risk-behavior. These two aspects concern an individual's perception of health, a cognitive aspect, and actual health behaviors. The World Health Organization Quality of Life-BREF (WHOQOL-BREF) was used to assess an individual's cognitive perception (satisfaction) of his/her health using four domains: physical, psychological, social relationships, and

environmental. Select questions from the 2008 Department of Defense (DoD) Survey of Health Related Behaviors were used to assess an individual's at-risk behaviors.

The military has gone to great effort to evaluate the overall health of its fighting force. Numerous comprehensive surveys, called Survey of Health Related Behaviors among Active Duty Military Personnel, have been conducted in an effort to monitor health trends and identify emerging health risks. These surveys include items regarding substance use, stress, deployment issues, suicide, exercise and weight management, and physical/sexual abuse. There have been no previous military-specific studies associated with health and individualism. There have been numerous studies associated with health and individualism; however, none of these have sampled a military population. Additionally, most health studies related to individualism have focused on well-being and emotion. Well-being studies include both affective and cognitive aspects (such as life satisfaction scales) of health. Emotion studies are predominantly related to the field of psychology.

Significance of Study

This study seeks to enhance understanding of social attitudes/beliefs of Army soldiers, specifically with regard to individualism. Cultural attitudes have important consequences for the functioning of societies, of groups within societies, and of individual members of such groups. This information will shed light on cultural issues that may be involved in Army soldiers' overall health. The U.S. Army is in the thick of recovering from a high rate of battle injuries sustained from over 10 years at war. The findings of this study will be useful for development of future programs and interventions designed to improve the overall health of our fighting force. Additionally, this may

provide useful knowledge that Army leaders may wish to implement into future education programs and management styles.

The constructs proposed by Triandis & Gelfand (1998) will be expanded in this study to more closely investigate the vertical dimension of individualism. Vertical individualism is of particular interest because it has not been measured in past research. The Army population is an appropriate population to use for this investigation due to the inherent rank structure of the organization. The vertical dimension emphasizes hierarchy, such as rank structure.

Horizontal individualism is of equal interest because it was found to predict self-reliance (Triandis & Gelfand, 1998). The degree to which self-reliance is associated with individualism is of interest with regard to the Army population because Greene (2008) suggested that some negative consequences of full self-reliance include inability to “drop one’s guard,” inability to work collectively with others, inability to develop empathy, alcoholism, and alienation. Alcoholism and the inability to seek help when needed are prominent problems among military members. The horizontal dimension emphasizes equality.

Purpose of the Study

The purpose of this study is to investigate whether or not individualism in the U.S. Army is detrimental to overall health.

Research Questions

The following two research questions are of interest: 1. Is there a negative relationship between individualism and overall health? 2. Is there a positive relationship between individualism and risk-taking behavior?

Delimitations

A convenience sampling method was used, although a random sample is always preferable because it yields the most valid data. The sample consisted of university students, which may not be an accurate representation of individual responses across the armed services as a whole. Another delimitation included the validity and reliability of the individualism measurement scale. All collectivism items were omitted from the measurement scale. Additionally, substitution of three of Triandis' (1996) self-reliance items in place of three of the seven competition items from the original AICS may have affected reliability and validity. Lastly, the general health measurement tool chosen for use in this study could not be modified in any way due to a mandatory user agreement not to omit items and not to change the order of or the wording of any items. The tool measured the perception of the current state of an individual's health and may not have provided adequate variability for this generally healthy sample population.

Assumptions and Limitations

One limitation includes incomplete surveys, which may hinder statistical analysis. A pilot study will be conducted to ensure the survey design minimizes the potential for participants to inadvertently skip survey items. Demographic data was strategically placed at the end of the survey to prevent participants who were uncomfortable providing this information from submitting incomplete surveys. It is assumed that participants will answer the survey questions honestly in a manner that accurately reflects true attitudes and behaviors. A second limitation is obtaining a large enough sample size from the electronic survey format that will be used. A minimum sample size of 100 is desirable.

Other questionnaire based studies on individualism used sample sizes of 150 to 350 participants. An incentive will be offered to improve response rate.

Many soldiers are affected by Post Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI). Certain questions of the WHOQOL-BREF pertained to satisfaction with sleep and the ability to concentrate. Both PTSD and TBI may affect sleep and concentration. This study did not address these conditions so the effects of PTSD and TBI on the results of this project are unknown.

CHAPTER II

Review of Literature

This literature review discusses the concept of individualism and how it is used in research. Individualism and its related concepts are explained. The different constructs in which individualism has been conceptualized are discussed. The specific measurement scale for the I-C dimension that will be used in this study is introduced. Details are given regarding how the measurement tool was chosen and which items are included. Two specific aspects of individualism, competition and self-reliance, relate specifically to this study and both are discussed in detail.

This study will correlate individualism with overall health. This study conceptualizes health in terms of overall health as defined by the World Health Organization and in terms of risk-taking behavior. Past research conducted by the Department of Defense relative to risk taking behavior is reviewed. Several ways in which past research has studied health relative to individualism are discussed. These health studies include well-being studies, mental health studies, and physical health/health behavior studies. A discussion of how health related measures have been defined and used in research is included. The specific instruments that will be used in this study to measure overall health are introduced. Details regarding how the instrument was chosen and how it will be used are given.

Individualism

Overview. This project will examine individualism, apart from collectivism, although most previous studies have used an individualism-collectivism (I-C) construct. The core element of *individualism* is the assumption that individuals are independent of

one another with a focus on rights above duties, a concern for oneself and immediate family, an emphasis on personal autonomy and self-fulfillment, and the basing of one's identity on one's personal accomplishments (Oyserman, Coon, & Kemmelmeier, 2002). The core element of *collectivism* is the assumption that groups bind and mutually obligate individuals and is characterized by diffuse and mutual obligations and expectations based on ascribed statuses (Oyserman et al., 2002). In Oyserman et al.'s (2002) review of all I-C studies, the authors concluded that European Americans were found to be more individualistic and less collectivistic than other societies. This finding lends support to my approach to study individualism isolated from collectivism since all past research agrees that individualism is the predominant orientation of Americans.

The I-C construct has a complex nature and a discussion of this is necessary for substantiating the rationale used in the present study. Triandis and Gelfand (1998) demonstrate the vast contexts in which the I-C construct has been discussed by countless researchers. The I-C construct, or closely related concepts, have been discussed in the areas of values, social systems, morality, politics, religion, cognitive differentiation, ideology, economic development, modernity, the structure of constitutions, cultural patterns, and the self. This study is interested in the area of overall health, which will be discussed later in this paper.

Constructs. Triandis and Gelfand (1998) go on to proclaim that the utility of the construct is indisputable, however many researchers tend to conceive the I-C construct in pure dichotomies in all the contexts mentioned above. In other words, the researchers conceive of I-C on a unidimensional scale, such that states that are high on individualism are low on collectivism and vice versa (J.A. Vandello, personal communication, April 30,

2011). Triandis and Gelfand (1998) claim this conception simplifies the construct, but may result in incomplete or invalid study results. Triandis and Gelfand (1998) propose an alternative polythetic construct, described with a zoology analogy. A “bird” is defined by two attributes (feathers and wings) and hundreds of species of birds are defined by other attributes. Similarly, the I-C construct may be defined by multiple attributes and different species of these constructs may be defined by additional attributes. For example, the individualism of Australia may not be the same as the individualism of America. Likewise, the collectivism of Japan may not be the same as the collectivism of Korea.

The present study will conceive the construct from a polythetic, also called orthogonal, perspective. In contrast to unidimensional, an orthogonal perspective conceives individualism and collectivism as independent dimensions (J.A. Vandello, personal communication, April 30, 2011). If individualism and collectivism are independent dimensions, it is logical to study one dimension apart from the other. This logic guided the research decision to study individualism apart from collectivism. Some measuring scales have separate subscales measuring each dimension, and a person can be high on both individualism and collectivism, or low on both (J.A. Vandello, personal communication, April 30, 2011).

Horizontal-vertical dimension. Triandis and Gelfand (1998) addressed the problem of defining subcategories more clearly by proposing a vertical and horizontal dimension to the I-C construct. Competition is considered by Triandis and Gelfand (1998) to be a vertical dimension of individualism, and an area in which they suggested further research. Triandis and Gelfand (1998) proposed including hierarchical (vertical)

or egalitarian (horizontal) aspects of social relationships in analyses of individualism-collectivism. By including a horizontal-vertical dimension, one can distinguish different dimensions of individualism and collectivism depending on whether they presume equal or different status between individuals, namely horizontal individualism, horizontal collectivism, vertical individualism, and vertical collectivism (Oyserman et al., 2002). According to this framework, cultures high in horizontal individualism tend to be egalitarian, with individuals being independent and of comparable power and status, whereas cultures high in vertical individualism tend to champion competition between individuals, resulting in acceptable inequality between individuals (Oyserman et al., 2002). There are four constructs: vertical individualism (VI), vertical collectivism (VC), horizontal individualism (HI), and horizontal collectivism (HC), however, only the individualism construct will be explained further here. The VI construct is characterized by people who often want to become distinguished and acquire status and they do this in individual competitions with others. They are likely to say “I want to be the best.” Society values freedom but not equality (the U.S. is an example). The HI construct is characterized by people who want to be unique and distinct from groups and are likely to say, “I want to do my own thing,” and are highly self-reliant, but they are not especially interested in becoming distinguished or in having high status. Society values both equality and freedom (Norway is an example). Triandis and Gelfand (1998) demonstrated that both the vertical and horizontal structures do exist in the U.S. Triandis and Gelfand (1998) specifically named the military as a population more likely to be vertical and a good population for further study of the horizontal-vertical construct. They also note that

other dimensions were captured by some previous measurements, but VI was not captured by any of the scales developed by other researchers.

