DISSERTATION

THE NATURE OF THE RELATIONSHIP BETWEEN ANXIOUS YOUTH, SPIRITUALITY, AND FACTORS OF RISK

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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY DOREEN AUSTIN ERICKSON ENTITLED THE NATURE OF THE RELATIONSHIP BETWEEN ANXIOUS YOUTH, SPIRITUALITY, AND FACTORS OF RISK BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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ABSTRACT OF DISSERTATION

THE NATURE OF THE RELATIONSHIP BETWEEN ANXIOUS YOUTH, SPIRITUALITY, AND FACTORS OF RISK

Research suggests youth anxiety increases the chance of risky behaviors and academic difficulties, whereas spirituality moderates. To confirm these findings, this research investigated the nature of spirituality and trait anxiety on at-risk factors in high school youth. The Intrinsic Spirituality Scale, the State-Trait Anxiety Inventory, and the Risk Factors Assessment for School Youth were administered to 105 youth attending a public high school in US Mountain West Region. Analyses of variance ANOVA and covariance ANCOVA statistics revealed that there was a significant inverse relationship of spirituality and a significant positive relationship of trait anxiety to total risk. When spirituality and trait anxiety were examined together, spirituality had a marginal moderating effect on the significant relationship of trait anxiety to total risk. Race/Ethnicity was found to be a significant predictor of total risk from the variables studied. The results of this research confirmed the findings of previous research. Limitations of this study, implications of this study, suggestions for counselors and educators, and recommendations for future research are provided.

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DEDICATION

I would like to dedicate this to my dad, Kenneth Frank Vogt, whose life ended without warning on April 12, 2003. As one of my strongest proponents, continuing school without him was a challenge. Nevertheless, in his absence, I learned of the things he did to provide me continued encouragement so that I might complete my educational journey. Dad, I got it, and one day we'll celebrate on the other side. Equally, I dedicate this to my mom, Rosalind Vogt-Vanstrom whose never-ending love and positive encouragement kept me going. Finally, I dedicate this to my children, Taylor and Evan, for teaching me how to fully know the depths of love, and for filling me with unfathomable pride and joy.

CONTENTS

CHAPTER 1 – INTRODUCTION

Doubts, fears, constant worries – at times life's experiences can be overwhelming. Anxiety is bound to happen because it's a normal part of life. However, it can be debilitating for youth, leading to school avoidance and refusal, and to eventual dropping out (Albano & Detweiler, 2001; Brandibas, Jeunier, Clanet, & Fouraste, 2004; Masi, Mucci, & Millepiedi, 2001; Morris, Kratochwill, Schoenfield, & Auster, 2008). Yearly, almost one in four high school students, approximately 1.2 million, drop out of schools in the United States (Editorial Projects in Education Research Center, 2008). While there is not one distinct risk factor that can completely predict who is at risk of dropping out of school, multiple risk factors across multiple areas must be considered to accurately identify students at risk (Hammond, Linton, Smink, Drew, 2007; Kennelly & Monrad, 2007).

Although literature acknowledges the relationship between spirituality and mental health for its protective influence against alcohol, substance abuse, and anxiety in youth (Brown, Parks, Zimmerman, & Phillips, 2001; Davis, Kerr, & Kurpius, 200; Evans, Boustead, & Owens, 2008; Hackerman & King, 1998; Ritt-Olson et al., 2008; Schapman & Inderbitzen-Nolan, 2002), mechanisms for identifying at-risk indicators and incorporating alternative mental health treatment options to assist school success in youth are lacking.

Background

At Risk Factors

The majority of at-risk definitions in the educational community are two-fold: a predicted outcome and contributing factors. The first component of the definition "a predicted outcome" generally refers to a negative outcome (Dobizl, 2002; Loewenson & Blum, 2001; Masten & Coatsworth, 1998; National Center for School Engagement [NCSE], 2009; Wright, 1996) like school failure (Dobizl; Jessor, 1991; Lesley, 2008; NCSE; Schorr, 1989), troublesome life circumstances such as earning low wages (NCSE) or ending up in jail (Masten & Coatsworth). The second component of at-risk definitions typically includes the "contributing factors" that increase the chances of achieving the predicted or negative outcome. Several authors have identified various risk factors that contribute to the outcome(s) that schools and agencies are attempting to prevent. These risk factors include living in poverty, exhibiting or engaging in delinquent behaviors, school absenteeism, living in a single-parent household, and alcohol and/or drug use (Dobizl; Duncan & Brooks-Gunn, 2000; Eaton, Brener, & Kann, 2008; Hernandez, Montgomery, & Kurtines, 2006; Jessor; Masten & Coatsworth; Moore, 2006; Morris, 2000; NCSE; Schorr; Wright).

Definitions of at-risk and the factors of risk vary partially because this topic has been approached by experts in numerous fields such as psychology, human services, and education. However, it is necessary to establish a basic definition to avoid confusion and misinterpretation (Moore, 2006). In keeping with the research by Dobizl (2002), from an educational focus, *at-risk* youth is defined as youth who are subjected to demographic

and socioeconomic disadvantages and who consistently demonstrate and engage in behaviors that place them at risk for dropping out of high school.

Presently, there is a range of methods used in schools to identify students who are at-risk of failing or likely to drop out of school. There are questionnaires that focus on at-risk categories (i.e., truancy, dropout, teen parent or adjudicated delinquent), others focus on student records and academic performance, and some include peer relationships and economic status of family (Dobizl, 2002). Given all this activity, there are still no assessments that specifically identify youth as at-risk for dropping out.

A survey assessment, the Risk Factors Assessment for School Youth (RFASY) (Appendix A) was developed for this study to measure at-risk factors for youth. Statistical data from the Colorado Department of Education (CDE, 2008), the Children's Defense fund (2008), coupled with the item rationale used in Youth Risk Behavior Survey (YRBS) (CDC, 2009b) and the recent works of published authors (Eaton et al, 2008; Regnerus & Elder, 2003; Moore, Vandivere, & Redd, 2006) was used to create an at-risk assessment tool. The RFASY is comprised of 51 total items intended to assess self reported risk factors, demographics (age, gender, grade level, race/ethnicity, US citizenship, sexual orientation), sociodemographics, school absenteeism, drugs and alcohol, and delinquent behaviors in high school students, ages 13-19.

Anxiety

Research suggests anxiety in youth puts them at greater risk for engaging in factors of risk such as substance abuse, violence, suicide, truancy, and difficulties with academics, peers, and family (Silverman & Ginsburg, 1998; Wittchen, Stein, & Kessler, 1999; Woodward & Fergusson, 2001). Given that the prevalent factors placing youth at

risk for negative outcomes have been identified as sociodemographics, school absenteeism, drug and alcohol use, and delinquent behaviors, to what extent is anxiety playing a role in those behaviors?

Anxiety is the most common of all psychiatric disorders affecting approximately 40 million people in the United States, with about 18.1 percent suffering an anxiety disorder in a given year (National Institute of Mental Health [NIMH], 2005). More specifically, in children and youth, anxiety disorders are among the most frequent psychological disorders (Costello, Egger, & Angold, 2005). Mild forms of fear and anxiety are part of normal child development (Kendall & Suveg, 2006), and often remain as children mature and move into teen years (Huberty, 1997), as academic and peer concerns increase (Bauer, 1976). Given anxiety is part of normal child development, it is important to recognize potential anxiety symptoms when working with children and adolescents.

Anxiety disorders, along with depression, continue to be some of the routine psychological disorders diagnosed in children and youth, with the frequency of anxiety ranging from 4% to 30% (Costello et al., 2005; NIMH). Even if anxiety and fear are normal and expected in childhood, some children may benefit from psychological treatment, especially when their anxiety meets diagnostic criteria (Morris et al., 2008). However, many adolescents continue to be under diagnosed (Roberts, Lewinsohn, & Seeley, 1995).

Research suggests anxiety in youth puts them at greater risk for substance abuse and difficulties with academics, peers, and family (St-Marie, Gupta, & Derevensky, 2002; Wittchen et al., 1999; Woodward & Fergusson, 2001). Engaging in risky

behaviors, and without treatment, the resulting effects of truancy, drug use, drinking, violence, smoking, and driving or riding with someone under the influence of drugs and/or alcohol could be detrimental, perhaps ending in fatality (U. S. Department of Health and Human Services [DHHS], 2004; Silverman & Ginsburg, 1998). Together with the convenience and affordability of school-based programs, mental health services in the schools offer a non-threatening environment for children at risk to receive immediate interventive support (Bloomquist, August, and Ostrander, 1991).

The most commonly used approach for measuring anxiety in children and youth is the self-report instrument. One such instrument is the State-Trait Anxiety Inventory (STAI), developed to measure anxiety (Spielberger, 1983). The instrument contains two reporting scales, The S-Anxiety Scale (STAI Form Y-1), which measures state anxiety, and The T-Anxiety Scale (STAI form Y-2), which measures trait anxiety. The instrument assesses the child's point of view on the nature of his or her anxiety symptoms, is quick and easy to administer, and is typically inexpensive. The T-Anxiety Scale (STAI form Y-2) was used to measure the trait anxiety levels in this study (see Appendix D for sample items).

Spirituality

Recent studies indicate that spirituality has a moderating effect on drug use, alcohol, delinquency (Brown et al., 2001; Johnson, Li, Larson, & McCullough, 2000; Ritt-Olson et al., 2004) and anxiety in youth (Davis et al., 2003; Scott, Cashwell & Shcherbakova, 2000). What's more, literature indicates that addressing the student's religious and/or spiritual views can be helpful when determining the level of suicide risk as well as dissuading a suicide attempt (McWhirter, 2002). In the past, school counselors

have avoided mention of spiritual and/or religious themes due to the issues of separation of church and state; however, recent findings indicate a significant rise of spirituality in education (Allen & Coy, 2004; Corey et al., 2003; Myers & Williard, 2003). Correspondingly, the ethical standards for school counselors deduce that spirituality is equally implied within the principles of belief and religion (American School Counseling Association, 2004).

Generally, religion is thought to be an element of spirituality (MacDonald) that involves a relationship with an organized faith or religion; the customs, doctrines, and rituals associated with that religion meant to worship a heavenly or Supreme Being (Kelly, 1994; Miller, 2003; Reich, Oser, & Scarlett, 1999; Richards & Bergin, 2005). In contrast, spirituality is viewed as more broad, not necessarily aligned with a specific organized faith or religion, and involves one to create a deeper relationship with a higher power (Burke et al., 1999; Young, Wiggins-Frame, & Cashwell, 2007). Spirituality differs from religiosity in that it does not rely on religious group affiliation. The two concepts are certainly intertwined in that individuals with high religiosity will, most likely, have high spirituality; however, high levels of spirituality might be free of any religious undertones (Miller, Davies, & Greenwald, 2000).

To more accurately measure spirituality both inside and outside of organized religious settings, Hodge (2003) modified Allport and Ross' (1967) measure of intrinsic religion by removing the obvious religious references such as religion, church, and attendance. The Intrinsic Spirituality Scale (ISS) (see Appendix B) is a six-item phrase completion scale with an eleven point response key that measures the extent to which spirituality serves as an individual's primary motive in both theistic and non-theistic

populations despite expressions of spirituality inside or out of religious organizations. This scale was be used to measure the spirituality in this study.

Statement of the Research Problem

For the past two to three decades, the rates of mental disorders among children and adolescents in the US have been consistent (DHHS, 1999), with startling amounts of anxious symptoms in school-age children (NIMH, 2005). The transition from adolescence to young adulthood is challenging because youth begin to define themselves as adults, taking on more personal, vocational, and social commitments (Nault & Laplante, 2003). Recognizing school has the ability to produce anxiety (Brandibas et al., 2004; Masi et al., 2001), puberty, the search for self, and the increased social pressures that begin in secondary school all have an effect on an adolescent and require quite a bit of adaptability. Most youth undergo this stage without a hitch, but others will struggle.

Anxiety disorders bring about much suffering to youth, which can directly affect their cognitive and social development and disrupt assimilation into school, family, work, and extracurricular activities. These disruptions can be expressed in poor school performance that can lead to low self-esteem, dropping out of school, substance abuse, violence, loss of friendships, and suicide (Silverman & Ginsburg, 1998; Wittchen et al., 1999; Woodward & Fergusson, 2001). About half of youth suffering from an anxiety disorder develop comorbidity with depression, drug or alcohol abuse, or with another anxiety disorder (DHHS, 2003; Marmorstein, 2007; Nault & Laplante, 2003). Adolescence is a critical time for youth in their social and emotional development and if untreated, these problems can carry on into adulthood, hindering social, educational, and professional development (Marmorstein; Nault & Laplante). With more available

assessment measures, schools can intervene and closely identify and support the youth who demonstrate and/or participate in the factors designated as at-risk by offering services to help students succeed in school.

Though there is limited research about the influence of spirituality as a moderating factor in adolescents, the literature maintains spirituality is a protective factor against drug and alcohol use, delinquent behaviors (Brown et al., 2001; Ritt-Olson et al., 2004), and anxiety in youth (Davis et al., 2003; Scott, Cashwell & Shcherbakova, 2000).. With the absence of legal mandates preventing counselors from facilitating spirituality discussions that students introduce (Corey et al., 2003), assessing spirituality has risen to a key aspect in counseling (Hackerman & King, 1998; Hodge, 2005). This, in concert with more emphasis given to character education within the schools, integrating positive values along with spirituality belief systems offers high risk youth the opportunity to develop self-respect and respect for others (Allen & Coy, 2004).

Currently, there appear to be no studies that have examined the relationships of both spirituality and trait anxiety on at-risk behaviors in adolescents. Even though much knowledge has been gained through past research, the information gained is inconsistent and has not been applied to treatment practice (DHHS, 1999). Increased research will aid in providing additional insight to develop pertinent and alternate treatment options for school youth (Hoagwood & Olin, 2002). Moreover, although not the main focus of this study, the results are essential to the professions of psychology, counseling, and social work in that more information will be provided about the relationship between spirituality, anxiety, and at-risk behaviors in high school youth. Increased understanding of this relationship has the potential to influence early screenings and assessments for

anxiety, incorporation of curriculum and alternative prevention/intervention treatment models that are effective in moderating adolescent risk behaviors in an effort to support high school achievement in youth.

Research Focus

The principle focus of this research study was to investigate the nature of spirituality and trait anxiety on at-risk factors in high school youth. The two predictor variables are Spirituality, interval, 1-10, as measured by the Intrinsic Spirituality Scale (ISS) (Hodge, 2003) and Trait Anxiety, ordinal, 4 levels, as measured by the State-Trait Anxiety Inventory (STAI form Y-2) (Spielberger, 1983). The criterion variable, at-risk factors, is comprised of four factors which are: sociodemographics, school absenteeism, drugs and alcohol, and delinquent behaviors as measured by the Risk Factors Assessment for School Youth (RFASY), an assessment developed by the researcher for this study. The demographic variables: age, gender, grade level, race/ethnicity, US citizenship, and sexual orientation, were measured using the RFASY.

Definition of Terms

To provide a unified understanding of terms, and to avoid misinterpretation in this research the following definitions will be used in this study:

Anxiety. A demonstration of a feeling of uneasiness, apprehension or dread; a multi-system response to a supposed threat or danger. The response consists of biochemical changes in the body, the patient's personal history and memory, and the social situation. A person may assume a tense posture, show excessive vigilance, move the hands and feet restlessly, and speak with a strained, uneven voice. The pupils may be widely dilated, giving the appearance of unrestrained

fright, and the hands and face may perspire excessively. In extremely acute forms a person may have generalized visceral reactions of respiratory, cardiac, vascular, and gastrointestinal dysfunction. For this study, anxiety will be measured by the State-Trait Anxiety Inventory (STAI), developed to measure anxiety (Spielberger, 1983). The instrument contains two reporting scales, The S-Anxiety Scale (STAI Form Y-1), which measures state anxiety, and The T-Anxiety Scale (STAI form Y-2), which measures trait anxiety. The T-Anxiety Scale (STAI-Y2) will be used for this study (see Appendix D for sample items).

At-risk adolescent. Youth who are subjected to demographic and socioeconomic disadvantages and who consistently demonstrate and engage in behaviors that place them at risk for dropping out of high school.

At-risk factor. A characteristic, condition, or behavior that increases the possibility of harm or negative result (Risk factor, n.d.). For this study, at-risk factors will be measured by the Risk Factors Assessment for School Youth (RFASY) (see Appendix A), a 51 item assessment, developed by the researcher for this study.

Comorbidity. Two or more coexisting medical conditions or disease processes that are additional to an initial diagnosis (Mosby's Medical Dictionary, 2009).

Mental Health. Mental health is the ability to balance all of life's aspects; emotional, physical, social, and spiritual. It is how one (a) thinks and feels about self and others, (b) behaves around others, (c) copes with stressors of life, and (d) makes choices. Mental health is significant at each stage of life, from childhood to adolescence and on through adulthood, playing an integral role in one's total health (Medline Plus, 2009).

Psychoanalytic. A therapeutic orientation (theory and techniques) that is strictly Freudian or extremely similar to Freudian in which free association, dream interpretation, and analysis of resistance and transference are used to explore repressed or unconscious impulses, anxieties, and internal conflicts, in order to free psychic energy for mature love and work.

Psychodynamic. Therapeutic orientations (theories) that departed from the psychoanalytic orientation (Freudian), also known as Neo-Freudian. The theories hold many of the same underlying beliefs of psychoanalysis, such as the view of the unconscious as an important drive in human emotions, cognitions, and behaviors, the defense mechanisms related to the unconscious, and the early development of personality formation. It differs from psychoanalysis in that it does not accept Freud's view that unconscious motives and conflicts are ultimately sexual in nature.

Religious. Relating to, or devoted to religious beliefs or observances; a member of a religious order.

Sex. The *biological and physiological* characteristics that *define* men and women. The term 'sex', will be used to in this study to differentiate biologically between males and females on the demographic questionnaire.

Spirituality. The innate capacity for self transcendence, where one is connected to something greater than the self, including the sacred and which motivates the search for connectedness, meaning purpose, and contribution (Faiver et al., 2001). For this study, spirituality will be measured by the Intrinsic Spirituality Scale

(ISS) (Hodge, 2003), a six-item phrase completion scale with an eleven point response key.

Transcendent. The belief that God is completely outside of and beyond the world – beyond and outside the ordinary range of human experience or understanding; superior or supreme.

Study Limitations and Delimitations

A delimitation of this study is that the surveys were collected from students at a targeted high school. A limitation of this study is that the student subjects were aware that they were participating in a study. This knowledge might have affected the authenticity of self reporting survey responses, as some student respondents might have selected responses perceived to be more favorable as opposed to those that reflected a true belief and/or behavior. Then again, some student respondents might not have fully understood what was being asked in particular questions, resulting in responses not indicative of the respondent's true beliefs. The convenience sample coupled with the limited localized views represented in one high school affected the generalizability of the study.

Researcher's Perspective

The researcher in this study is a counselor who currently works for a non-profit organization whose primary mission is to help expelled students succeed academically. Her duties include providing individual and group counseling to high risk youth relative to academic, social, behavioral, vocational or other personal problems. She is open to student initiated queries which include spiritual and/or religious issues, often permitting discussions that encourage a sharing of beliefs in a fair and unbiased environment. After having recently completed her doctoral coursework, this researcher contributes much of

her knowledge about the counseling issues surrounding at risk youth to graduate level coursework, supplemental journal reading, additional research, and volunteer involvement in community agencies providing services to at risk and culturally diverse youth.

As a mother who maintains a spiritual lifestyle, this researcher admits that while she will never experience the legal consequences and/or personal effects of risk taking behaviors that high school youth face, she understands what it is like to be a Hispanic minority with broadminded spiritual views. This understanding has led this researcher to encourage personal acceptance and determination despite the personal injustices confronting minority youth. This researcher believes that counselors have a significant duty to provide youth with opportunities to gain personal insight and meaning into their lives. Being open-minded to discussions, particularly those rooted in spirituality; provide high school youth an added opportunity to augment psychological development.

CHAPTER 2 – REVIEW OF THE LITERATURE

This chapter aims to review key literature related to children and youth in this study. There are four sections which are (a) anxiety, (b) spirituality, (c) at-risk factors, and (d) the theoretical framework. The anxiety section focuses on the characteristics of anxiety, prevalence, differentiation of anxiety disorders, and the social considerations of the disorder. The spirituality section outlines the relationship with mental health and the strategies and benefits for incorporating spirituality in the treatment process. The third section, at-risk factors, will explore the social and environmental factors that are used to differentiate youth at-risk for dropping out of high school. The theoretical framework, the last section, provides the developmental perspective that is important when understanding mental health disorders in children and youth.

Anxiety in Children and Youth

Threats of war and severe weather events such as floods, mud slides, tornadoes, and hurricanes can trigger emotional distress. Following Hurricane Katrina, the rates of depression, post traumatic stress disorder, anxiety, panic and phobic disorders among individuals in affected areas, increased two-fold, from about 6 to 11%. With the growing concern of climate change, economic insecurity, and the destructive effects of garbage waste on resources, psychiatrists are seeing a rise in child anxiety disorders (Anthes, 2009). Data collected over a ten year period indicates anxiety disorders, along with depression, continue to be some of the routine psychological disorders diagnosed in children and youth (Costello et al., 2005; NIMH, 2005).

Of the major symptoms of mental disorders, anxiety is one of the easiest to understand. Anxiety is a positive adaptive human response that activates the fear response in dangerous situations prompting an individual to take action and minimize harm; a fight or flight response of the autonomic nervous system (Purves et al., 1997). All humans have experienced anxiety during regular activities which can vary from fear responses caused by near miss tragedies such as nearly slipping on ice, or dodging a traffic accident. Strong physiological responses usually escort these experiences which are: feelings of fear or dread; trembling, restlessness, and muscle tension; rapid heart rate; lightheadedness or dizziness; perspiration; cold hands/feet; and shortness of breath (DHHS, 1999), blood vessel constriction, and reduced salivation (Campbell, 2006). The Surgeon General reports (DHHS),

> Anxiety has evolved as a vitally important physiological response to dangerous situations that prepares one to evade or confront a threat in the environment. The appropriate regulation of anxiety is critical to the survival of virtually every higher organism in every environment (p. 40).

To further differentiate, normal anxiety is an adaptive response to stimuli occurring in everyday life (Pridmore, 2006). For example, the person who is locked out of his or her car might feel anxious if he or she has to drive to another location for an appointment. Fear differs from anxiety in that the troubled feeling and apprehension is a reaction to a specific and identifiable danger. Fear is generally considered an intense form of normal anxiety and is mostly determined by a source of danger or stimulus (Rachman, 2004). For example, if a masked man with a gun came into a bank, a fear response would be normal and expected in a healthy individual. However, exaggerated or abnormal fears become a phobia.

In the early years, a child's fears tend to be more unreal, imagined, and uncontrollable, and yet mild forms of fear and anxiety are part of normal child development, occurring in a somewhat standard pattern (Kendall & Suveg, 2006). Huberty (1997) suggests that anxiety is viewed as a sign of positive progress in a child's development and when it is observed, a developmental milestone is reached. To illustrate, toddlers demonstrate anxiety when encountering strangers and as the child matures (preschool to elementary years), fear of animals is common. In middle school, children display anxiety when they have to go to the dentist, or when they are called into the principal's office. As children move into teen years, anxiety continues, however, the fears become more specific and realistic; for example, when they have to give a speech in front of the class (Barrios & Hartman, 1997). Similarly, healthy levels of anxiety may be the basis of motivation to assist child in performing tasks at an optimal level. Still, how the teen responds to the anxiety sources varies based on genetics, personality, and social influences. Given anxiety is part of normal child development, it is important to recognize potential anxiety symptoms when working with children and adolescents (Huberty).

Conversely, the mechanisms that moderate anxiety may go awry in varied situations, "leading to excessive or inappropriate expressions of anxiety" (DHHS, 1999, p. 40), when fears and worries become amplified beyond what is normally expected from anxiety, with a frequency and duration that can be debilitating and destructive, interfering with a child's academic, emotional, behavioral, and social performance (Anderson, 1994; Christophersen & Mortweet, 2001; Kendall & Suveg, 2006). In such cases, anxiety is

considered a disorder and interventions in the school or clinical setting may be necessary to treat the overwhelming anxiety response.

The state-trait model of is one of the most recognized conceptualizations of anxiety. State anxiety *temporarily* interrupts an individual's typical emotional state; the body's autonomic nervous system reacts to an external event that triggers a series of physiological reactions, causing an individual to feel tense, apprehensive, reactive, nervous or restless. Some react easily to the event and return to his or her typical emotional state, while others may overreact and continue in the reactive and unpleasant state. Conversely, trait anxiety is the fixed or predetermined aspect of an individual's personality. Based on an individual's *thought* regarding specific external events, the anxiety trait is demonstrated by his or her reactions to that external event. Those with higher trait anxiety tend to have more physiological and sometimes unhealthy reactions to many types of external stimuli, whereas one with a low trait anxiety would have less exaggerated reactions thus returning to a typical emotional state (Spielberger, 1972, 1983).

Constructs of Anxiety

Anxiety is regarded as a triadic or multifaceted construct in that cognitive, physiological and behavioral responses occur. Broad definitions of anxiety typically include these constructs; "...apprehension, distress, or tension about real or anticipated internal or external threats that may be shown in cognitive, behavioral, or physiological patterns" (Huberty, 1997, p.305). When working with children and adolescents, it is essential to understand anxiety symptoms for proper evaluation.

Difficulties remembering, concentrating and maintaining interest, preparing, and working out problems, angst, rumination, and patterns of obsessive thinking are characteristic cognitive symptoms of anxiety disorders. What's more, children and adolescents may exhibit acumen and affirm that, at times, their anxiety might be erroneous or irrational (Barrios & O'Dell, 1998; Huberty, 1997). In addition to the cognitive symptoms, Barrios and O'Dell have identified distinct phenomenon associated with anxiety that deserve consideration and understanding such as thoughts of going crazy, fear of being negatively judged by others, not feeling good enough, and imagining injury or abandonment. Physiological symptoms of anxiety consist of sympathetic responses of the nervous system which operate to produce an action response. These symptoms include increased respiration and heart rate, muscle tension, fatigue, headaches, stomachaches, and stomach upset – diarrhea and vomiting (Campbell, 2006; Huberty, 1997). It is believed the some or all of the physiological symptoms of anxiety trigger the behavioral symptoms, making them dominant predictors of anxious behaviors. Crying, thumb sucking, stuttering, nail biting, and pacing are behavioral symptoms linked with anxiety. Other symptoms mimic avoidant behaviors, like phobias or compulsive behaviors, such as repeated checking, counting, or recurrent hand washing. Physical symptoms subsequent to behavior symptoms can develop such as skin rash or irritation due to recurrent hand washing (Barrios & O'Dell).