Vertical individualism, the tendency toward championing competition resulting in an acceptable inequality between individuals, is built into the organization of the Army inherent in the rank structure of the military. Competition is an integral aspect of the rank structure because job performance and special military qualifications, such as earning Airborne/Air Assault/Expert Field Medical Badges are a means for earning rank more quickly than peers. Rank corresponds directly to a soldier's pay grade providing great incentive for earning higher rank. Rank is a clearly noticeable symbol of achievement and authority that is prominently worn on the duty uniform. Additionally, military customs and courtesy requires soldiers be addressed by name and rank. If the researcher finds the majority of the sample exhibits a high level of VI, this lends support for Triandis and Gelfand's (1998) horizontal-vertical construct. An obvious limitation involves the sample of university students also on active duty status, which may not provide an accurate look at the Army as a whole.

Measurement scales. *The Auckland Individualism and Collectivism Scale (AICS)*, is an example of a scale using separate subscales that measure each dimension independently (Shulruf et al., 2011). The AICS was designed and validated across populations from 5 different countries. The original version of the AICS was developed in 2007 to address measurement issues and to minimize major problems identified in previously developed scales. One of the major problems with previous methods has been that respondents can present themselves as more or less collectivistic, depending on the social desirability pressures in their particular society. For example, when responding to

an attitude item the participants can be very aware that they are responding collectivistically or individualistically, and may modify the response depending on how they wish to present themselves to the experimenter (Triandis, Chen, & Chan, 1998). Shulruf et al. (2011) judged the AICS to be superior to other individualism and collectivism measures; in particular, the AICS asks respondents about the frequency of their behavior or thoughts concerning a particular issue, rather than the importance of certain individual values. This difference is important; the answers recorded are the respondents' perception of their own behavior rather than those they regard as optimal or desired behavior (Shulruf et al., 2011). The AICS can provide reliable discrimination across ethnic groups, can identify the proportion of individualists, and can also identify collectivists within groups, and the proportion of those individuals who are neither (Shulruf et al., 2011). The final version of the AICS (Shulruf et al., 2011) repeatedly yields high reliability (Cronbach's α between .70 and .82). The AICS individualism construct has three subscales: compete (items 1, 6, 7, 14, 21, 23, 25); unique (items 2, 12, 22, 26); and responsibility (items 5, 11, 17, 19). There are 15 total items for individualism. Collectivism has two subscales: advice (items 3, 8, 10, 13, 15, 18, 24) and harmony (items 4, 9, 16, 20). There are 11 items for collectivism.

The AICS is generally consistent with Oyserman et al.'s (2002) review findings. Oyserman et al. (2002) found the following domain names in previous I-C research in association with individualism: compete, unique, independent, goals, private, self-know, and direct communicate. The two AICS subscales associated with collectivism, advice and harmony, are also included in the Oyserman et al. (2002) findings. The most

common domains for collectivism according to Oyserman et al. (2002) were advice, harmony, related, belong, duty, context, hierarchy, and group.

Subcategories. This project defines individualism within the framework of two subcategories: competition and self-reliance. The importance of clearly defining individualism was emphasized by Oyserman et al. (2002) finding that the value of the construct was seriously compromised in research in which the terms were not well defined or were overly inclusive.

Recall that the AICS has three subscales for individualism: compete, unique, and responsibility. This study will use all three subscales of the AICS in addition to a subscale to measure self-reliance. Items for this sub-scale were derived from Triandis (1996). It is recognized that substituting some items and excluding some others may compromise validity and reliability to some degree.

The Military Health Survey (MHS) included 15 total items to measure individualism. The individualism items were contained in the first section of the MHS in Appendix A. There were four 'competition' items and they included items 4, 8, 12, and 15. There were three 'self-reliance' items and they included items 1, 5, and 9. There were four 'uniqueness' items and they included items 2, 6, 10, and 13. There were four 'responsibility' items and they included items 3, 7, 11, and 14. The subscales of competition and self-reliance were of primary interest and the other two subscales were used as contrast measures. Collectivism was not measured in the present study; however, this dimension is a part of the AICS. None of the collectivism items of the AICS were used.

Competition. Competition is an important, although imprecise attribute of individualism that is sometimes included as a subcategory in measures of individualism. Oyserman et al. (2002) cited that 15% of the scales they reviewed used “competition” as a component of measurement. This is true of the AICS, which is the basis of the tool used in the present study. Oyserman et al. paid special attention to the role of respect for hierarchy and competition, because they noted the lack of consensus in the literature regarding these aspects. They attempted to assess whether hierarchy and personal competition functioned independently of individualism and collectivism. Oyserman et al. (2002) concluded that there was no consensus in the literature on the role of hierarchy and competition, thus further study of this aspect of individualism is needed.

Self-reliance. Self-reliance is the other subcategory of main interest in this study. Self-reliance is an attribute of individualism of even greater interest to the researcher than competition. The two seem to be linked according to Triandis and Gelfand (1998), which found that in American samples, self-reliance was linked to competition. In collectivist samples, self-reliance could also be high, but the motivation was often to avoid being a burden to the in-group (Triandis & Gelfand, 1998).

Self-reliance is an attribute to which military personnel may be particularly vulnerable. Oyserman et al. (2002) noted that 83% of scales included at least one item focused on “valuing personal independence.” The description of this domain includes attributes of freedom, self-sufficiency, and control over one’s life. A sample item in this domain includes, “I tend to do my own thing, and others in my family do the same.” With regard to the horizontal-vertical framework, Triandis and Gelfand (1998) found that horizontal individualists scored especially high on self-reliance.

The importance of self-reliance within the framework of individualism is explained by Greene (2008). He argued that individualism may consist of three separate yet related ideologies instead of a single belief set. Greene (2008) proposed the following ideologies:

- a. *Self-willed wealth* represents the belief in economic success as an individual's primary goal and a valid measure of human worth.
- b. *Full self-reliance* represents the belief that individual self-reliance is the primary measure of individual worth. Those with strength and resolve can overcome any obstacle without needing to rely upon others or the system.
- c. *High self-esteem* represents the belief that realizing 'unlimited' individual potentials and loving oneself are primary goals. Barriers to self-esteem exist only in the mind and any determined individual should be able to achieve high self-esteem.

Neither self-willed wealth, nor high self-esteem will be measured directly in the present study; however, the relationship of self-willed wealth to full self-reliance is important and will be explained here. Greene (2008) discussed the historical development of the ideology of self-reliance in the context of cultural strains. Greene (2008) noted that ever increasing numbers of urban poor in the 19th and 20th centuries raised doubts about the self-willed wealth myth evidenced by labor strife, racial conflicts, and civil unrest. During this same time period, 'western' folklore gained popularity and cowboys were glorified in their self-reliant attributes that allowed them to survive hostile environments (Greene, 2008). As a result, self-reliance became a philosophy of life and man could still feel validated (within this cultural paradigm) in the thick of the struggle as

long as he maintained his self-reliance and did not ask for help (Greene, 2008). The honor of facing life's struggles single-handedly could be more desirable than wealth (Greene, 2008). Greene (2008) proposed that the ideology developed as a result of cultural strain on a culture that promotes lofty individual benchmarks to social groups that lack the means of reaching them.

An example of a social group that meets this criteria and that is relevant to this study includes, in particular, lower enlisted soldiers who make very little salary and often have families to support. Additionally, it is well known that Army soldiers, particularly young lower enlisted soldiers present with devastating alcohol problems. Bray and Hourani (2007) found that over a 25 year time span heavy drinking continued to be an alarming and persistent problem among military service members. Additionally, they found that younger, lower enlisted service members were six times more likely than officers to be heavy alcohol users (Bray & Hourani, 2007). The 2008 Health Related Behaviors Survey found that heavy drinking (five or more drinks per occasion at least once a week) remained at about the same level as 2005 (19%), with 2008 at 20% (Military Health System, 2009). Heavy drinking and binge drinking are of concern because they are associated with higher rates of serious consequences within the military, such as being passed over for promotion, loss of time on duty because of drinking related illness or arrest/injury from driving under the influence of alcohol (Military Health System, 2009). Greene (2008) states that particularly for men, drowning sorrows in alcohol may be preferable to confronting vulnerabilities. In failing to attain the economic American dream, men may see an isolated, nomadic form of individualism as a lesser evil than surrendering a façade of self-reliance that they believe garners pride and deflects

stigma (Greene, 2008). It is also well-known that Soldiers often find it difficult to seek help for psychological issues resulting from combat exposure. Military mental health has begun “The Real Warriors Campaign” featuring stories of real service members who have sought treatment and continue to serve. This campaign aims to minimize, if not eliminate the stigma attached to seeking mental-health assistance. Thus, the attribute of American self-reliance is of particular interest to investigate in this study that will use U.S. Army soldiers as the target population.

Olds and Schwartz (2009) devote an entire chapter to self-reliance in their book *The Lonely American*. They speak of a dark side to self-reliance which concerns the ideal of the outsider who stands apart yet shapes our country’s destiny (Olds & Schwartz, 2009). It is a myth with emphasis on apartness rather than self-sufficiency (Olds & Schwartz, 2009). A person must be willing to stand apart from the crowd and bravely steel oneself to be an *outsider*, far from the comforting smoke of a neighbor’s chimney (Olds & Schwartz, 2009). A soldier is particularly vulnerable to this myth of apartness and this is exemplified by a popular Christmas poem called *The American Soldier Standing Guard at Christmas* (retrieved from www.libertynewsonline.com). The narrator of the poem is a civilian male at home with his peacefully sleeping family on Christmas Eve night. The narrator hears the faint sound of footsteps outside in the snow and he rises to investigate. Looking out the front door of his home, verse four of the poem describes what he sees:

...Standing out in the cold and the dark of the night,
A lone figure stood, his face weary and tight.
A soldier, I puzzled, some twenty years old,
Perhaps a Marine, huddled here in the cold.
Alone in the dark, he looked up and smiled,
Standing watch over me, and my wife and my child... (Anonymous, 2010, para.4)

The poem goes on to describe the conversation the civilian and the soldier have. The civilian invites the soldier in out of the cold to which the soldier replies thus:

“...I’m out here by choice. I’m here every night.”
 “It’s my duty to stand at the front of the line,
 That separates you from the darkest of times...” (Anonymous, 2010, para.6).