Anxiety Disorders

There are multiple anxiety disorders classified in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), which can be diagnosed in children and adolescents. The disorders include: Acute Stress Disorder,

Anxiety Disorder-Not Otherwise Specified (NOS), Generalized Anxiety Disorder (including overanxious disorder of childhood), Obsessive-Compulsive Disorder, Panic Disorder with or without agoraphobia, Posttraumatic Stress Disorder, Separation Anxiety Disorder, Social Phobia, Specific Phobia, Adjustment Disorder with Anxiety, and Adjustment Disorder with Mixed Anxiety and Depressed Mood (American Psychologcial Aassociation [APA], 2000). "In each case, an anxiety disorder may be said to exist if the anxiety experienced is disproportionate to the circumstance, is difficult for the individual to control, or interferes with normal functioning" (DHHS, 1999, p 40). Given the literature for this study focuses largely on Generalized Anxiety Disorder (GAD), Separation Anxiety Disorder (SAD), and Social Phobia (SP), and seeing that they are the most commonly diagnosed anxiety disorders (Campbell, 2006; Kendall & Suveg, 2006), they will be defined and discussed in brief.

Generalized Anxiety Disorder (GAD). GAD is differentiated by continued and irrepressible worries across varied themes such as performance, peer or family relationships, personal physical health, and concerns about past or present behavior, with the most notable feature experiencing difficulty controlling the worry and anxiety at least 6 months. Children and adolescents often worry about their competence and performance in school or in athletic events and are prone to perfectionism. Other worries and concerns may be centered on catastrophic events like war and natural disasters. The one year prevalence rate for GAD is about 3% and a lifetime prevalence rate of 5%. The disorder is more often diagnosed in women (55-60%) in the clinical setting, and in epidemiological studies, about a two-thirds female sex ratio. For anxiety disorders, the

cormorbidity rate is nearly 25% and it is genetically linked (APA, 2000; Kendall & Suveg, 2006).

Separation Anxiety Disorder (SAD). Separation anxieties are common among children and young adolescents and often decrease with age. The most notable feature of separation anxiety is excessive worry and anxiety over leaving the home, resulting in refusal to spend developmentally appropriate intervals of time away from a loved one or caregiver. Children may cling to their parent and have difficulty falling asleep on their own. Young children experience nightmares or fears at bedtime. This fear of separation can lead to dizziness, nausea, or palpitations. Separation anxiety is often associated with symptoms of depression, such as sadness, withdrawal, apathy, or difficulty in concentrating, and such children often fear that harm might come to a loved one or to themselves upon separation with the belief they might never see the loved one again. Some believe that they or a family member might die. It is estimated that separation anxiety is prevalent in about 4% of children and adolescents with early onset occurring before the age of six, or typical onset occurring any time before the age of 18. SAD is equally common in both males and females, though epidemiological studies indicate a higher prevalence in females (APA, 2000).

School refusal can lead to academic problems and is observed in 75% of separation anxiety disorders (Masi et al., 2001). In the same way, anxiety might justifiably account for learning difficulties in academic settings, such as inattentiveness in class and homework negligence, excessive worries about safety of parents, and paralyzing test anxiety (Campbell, 2006). A recent study found anxiety as the basis for refusing to go to school. A French correlational study of 45 students, aged 14-21,

investigated the association of anxiety with school refusal. The students were from varied backgrounds, with about 27% from working class families, and about 18% from families currently unemployed. The technical school students are seen as deviants, often missing school. The predictor variables were: state-trait anxiety assessed by STAI-Y (State-Trait Anxiety Inventory; Spielberger, 1986) and separation anxiety assessed by four dimensions of the SASI (Separation Anxiety Symptom Inventory; Silove et al., 1993), (a) avoidance of negative affectivity, (b) escape from aversive social situations, (c) attention getting behavior, and (d) positive tangible reinforcement. Correlations indicated state anxiety ($r = .55$, $p < .01$) and trait anxiety ($r = .47$, $p < .01$) had a positive influence on 'avoidance of negative affectivity'. 'Attention getting behavior' was negatively correlated with various fears ($r = -.42$, $p < .01$) and with school matters ($r = -.34$, $p < .05$). Findings indicate that positive reinforcement, a form of school refusal, reflects a type of social desirability that is used to hide self-acknowledged anxiety (Brandibas et al., 2004). Given the association between cognitive functioning and anxiety, proper screening and assessment is fitting for children and adolescents exhibiting anxiety symptoms in educational settings (Campbell, 2006).

Social Phobia (SP). Social Phobia, or Social Anxiety Disorder, is an anxiety disorder characterized by overwhelming anxiety and excessive self-consciousness in everyday social situations which persists for more than 6 months. Social phobia can be limited to only one type of situation, such as a fear of speaking in formal or informal situations, or eating or drinking in front of others, or, in its most severe form, may be so broad that a person experiences symptoms almost anytime they are around other people. People with social phobia have a persistent, intense, and chronic fear of being watched

and judged by others and being embarrassed or humiliated by their own actions; so severe that it interferes with work or school, and other ordinary activities (APA, 2000; Kendall & Suveg, 2006). Physical symptoms often include blushing, profuse sweating, trembling, nausea, and difficulty talking (NIMH, 2008a). In contrast to adults, children suffering from social phobia might not fully understand the source of their anxiety. As a result, school refusal, avoidance of age-appropriate social activities, with considerable variations in academic performance is common. Early childhood onset can impair the child's ability to perform at an expected level; whereas adolescent onset may lead to diminished social and academic functioning. The age of onset is has been reported from ages 8 to12, with prevalency rates from 3% to 13% in epidemiological and community-based studies, and between 10% and 20% in clinical settings (APA; Kendall & Suveg).

Comorbidities

It is documented that anxiety disorders commonly occur with a variety of psychiatric disorders such as depression, Attention-Deficit/Hyperactivity Disorder (ADHD), Oppositional Defiant, or Conduct Disorders, with the highest comorbidity risk being depression, followed closely by attention-deficit and oppositional defiant or conduct disorders. Conversely, anxiety disorders can occur jointly with other anxiety disorders within the same diagnostic group (Angold, Costello, & Erkanli, 1999). The common co-occurring anxiety disorders are Generalized Anxiety Disorder and Separation Anxiety Disorder, followed by generalized anxiety disorder and specific phobia. About one half of youth suffering from an anxiety disorder develop comorbidity with depression, drug or alcohol abuse, or with another anxiety disorder (DHHS, 2003; Nault & Laplante, 2003)

Prevalence

In the past 15 years, the prevalence of anxiety among youth has varied. Previous findings indicate 8% to 10% of youth suffer from a particular form of anxiety (March, 1995), while more recent data indicates about 20% of youth show signs of anxiety at least once in their life (Gosch & Flannery-Schroeder, 2006; Vasa & Pine, 2004). Data collected over a ten year period indicates anxiety disorders, along with depression, continue to be some of the routine psychological disorders diagnosed in children and youth, with the frequency of anxiety ranging from 4% to 30% in community samples for all anxiety disorders (Costello et al., 2005; NIMH, 2005).

In the literature, females consistently experience an elevated frequency of anxiety disorders over males even after many confounds are accounted for in the statistical analysis, such as self-esteem, daily life stressors, and age of onset. The prevalence of anxiety in girls is double that of boys by six years of age, and this ratio remains constant over the developmental life-span (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998). Recent research corroborates these findings, reporting that females continue to experience more anxiety disorders (phobias, panic disorder, and separation anxiety) than men, occurring double the rate (Fergusson, Swain-Campbell, & Norwood, 2002; Foa et al., 2005).

Assessments

In addition to using the DSM-IV-TR criteria, various types of assessment methods are used when identifying anxiety in children and youth such as structured and semistructured interviews, self-reports, structured and unstructured observations, and rating scales (Kendall & Suveg, 2006).

Interview. It is commonplace for practitioners to use the interview method when assessing for anxiety disorders, ranging from highly structured interviews to less formal semistructured interviews. The benefit of the interview method is that much information can be gathered from both the parent and the child to obtain an accurate history. Similarly, semistructured interviews do not require the skills of a seasoned practitioner, they can be administered electronically, and they remain cost-effective (Campbell, 2006; Kendall & Suveg, 2006). Although numerous assessments exist, the most common semistructured interviews are (a) the Anxiety Disorders Interview Schedule for Children and Parent (ADIS-C/P; Silverman & Albano, 1996), (b) the Children's Anxiety Evaluation Form (CAEF; Hoehn-Saric, Maisami, & Wiegand, 1987), and (c) The Child Assessment Schedule (CAS; Hodges, Kline, Stern, Cytry, & McKnew, 1982). There are additional structured interviews that generally are administered by experienced clinicians, though they will not be addressed as they go beyond the scope of this review.

Self-report instruments. The self report is the most widely used method to assess for anxiety in children and youth. The benefits are that the child gauges his or her symptoms, they are easy to administer, are hand scored, and are affordable. Researchers caution using the self-report as a sole diagnostic tool, and encourage other methods of assessment when rendering a diagnosis (Campbell, 2006; Kendall & Suveg, 2006). While there are many self report instruments, the most commonly used are (a) the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richman, 1978), (b) the Fear Survey Schedule for Children-Revised (FSSC-R; Ollendick, 1983), (c) the State-Trait Anxiety Inventory (STAI; Spielberger, 1973), (d) the Beck Anxiety Inventory for Youth

(BYI; Beck, Beck, & Jolly, 2001), and (e) the Multidimensional Anxiety Scale for Children (MASC; March 1997).

Observations and Rating Scales. During the assessment process the clinician makes observations in the child's behavior based on what might be suggestive of anxious behavior, such as minimal to no eye contact, nail biting, and quiet and timid speech. However if not structured, there is concern of observer bias, as in the case of parent and teacher rating scales. For rating scales, often there is little agreement between child and parent reports of anxiety as mothers tend to over report symptoms of anxiety attributed to maternal anxiety. One of the most widely used rating scales is the Child Behavior Checklist (CBCL; Achenbach, 1991) for general anxiety and the Teacher Report Form (TRF; Achenbach, 1991) is the CBCL version for teachers (Campbell, 2006; Kendall & Suveg, 2006).

To accurately assess anxiety in children and youth, information from interviews, child self-report methods, behavioral observations, parent-teacher ratings and family history information play a role in the multimethod approach. While not one method should be relied on to render a diagnosis, for each has its own advantages and disadvantages, yet when used in combination, a more comprehensive approach can be utilized for treatment determination (Campbell, 2006; Kendall & Suveg, 2006).

Spirituality

Historically, religion, spirituality, and the mental health professions have had a difficult relationship (Burke et al., 1999), perhaps a consequence of the influence of early theorists who associated mental illness with religiosity, or the confusion that associated organized religion to spirituality (Myers & Truluck, 1998). Sigmund Freud (1927, 1959)

believed that religion, an illusion based on guilt, induced neurosis and fantasy. He alleged the concept of God was created by religion as a way for adults to support feelings of helplessness and guilt, and the only way individuals could move beyond the infant stage, was to discontinue all religious beliefs. In the same way, Albert Ellis (1983) made obvious his beliefs regarding religion in a publication which read:

> This article will try to make a succinct and cogent case for the proposition that unbelief, skepticism, and thoroughgoing atheism not only abet but are practically synonymous with mental health; and that devout belief, dogmatism, and religiosity distinctly contribute to and in some way are equal to mental or emotional disturbance (p. 23).

Nevertheless, in recent years, religion and spirituality have become more evident in counseling literature (Hall et al., 2004) with noticeable absences regarding the issues of spirituality in the counseling process specific to adolescents (Frame, 2003).

Powers (2005), in an intensive review of the literature on spirituality and counseling, found three research articles in the 1930s and three more articles and one reported book in the 1940s. In the 1950s, the search found 13 articles and 5 reported books. Though there was a slight drop in the trend in the 1960s, with nine research articles and two book publications. The interest in spirituality and counseling resurged in the 1970s with 112 research articles, three dissertations, and two book publications which continued to increase in subsequent years. In the 1980s there were 323 research articles, 15 book publications, 37 book chapters, and eight dissertations. By the year 2000, 868 research articles were reported, with 117 books, 183 chapters, and 104 dissertations. More recently, 73, dissertations were published from 2000-2004.

Spirituality versus Religion

Without having an apparent differentiation of spirituality versus religion, counselors find it difficult to provide therapeutic assistance with issues relating to such. For this reason, it is essential to clarify these two concepts (Briggs & Rayle, 2004). By and large, religion is thought to be an aspect of spirituality (MacDonald, 2004) that involves a relationship with an organized faith or religion; the customs, doctrines, and rituals associated with that religion meant to worship a heavenly or Supreme Being (Kelly, 1994; Miller, 2003; Reich et al., 1999; Richards & Bergin, 2005). Religion is differentiated as mostly an outward social experience, a social agent used to cultivate and express spirituality (Faiver et al., 2001; Miller & Thoresen, 2003; Pargament, 1997). Varying slightly, spirituality is viewed as more broad, not necessarily aligned with a specific organized faith or religion. Numerous authors have presented various definitions of spirituality and will be reviewed chronologically.

Legere (1984) asserted spirituality provides the opportunity to find meaning in life, by which the divine presence is revealed through meditation. Spirituality is miraculous in that it has the power to convert negative emotions and experiences, i.e., sadness, suffering, and hostility, into positive emotions and experiences, i.e., serenity, enjoyment, and teamwork. Prest and Keller (1993) provided more detail by saying spirituality was the beliefs and values often related to prescribed religious doctrines that involved metaphysical, mystical or transcendent elements.

During the same time, Howden (1993) distinguished four themes that comprised the key elements of spirituality. The four themes include unifying interconnectedness with self and others, the ability to find meaning and purpose in life, innerness or inner

resources, and transcendence. *Interconnectedness* is feeling related to or attached to others; having a sense of harmony with self and others, and feeling one with the universe and/or a universal supreme being greater than self. Next, searching for the reason you are living – the very reason you exist is how one finds *meaning and purpose in life*. The search occurs by involving oneself in activities or relationships that provide a sense of purpose, hope, and self worth. The third theme, *innerness or inner resources*, speaks to the ability to rely on one's inner strength in times of disaster and finding resources to aid in calmness, and clarity with the inconsistencies of life – a private individual process. Tapping into one's inner source of power might be achieved by meditation, prayer, listening to music, yoga, deep breathing, and other contemplative practices (Briggs & Rayle, 2004). The last theme *transcendence* offers an unexplainable self-consciousness that something greater is beyond this world. When tapping into one's inner self, a feeling of peace and calm dominates, coupled with a feeling of release from the physical.

Two years later, in 1995, the Association of Spiritual, Ethical, and Religious Values in Counseling (ASERVIC) gathered in Belmont, North Carolina for a meeting called, "The Summit on Spirituality." Spirituality was described rather than defined as "...capacity that is innate and unique to all persons. The spiritual tendency moves the individual toward knowledge, love, meaning, peace, hope, transcendence, connectedness, compassion, wellness, and wholeness. Spirituality includes one's capacity for creativity, growth, and the development of a value system" (Young et al., 2007, p. 48). In accord, Anderson and Worthen (1997) defined spirituality as an individual phenomenon which takes on many forms stating, "While it is possible for a collection of individuals to choose to share an agreed-upon definition, personal nuances remain that can only be

known to each person. Hence, part of the debate around including spirituality in counseling is its inherent ambiguity" (p. 294).

In 1988, Walsh described spirituality as a relational dimension involving the experience of connectedness with something, be it nature, a person, or higher power which was akin to the works of Faiver et al, (2001) whereby spirituality was deemed as "an inherent human characteristic that is essential to our life force. It is greater than humanness; connecting us to people and our environment" (p. 2).

Rather than referring to spiritual, Smith (2001) delineated between the two terms *religious* and *secular*. The first, *religion*, includes every form of organized worship, worldwide. Examples include Catholicism, Christianity, Bahai, Buddhism, Islam, etc. The second, *secular*, includes all informal experiences regarding the natural world, to include friendships, relationships with animals and nature, etc. Secular appears to be regarded by many counselors as encompassing all experiences, whether secular or sacred.

Drawing from the shared definitions of spirituality, Myers and Williard (2003) defined spirituality to be,

> ...the capacity and tendency present in all human beings to find and construct meaning about life and existence and to move toward personal growth, responsibility, and relationship with others. *Spiritual experience and development* is then operationalized as any experience or process in the life of an individual that creates new meaning and fosters personal growth as exhibited by the capacity to move beyond former frames of reference and risk change, p. 149.

By merging past definitions and to provide a working definition, spirituality is defined as the innate capacity for self transcendence, where one is connected to something greater than the self, including the sacred, which motivates the search for connectedness, meaning, purpose, and contribution while at the same time, enhances relationships with others (Burke et al., 1999; Faiver et al, 2001; Young et al., 2007).

Spirituality in Counseling

The *Diagnostic and Statistical Manual of Mental Disorders*, (4th ed.; text revision; DSM-IV-TR; APA, 2000) includes diagnostic codes for additional conditions or problems that might arise during the counseling process. This section, "Other Conditions That may be a Focus of Clinical Attention," (p.731), lists the code, V62.89, Religious or Spiritual Problem, reading as such:

> This category can be used when the focus of clinical attention is a religious or spiritual problem. Examples include distressing experiences that involve loss or questions of faith, problems associated with conversion to a new faith, or questioning of spiritual values that may not necessarily be related to an organized church or religious institution, p. 741.

Including spirituality and religion in the APA's (2000) V-codes provides a diagnostic tool that allows the therapist to attend to spiritual issues that might be the cause of the client's presenting problem. Inclusion of this code in the DSM-IV-TR strongly suggests that spirituality is an important element of the counseling process. (APA, 2000)

Spirituality in School Counseling

Due to the issues of separation of church and state, school counselors have avoided mention of spiritual and/or religious themes (Allen & Coy, 2004; Corey et al., 2003; Myers & Williard, 2003) and are justifiably cognizant regarding legal concerns, though openness to a student's spirituality fails to infringe upon this legal requirement (Fischer & Sorenson, 1996). Conversely, since its inception, school counseling has progressed (MacDonald, 2004) with a significant rise of spirituality in education (Corey et al.; Myers & Williard). The American School Counseling Association (ASCA) developed Ethical Standards (2004) for School Counselors, with the preamble deducing

that spirituality is equally implied within the principles of belief and religion (MacDonald):

> Each person has the right to be respected, be treated with dignity and have access to a comprehensive school counseling program that advocates for and affirms all students from diverse populations regardless of ethnic/racial status, age, economic status, special needs, English as a second language or other language group, immigration status, sexual orientation, gender, gender identity/expression, family type, religious/spiritual identity and appearance (ASCA, 2004, p. 1).

Section A.1.c., of the ASCA (2004) ethical standards stated the professional school counselor "respects the student's values and beliefs and does not impose the counselor's personal values," (p. 1). This indicates that counselors are legally and ethically prohibited from attempting to convert students to spirituality or to yet introduce the topic as an issue students should consider.

Most K-12 students are influenced by the religious values of family and community (Bee & Boyd, 2003). However, adolescents are exposed to new ideas and concepts that conflict those of their parents. This can be challenging especially for those coming from homes where there are strong religious and/or spiritual values. Friction can occur between parents and their youth particularly regarding peer group affiliation and sexual interest (Frame, 2003). Feelings of shame and guilt arise should the youth behave in ways contrary to their parent's moral beliefs. Counselors who work with youth need to be sensitive to the world views of the parents, and to refrain from disregarding those views. However, as an advocate for the young client, the counselor must be able to assist the parents in understanding that should their child reject the spiritual or religious view of the family, the decision is based solely on the client and not from the influence of the counselor (Pellebon & Anderson, 1999).

Accounting for the time school counselors spend with many students over three to five years, in addition to the high degree by which children and adolescents are emotionally and developmentally impressionable, counselors have extraordinary influence on these values (Bee & Boyd, 2003), in company with spiritual values (Coles, 1990). If the primary function of a school counselor is to convey values, it is plausible to reason that they might also influence spirituality values, by virtue of how his or her own spirituality is communicated (MacDonald, 2004).

To be open-minded and receptive does not require additional training of the counselor. The fundamental skills of listening, questioning, elucidating, and providing personal and social development best serve students when they permit self expression, including religious and/or spiritual, while using collaborative counseling models. Understanding how a student's spirituality and/or religion as it relates to his or her diversity and development is essential to address in the counseling process. Failing to do so may possibly interfere with students' effort to look into the spiritual and/or religious aspect of his or her life, suppressing an element of diversity and development (MacDonald, 2004).

Assessments

Richards and Bergin (2005) suggest performing a quick spiritual/religious assessment to determine existing beliefs, practices, and personal religious history to measure the extent spirituality plays in the client's life. Having assessed for spirituality during the initial intake creates a safe environment for the student to discuss spiritual issues, should any arise. Following the general assessment principle, multiple methods are necessary to obtain a complete picture of the student's presenting issues, such as

intake forms, clinical interviews, genograms, and self report instruments. For the purposes of this section, only the genogram and self report instruments will be discussed.

Genogram. Genograms are detailed diagrams that are used to obtain three generations of family information. This pictorial document provides a quick and easy way to obtain the student's family of origin history, personality traits, and other information that has influenced the student's mental state. Demographic information such as names, gender and dates of birth, marriage, divorce, and death are basic inclusions. The use of specific symbols and colors allow the counselor to gather additional information concerning relationship dynamics, health issues, religious preferences, political views, drug alcohol use, education, etc. (Frame, 2003; McGoldrick, Gerson & Shellenberger, 1996). In the spiritual genogram, different colors represent a different religious/spiritual tradition. Religious/spiritual values, attitudes, morals, and beliefs are noted, plus significant religious events such as baptisms, confirmations and other rites of passage. After the genogram is complete, the counselor can explore the role religion/spirituality has played in their lives and the student can then use a similar method of inquiry for the family to gain increased understanding of how the role of religion/spirituality has shaped his or her family (for specific questions see Frame, 2003).

Self-report instruments. To measure aspects of spirituality, there are several assessments, however, some of the common ones are: (a) The Spiritual Assessment Inventory (SAI; Hall & Edwards, 1996), (b) The Index of Core Spiritual Experiences (INSPIRIT; Kass, Friedman, Leserman, Zuttermeister, & Benson, 1991), (c) The Spiritual Well-Being Scale (SWBS; Ellison, 1983), (d) The Human Spirituality Scale (HSS; Wheat, 1991), and (e) The Intrinsic Spirituality Scale (ISS; Hodge, 2003).

The Spiritual Assessment Inventory (SAI) is a 43-item assessment based on the Judeo-Christian theory and measures two primary aspects of spiritual development, the Quality of Relationship with God, and Awareness of God. There are five subscales – Awareness, Realistic Acceptance, Disappointment, Grandiosity, and Instability. Due to the incorporation of psychological and spiritual components the SAI reflects a psychospiritual development model. The five-item responses are on a continuum from 1 to 5, with 1 *(not true about me)* to 5 *(true about me)*, respectively. The instrument was designed for use in research and clinical settings (Hall & Edwards, 1996).

The Index of Core Spiritual Experiences (INSPIRIT) was designed to measure experiences related to the certainty of God's existence and the perceptions that God lives within, simultaneously, with the internal spiritual experiences that promote positive health. The index is comprised of 7 questions, with various response options, and reports high internal consistency reliability (= .90). One advantage is that the INSPIRIT distinguishes between the core spiritual experience as well as the duration of meditation history (Kass et al., 1991).

The Spiritual Well-Being Scale (SWBS) consists of two subscales: religious well-being and existential well-being. Religious well-being centers on one's spiritual understanding of the God concept, while the existential well-being centers on one's adjustment and happiness with life outside of religion. There are 20 questions, with 6 Likert-type responses ranging from *strongly agree* to *strongly disagree.* It has strong test-retest reliability and very high concurrent validity. One disadvantage of the SWBS is the ceiling effect and the absence of established norms. The advantages of this scale are that

it has been extensively used in over 300 research studies, and it has been used in a variety of culturally diverse groups (Ellison, 1983).

The Human Spirituality Scale (HSS) measures three dimensions of spirituality as defined by Wheat (1991): (a) a larger context or structure in which to view one's life, (b) an awareness of and a connection to life itself and other things, and (c) a reverent compassion for the welfare of others. The 20-item scale is highly valid and reliable (α = .88), and differentiates between groups with diverse spirituality levels. The scale utilizes 5-Likert-type responses ranging from 1 (*Constantly/Almost Constantly*) to 5 (*Never/Almost Never*).

The Intrinsic Spirituality Scale (ISS) (see Appendix B) measures the degree to which individuals find their life's purpose in spirituality; how their relationship with the Transcendent motivates their personal growth, decisions, and every other aspect or their lives. The six-item scale measures the extent to which spirituality serves as an individual's primary motive in both theistic and non-theistic populations despite expressions of spirituality inside or out of religious organizations. Using the phrase completion method, respondents are "asked to complete a phrase by selecting an option from an eleven point response key (0 – 10) which reflects the underlying theoretical continuum of the construct in question" (p. 46). The development of the scale came about in an effort to address two concerns with existing constructs measuring one's degree of spirituality and/or religiosity. Many of the instruments: (1) use terms that limit their validity with non-theistic populations, and (2) fail to build upon pre-existing scientific work. Thus Hodge (2003) modified Allport and Ross' (1967) measure of intrinsic religion to tap spirituality. Cronbach's alpha measure of internal consistency measures a

coefficient of .96, while the mean reliability coefficient measures .80, which suggests the scale is a highly reliable measure of spirituality.

At Risk Factors

At-risk seems to be a catchphrase nowadays. But what, exactly, are students at-risk of? They are at risk for dropping out of high school and do, every 26 seconds. More specifically, a report on U.S high school graduations prepared by Editorial Projects in Education Research Center (2008) found that nearly one in four high school students, approximately 1.2 million drop out of our nation's schools. Schools face the ongoing challenge of identifying and supporting the youth who demonstrate factors that designate them as *at-risk*. Morris (2000) describes those factors as "low achievement, retention in grade, behavior problems, poor attendance, low socioeconomic status, and attendance at schools with large numbers of poor students" (p. 4). Correspondingly, in their comprehensive report prepared for the National High School Center, Kennelly and Monrad (2007) found that behavior problems, when combined with other school risk factors such as repeating a grade and or changing schools, were warning signs that a student might be at risk for quitting school, concluding risk factors appear to be cumulative.