I can live through the cold and the being alone
 Away from my family, my house and my home...” (Anonymous, 2010, para.8).

This poem is an example of the way our culture presents the ideal of the lonesome hero as a virtue to be worn as a badge of honor. Additionally, American culture is flooded with countless movies that laud the lonesome hero giving rise to the popularity of actors, such as John Wayne and Clint Eastwood (Olds & Schwartz, 2009). The dark side of this ideal presents itself in a tendency to seek separateness as a symbol of courage, which often leads to feelings of emptiness, loneliness, and depression. It is logical to expect that a high degree of self-reliance will correlate with poor overall health.

Quality of Life/Overall Health

Overview. This study conceptualizes health in terms of overall health as defined by the WHO and risk-taking behavior. General health will be measured within four domains: physical, psychological, social relationships, and environmental. Risk-taking behavior will be measured based on self-report on affinity for danger, binge drinking, reckless driving, and use of hearing protection. The term overall health refers to a combination of general health and risk-taking behavior.

WHOQOL-BREF. The present study will measure general health using the U.S. version of the WHOQOL-BREF scale. This scale assesses overall quality of life and general health including an additional four domains that assess physical health,

psychological, social relationships, and environment. The WHO defines health as “[a] state of complete physical, mental, and social well-being not merely the absence of disease...” (Bonomi, Patrick, Bushnell, & Martin, 2000). The “WHO defines Quality of Life as an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person’s physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment” (Bonomi et al., 2000, p.1). This tool is appropriate to use for research, although it was initially designed to look at the impact of a health problem on a patient’s life (Bonomi et al., 2000). Questions were phrased to be applicable to healthy people as well as those with severe impairments; positive terms were used to escape from the problem-centered focus of other instruments (McDowell, 2006). The WHOQOL-BREF has 26 items with a 5-point Likert response scale and takes less than 10 minutes to complete (Bonomi et al., 2000).

Other overall health measures were considered for this study, but were ruled out one by one for different reasons. The Short Form (SF)-8 Health Survey was strongly considered, but it was found to be quite costly to obtain a license. The SF-8 (8-items) is a shorter version of the SF-36 (36 items) and the brevity of this tool was very appealing for use with an electronic survey. The SF-8 can be found at <http://www.qualitymetric.com/WhatWeDo/GenericHealthSurveys>. Validity and reliability of this measurement are both high. The key concepts assessed by the SF-36 include physical functioning, physical role functioning, bodily pain, general health, vitality, social functioning, emotional role, mental health, and reported health

transmission. The WHOQOL-BREF is very similar to the SF-8 because it assesses all of the key concepts of the SF-8 and has an additional environmental domain. The environmental domain assesses the participant's perception of the safety/health of his daily environment. The RAND-36 Health Status Inventory is an exact replica of the content of the SF-36, but is rarely used because the scoring does not meet scaling and scoring assumptions as well as the SF-36 (retrieved from www.sf-36.org/faq/generalinfo.aspx?id=4). The Health Status Questionnaire 2.0 is similar to the SF-36 with additional items assessing depression, health status change, and demographic characteristics known to affect functioning and well-being (Mental Measurements Yearbook with Tests in Print). These additional items are not of interest to this study. The WHOQOL-BREF was selected for use for several reasons. The 26-item scale is reasonable for use with an electronic survey format, obtaining a license for use was reasonably priced, a U.S. version exists making it culturally relevant for this target population, and it has shown good discriminant validity, content validity and test-retest reliability (Bonomi et al., 2000).

Risk-taking behavior. The military takes the overall health of its fighting force very seriously. Over the past 31 years, the DoD conducted 10 intense, comprehensive surveys of health related behaviors among active duty military personnel. The first was conducted in 1980 and additional surveys were conducted in 1982, 1985, 1988, 1992, 1995, 1998, 2002, 2005, and 2008. The 2008 DoD Survey of Health Related Behaviors Among Active Duty Military Personnel assessed substance abuse, mental well-being, deployment issues, fitness, nutrition and weight management, and compared this data to select national health status goals. Health status goals are from the Department of Health

and Human Services' (HHS) Healthy People 2010 objectives identified as important factors for leading healthy lifestyles (*Health Related Behaviors Survey, Q&A, 2009*). More than 28, 500 service members across all pay grades throughout the world participated in the 2008 survey from the Air Force, Army, Coast Guard, Marine Corps and Navy (*Health Related Behaviors Survey, Q&A, 2009*). This survey is used not only to monitor health trends, but also to detect emerging health risks (*Health Related Behaviors Survey, Q&A, 2009*). The findings are used for program evaluation and to determine level of emphasis placed on various programs already in progress (*Health Related Behaviors Survey, Q&A, 2009*). For example, following the 2005 survey which showed an increase in heavy alcohol use, the DoD launched "That Guy" campaign to educate service members on the dangers of alcohol abuse (*Health Related Behaviors Survey, Q&A, 2009*).

Risk-taking behavior is of significant interest to the researcher as a Preventive Medicine Officer in the U.S. Army. A large part of Army Preventive Medicine is educating Soldiers about the inherent risks to which they are exposed. For example, as a Hearing Program Manager, this researcher is especially interested in finding more effective ways to educate soldiers about the importance of using hearing protection in order to prevent noise-induced hearing loss. This present study may provide insight for managing the negative impact of individualism to more effectively communicate how it affects an individual's health. This study will use eight items from the 2008 DoD Health Related Behaviors survey to assess risk-taking behavior.

Individualism and health. As noted in the earlier in this chapter, the I-C construct has been discussed in numerous areas, such as values, social systems, morality,

and even politics. Past I-C related research has also included numerous studies related to aspects of health. Past research has used various methods for measuring health-related concepts, such as life satisfaction, subjective well-being (SWB), and quality of life (QOL). A QOL measure is somewhat different from both life satisfaction and subjective well-being (SWB) measures, which is explained in the next section of this paper.

These three terms will be discussed here in order to provide a theoretical background about how health has been measured in the past. Life satisfaction is a component of SWB and was reported by Oyserman et al. (2002) to currently be an outdated indicator of individualism, thus using this measure for the current study was ruled out early. Judgments of satisfaction depended on comparison of one's circumstances with what was thought to be an appropriate standard (Diener et al., 1985).

SWB is often used currently as a measure of overall health and much research has been conducted using this measurement. The definition has changed slightly with time to more clearly define SWB. Thirty years ago, the components of SWB included: positive affect, negative affect, and life satisfaction (Diener et al., 1985). Myers and Diener's (1995) components of SWB are similar, but affect is defined more specifically. The components are as follows: the relative presence of positive affect, absence of negative affect, and satisfaction with life. They proposed that positive and negative affect seem not to be bipolar opposites (Myers & Deiner, 1995). Positive well-being is not just the absence of negative emotions. Bettencourt and Dorr (1997) added an additional component. An example of a current measure of SWB is the Gallup-Healthways Well-Being Index, which includes seven categories: life evaluation, emotional health, physical

health, healthy behavior, work environment, and basic access (retrieved from well-beingindex.com).

The term quality of life is used to evaluate the general well-being of individuals and societies. The term is used in a wide range of contexts, including the fields of international development, healthcare, and politics. The present study will use a measure of QOL because the WHOQOL-BREF most closely encompassed the health attributes of interest. Additionally, its format was in the most usable and available form for the purpose of this study.

I-C studies related to health have overwhelmingly been classified as well-being and emotion studies (Oyserman et al., 2002). The well-being studies will be discussed here because these are the closest approximation to the topic of the present study, which is overall health. Oyserman et al., (2002) found a total of 19 well-being studies and several of these studies will be discussed in the paragraphs that follow. Some of the difficulties noted by Oyserman et al. (2002) in studying life satisfaction and well-being were that factors such as national wealth, gross national product, and other factors related to modernization would likely increase life satisfaction and well-being. Oyserman et al. (2002) claimed that researchers must disentangle the effect of individualism from other country-level differences that relate to life satisfaction. The WHOQOL-BREF is the tool that will be used for the present study. This tool measures general health and includes four domains related to health, which include physical, psychological, social, and environmental.

Well-being studies. Bettencourt and Dorr (1997) conducted two well-being studies investigating the relationship between self-esteem and SWB. Their study looked

at the psychological and social aspects of health. Study one focused on the importance of in-group relationships for cognitive and emotional well-being (Bettencourt & Dorr, 1997). This study examined whether allocentrism (measured by concern for in-group) predicted life-satisfaction (Bettencourt & Dorr, 1997). Idiocentrism-allocentrism is a construct sometimes used for within culture studies and corresponds to individualism-collectivism respectively. Triandis et al.'s I-C measurement tool was used to assess allocentrism and idiocentrism (Bettencourt & Dorr, 1997). It had three subscales: 1.) Concern for In-Group (allocentrism) 2.) Self-reliance with Competition (idiocentrism) 3.) Distance from In-Groups (Bettencourt & Dorr, 1997). SWB included both cognitive and affective aspects and was measured in terms of life satisfaction, preponderance of positive over negative affect, and virtue and holiness (Bettencourt & Dorr, 1997). The Satisfaction with Life Scale (SWLS) was used to measure general satisfaction with life (Bettencourt & Dorr, 1997). The SWLS was focused to assess global life satisfaction and did not tap related constructs such as positive affect or loneliness (Diener et al., 1985). One hundred seventy-five Midwestern students completed questionnaires and the findings indicated that allocentrism was positively related to life satisfaction and that collective self-esteem (CSE) did mediate the relationship between the two (Bettencourt & Dorr, 1997). Bettencourt and Dorr (1997) also speculated that idiocentrism, as measured by the Self-Reliance with Competition subscale, would be negatively correlated with life satisfaction and the findings confirmed that these were negatively correlated.