Consistent with this premise, The National Dropout Prevention Center maintains there is not one distinct risk factor that can completely predict who is at risk of dropping out of school (Hammond et al., 2007). Alternatively, dropping out of school appears to be a precipitated by several factors across several areas, with factors often acting together. The compounding effect of multiple factors leads a student toward dropping out. For that

reason, it is suggested that multiple risk factors across multiple areas be considered when attempting to accurately predict students at risk for dropping out of school.

Statistics - Youth at Risk in the United States

Over 73 million children live in the United States (Children's Defense Fund, 2008); many of which are at risk of dropping out of school and of failing in life as a result of being raised in adverse situations (National At-Risk Education Network [NAREN], 2009). Of these children, 18% (over 13 million) live in poverty and nearly 8% (over 5 million) live in extreme poverty. Consequently, about 11% of children (8.9 million) are without health insurance. More than 1.2% of children (900,000) are victims of child abuse and neglect and 4 child deaths are reported daily due to abuse and neglect. Each and every child comes to school laden with these burdens and issues (NAREN, 2009)

Additional data from the Children's Defense Fund (2008) indicates close to 7% of 16-19 year olds in the United States are high school drop outs and fail to complete high school; less than 1 in 4 freshman (23.4%) graduate from high school. With more time to engage in risky behaviors (NCSE, 2009), nearly 2% (1.2 million) juveniles are arrested, which, on a daily basis, equals 4,356 child arrests, 383 drug abuse arrests, and 181 violent crime arrests (Children's Defense Fund, 2008).

Under the At-Risk Student Services (EARSS), a category of Amendment 23, The Colorado Department of Education (CDE, 2008) offers grants to school districts to provide services to expelled and at-risk of expulsion students. Yearly, the CDE Prevention Initiative team gathers and evaluates student outcomes data. Of the 7,743 students served during the 2006-2007 school year, 87% (6,765) were identified as at risk for the following reasons: 33% percent of students struggled with attendance or too many

unexcused absences in a small time frame; 22% exhibited disruptive behaviors; 16% used drugs, tobacco or alcohol; 11% engaged in bullying/harassing behaviors; 8% engaged in physical fights or displayed violent behavior; 10% due to other issues including failing academically – behind in graduation credit completion, non-specified school suspensions, criminal behavior, and socioemotional struggles due to family, psychological or other stressors affecting academic performance. Analyses of student ethnicity indicate 46% Caucasian, 42% Hispanic/Latino, 6% African American, 4% American Indian, and 1% Asian/Pacific Islander, while gender analyses indicate 64% males and 36% female; consistent with aggregate data collected over a five year period beginning the 2001-2002 school year, indicating an average ratio of 3 boys to 2 girls served.

Definitions

There has been extensive scholarly works defining youth at-risk (Brooks & Goldstein, 2006; Duncan & Brooks-Gunn, 2000; Fraser, Richman, & Galinsky, 1999; Hernandez, Montgomery, & Kurtines, 2006; Jessor, 1991; Loewenson & Blum, 2001; Malekoff, 2004; Masten & Coatsworth, 1998; Schorr, 1989; Wright, 1996). It is a term that is often stigmatizing and inconsistent, commonly used to describe children and youth (Moore, 2006). Given that legislative reform continues to influence revisions to the at-risk term, there is no clear-cut or succinct definition (Herr, 1989; Wright). Nonetheless, its loose definition has afforded schools and educational agencies the latitude to formulate program-specific meanings.

Jessor (1991) defines at-risk adolescents as male and females between the ages of 13-19 whom: (a) live in a poor household, (b) demonstrate substandard school work, (c) exhibit elements of low self-esteem, (d) exhibit tendency to engage in unsafe sexual

practices, substance abuse, and delinquency, and (e) are subjected to negative peer influences such as deviant behavior. These at-risk issues impact physical and emotional development and reduce the likelihood for high school completion and employment stability.

Wright (1996) defined at risk youth as those subjected "to a combination of interrelated adverse biological, psychological, and social factors that result in a greater likelihood for the development of delinquency, substance abuse, or other related anti-social and self-destructive behaviors" (p. 4). In keeping with this premise, Dobizl defines *at-risk youth* as youth who display and continue to display behavior(s) that put them at risk for school failure, physical and self harm, substance abuse, and additional high-risk behaviors such as absconding, illegal activity, gang involvement, and age-inappropriate sexual acting-out.

Section 25-20.5-203 (3) of the Colorado Youth Mentoring Services Act (1998) defines at risk youth as a person who is 5 and up to 18 years of age and is confronted with risk factors such a poverty, lives in a substance abusing household, experiences conflict in the family, has friends who are delinquents, lives with one parent, exhibits delinquent behavior, or is a victim of child abuse.

Masten and Coatsworth (1998) define youth at-risk as youth who are subjected to numerous contextual circumstances that could bring about negative developmental effects. High risk status is assigned when they are being raised by a single parent who is a high school dropout, household income is meager, or have been subjected to harsh conditions or traumatizing events like domestic abuse and/or violence, death of a parent,

or war. Brooks and Goldstein (2006) note that children raised in a family with an absent father or depressive mother constitute additional risk.

In a study to assess the identity distress and adjustment problems in at-risk adolescents attending alternative high schools for youth in Miami, Florida, known as Communities in Schools of Miami (CIS-M), "at-risk" was identified "by satisfying at least one of the following criteria: (a) failing grades, (b) at least one grade retention, (c) behind schedule in earned high school credits, (d) low assessment scores, (e) unable to achieve state proficiency levels in math, reading, or writing, and (f) excessive truancy" (Hernandez et al., 2006, p. 29).

Clearly, definitions of at-risk vary, and include numerous risk factors documented by experts in the fields of psychology, human services, and education. Even still, it is necessary to establish a basic definition to avoid confusion and misinterpretation (Moore, 2006). Research by Dobizl (2002) maintains educational literature generally defines at risk in reference to misbehavior(s) that bring about dropping out of school. In keeping with this premise, and recognizing the educational focus of this research, *at-risk* youth is defined as youth who are subjected to demographic and socioeconomic disadvantages and who consistently demonstrate and engage in behaviors that place them at risk for dropping out of high school.

Factors

Research indicates that the majority of at-risk definitions in the educational community are two-fold: a predicted outcome and contributing factors. Numerous authors have the same opinion that at least one component of the definition indicates a negative outcome for instance school failure (Dobizl, 2002; Jessor, 1991; Lesley, 2008;

NCSE, 2009; Schorr, 1989), troublesome life circumstances (Masten & Coatsworth), earning low wages (NCSE), or ending up in jail. An additional component of at-risk definitions typically includes the risk factors that predict or *increase* the chances of achieving the negative outcome. Several authors have identified various risk factors that contribute to the outcome(s) that schools and agencies are attempting to prevent These risk factors include: (a) living in poverty, (b) exhibiting or engaging in delinquent behaviors, (c) school failure, (d) living in a single parent household, and (e) alcohol and/or drug use. Although several authors maintain risk factors generally predict or increase the chances of negative student outcomes though they do not necessarily suggest that youth will drop out of school and fail in life. Still, the more risk factors, the greater the risk (Wright, 1996).

Risk factors are more common in households with low socioeconomics (Duncan & Gunn, 2000; Fraser et al., 1999; Morris, 2000; Schorr, 1989; Wright, 1996), particular ethnic groups (Loewenson & Blum, 2001), and high crime rate and urban neighborhoods (Fraser et al.; Loewenson & Blum). Risk factors have been found to include character traits, genetic predisposition, the neurological and physiological vulnerabilities in personal characteristics, and the impact of the cultural, social, political, and/or environmental aspects (Fraser et al.; Malekoff, 2004). Contextual or ecological factors such as loss of a parent due to death, separation, or divorce are additional risk factors (Fraser & Richman, 2001).

David Hawkins, a University of Washington researcher, identified ten factors, common to most educators, placing youth at risk for delinquent and self-destructive behaviors: (a) disconnected and unattached to family, school, and community, (b)

repeated anti-social behaviors beginning early in life, (c) high risk behaviors in family history, (d) deficient family management, (e) conflict in the family, (f) living in poverty, (g) failing in school, (h) education is a low priority, (i) associates with friends who are delinquents, and (j) social disorganization, i.e., absence of public order, communities with high crime rates, access to drugs and alcohol (Wright, 1996).

The National Center for School Engagement (NCSE, 2009) considers the following factors putting youth at risk: homelessness, mental illness, using drugs or alcohol, subjected to sexual, physical or emotional abuse, neglected at home or is in a stressful living situation, lacks emotional or social supports, and associates with delinquent peers. Identifying at risk-youth usually occurs after they have run away from home, skipped school, engaged in sexual behaviors, exhibited disruptive behaviors, participated in fights, committed acts of vandalism, and exhibited bullying and harassing behaviors. Many of these behaviors lead to dropping out of school, securing low income employment, and criminal behaviors.

Socioeconomics

Historically, the socioeconomic status of a child and his or her family has greatly impacted a child's readiness for school. The factors of social class, race and ethnicity have often influenced the neighborhood locale and type of housing which, by proximity, affected the access to resources that either assisted or hindered a child's social and academic growth (Crnic and Lamberty, 1994; Ramey & Ramey, 1994). Parents have been confronted with major challenges across all socioeconomic groups when it comes to giving the best possible care and education for their children. For impoverished families, these challenges can be overwhelming (Duncan, Brooks-Gunn, & Klebanov, 1994).

"Sometimes, when basic necessities are lacking, parents must place top priority on housing, food, clothing, and health care. Educational toys, games, and books may appear to be luxuries, and parents may not have the time, energy, or knowledge to find innovative and less-expensive ways to foster young children's development" (Ramey & Ramey, 1994, ¶ 9).

Schorr (1989) identified four risks facing children and adolescents. The first risk is when children are raised by indigent parents; they are impacted by environmental stressors and have limited access to resources. Next, children who have faced healthcare neglect such as birth mother's prenatal care, well-baby and ongoing health check-ups are more likely to suffer poor physical health. The third risk is when children are raised in a chaotic household where exhausted parents have little time to give structure, guidance, and the mental stimulus needed for academic and life success; leading to increased social difficulties and cognitive dysfunction. The fourth and final risk is lacking cognitively to understand academic subject content causing the child to falling behind in school. The discouraged child gives up, believes school is useless and drops out of school, leading to delinquency and teen pregnancies.

Similar findings by Duncan and Gunn (2000) indicate the selective effect family poverty has on child development with severe poverty in infancy having the greatest negative impact on skill development and mental aptitude in children. The environment in the home, the quality of care, economic pressures, the mental heath of the parent, the parent to child relationship, where they live, and the opportunities to learn impact the income which in turn affects the cognitive potential in a child.

School Absenteeism

One of the first signs that a student might be at risk is unexcused absences (NCSE, 2009). They are not learning if they are not in school, and will most likely get behind in their studies. Playing catch up is difficult and discouraging, leading most students to lose interest in school and the connection to teachers and staff. Research has shown a direct association with school absences and risky behaviors (Baker, Sigmon, & Nugent, 2001; Eaton et al., 2008; Guttmacher, Weltzman, Kapadia, & Weinberg, 2002; Henry, 2007) as excess free time allows the student to engage in delinquent behaviors. Schools perpetuate the problem by either suspending or expelling students for delinquent and disruptive behaviors. Since at-risk youth are frequently involved in risky behaviors, they suddenly have more time to do so, now that they are denied attendance to a structured school day (NCSE, 2009).

Guttmacher et.al (2002) studied over 2000 10^{th} graders in 13 New York City schools to determine the effectiveness of concerted efforts to include students who were regularly absent in order to diminish bias in classroom-based studies. The students were administered self-reported confidential surveys in four separate phases. Findings indicated that regularly absent students participated in more risk behaviors than students who were seldom absent. Assessed risk behaviors included absenteeism, alcohol and drug use, sexual activity, academic failure, and weapon possession.

Delinquent Behaviors

In a study investigating the influence of religion in reducing the vulnerability of youth to drinking, drug use, delinquency, problems in school and poor grades, Regnerus and Elder (2003) sampled nearly 12,000 adolescents in 134 middle and high schools

using customized structured questionnaires and in depth interviews on socio-demographics, family issues, peer and romantic relationships, health and diet, education, and risky behaviors. Of particular interest are the questions and methods used to identify delinquency and economic advantage. To determine delinquency, researchers used a summed index of 13 behaviors varying from painting graffiti in a public place, to lying, stealing, and fighting, with the index ranging from 0 to 39. The respondents were queried regarding their participation in the past 12 months. The following represents a sample question: "In the past twelve months, how often did you...Paint graffiti on someone else's property that didn't belong to you?" (p. 654). To determine economic advantage, the researchers used a summed score of 6 dichotomous items varying from mother's education, non-receiver of federal assistance, easiness paying bills, income level, and a two parent home. A sample question reads, "Mother is married or had first child after age 18" (p. 655).

Identifying Students At-Risk

An effective system for identifying at-risk variables is a detailed process and is individually tailored for each school and agency. The process involves careful gathering of student information including student records, surveys, checklists, and specific questionnaires. Every bit of data is important in order to get a complete picture as to what is affecting a student's success (Wells, 1990).

Previous research by Dobizl (2002) describes a variety of ways schools identify students who are at-risk of failing or likely to drop out of school. Some use questionnaires that focus on at-risk categories, such as truancy, dropout, teen parent or adjudicated delinquent. Others focus on academic performance characteristics such as

performing one to two grades below expected grade and age level, inclusive behaviors, peer relationships, and economic status of family. Other screening forms note characteristics pertaining to academic performance, overall behavior, peer relationships, and other concerns.