Study two further tested study one's hypotheses by adding a measure of general self-esteem (in contrast to CSE) as a control variable. Collective self-esteem pertains to how an individual relates positively within his social group (Bettencourt & Dorr, 1997).

personal self-esteem pertains to how an individual feels positively about himself (Bettencourt & Dorr, 1997). Prior studies indicated that personal and collective self-esteem were conceptually different, and well-being should be understood in terms of both (Bettencourt & Dorr, 1997). Because personal self-esteem was found to be related to life satisfaction, a measure of general self-esteem was included as a control variable (Bettencourt & Dorr, 1997). Additionally, a measure of extraversion was included because it is known to be moderately and reliably correlated with life satisfaction. Two hundred and ten students completed questionnaires and findings indicated that personal self-esteem and extraversion were related to SWB; however, the findings did not indicate that extraversion was implicated in the relationship between allocentrism and subjective well-being. As in study one, self reliance was negatively related to SWB. Self reliance was also negatively related to allocentrism, private CSE, and personal self-esteem. Bettencourt and Dorr's (1997) findings are consistent with the basic tenet of this specific study, which is that individualism and more specifically, self-reliance, is detrimental to overall health.

Conversely, in two separate studies, Okazaki (1997, 2000) found a positive influence on health associated with individualism. Okazaki (1997, 2000) used the term "independent self-construal" instead of individualism, however, the terms individualism or collectivism will be used here. Both Okazaki (1997, 2000) studies focused on the psychological and social aspects of health. The 2000 study also included an aspect of physical health related to emotional distress. The research was interested in determining ethnic differences between Asian Americans (assumed more collectivistic) and White Americans (assumed more individualistic). In the 1997 study, University of California

students including Whites born in the U.S. and Asian Americans predominantly foreign born were surveyed for depression, social avoidance and distress, fear of negative evaluation, and individualism/collectivism. The research found that individualists showed negatively correlated data with all three distress measures, showing stronger correlations on the two anxiety scales than the depression scale. The collectivists showed positively correlated data with the fear of negative evaluation scales, but minimally correlated data with the social avoidance/distress, and depression scales. The data suggested that ethnicity and self-construal variables are associated with emotional distress in specific ways. There were no ethnic differences on the fear of negative evaluation scale after controlling for the covariates, but the I-C variables were significantly related to the fear of negative or critical evaluations. For both scales of social anxiety, lower independent self-construal (less individualistic) was significantly related to higher reports of social anxiety. In other words, those more concerned with asserting one's own judgment and emphasizing autonomy from others were less likely to be socially avoidant, distressed in social situations and fearful of social evaluations. It is possible that these results reflect bias in that the Asian Americans in this study, largely first generation immigrants, had not gained the social ease or the language fluency that would functionally decrease social anxiety particularly in new or unfamiliar situations.

Okazaki (2000) noted an apparent paradox in the expression of emotion and emotional distress among Asian Americans. On one hand, they sanction against strong emotional expression, favoring emotional control and inhibition of affective expression and not disclosing distress to strangers (Okazaki, 2000). On the other hand, there is cumulative research evidence suggesting that they report emotional distress at

significantly higher levels when compared with their White counterparts (Okazaki, 2000). In view of the unexpected results of the 1997 study, the author conducted another study in order to evaluate whether or not the reporting method could account for the results. The 1997 study used a questionnaire format in a large classroom setting. The 2000 study used both questionnaire and personal interview format and results of both formats were assessed. The I-C construct was included to assess whether cultural personality variables also influenced method of reporting. Both Okazaki studies focused on depression and social anxiety, however, the 2000 study included a physical symptom checklist to examine whether the results were specific to emotional distress or were general to any type of symptom reports. The scale contained 12 items to assess physical symptoms, such as headaches, faintness, and dizziness.

Eighty-one Asian Americans were chosen from a larger pool of undergraduates enrolled in introductory psychology courses. They were contacted by phone and invited to participate in the study. Only those with two Asian parents were accepted into the study and 48 Asian American students completed the study. For each of these, a White American was recruited matched on sex, age, and the initial Beck Depression Inventory (BDI) score. Measures included the social avoidance and distress scale (SAD), the somatization (physical symptoms) subscale of the symptom checklist 90-Revised, the Marlowe Crowne Social Desirability Scale (MCSD), the self-construal scale (SCS), and a self-identity and acculturation scale. All measures were administered in written and interview formats.

The author predicted that Asian Americans would report significantly more symptoms of depression and social anxiety than White Americans in a large-group

anonymous reporting condition (Okazaki, 2000). The author also predicted that White Americans would show relatively consistent patterns of reporting across questionnaire and interview conditions. No specific hypothesis was formulated regarding the I-C construct. Like the 1997 study, the 2000 Okazaki study found the collectivists were more likely to report higher levels of depression and social anxiety. For social anxiety, the reporting method had no effect meaning the same results were obtained whether using questionnaire or interview style. For depression, there was an effect on reporting method. Contrary to the author's prediction, both Asians and Whites were less likely to report feeling depressed or lonely in the interview compared to the written questionnaire, and they were more likely to report being happy in the interview than on the written questionnaire (Okazaki, 2000). Both reported more physical symptoms on the written questionnaire than in the interview (Okazaki, 2000). It is important to note that items in the individualism construct subscale appeared to be closely related to social anxiety, so it was not surprising that this subscale and the Social Avoidance and Distress (SAD) scale were significantly and negatively related (Okazaki, 2000). This finding has important implications for how Western cultural ideals such as independence may be embedded in the definitions of psychological disturbance within the American culture (Okazaki, 2000). Okazaki appears to suggest that Westerners perceive aspects of individualism as healthy, whereas, psychological definition considers these same aspects otherwise. Conflicting results demonstrate the complexity of measuring health and individualism.

Diener et al., (1995) noted several confounding variables that made it difficult to measure the effects of I-C on SWB. They stated that in collectivist cultures, there might be greater feelings of social support, which may enhance SWB. In individualist cultures,

there is more personal freedom and more ability to pursue individual goals. Additionally, individualists are likely to place more value on personal well-being and thus seek SWB to a greater extent. On the other hand, individualists may feel more responsible for both their failures and successes, which may affect SWB in either direction. This study examined SWB across 55 nations in correlation with social, economic, and cultural characteristics, such as individualism. High income, individualism, human rights, and societal equality correlated strongly with each other and with SWB across surveys. Only individualism persistently correlated with SWB when other predictors were controlled. Four measures of SWB were used and the surveys were generally related to happiness and life satisfaction. The authors agree that the I-C correlation with SWB is intriguing and deserves further research effort. The current study will take a slightly different approach by measuring QOL instead of SWB.

Mental health studies. Scott, Ciarraochi, and Deane (2004) found that higher levels of individualism within an individualistic society were associated with a number of social and psychological disadvantages. Scott et al. (2004) studied the association of higher levels of individualism within a predominantly individualistic culture (idiocentrism) with low emotional competence, less social support, less intention to seek help in times of turmoil and, consequently, poorer mental health (Scott, Ciarraochi, & Deane, 2004).

The surveyed participants were predominantly female and consisted of 276 first-year students of an Australian university ages 16 to 48 years. Twenty participants born in collectivistic countries were excluded from the main analyses because of their small, heterogenous, and thus unreliable nature as a comparative cultural sample (Scott et al.,

2004). Idiocentrics had smaller and less satisfying social support networks, low emotional competence, poorer mental health indicators and lower intentions to seek help in times of need (Scott et al., 2004). Many of these relationships held even after controlling for the social support variables, suggesting that the relationship between idiocentrism and the outcome measures could not be explained entirely by differences in social support (Scott et al., 2004). There was no link between idiocentrism and amount of life stress, nor did idiocentrism moderate the link between stress and depression (Scott et al., 2004). Somewhat surprisingly, the link between idiocentrism and hopelessness was not moderated by social support, which is inconsistent with past research (Scott et al., 2004). That is, idiocentrics in this study tended to feel more hopeless than allocentrics regardless of how much social support they had. Also, idiocentrism reported little intention to seek help from others even when they had a lot of social support and were satisfied with that social support. Scott et al. (2004) concluded that idiocentrism appeared to be more related to a cognitive state than an emotional state. This was determined based on the relation of idiocentrism and hopelessness and suicide ideation, but not depression. Scott et al. (2004) references the work of another researcher to explain why lower levels of overall emotional competence may be found. Triandis proposed that "because individualists must enter and leave many in-groups, they develop superb skills for superficial interaction, but do not have very good skills for intimate behaviors." (Scott et al., 2004, p.150). Emotional competence will not be explored in the current study, yet Triandis' proposal is interesting in light of the target population. Military members have many opportunities for entering and leaving in-groups and most often, these opportunities are not voluntary, but are directed by higher authority. Military

members are assigned new geographic duty locations, on average, every three to four years during their time of service.

Physical health/health behavior studies. Vandello and Cohen (1999) conducted a study that included some aspects of physical health and health behavior. The study evaluated the I-C construct relative to several social aspects among individual U.S. states. The following aspects were included in their study: poverty, population density, farming practices, minority percentage, slavery, gender equality, racial equality, suicide, binge drinking, and rate of heart disease. Suicide, binge drinking, and rate of heart disease are associated with health, and thus findings from these three aspects will be the only ones discussed in this paper.