Many programs serving at-risk youth are asked to develop program models, plans and apply strategies for program evaluation. Since at-risk is to be assessed, different criteria for measuring at-risk are used for each purpose. Effective logic model development involves understanding the characteristics of the children, family, and community to determine the specific factors contributing to the risk. If only child characteristics compose the at-risk definition, then it is crucial to get school, other administrative data, or survey data from children or parents. If family characteristics such as family income and stressors are included in the at-risk definition, school data coupled with a survey administered to parents centered on the socioeconomic risks facing the family would be suitable. Lastly, if characteristics of the community such as poverty, crime, and low performing schools are included in the at-risk definition, then local area data such as crime, teen pregnancy, and mortality statistics might be used (Moore, 2006).

Assessments

Currently, there are 3 assessments that measure particular at-risk behaviors in adolescents. Though not inclusive of all at-risk factors, the assessments have been used in specific settings to determine elements of risk.

The Hilson Adolsecent Profile (HAP) was originally designed to identify adolescents aged 10 to 19 at-risk for personality, behavior, and adjustment issues (Inwald et al., 1987). The four domain profile consists of 310 true-false questions. Despite the fact

that domains two and three have scales pertaining to alcohol and drug use, law and society violations, home life conflicts, and social/sexual adjustment, the scale appears to be more appropriately used in a clinical setting.

Available to schools for free, the Student Risk Screening Scale (SRSS) is a teacher-rated scale that identifies students from kindergarten through 6th grade who are at risk for antisocial behaviors, such as stealing, lying, cheating, behavior problems, negative attitude, rejection by peers, and aggressive behavior (Drummond, 1994). Using a 4-point Likert-type scale, the total scores are computed by adding the item scores for each student to determine a low, moderate, or high level of risk. The current disadvantage of this instrument is that it has only been validated to use across the kindergarten through 6 continuums. Current research by Lane, Kalberg, Parks, and Carter (2008) found the SRSS an effective screening tool for antisocial behavior at the high school level, with a call for additional research with more diverse schools and larger samples.

The Youth Risk Behavior Surveillance System (YRBSS) is a national school-based survey that monitors priority health-risk and is performed by the Centers for Disease Control and Prevention (CDC). Conducted in classrooms, the self-administered paper-and-pencil questionnaires are administered by state, territorial, and local health education and agencies and tribal governments. The purpose is to survey the prevalence of health-risk behaviors among students, to assess these trends, and to examine the co-occurring health risk behaviors. It measures the following content areas: (a) accidental injuries and violence, (b) tobacco, alcohol, and other drug use, (c) sexual behaviors that lead to unplanned pregnancy, (d) sexually transmitted diseases, (e) unhealthful dietary behaviors, and (f) physical inactivity (CDC, 2009b). Example survey questions include:

"During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol? a) 0 times, b) 1 time, c) 2 or 3 times, d) 4 or 5 times, e) 6 or more times" (CDC, 2009a, p. 4). Even though this instrument measures many at-risk behaviors, the primary focus of this survey is health.

Relevant Studies

Risk factors and anxiety. Current research indicates that certain individuals with higher levels of anxiety might be resorting to gambling, alcohol, and illegal drugs in order to escape the psychological effects of anxiety (Ste-Marie, Gupta, & Derevensky, 2002; Woodward & Fergusson, 2001). A Canadian study sampled over 1,000 youth between the ages of 12 and 17 to examine the relationship between state and trait anxiety, social stress, gambling problems, and substance use. Analyses indicated that youth gamblers with the highest state and trait anxiety and social stress scores reported higher frequencies of alcohol and drug use than those with lower anxiety and stress scores. What's more, greater than 40% of youth who smoked were within the highest state and trait anxiety group (Ste-Marie et al., 2002). The findings in this study speak to the importance of identifying factors in youth that might place them at risk for addictive behaviors.

Similarly, in a 21-year New Zealand longitudinal study of 1,265 adolescents, Woodward and Fergusson (2001) looked at associations between various anxiety disorders in adolescents from ages 14 to16 years and subsequent risks of various mental health, educational, and social role outcomes in older young adults from ages 16 to 21 years. Youth identified with 3 or more anxiety disorders in middle adolescence had more than triple the incidence of subsequent anxiety disorders, and double the incidence of

depression than that of nonanxious adolescents. Similarly, adolescents with 3 or more anxiety disorders had nearly 4 times the rate of subsequent illegal drug dependence than that of nonanxious adolescents. Further findings indicated nonanxious adolescents were about one and one-half times more likely to take a college-level training course and 2 and one-half times more likely to attend college than adolescents diagnosed with at least 3 anxiety disorders. The findings suggested that adolescents with anxiety disorders are at an increased risk of subsequent anxiety, depression, illegal drug dependence, and educational underachievement as young adults.

However, another study found slightly the opposite - as age increases, associations with anxiety and externalizing disorders decreases. Externalizing disorders are evident in a child's outward behavior rather than what is thought or felt internally, and typically include problems of control and problems of inattention and impulsivity. Often times before diagnosed, these disorders can present as delinquent behaviors. Marmorstein (2007) interviewed youth ages 9 to 17 and their caretakers in a probability sample of 1,304 to describe associations between specific types of anxiety and the externalizing disorders attention-deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD). The gender distribution was almost equal 53% males and 47% females and most of the sample (51%) was classified as non-Hispanic, while the remainder was 28% Hispanic, 15% African American, and 6% from other racial/ethnic backgrounds. Logistic regression analyses indicated the associations between social phobia (SOP) and all three externalizing disorders were dependent on the gender, meaning stronger associations in males than in females. When looking at associations by age, logistic regression analyses indicated the association between

overanxious disorder OAD and oppositional defiance disorder ODD is much stronger in younger ages. (Marmorstein, 2007).

Risk factors and spirituality. Brown et al. (2001) and Ritt-Olson et al (2004) maintain spirituality is a protective factor against drug and alcohol use and delinquent behaviors among youth, while McWhirter (2002) found spirituality to protect against suicide. Ritt-Olson et al. (2004) conducted a correlational study of 382 students deemed at risk for drug use from alternative high school, and 260 students deemed lower risk from a public high school to investigate the influence of spirituality and health-as-a-value on monthly use of alcohol, cigarettes, and marijuana. Logistic regression analyses indicated spirituality was protective against the monthly use of alcohol (OR = .94, CI = .89-.98) and marijuana (OR = .87, CI = .80-.95) in the lower risk sample and protective against all monthly use in the higher risk sample: cigarettes (OR = .92, CI = .89-.97), alcohol (OR = .88; CI = .84-.93), and marijuana (OR = .94; CI = .90=.98). The findings indicated spirituality may be a protective factor against substance use among low and high risk youth.

The results of a 3-year longitudinal study that directly examined the relationship between religiosity and racial differences in adolescent alcohol use indicated that attending church was a predictor of alcohol use in black youth, and religious beliefs was a predictor of alcohol use in white adolescents. A total of 1,233 (black or white only) ninth-grade adolescents, ages 14 to 19 participated. Bivariate correlations indicated an inverse association with fundamentalist religious beliefs ($r = -.17$, $p < .01$), meaning the greater the adolescent's religious beliefs, the less they consumed alcohol. For white males, negative correlates between alcohol and both church attendance ($r = -.15$, $p < .5$)

and fundamentalist religious beliefs ($r = -.25, p < .01$), meaning white males used less alcohol if they attended church frequently. While this research indicated racial differences in adolescent alcohol use, it also indicated gender differences in that adolescent males consume more alcohol than adolescent females, with church attendance and religious beliefs serving as moderating factors in alcohol consumption (Brown, Parks, Zimmerman, & Phillips, 2001).

Lastly, McWhirter (2002) described a 12 year old suicide risk client in a single interview case study. During a counseling session, the counselor identified clear religious beliefs as well as intense loyalty to relatives and friends. As a result, this information provided foundational rationale to dissuade the student from attempting suicide. Exploring spiritual beliefs proved to be a protective influence for this suicidal client.

Spirituality and psychological wellbeing. Research literature consistently maintains that spiritual and/or religious values support physical and psychological wellbeing in adults (Corey, 2006; Hall et al., 2004; Janzen, 2005; Young, Cashwell, & Shcherbakova, 2000).

In a convenience study of 88 adults examining the relationship between anxiety and spirituality, participants completed the State-Trait Anxiety Inventory, the Spiritual Practices scale, and the Spiritual Well-Being scale. Regression analyses were used identify the relationships between the independent variables, Spiritual Practices and Spiritual Well-Being, and the dependent variables, State and Trait Anxiety. Christian Spiritual Practices was significantly negatively correlated with Trait Anxiety ($r = -.48, p \leq .01$), and with State Anxiety ($r = -.40, p \leq .01$). Spiritual Well-Being was significantly negatively correlated with Trait Anxiety ($r = -.51, p \leq .01$), and with State Anxiety ($r = -$

.37, $p \leq .01$). The findings indicated spiritual practices and spiritual well-being decrease anxiety levels, suggesting assessment of clients who maintain religious and/or spiritual beliefs in an effort to utilize spiritual/religious tools in conjunction with other therapeutic techniques (Janzen, 2005).

In a similar study, Young et al. (2000) examined the moderating relationship of spirituality on negative life experiences (NLE) and psychological adjustment. Three-hundred and three college students, between 18 and 29 years old volunteered for the study. With anxiety as the outcome, variable regression analyses were performed. NLE accounted for 11% of the variance in anxiety ($R^2 = .11$, $F = 33.60$, $p < .05$). With NLE previously in the equation, spirituality predicted an extra 1% of the variance in anxiety ($R^2 = .12$, R^2 change = .01, $F = 5.57$, $p < .05$). With NLE and spirituality previously in the equation, the interaction term, NLE × spirituality, predicted an extra 4% of the variance in anxiety ($R^2 = .16$, R^2 change = .04, $F = 11.22$, $p < .05$). Due to the negative bivariate correlation between spirituality and anxiety, results indicated a higher tendency towards spirituality diminished the effect of NLE on anxiety onset. Generally, the tested model predicted greater variance in depression (25%) than anxiety (16%). The moderating effect of spirituality was statistically significant for both depression and anxiety, providing a stronger moderating effect for depression than for anxiety. Findings indicate that perhaps spirituality has a valuable relationship to psychological adjustment and, accordingly, to the clinical counseling profession.

Theoretical Framework

The theories of development share the idea that the experiences of childhood present in the personalities of adults. Psychoanalytical and psychodynamic theorists

looked into clients' past to understand their problems and strengths. Doing so, afforded the opportunity to categorize personal and social development into stages with the belief that psychological problems would occur if an individual could not adapt to a particular stage as anticipated (Day, 2004). The theories of Sigmund Freud, Erik Erikson, Jean Piaget and Albert Bandura and will provide a historic overview on psychological development which is the theoretical framework used for this study.

Psychoanalytic Theory

Considered the father of psychoanalysis, and by several, the father of modern personality theory, Sigmund Freud has dominated the scientific and intellectual ranks in psychology (Glassman, 2000). Freud developed the first psychoanalytic theory which set the groundwork for subsequent mental health theories (DHHS, 1999). Though Freud's theory is involved, he believed two instinctive drives motivate all actions – sex and aggression, derived from the terms Eros which means life, and Thanatos which means death, respectively. Freud believed sex to be the driving force of humans, as it brings about offspring, a continuance of life – survival of the species. Conversely, aggression, or death, is the instinct that protects life, warding off the enemy in order to sustain life. This belief led Freud to conclude that human behavior is predetermined genetically and by past behaviors. If an individual was aware of the reasons behind his or her behaviors, he or she had the ability to change the behavior (Dacey & Travers, 1996).

Freud's theory of personality comprises three psychological structures: the id, ego, and superego. The id is a basic innate structure, driven by the pleasure principle, which seeks immediate attention and gratification, disregarding the needs of others. If out of balance, the id takes living to the excess – overeating, frequent intoxication, drug

dependence and/or addiction prone, reckless promiscuity, fist fights, etc. Next, the ego begins to develop around three years of age and is based on the reality principle, meaning, everyone has needs and desires, so constant selfishness can be imposing. Therefore, the ego maintains a healthy balance of appeasing the needs of id and the superego, while also forming defense mechanisms as protection. The last personality structure, the superego, develops around the age of five which is the moral sense of right and wrong, or sometimes referred to as the conscience. If the superego is out of balance, an individual becomes inflexible, uptight, and fanatical. Freud believed that the conflicts the ego faced created anxiety. When the ego fears the id instincts will dominate, neurotic anxiety develops. Conversely if the ego fears the superego will be disappointed, moral anxiety develops (Day, 2004).

Another key component of Freud's personality is the topographical model of awareness, consisting of three parts: the conscious, the preconscious, and the unconscious. The conscious, the smallest part of the mind's awareness, contains immediate memories and verbal processes present at any given time. The preconscious is the part of the mind's awareness that stores inactive memories not readily accessible, but easily retrieved with prompting. The unconscious is the largest part of the mind's awareness that is not available to the conscious mind, yet believed to be the source of underlying emotions, feelings and desires, accessible through hypnosis, psychoanalysis, and dream analysis (Dacey & Travers, 1996).

For psychosexual development, Freud formulated a five stage model. As indicated by Freud, an individual goes through five stages which are: (a) oral, (b) anal, (c) phallic, (d) latency, and (e) genital (Freud, 1930). Freud hypothesized the ability to resolve the

conflicts at each stage determined one's aptitude for normal functioning and anxiety coping. If an individual failed at mastering a stage, Freud believed the individual developed a fixation, or was stuck, unable to move on. Fixations resulted in anxiety and unhealthy defensive coping methods and could happen at any stage (Dacey & Travers, 1996). Table 1 provides a brief sequential summary, with fixation outcomes.