The survey data was obtained from the 1990 nationally administered National Election Study (NES) (Vandello & Cohen, 1999). The survey was administered to 2,000 respondents drawn from 30 different states and the sample sizes used in the analysis ranged from 851 to 987 (Vandello & Cohen, 1999). Most of the survey items asked about political attitudes, and the 8 item I-C index was also included (Vandello & Cohen, 1999). Both suicide and binge drinking were negatively correlated with collectivism. Vandello and Cohen (1999) used a unidimensional measurement tool, thus, a negative correlation to collectivism would indicate a positive correlation to individualism: a high level of individualism correlated with a high level of binge drinking and suicide. This finding is consistent with my hypothesis that individualism is detrimental to overall health. Vandello and Cohen's (1999) findings about heart disease were less conclusive. The rate of heart disease did not significantly correlate with collectivism, thus Vandello and Cohen (1999) concluded that there was *some* suggestive evidence of a link between a

culture of individualism and stress-related problems (particularly alcohol related problems). Stress related problems will not be explored in the present study; however, these findings are of interest considering the target population. As previously noted, military members are at very high risk for alcohol related problems.

Conclusion

This specific study purposes to investigate whether or not individualism in the U.S Army is detrimental to overall health. The two specific subcategories of individualism of interest include self-reliance (representing horizontal individualism) and competition (representing vertical individualism). The question will be examined using two hypotheses. These hypotheses are as follows: 1.) There is a negative relationship between individualism and general health. 2.) There is a positive relationship between individualism and risk-taking behavior. Other variables of interest relative to competition and self-reliance include age and rank.

The present study is unique from previous research in two major ways. First, this study seeks to correlate individualism with overall health in terms of QOL and risk-taking behavior. Other studies have measured health in terms of life satisfaction, subjective well-being, emotion, and mental health, as a few examples. Second, this study will use a target population that has never been used before. Much of the past research has sampled traditional university students, but this study will sample U.S. military soldiers. A convenience sample will be taken from a university student pool; however all of these students will be on active duty with the military.

CHAPTER III

Methodology

Research Design

This correlational study collected quantitative data through electronic survey. Ordinal data in the form of a Likert scale represented scores on measurement scales for individualism, general health, and risk-taking. The individualism scores included an overall individualism score, which was broken down into the subcategories of: competition and self-reliance for analysis.

Population and Sample

The participants of this study were active duty soldiers who were students at Austin Peay State University (APSU). They were recruited through the APSU email database. There were 719 self reported active duty service members enrolled at APSU at the time of the study. There were no exclusion criteria. The survey included the following identifying information: a.) age b.) rank (i.e. officer or enlisted) c.) branch of service (i.e. Army, Air Force, Navy, Marines, Coast Guard) d.) marital status (married; single, but living as married; single; divorced) e.) deployment status (i.e. deployed or not deployed).

Rank data were collected to assess whether there was a difference between officers and enlisted soldiers with respect to self-reliance and competition. Age data were collected to assess whether there was a correlation between age and self-reliance or competition. Branch of service data were collected in order to distinguish Army service members from the other branches because Army soldiers were the target sample population. Marital status data were collected because this is known to have an effect on

risk-taking behavior. Married individuals exhibit fewer risk-taking behaviors than unmarried individuals, thus marital status may confound risk-taking behavior results. Deployment status was collected because deployment conditions may confound results of the environmental domain of the WHOQOL-BREF as compared to garrison conditions. This study was not interested in ethnicity because it conceptualizes this as a within-culture study and all members of the U.S. armed services will be considered homogeneous for the purpose of this study.

Measurement Instrument: Military Health Survey

The Military Health Survey (MHS) was constructed to assess individualism, health, and risk-taking. The MHS can be found in Appendix A.

Individualism. A modified version of the AICS was used to measure individualism. The first 15 items of the MHS measure individualism based on subcategories of competition (4 items), self-reliance (3 items), uniqueness (4 items), and responsibility (4 items). Competition and self-reliance were of primary interest; uniqueness and responsibility were used as contrast measurements. Self-reliance was the most interesting characteristic to the researcher, however, no measurement tool was available that measured self-reliance in isolation. Self-reliance was found in previous research only as a subcategory of individualism.

The AICS used a 6-point Likert scale and the modified scale used the same response choices. The AICS did not include any self-reliance items, yet, this subcategory was of interest to the researcher. Thus, three items from Triandis' 32 item scale (Triandis, 1996) were included in the MHS. Triandis' scale was divided by hierarchy into vertical and horizontal individualism and collectivism. Horizontal individualism

items representative of self-reliance were chosen for inclusion in the MHS. Reliability and validity data were not found for the Triandis (1996) vertical-horizontal measurement scale. It is recognized that modification of this tool may affect reliability and validity; however, the integrity of the items and response choices was maintained in order to deviate as little as possible from the original. See Appendix B for a table of original survey items from the AICS (2011) and Triandis (1996) compared to the MHS items. For statistical analysis, all individualism items were collapsed in order to obtain one individualism score.

Quality of Life/Overall Health. The U.S. version of the World Health Organization Quality of Life-BREF (WHOQOL-BREF) scale was used to measure quality of life and general health (items 16 through 41 of the MHS). The WHOQOL-BREF assessed overall quality of life and general health, and was composed of four domains that assess physical health, psychological, social relationships, and environment. All 26 items of the WHOQOL-BREF were used in their original form. No modifications were made to the original wording or the order of the items. The demographic items of the original were not used because they were not applicable to the present study. The WHOQOL was designed as a paper and pencil measurement; therefore, the instructions were modified for use with an electronically based survey. For statistical analysis, the quality of life item, the health satisfaction item, and all four domains were collapsed in order to obtain one general health score.

Risk-taking behavior. Eight items from the 2008 Department of Defense Health Related Behaviors Survey were included to measure risk-taking behavior. Items related to self-report on affinity for danger (2 items), binge drinking behavior (2 items), reckless

driving (2 items), and use of hearing protection (2 items) were included. For statistical analysis, all risk-taking behavior items were collapsed in order to obtain one risk-taking score.

Data Collection

Data collection began in the Spring semester of 2012 and was completed within 3 weeks. Data were collected by electronic survey created through the Survey Monkey software. Survey Monkey is on-line software available to the public for creating, collecting responses, and analyzing data of on-line surveys. Following Institutional Review Board approval, the registrar released student email addresses of all students enrolled at APSU who also self-reported being on active duty military status. An email was sent to each address which invited the soldier-student to participate in a military health survey. Participation was voluntary and all participants acknowledged informed consent by taking the survey, which was explained in the email that accompanied the survey. This study was approved by the human subjects committee (see Appendix E for the approval letter). Eligibility for a \$100 gift card to the Army and Air Force Exchange Service (AAFES) was offered. Responders were notified that only completed surveys were eligible for a gift. Six \$100 gift cards were awarded randomly for completed surveys. A reminder email was sent one week after launching the survey. All surveys sufficiently completed from active duty (and one retiree) military personnel were accepted.

Analyses of Data

The survey results were downloaded from Survey Monkey into an excel spreadsheet, and were analyzed in statistical software, specifically JMP9 developed by SAS Institute (Carey, NC).

Five variables were constructed for analysis, consisting of individualism, competition, self-reliance, general health, and risk. The individualism variable consisted of the mean score of MHS items 1-15 for each subject. The competition variable consisted of the mean score of MHS competition items of individualism, which were items 4,8,12, and 15 for each subject. The self-reliance variable consisted of the mean score of MHS self-reliance items of individualism, which were items 1, 5 and 9 for each subject. The general health variable consisted of the mean score of MHS items 16-41 for each subject. The risk variable consisted of the mean score of MHS items 42-49. Another analysis was conducted using the sum of the scores in view of the inequity of the response choices. Some items had six choices, some five, some four, and some three. When the sum of risk-taking was used, the sum of the contrast variable was also used. However, using the sum instead of the mean did not change the results.

Hypotheses Testing. Spearman correlation analyses were used to test both hypotheses: a) that individualism is negatively correlated with general health, and b) that individualism is positively correlated with risk-taking behavior. Spearman correlation was used because the survey contained Likert scale ordinal data and this is the most appropriate test for ordinal data. The confidence level for statistical significance was .05.

Rank. Officer competition scores were compared enlisted competition scores to evaluate a difference in rank with respect to competition using an independent *t* test.

Two enlisted subjects skipped one of the competition items. An average of the three items they did answer was taken and was used as the fourth value in the sum. Officer self-reliance scores were compared to enlisted self-reliance scores to evaluate a difference in rank with respect to self-reliance using an independent *t* test. One subject did not provide rank data and was not included in this analysis.

Age. Both a Pearson and a Spearman correlation were used to assess a relationship between age and either competition or self-reliance. Each subject's mean score of competition items (4, 8, 12, and 15) and mean score of self-reliance items (1, 5, and 9) was compared to the subject's age. One subject left the age item blank and was not included in this analysis. Another subject indicated "ret dep". Age could not be determined from this response so this subject was not included in the analysis either.

CHAPTER IV

Results

Eighty-three surveys were submitted through Survey Monkey, which is a response rate of 11.5%. Two surveys were not used because one of them included only 15 answered items and the other included only 22 answered items. Eighty-one surveys were included in data analysis.

Demographics

There were 77 Army participants, two Air Force participants, and one Navy participant included in data analysis. There were 18 officer participants and 62 enlisted participants. The age range for officers was 24-40 and the age range for enlisted was 20 to 47. There were 58 married participants; 3 single, but living as married (with a significant other); 7 single, not living as married; and 12 not living as married (divorced, separated, widowed). The marital status category was used for consistency with the DOD Health Related Behavior Survey; however, these results were not included in analysis at this time. There were 77 participants that were not deployed and 3 that were deployed at the time of taking the survey. The deployment data were collected for the purpose of ruling out interference with a particular environmental domain item of the WHOQOL-BREF. In view of the low number of deployed participants, this information was not used. One respondent of the 81 did not provide any demographic information.

Descriptive Data

General health scores were based on the mean of ratings 1-5 for survey items 16-41 of the MHS with 3 items reverse scored (items 18, 19, and 41). Lower scores represented poorer health.

Risk scores were based on the mean of ratings 1-3 (items 44-45), 1-4 (items 42, 43, 46, 47) or 1-5 (items 48-49) for survey items 42-49 of the MHS. All ratings of "6" for items 48 and 49 (hearing protection items) were counted as a rating of "1" because the choice represented a low risk level, which was equivalent to "1", not "6". For item 48, rating "6" read, "I did not fire a weapon in the past 12 months." For item 49, rating "6" read, "I was not exposed to loud noise in the past 12 months." This error was realized after the survey was designed and data was collected, thus it was corrected in the analysis step of the process. Lower ratings represent lower risk. In light of the error, deleting all "6" ratings was considered, however, there were 19 subjects that responded with a "6" to item 48 and there were 15 subjects that responded with a "6" to item 49. Deleting all the "6" ratings was rejected due to the negative effect this may have on an already small sample size. Deleting items 48 and 49 was also considered, however, a Spearman correlation without these two items did not affect the results.

Individualism scores were based on the mean of ratings 1-6 for survey items 1-15 of the MHS. Lower scores represented lower individualism. The components of individualism were also calculated. Competition scores were based on the mean of ratings 1-6 for survey items 4, 8, 12, and 15. Self-reliance scores were based on the mean of ratings 1-6 for survey items 1, 5, and 9. Uniqueness scores were based on the mean of ratings 1-6 for survey items 2, 6, 10 and 13. Responsibility scores were based on the mean of ratings 1-6 for survey items 3, 7, 11, and 14. See Appendix C for a frequency summary of Likert responses to the individualism items (1-15). Tables C1-C4 are organized by each subcategory of individualism and also include the MHS item number labeled to the left of the item. The tables record data from 83 subjects for ease of

reporting obtained through Survey Monkey analysis. Two of the subjects were not used in any other statistical analysis because they did not provide sufficient data to be counted.

Table 1 displays the mean, standard deviation, median, and range data for the primary constructed variables of interest: general health, risk-taking behavior, individualism, competition, and self-reliance. Responsibility and uniqueness were also included because they were subcategories of individualism. All means were 4.0 or higher except for risk, which had a mean of 1.9. Risk response items were scored such that lower numbers were equivalent to lower risk. Responsibility received the highest mean score at 5.0, individualism and uniqueness were the second highest both with a score of 4.6, self reliance was third at 4.5 and competition was the lowest at 4.3.

Table 1

Health, Risk, and Individualism				
	Mean	SD	Median	Range
Health	4.0	.51	4.1	2-4.9
Risk	1.9	.55	2	1-3.6
Individualism	4.6	.60	4.6	3-6
Competition	4.3	1.0	4.3	2.3-6
Self Reliance	4.5	.82	4.3	2.7-6
Responsibility	5.0	.60	5	3-6
Uniqueness	4.6	.91	4.8	2.8-6

Individualism and Health

A Spearman correlation was computed to assess the relationship between individualism and general health. There was no significant correlation between the two variables, $r_s = .10$, $n = 81$, $p = .37$. See Figure D1 for the scatter plot.

Individualism and Risk

A Spearman correlation was computed to assess the relationship between individualism and risk-taking behavior. There was no significant correlation between the two variables, $r_s = .20$, $n = 81$, $p = .06$. When the sum instead of the mean was used, there was no significant correlation between the two variables, $r_s = .17$, $n = 81$, $p = .13$. See Figure D2 for scatter plot.

Rank

An independent t-test was used to assess a difference in rank with regard to competition and self-reliance. There was a significant effect for self-reliance, two sample $t(31) = 2.66$, $p = .01$, with enlisted receiving higher scores than officers. There was no significant effect for competition, two sample $t(31) = 1.35$, $p = .09$.

Age

There was no significant difference between the Pearson and the Spearman correlation between either age and competition or self-reliance. Thus, the Spearman correlation is reported here for consistency with the rest of the data analysis. A Spearman correlation revealed no significant correlation between age and self-reliance, $r_s = -.02$, $n=79$, $p = .86$. There was also no significant correlation between age and competition, $r_s = -.12$, $n=79$, $p = .31$.

CHAPTER V

Discussion

The purpose of this study is to investigate whether or not individualism in the U.S. Army is detrimental to overall health. The sample consisted of 81 military students attending Austin Peay State University in the Spring semester of 2012. Data were collected via an electronic survey instrument distributed through the university electronic mail system. The survey instrument consisted of a measure of individualism, a measure of general health, and a measure of risk-taking behavior

Hypotheses

Consistent with hypothesis one, the researcher expected a negative correlation between individualism and general health. However, no significant correlation was found and two of the study's delimitations may account for these unexpected findings. The individualism items of the original AICS were modified in two distinct ways. First, all collectivism items were omitted. Secondly, three self-reliance items from a different scale were substituted for three of the competition items of the original AICS. This may have affected validity and reliability of the tool. A second delimitation that may account for the unexpected findings includes the WHOQOL-BREF, which was used to measure general health. It is possible that the WHOQOL-BREF is not an appropriate tool for this sample population which consisted of generally healthy people. It is likely that the WHOQOL-BREF was unable to capture adequate variance in this generally healthy sample. Because the WHOQOL-BREF is a standardized, validated measurement tool it could not be modified in any way in order to tailor it more specifically to this sample population.

Consistent with hypothesis two, the researcher expected a positive correlation between individualism and risk-taking behavior. No significant correlation at .05 was found, however, the correlation was in the expected positive direction and a significant correlation at .06 was found. If significance level had been determined at .10, these findings would have been significant. Again, as in hypothesis one, a delimitation associated with the individualism scale used may account for the insignificant findings. Secondly, the sample with regard to risk-taking behavior may have contributed to the insignificant findings. Higher risk-taking behavior was expected from a military sample ($x=1.9$ from Table 1), yet, it is not surprising that university students may exhibit lower risk. This sample likely represents a group with higher education levels than is represented by the military as a whole. This sample is also different from the Army as a whole due to the time-commitment required to pursue an education, while simultaneously being employed full time in the military. This commitment allows less time for engaging in risk-taking behaviors. Likewise, this sample is different from a university student population as a whole for the same reason.

Rank

An independent t-test was used to assess a difference in rank with regard to self-reliance. There was a significant effect for self-reliance, $t(31) = 2.66, p = .01$, with enlisted ($x=13.85$) receiving higher scores than officers ($x=12.28$). These results indicate that enlisted are more self-reliant than officers which is consistent with Greene's (2008) theory of full self-reliance. Recall from chapter two that this theory represents the belief that individual self-reliance is the primary measure of individual worth. Those with strength and resolve can overcome any obstacle without needing to rely upon others or the system (Greene, 2008). Greene (2008) suggested that those in lower economic

classes, such as enlisted soldiers, were conditioned by the culture to choose the honor of facing life's struggles single-handedly over achieving wealth. Greene (2008) proposed this ideology developed as a result of cultural strain on a culture emphasizing lofty individual benchmarks to social groups that lacked the means of reaching them. It is also likely that the difference in roles of the enlisted and officer facilitates greater self-reliance in the enlisted soldier. Traditionally, officers plan and deliver the orders and enlisted execute these orders.

An independent t-test was used to assess a difference in rank with regard to competition. There was no significant effect for competition, $t(31) = 1.35, p = .09$. The mean for enlisted was 17.55 and the mean for officers was 16.22. Research by Triandis (1998) proposed a horizontal and vertical dimension to the I-C construct. Horizontal individualism is the tendency toward egalitarianism, with individuals being independent and of comparable power and status. Vertical individualism is the tendency toward championing competition resulting in an acceptable inequality between individuals. Triandis (1998) specifically named the military as a population more likely to be vertical and a good population for further study of the horizontal-vertical construct. These results do not suggest that the Army is more vertical as there is no difference in competition based on rank, yet there is a difference in self-reliance, which is the horizontal dimension. It is possible that the vertical organization of the military reduces motivation for individual competition because an individual's rank clearly identifies his/her status within the organization. In an individualistic society where hierarchy is less clearly defined, competition may be greater because it is necessary for securing a certain desired status. Another possibility relates to the method of data collection. Rank data was collected in

two categories (officer and enlisted), yet there are eleven rank levels for officer and nine rank levels for enlisted. It is possible that competition was not adequately measured because within rank competition was not considered.

Age

A Spearman correlation was computed to assess the relationship between age and competition and self-reliance. There was no significant correlation between the two variables with respect to self-reliance, $r_s = -.02$, $n=79$, $p = .86$. There was also no significant correlation between the two variables with respect to competition, $r_s = -.12$, $n=79$, $p = .31$. The age range for officers was 24 to 40, and for enlisted was 20 to 47. This finding adds strength to the above that enlisted soldiers are more self-reliant than officers because it rules out age as a contributing factor.

Conclusions

1. There is no significant correlation between individualism and general health or risk-taking behavior in this sample of student soldiers.
2. There is a significant difference in rank with regard to self-reliance, but not with regard to competition. Enlisted soldiers are more self-reliant than officers.
3. There is no significant correlation between self-reliance or competition with regard to age in this sample of student soldiers.

Recommendations

Measuring collectivism in future studies as a comparison between the military population and the whole American society may provide useful information. Collectivism was not measured in this study because America is well-documented as an individualistic society. However, the unexpected lack of significant correlation between

individualism and overall health may indicate that the military functions differently than the whole of American society as a result of its organizational hierarchy. Rank structure is a constant visible reminder of hierarchy because rank is worn on duty uniforms and soldiers are addressed by rank preceded by their last names. Perhaps, personal attributes of health related to individualism were obscured by the organizational effects of the military to which each of these subjects belong. In similar future studies, measuring collectivism may provide comparison information of military members to members of American society as a whole, thus, enabling disentanglement of any organizational effects.

Additionally, this study measured perception of the current state of the individual's health. However, more information may be gathered instead, if health-taking behaviors are measured. This would also provide more congruence with the risk-taking measurement. In a generally healthy population, a different health measurement approach may provide more variance.