The oral stage begins from birth, when an infant obtains nourishment orally by suckling, while at the same time taking pleasure in the experience. The anal stage focuses on the pleasure that comes from defecating, as well as resistance and conflict centering on social directives. The phallic stage is when the focus on genitalia begins, also known as the Oedipal stage. During this stage, the child wants the opposite-gendered parent for themselves while detesting the same-gendered parent for ensnaring their love interest.

Here is where anxiety originates, as the child worries the same-gendered parent will discover their fantasy and punish them. This anxiousness becomes too great, so the child readjusts and identifies with the same-gendered parent. At this time, the child realizes the differences and similarities between their mother and their father. The child might attach to the opposite gendered parent in an erotic way, while feeling hostility to the other parent. Freud believed this incestuous struggle to be the origin of many mental disorders, and yet one that is significant for development. This moves the child into the latency stage when the child's sexual interest decreases and other interests develop such as friendships, sports, school, and hobbies. The last phase, genital, is where the adolescent child moves into adulthood with a strong desire to develop sexual relationships with the opposite sex (Dacey & Travers, 1996).

Table 1

Freud's and Erikson's Stages of Life

Freud's model is arranged according to sources of pleasure, and Erikson's is arranged according to social forces

Stage (Freud)	Psychosexual Process	Age (Erikson)	Psychosocial Process
Oral (0-18 months)	Exploration focused on mouth. Fixation: too much talk, eating, dependency.	First year	Trust versus mistrust. Expectation that needs will be met, or not.
Anal (18-36 months)	Pleasure focused on defecation, in conflict with social demands. Fixation: stinginess and orderliness, or impulsivity and sloppiness.	Second year	Autonomy versus shame and doubt. Choice and self-control or uncertainty about abilities.
Phallic (3-6 years)	Pleasure focused on genital area, resolved by identification with same-sex parent. Fixation: rebelliousness, sexual identity problems.	3-5 years	Initiative versus guilt. Self-direction, purpose, and personal goals, or guilt over making these efforts.
Latency (6 years to puberty)	Pleasure focused away from sexual, toward play, school, and friendship.	6 years to puberty	Industry versus inferiority. Pleasure in feeling competent, or incompetence and lack of engagement.
Genital (puberty onward)	Pleasure again focused on genitals, for the rest of life. Mature sexual relationships and desire to reproduce, if other stages are successfully resolved.	Adolescence	Identity versus role confusion. Coherent sense of self, or undefined or oppositional identity.
		Early adulthood	Intimacy versus isolation. Ability to form and enjoy close relationships, or sense of aloneness.
		Middle age	Generativity versus stagnation. Sense of contributing to the world and the future, or inactivity and lack of purpose.
		Old age	Integrity versus despair. Reflection on life as meaningful and satisfying, or not.

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Psychodynamic Theory

Though influenced by Freud, Erik Erikson (1950) challenged the view that personality and behavior were centered sexually and in the mind only. Rather, development was affected by the influences of what is innate (body and mind) and what is experienced socially – how external influences affect behavior. While many developmental theories cease at childhood, Erikson believed personality continued to develop past age five, thus developing eight stages, using approximate ages, which proceeded all the way through life. With each stage building on the preceding stage, successful passage through each stage was accomplished if the ego was successful in finding a balance between the conflicting values rather than absolute achievement.

Erikson theorized while the ego was most important, it also had: (1) the ability to function independently of the id and the superego, and (2) adaptability. Thus, if negative traits were developed, they could be changed later in life.

Table 1 details the stages which are: (1) Trust vs. Mistrust, (2) Autonomy vs. Shame and Doubt, (3) Initiative vs. Guilt, (4) Industry vs. Inferiority, (5) Identity vs. Confusion, (6) Intimacy vs. Isolation, (7) Generativity vs. Stagnation, and (8) Integrity vs. Despair.

Psychosocial Stage 1 - Trust vs. Mistrust. The first stage begins between birth and the first year of life. Seeing as infants are dependent beings, trust development depends on the caregiver. Infants develop trust from caregivers who are consistent, responsive and emotionally available, which equates to feeling safe and secure. Alternatively, infants develop mistrust if the caregivers are inconsistent, unresponsive, and emotionally unavailable, which results in fear and vulnerability.

Psychosocial Stage 2 - Autonomy vs. Shame and Doubt. The second stage takes place between the ages of one and three. During this stage, children begin to develop personal control. Though Erikson agreed with Freud that toilet training was essential, he argued mastering control of body functions, as well as further control over clothing, toys, and food selection, led to feelings of power and autonomy, which lead to self-confidence. If not, the child would develop feelings of inadequacy and insecurity.

Psychosocial Stage 3 - Initiative vs. Guilt. The third stage, from the ages of three through five, children begin to exert their personal power in social situations with verbal directives. If successful during this stage, the child will feel confident in his or her leadership abilities. However, if unsuccessful, the child will develop guilt, self-doubt, and lack of initiative.

Psychosocial Stage 4 - Industry vs. Inferiority. The fourth stage, between the ages of five and eleven (approximately), children begin to feel a sense of satisfaction in their accomplishments and skills. When encouraged and praised by caregivers, teachers, and peers, children develop confidence and competency in their skills. Without this encouragement, children doubt their abilities for success and begin to feel inferior.

Psychosocial Stage 5 - Identity vs. Confusion. During the fifth stage, from about eleven to eighteen, adolescents test their autonomy in an effort to develop a sense of who they are. Adolescents receiving positive encouragement will develop a clear sense of who they are, that is, a clear identity. Those who feel unsure of who they are, or lacking in self confidence, will continue to feel confusion about their identity.

Psychosocial Stage 6 - Intimacy vs. Isolation. The sixth stage occurs during young adulthood, about the time when committed and/or intimate relationships develop.

If the young adult has a clear identity, he or she will have greater success in cultivating positive committed and or intimate relationships. If the young adult does not have a clear identity, he or she is more likely to experience loneliness, depression, and emotional disconnection or isolation.

Psychosocial Stage 7 - Generativity vs. Stagnation. The seventh stage involves greater concentration on occupational and familial goals. Those successful in this stage acknowledge their contribution to the greater good of the society, and actively take part at home and/or in the community. Alternatively, those who flounder through this stage feel unproductive, stagnate and detached in the greater society.

Psychosocial Stage 8 - Integrity vs. Despair. The eighth and final stage occurs during retirement – the later years of life. Those successful during this phase reflect on their life and feel minimal regret, a sense of pride, integrity, and fulfillment. Those unsuccessful during this stage view their life as futile. As a result, they are filled with regret, resentment, and despair.

Behavioral Development

Behavioral psychology or behaviorism emphasized experimentation, focusing on what is observable and measurable, and the effects of manipulated variables. Development could be explained on how one responded to environmental incentives, commonly known as rewards (DHHS, 1999). From the influences of Ivan Pavlov and John B. Watson, B. F. Skinner believed the study of behavior to be the foremost objective scientific methodology in the field of psychology, even though he understood mental processes' contribution to behavior. Accordingly, he developed the concept of operant conditioning, the belief that behavior is influenced by consequences, namely, rewards or

reprimands, which ultimately determine the likelihood of behavior continuance or discontinuance (Skinner, 1974). This concept suggested that mental disorders were a result of learned disruptive behaviors, which could easily be reshaped. The ability to reshape behavior or *behavior modification therapy* continues to be integrated in treatment methods to assist individuals in overcoming phobias, addictions, problematic behaviors, and classroom functioning (Kazdin, 1997).

Cognitive Development Theory

Jean Piaget's research on the workings of a child's mind has been influential in the field of education, specifically with the concept of maturation which determines the stepwise fashion in which the brain regulates the ability to take on tasks as the individual psychologically develops. Piaget understood a person's intellectual or mental development to occur in steps, with each building on the preceding step. He estimated that a child's thinking develops inconsistently; with new capabilities occurring in spurts, taking place around 18 months, 7 years, and between 11 or 12 years of age. Regardless of a child's intellect, they are incapable of understanding certain concepts. This theory, also known as cognitive theory, has served as the foundation for creating school curriculum. He divided intellectual development into four major stages: Sensorimotor, Pre-operational, Concrete operational, and Formal operational (Piaget, 1983). Table 2 outlines these stages.

Social Learning Theory (Bandura)

Albert Bandura's social learning theory put emphasis on role models and their influence on the development of children and adolescents. In essence, social learning theory speaks to the ongoing reciprocal relationship between the mind (cognitive), the

Table 2

Piaget's Cognitive Development Stages

Stage	Age	Description
Sensorimotor	Infancy (0-2 years)	Intellect is exhibited through motor activity. Knowledge of the world is minimal, though developing, purely based on physical interactions / experiences. Children gain object memory at around 7 months of age. Physical growth and mobility assists with new intellectual abilities. Some sign language abilities begin to develop.
Pre-operational	Toddler & early childhood (2-7 years)	Intellect is exhibited through the use of symbols, language use matures, and memory and imagination are developed. Thinking is done in an illogical, nonreversible manner and egocentric thought dominates.
Concrete operational	Elementary & early adolescence (7-11 years)	Intellect is exhibited through logical and systematic manipulation of symbols related to concrete objects (number, length, liquid, mass, weight, area, volume). Operational thinking develops and egocentric thought diminishes.
Formal operational	Adolescence & adulthood (11+ years)	Intellect is exhibited through the logical use of symbols as they relate to abstract concepts. Early in the stage egocentric thought returns. Up to 35% of high school graduates in modern countries achieve formal operations; formal thought is not always achieved in adulthood.

behavior, and the influence of the environment (Bandura, 1977). One of the principal concepts developed by Bandura (1986) is *reciprocal determinism*, which is, the environment impacts one's behavior, and in the same way, one's behavior impacts the environment. Each can influence and be influenced by the other. In time, Bandura

postulated that an individual's personality is an ongoing mutual interaction between three elements: one's mind, one's behavior, and the external environment (Bandura, 1986).

Bandura (1977) reasoned the bulk of learning comes from watching the behavior of others, or observational learning. From this, an individual formulates an understanding of the behavior and at some point mimics or models the behavior. "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action "(p. 22). For modeling to take place, four elements are required:

1. **Attention**. To learn, one must pay attention. Several factors affect the attention span which are: (a) one's physical condition (i.e., tired or rested, calm or nervous), (b) outside stimuli that might distract, and (c) the alluring characteristics of the model (good looking, smart, gifted, popular, similarity to self).
2. **Retention**. To retain what has been noticed, one must have the ability to remember. The brain stores information as images or verbal descriptions. Doing so allows an individual to access these images in order to duplicate the behavior.
3. **Reproduction**. Having the ability to reproduce the behavior which occurs by translating the images or verbal descriptions into a behavior. Practice coupled with visualization improves one's ability to imitate a behavior.
4. **Motivation**. There must be a justifiable reason to mimic the behavior. Three reasons include (a) *past reinforcement*, rewards for behavior; (b) *promised reinforcements*, the incentives for executing the behavior; and (c) *vicarious*

reinforcements, watching and recollecting the behavior being reinforced (Bandura, 1977).

As a result of the cognitive thinking processes, the observational approach enabled individuals to proactively choose what they wanted to learn. Despite the fact that social learning theory resulted from behaviorism, it provided the foundation for (cognitive-behavioral therapy) which continues to be a significant clinical approach that proves to be an effective treatment alternative for children and adolescents (DHHS, 1999).

Models of Spiritual Development

Development, which includes diversity and spirituality, continues throughout the duration of human life (MacDonald, 2004). Coles (1990) maintains spiritual development is a necessary component for the identity formation of children and adolescents, which is significant for human development (Shiner, 1998; Wagner, 1996). Just as there are distinct stages in psychological development, so there are distinct stages in spiritual development. Therefore, it is important to understand spiritual development theories (Frame, 2003). Identifying an individual's spiritual development stage allows the counselor to utilize the client's resources to assist with resolving the problems that commonly occur during the identified stage of spiritual and psychological development (Lownsdale, 1997). While there are many, only the theories of Fowler (1981) and Peck (1998) will be addressed.

James Fowler. Fowler uses the word faith, to describe the way one discovers the significance of life; the values and commitments that direct one's life. His Stages of Faith were developed based on the theories of Jean Piaget, Erik Erikson, and Lawrence

Kohlberg, combined with extensive personal research. Since the stages are passed through sequentially, it is not possible to skip a stage, and not all individuals will progress to the next stage. Following are Fowler's Stages of Faith.

- *Primal Faith*

In this stage, infants from birth to 2 years of age learn how to trust their environment which is totally dependent up their caregivers, such as nurturance and security vs. neglect and maltreatment. This stage is similar to Erikson's trust versus mistrust stage.

- *Intuitive-Projective Faith*

  Children aged three to seven typify this stage by using fantasy and imaginative play, which is directly influenced by the beliefs, behaviors, and moods of the parents and influential adults. Due to the absence of logical thought, the imagination assists with the egocentric child's ability to understand the world in a positive and/or negative light. It is during this stage that the child is highly influenced by moral and religious and/or spiritual doctrines.

- *Mythic-Literal Faith*

  This is the stage where the person (typically elementary school age, but adults can remain in this stage) separates from fantasy and advances into reality. The child realizes that not all people have the same perspectives and begin to form independent beliefs. Often, God is believed to have human form attributes and is seen as one who rewards good behavior and punishes naughty behavior. Many of the religious and/or spiritual moral beliefs, attitudes, and symbols are taken literally.