Future studies with respect to self-reliance and rank are warranted. The results of this study confirm that enlisted are more self-reliant than officers. Future analyses of risk-taking and health of enlisted soldiers may shed further light on the question of whether enlisted are at greater risk for the negative consequences associated with full self-reliance, such as alcoholism and refusal to seek help when needed. The effect of marital status and age may also contribute to risk-taking behavior and should be explored in future studies.

The military population is an appropriate population to investigate the vertical dimension further. This study was characterized by the horizontal dimension more

heavily than by the vertical dimension, which is consistent with past research. Future studies that assess competition within rank, rather than by category, may find stronger characteristics of vertical individualism in the military population than were found in this study.

The difference noted in self-reliance based on rank is interesting and further research to determine a possible causal relationship of military service, rank, and self-reliance may be useful. It would be interesting to investigate whether or not military service causes an individual to become more self-reliant. Studies similar to this one involving samples of the population with no prior military experience may be useful for comparison. For example, studies comparing students against soldier students may provide information about how the two samples differ. Longitudinal studies comparing an individual prior to entering military service and throughout his/her career may provide information about causality and about how self-reliance operates within the ranks of enlisted and officer status.

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APPENDIXES

APPENDIX A

Military Health Survey

MILITARY HEALTH SURVEY

Instructions

The purpose of the first 15 questions is to find out how you think or behave in regard to yourself and to groups to which you belong. Please read the following questions and answer each by indicating **how often** you would think or behave as described in each of the following items.

1. I rather depend on myself than others.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

2. I enjoy being unique and different from others.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

3. I consult with superiors on work-related matters.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

4. I prefer competitive rather than non-competitive recreational activities.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

5. I rely on myself most of the time; I rarely rely on others.

- ☐ Never or almost never

- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

6. I consider myself as a unique person separate from others.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

7. I like to be accurate when I communicate.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

8. I try to achieve better grades than my peers.

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

9. I often "do my own thing".

- ☐ Never or almost never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often
- ☐ Always

10. My personal identity independent of others is very important to me.

- ☐ Never or almost never

- Rarely
- Occasionally
- Often
- Very Often
- Always

11. It is important for me to act as an independent person.

- Never or almost never
- Rarely
- Occasionally
- Often
- Very Often
- Always

12. I enjoy working in situations involving competition with others.

- Never or almost never
- Rarely
- Occasionally
- Often
- Very Often
- Always

13. I see myself as "my own person".

- Never or almost never
- Rarely
- Occasionally
- Often
- Very Often
- Always

14. I take responsibility for my own actions.

- Never or almost never
- Rarely
- Occasionally
- Often
- Very Often
- Always

15. Winning is very important to me.

- Never or almost never
- Rarely
- Occasionally
- Often
- Very Often

Instructions

The following questions ask how you feel about your quality of life, health, or other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response. Please keep in mind your standards, hopes, pleasures and concerns. I ask that you think about your life in the last two weeks.

16. How would you rate your quality of life?

- Very poor
- Poor
- Neither poor nor good
- Good
- Very Good

17. How satisfied are you with your health?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

18. To what extent do you feel that physical pain prevents you from doing what you need to do?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

19. How much do you need any medical treatment to function in your daily life?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

20. How much do you enjoy life?

- Not at all
- A little

- ☐ A moderate amount
 - ☐ Very much
 - ☐ An extreme amount
21. To what extent do you feel your life to be meaningful?
- ☐ Not at all
 - ☐ A little
 - ☐ A moderate amount
 - ☐ Very much
 - ☐ An extreme amount
22. How well are you able to concentrate?
- ☐ Not at all
 - ☐ Slightly
 - ☐ A moderate amount
 - ☐ Very much
 - ☐ Extremely
23. How safe do you feel in your daily life?
- ☐ Not at all
 - ☐ Slightly
 - ☐ A moderate amount
 - ☐ Very much
 - ☐ Extremely
24. How healthy is your physical environment?
- ☐ Not at all
 - ☐ Slightly
 - ☐ A moderate amount
 - ☐ Very much
 - ☐ Extremely

Instructions

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

25. Do you have enough energy for everyday life?

- ☐ Not at all
- ☐ A little
- ☐ Moderately
- ☐ Mostly
- ☐ Completely

26. Are you able to accept your bodily appearance?

- Not at all
- A little
- Moderately
- Mostly
- Completely

27. Have you enough money to meet your needs?

- Not at all
- A little
- Moderately
- Mostly
- Completely

28. How available to you is the information that you need in your day-to-day life?

- Not at all
- A little
- Moderately
- Mostly
- Completely

29. To what extent do you have the opportunity for leisure activities?

- Not at all
- A little
- Moderately
- Mostly
- Completely

30. How well are you able to get around?

- Very poor
- Poor
- Neither poor nor well
- Well
- Very well

Instructions

The following questions ask you to say how **good** or **satisfied** you have felt about various aspects of your life over the last two weeks.

31. How satisfied are you with your sleep?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied

- ☐ Satisfied
- ☐ Very satisfied

32. How satisfied are you with your ability to perform your daily living activities?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied

33. How satisfied are you with your capacity for work?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very Satisfied

34. How satisfied are you with your abilities?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied

35. How satisfied are you with your personal relationships?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied

36. How satisfied are you with your sex life?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied

37. How satisfied are you with the support you get from your friends?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied

- Satisfied
- Very satisfied

38. How satisfied are you with the conditions of your living place?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

39. How satisfied are you with your access to health services?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

40. How satisfied are you with your mode of transportation?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

Instructions

The follow question refers to **how often** you have felt or experienced certain things in the last two weeks.

41. How often do you have negative feelings, such as blue mood, despair, anxiety, depression?

- Never
- Seldom
- Quite often
- Very often
- Always

Instructions

Please read each question and indicate the best answer for you for each question.

42. I get a real kick out of doing things that are a little dangerous.

- Not at all

- ☐ A little
- ☐ Some
- ☐ Quite a lot

43. I like to test myself every now and then by doing something a little chancy or risky.

- ☐ Not at all
- ☐ A little
- ☐ Some
- ☐ Quite a lot

44. One drink is 1.5 oz mixed alcohol, 5 oz wine, or 12 oz beer/wine cooler. In the past 30 days, how many drinks have you consumed on the same occasion?

- ☐ 0-2
- ☐ 3-4
- ☐ 5 or more

45. Using the answer to the question above, how many times did you drink this amount in a 2 week period?

- ☐ 0-2 times
- ☐ 3-4 times
- ☐ 5 or more times

46. In the past 12 months, how often did you wear hearing protection when you fired a weapon?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never
- ☐ I did not fire a weapon in the past 12 months

47. In the past 12 months, how often did you wear hearing protection when exposed to loud noise other than a weapon firing?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never
- ☐ I was not exposed to loud noise in the past 12 months.

46. In the past 12 months, how many times were you involved in a motor vehicle accident while you were driving (regardless of who was responsible).

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3 or more

47. In the past 12 months, how often did you drive unsafely (e.g., speeding, talking on the phone, following cars too close, eating, weaving in and out of traffic, etc.).

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3 or more

48. In the past 12 months, how often did you wear hearing protection when you fired a weapon?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never
- ☐ I did not fire a weapon in the past 12 months

49. In the past 12 months, how often did you wear hearing protection when exposed to loud noise other than weapon firing?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never
- ☐ I was not exposed to loud noise in the past 12 months

50. In the past 12 months, how often did you feel that your chain of command had your best interest in mind?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never

51. In the past 12 months, how often did you feel comfortable bringing either a personal or work-related problem/question to your chain of command?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Seldom
- ☐ Never

Demographic Information

Branch of Service: ___ Army ___ Air Force ___ Navy ___ Marines ___ Coast Guard

Rank status: ___ Officer ___ Enlisted

Age: _____

Marital Status: ___ Married ___ Single, but living as married (with fiancé' or significant other) ___ Single, not living as married, never married ___

Separated/divorced/widowed and not living as married

Currently deployed to a combat zone? ___ Yes ___ No

Email address where you can be reached if you are selected to receive a gift card:

You will be contacted by a Graduate Assistant because the Primary Investigator will not have access to your email address in order to ensure your responses remain confidential.

APPENDIX B

Individualism Survey Items

MHS	AICS	TRIANDIS
COMPETITION ITEMS		
Winning is very important to me.	Winning is very important to me.	Winning is everything.
I prefer competitive rather than non-competitive recreational activities.	I prefer competitive rather than non-competitive recreational activities.	It annoys me when other people perform better than I do.
I try to achieve better grades than my peers.	I try to achieve better grades than my peers.	It is important to me that I do my job better than others.
I enjoy working in situations involving competition with others.	I enjoy working in situations involving competition with others.	In enjoy working in situations involving competition.
NA	I believe that competition is a law of nature.	Competition is the law of nature.
NA	I define myself as a competitive person	When another person does better than I do, I get tense and aroused.
NA	Without competition, I believe, it is not possible to have a good society.	Without competition is impossible to have a good society.
NA	NA	Some people emphasize winning; I am not one of them. (reversed)

SELF-RELIANCE ITEMS

I often do "my own thing".

NA

I often do "my own thing".

I rather depend on myself
than others.

NA

I rather depend on myself
than others.I rely on myself most of
the time; I rarely rely on
others.

NA

I rely on myself most of the
time; I rarely rely on others.

UNIQUENESS ITEMS

My personal identity
independent of others is
very important to me.My personal identity
independent of others is very
important to me.My personal identity
independent from others is
very important to me.I see myself as "my own
person".I see myself as "my own
person".I am a unique person
separate from others.I consider myself as a
unique person separate
from others.I consider myself as a
unique person separate from
others.Being a unique individual is
important to me.I enjoy being unique and
different from others.I enjoy being unique and
different from others.I enjoy being unique and
different from others.

NA

NA

My personal identity is very
important to me.

RESPONSIBILITY ITEMS

I consult with superiors on
work-related matters.I consult with superiors on
work-related matters.

NA

I like to be accurate when I
communicate.I like to be accurate when I
communicate.

NA

It is important for me to
act as an independent
personIt is important for me to act
as an independent person.

NA

I take responsibility for my
own actions.I take responsibility for my
own actions.

NA

APPENDIX C

Individualism Likert Response Summaries

Competition Likert Summary

	Never or almost never	Rarely	Occasion ally	Often	Very Often	Always	Response Average
Q4 I prefer competitive rather than non-competitive recreational activities.	1.2% (1)	9.8% (8)	28% (23)	14.6% (12)	30.5% (24)	15.9% (12)	4.11
Q8 I try to achieve better grades than my peers.	1.2% (1)	2.4% (2)	13.3% (11)	18.1% (15)	22.9% (19)	42.2% (35)	4.86
Q12 I enjoy working in situations involving competition with others.	0% (0)	9.8% (8)	32.9% (27)	15.9% (13)	25.6% (21)	15.9% (13)	4.05
Q15 Winning is very important to me.	3.6% (3)	6% (5)	18.1% (15)	27.7% (23)	25.3% (21)	19.3% (16)	4.23
						Total Respondents	83
						(skipped questions 4&12)	1

Table C2

Self-Reliance Likert Summary

	Never or almost never	Rarely	Occasio nally	Often	Very Often	Always	Response Average
Q1 I rather depend on myself than others.	0% (0)	2.4% (2)	11% (9)	22.9% (19)	33.7% (28)	30.0% (25)	4.78
Q5 I rely on myself most of the time; I rarely rely on others.	0% (0)	4.9% (4)	13.4 % (11)	24.4% (20)	42.7% (35)	14.6% (12)	4.49
Q9 I often "do my own thing".	0% (0)	3.6% (3)	22.9 % (19)	34.9% (29)	25.3% (21)	13.3% (11)	4.22
Total Respondents							83
(skipped question 5)							1

Table C3

Uniqueness Likert Summary

	Never or almost never	Rarely	Occasio nally	Often	Very Often	Always	Response Average
Q2 I enjoy unique and different from others.	0% (0)	1.2% (1)	22.9 % (19)	20.5% (17)	31.3% (26)	24.1% (20)	4.54
Q6 I consider myself as a unique person separate from others.	0% (0)	3.7% (3)	20.7 % (17)	22% (18)	29.3% (24)	24.4% 2(0)	4.50

APPENDIX D

Scatter Plots of Individualism and General Health and Risk

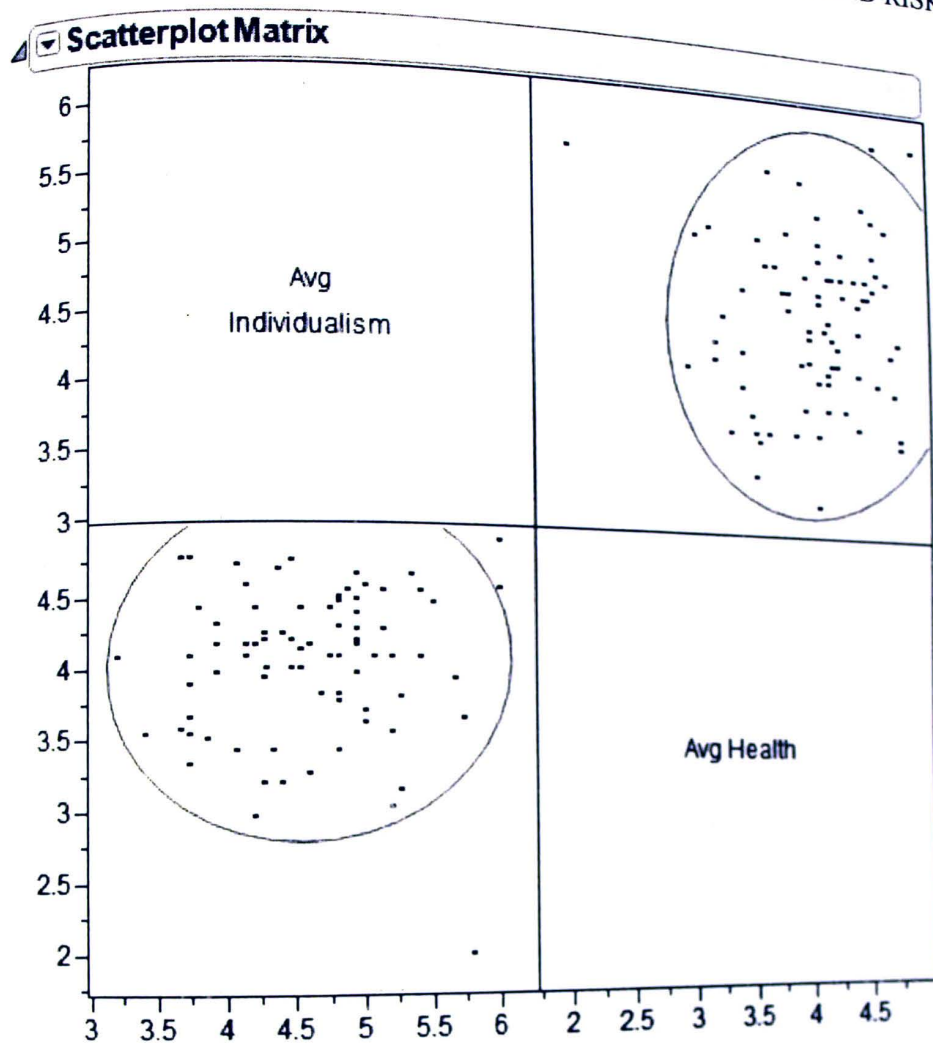


Figure D1. Spearman correlation of individualism and general health.

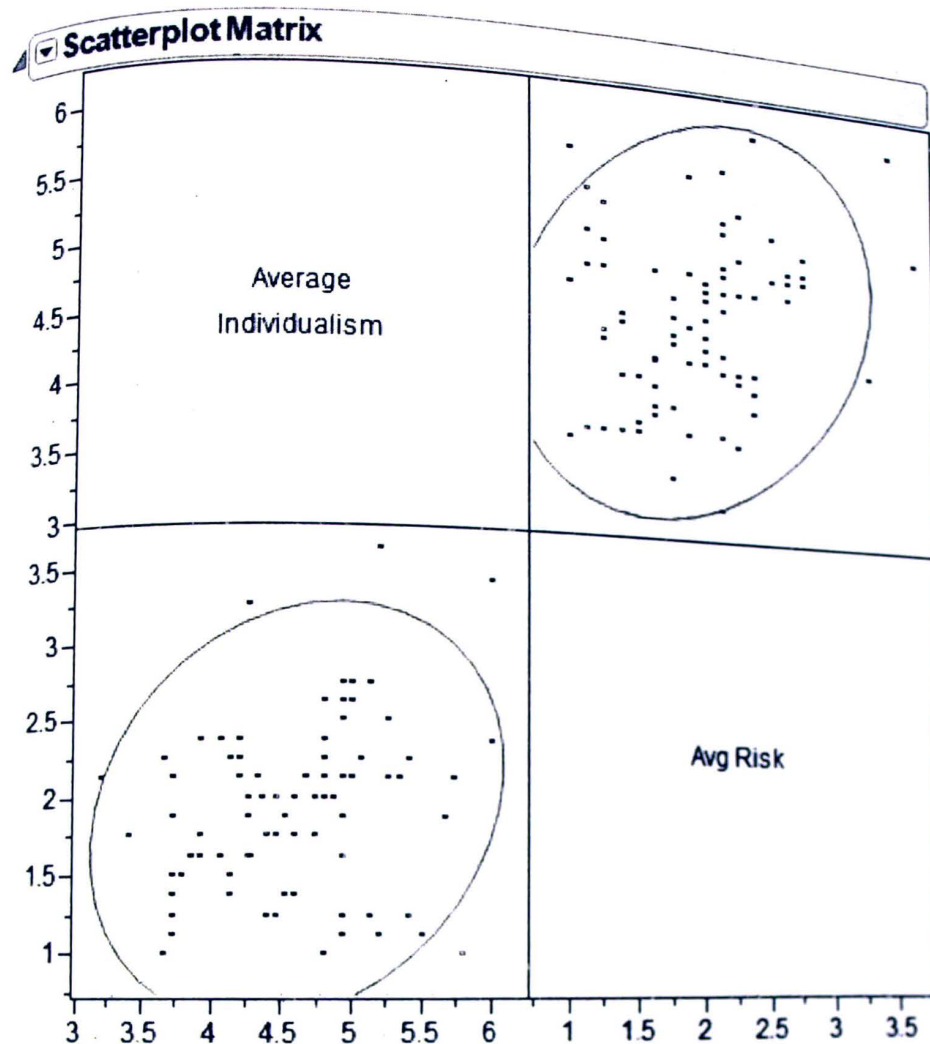


Figure D2. Spearman correlation of individualism and risk-taking behavior.

APPENDIX E

IRB Approval

November 30, 2011

RE: Study number 11-059: Is Individualism in the U. S. Army detrimental to Health?

Dear Ms. Leccese,

Thank you for your recent submission of requested revisions. We appreciate your cooperation with the human research review process.

This is to confirm that revisions for Study # 11-059 have been approved. This approval is subject to APSU Policies and Procedures governing human subject research. The full IRB reserves the right to withdraw approval if unresolved issues are raised during the review.

Your study remains subject to continuing review on or before November 28, 2012, unless closed before that date. Please submit the appropriate form prior to November 28, 2012.

Please note that any further changes to the study must be promptly reported and approved. Some changes may be approved by expedited review; others require full board review. If you have any questions or require further information, you can contact me by phone (931-221-7467) or email (davenportd@apsu.edu).

Again, thank you for your cooperation with the APSU IRB and the human research review process. Best wishes for a successful study!

Sincerely,



Doris Davenport, Chair
Austin Peay Institutional Review Board

Cc: Dr. Anne Black, Faculty Supervisor