- *Synthetic-Conventional Faith*

Stage three is when adolescents extend their world beyond family to include school, jobs, friends, organized clubs and sports, and religion. Persons in this stage tend to conform to religious and/or spiritual values due to the uncertainty of one's individual beliefs and for the respect of authority. Individuals with differing perspectives are differentiated based on judgmental classifications. Often, for many adults, this stage is a permanent place to reside.

- *Individuative-Reflective Faith*

  This stage is considered a transitional stage due to the responsibility of justifying one's values, beliefs, attitudes, and ways of living. Often occurring in late adolescence or young adulthood, the stage necessitates the development of self identify and beliefs. Instead of functioning as part of a group (religious and/or spiritual), the person is required to examine personal beliefs and to question theological claims. Religious and/or spiritual affiliations thereby become based on choice instead of unquestioned obedience. Next, during this introspective examination, personal revelations about the world emerge that indicate the world is much more intricate and mystical than the fundamentalist perception.

- *Conjunctive Faith*

  In this stage, the person acknowledges the multiple perspectives of belief, able to recognize the divisive nature of religious and/or spiritual groups, but capable of finding the common threads that exist among the various rituals and religious practices. There is a strong conviction to find deeper meaning within one's religion and or spirituality. Many adults do not reach this stage and it is unusual for individuals to reach this stage before mid-life.

- *Universalizing Faith*

  Progression to this stage is especially rare. The persons best described in this stage are those whom express a oneness with God or something greater than themselves. People in this stage have distinct gifts of love, peace, and justice and believe these traits will unify and transform the world. These rare persons tend to be contagious, providing hope for an inclusive society, such as Mother Theresa and Mahatma Gandhi.

M. Scott Peck. In 1998, Peck condensed Fowler's (1981) stages of faith into four stages, named the Stages of Spiritual Growth. He compares the spiritual development stages to positive psychological development. If a child is raised in a stable home with healthy boundaries, he or she will develop a sense of obedience. The adolescent questions authority, while persisting in the pursuit of independence. If parents grant a measure of latitude without imposing needless guilt and/or unreasoned rigidity the adolescent will emerge into adulthood, gradually understanding the meaning and true intent that lie beneath the religious and/or spiritual directives.

- *Stage I – Chaotic, Antisocial*

  This stage represents undeveloped spirituality. The descriptor chaotic is used due to the individual lacking in principles, using only self as influence. Sometimes individuals in this stage pretend to be loving; however, this is simply a front. Without additional influence, the individual lacks integrity and experiences social difficulties. Alternatively, others may rise up to become influential political and/or religious leaders as a result of self-determined ambitions. Most children and 1 in 5 adults comprise this stage.

- *Stage 2 – Formal, Institutional, Fundamental*

  The individual has succumbed to the fundamental guiding principles present in religious organizations; yet, the spirit of the law is amiss. The person tends to feel safe within the organizational margins, fearing retribution. This fear compels him or her to convert all others with opposing views. The ignorance and fear of one-sided thinking produces hostility and exclusivity, making it easy to label outsiders as "sinners" or "tarnished". God is viewed as external.

- *Stage 3 – Skeptic, Individual, Truth-Seeker*

  The stage three individual questions the dogma and the existence/absence of something greater than self, while looking for logical and scientific answers. While most are involved in community of social causes the person will make up his or her mind slowly and deliberately. These individuals make loving parents and often work in the scientific arena if they are skeptical.

- *Stage 4 – Mystic, Communal*

  Motivated deeply by love, stage four individuals feel connected to the universe. They are intensely spiritual and do not feel the need to seek definitive answers. The belief that God dwells within compels them to seek and experience the unknown outside of scientific measurement.

Conclusion

As a result of this literature review, many key issues emerged. Children and youth suffer from anxiety, yet many of these children are undiagnosed. As a result, many will either avoid school which will eventually lead to dropping out, or engage in risky behaviors. Further research is necessary to determine the nature of anxiety and its effect

in children and youth. Next, even though there are legal mandates preventing counselors from introducing spirituality in the schools, research indicates the protective benefits of spirituality on anxiety and risky behaviors with noted gender and race/ethnicity differences. Further research is needed to differentiate between gender and cultural differences regarding the use of spirituality in the treatment and prevention of at-risk behaviors. Lastly, there are assorted schools of thought on the factors that are used to determine youth at risk for dropping out of school. This discrepancy warrants a need for educators and mental health and human services professionals to more accurately identify the factors that impede school success in youth.

CHAPTER 3 – METHODOLOGY

This chapter presents, in detail, the research methodology utilized to perform this study. This chapter includes the research design and rationale, participants and site, data collection, instrumentation and instrument design, and data analysis.

Research Design and Rationale

The purpose of this quantitative survey research is to describe effects of spirituality and trait anxiety on at-risk behaviors in youth. The rationale for selecting the survey research design are that (a) it is inexpensive to administer, (2) it can be distributed to a large number of respondents, (c) the respondents self-administer the survey instruments in a controlled school environment, (d) they can be used to investigate beliefs, values and behaviors, and (e) information can be obtained reasonably fast (Gliner & Morgan, 2000).

The research design is a complex associational approach since a combination of normally distributed or dichotomous predictors variables are used to predict one normally distributed criterion variable (Gliner & Morgan, 2000). The data collection for this cross-sectional research was collected by self-administered questionnaires and scales by which analyses of variance (ANOVA) and analyses of covariance (ANCOVA) were conducted. ANOVA and ANCOVA are versions of the general linear model that are used when the criterion variable is continuous, and the predictor variables are both categorical and continuous. ANCOVA is often used to control for the effects of continuous variables that might co-vary with the dependent variable (Hanneman, n.d.).

Predictor Variables

1. Spirituality, interval, 1-10, will be measured by the Intrinsic Spirituality Scale (ISS) (Hodge, 2003) (see Appendix B).
2. Trait Anxiety, ordinal, 4 levels, will be measured by the State Trait Anxiety Inventory (STAI) forms Y-1 and Y-2 (Spielberger, 1983) (see Appendix D for sample items).

Criterion Variable

At-risk factors were measured by the Risk Factor Assessment for School Youth (RFASY), an assessment developed by the researcher for this study. The scales of measurement for the four at-risk variables include:

1. Sociodemographics – interval, 0 to 7. Responses to the seven dichotomous *(yes/no)* questions were summated to create a single sociodemographic variable score ranging from zero *(No Risk)*, to seven *(Very High Risk)*.
2. School absenteeism – ordinal, 5 levels. Responses to the four questions with five categorical options (*zero, 1-3, 4-6, 7-8, 10 or more*) were summated and then averaged to create a single school absenteeism score ranging from zero *(No Risk)* to four *(Very High Risk)*.
3. Drug and Alcohol Use – ordinal, 5 levels. Responses to the four questions with five categorical options (*zero, 1-3, 4-6, 7-8, 10 or more*) were summated and then averaged to create a single drug and alcohol use score ranging from zero *(No Risk)* to four *(Very High Risk)*.
4. Delinquent Behaviors – ordinal, 5 levels. Responses to the four questions with five categorical options (*zero, 1-3, 4-6, 7-8, 10 or more*) were summated and then

averaged to create a single delinquent behaviors score ranging from zero *(No Risk)* to four *(Very High Risk)*.

Demographic Variables

1. Age – interval
2. Gender – nominal, 2 levels (female, male)
3. Grade level – ordinal, 4 levels (9^{th}, 10^{th}, 11^{th}, 12^{th})
4. Race/ethnicity – nominal, 6 levels (American Indian or Alaska Native, Asian, Black or African American, Hispanic of Latino, Native Hawaiian or Pacific Islander, White or Caucasian)
5. US citizenship – nominal, 2 levels (yes, no)
6. Sexual orientation – ordinal, 3 levels (heterosexual, bisexual, homosexual)

Research Questions

1. What is the nature of the relationship between Spirituality and At-risk Factors in youth while holding demographics constant?
2. What is the nature of the relationship between Trait Anxiety and At-risk Factors in youth while holding demographics constant?
3. Is there a combination of Spirituality and Trait Anxiety that predicts At-risk Factors in youth better than any one predictor variable alone while holding demographics constant?

Participants and Site

Participants were students enrolled in Health class from a public high school in the US Mountain West region. All minored participants obtained parental/guardian consent to voluntarily participate in the study. A total of 141 parent/guardian informed

consent forms were distributed; 105 were returned with parent/guardian signatures. This represents a 74% return rate. Reasons given for not returning forms with parent/guardian signatures were: (a) the student left the signed forms at home, (b) the student forgot to take the form home, (c) the student didn't want to participate, and (d) the parent/guardian was not interested in having his or her student participate.

Data Collection

Permission was obtained from the target high school to conduct the study. Approval was received from the CSU Internal Review Board (IRB). A general email letter was sent to the Health instructors to establish specific appointment dates for outlining the timelines and to provide a general overview of the proposed research. The researcher was invited to each Health class to solicit student participation by providing a brief scripted oral presentation (see Appendix C) that described the study. Each Health class instructor offered extra-credit to participate in the study. Students choosing not to participate were given an alternative extra-credit activity.

Following the introduction of the research study, the researcher distributed the Informed Parental Consent forms to each Health class teacher. To encourage returned signed consent forms, a drawing for a $20 movie theater gift card was offered to each Health class. For the next 12 school days, Health class teachers reminded the students to return the Informed Parent/Guardian Consent forms. All returned Informed Parent/Guardian Consent forms were given to the respective Health class teachers. If a student was at least 18 years old and interested in participating in the study, he or she indicated verbally to his or her Health class teacher. All Consent forms were kept in a locked file at all times.

Two and one-half weeks after distribution of the Informed Parent/Guardian Consent forms, the researcher collected, from the teachers, all of the Informed Parent Guardian Consent forms which indicated participation consent. Students opting not to participate were escorted to the library for an optional extra credit activity. Prior to administering the assessments, the researcher held the $20 gift card raffled drawing for those students returning consent forms and for the 18 year old students who had given verbal consent to participate in the study.

The assessment packets were distributed in manila envelopes by the researcher to study participants in the classroom (minored students with parental consent forms and students 18 years of age). Each packet contained an information sheet, the Intrinsic Spirituality Scale (ISS) (Hodge, 2003); The State-Trait Anxiety Inventory (STAI; Spielberger, 1983): two self-reporting scales – the S-Anxiety Scale (STAI Form Y-1), and the T-Anxiety Scale (STAI form Y-2); and the Risk Factors Assessment for School Youth (RFASY). All of the survey instruments were stapled together.

Participants were asked to open the packets and read along while the researcher read aloud the information sheet which served as both an assent for minored participants and consent for 18 year old participants. Data collection took approximately 20 minutes and was monitored by the researcher. The participants placed the completed assessments in the manila envelope and sealed the contents; there was no connection between the assessments and the participant. Participants returned the packets to the researcher in exchange for an extra credit certificate for Health class which was given to respective Health class teachers. Permission was granted by the target high school to have staff school counselors available for those students who might have experienced any

emotional and/or psychological discomfort during or after participation in the study. None of the participants required counseling support during or after study participation.

Upon return to the researcher, the Informed Parent/Guardian Consent forms were turned over to the Principal Investigator to be kept under lock and key for a minimum of three years.

Instrumentation

Standardized instruments were used for predictor variables spirituality, as measured by the Intrinsic Spirituality Scale (ISS) (Hodge, 2003) (see Appendix B), and trait anxiety, as measured by the State-Trait Anxiety Inventory (STAI) forms Y-1 and Y-2 (Spielberger, 1983). A survey instrument for the at-risk factors, the criterion variable, was not found in the literature, thus necessitating a researcher developed assessment, the Risk Factors Assessment for School Youth (RFASY) (see Appendix A).

The Intrinsic Spirituality Scale

The six-item scale measures the extent to which spirituality serves as an individual's primary motive in both theistic and non-theistic populations despite expressions of spirituality inside or out of religious organizations (Hodge, 2003). The Intrinsic Spirituality Scale (ISS) (see Appendix B) measures the degree to which individuals find their life's purpose in spirituality; how their relationship with the Transcendent motivates their personal growth, decisions, and every other aspect or their lives. Using the phrase completion method, respondents are "asked to complete a phrase by selecting an option from an eleven point response key which reflects the underlying theoretical continuum of the construct in question" (Hodge, 2003, p. 46). An item from the instrument includes the following: "In terms of the questions I have about life, my

spirituality answers…" The scale ranges from zero, where spirituality answers no questions about life, to ten where spirituality answers absolutely all questions about life. The respondents' level of spirituality is calculated by summating their scores and dividing by six, with a range from zero to ten. A score of zero indicates that spirituality is not an operative motivating factor in one's life, while a score of 10 indicates that an individual is motivated by their spirituality to the highest possible degree.

The development of the ISS came about in an effort to address two concerns with existing constructs measuring one's degree of spirituality and/or religiosity. Many of the instruments: (1) use terms that limit their validity with non-theistic populations, and (2) fail to build upon pre-existing scientific work. Thus Hodge (2003) modified Allport and Ross' (1967) measure of intrinsic religion to tap spirituality. Cronbach's alpha measure of internal consistency measures a coefficient of .96, while the mean reliability coefficient measures .80, which suggests the scale is a highly reliable measure of spirituality. Permission was granted by Hodge to use the instrument for this study. As shown in Table 3, the present study found a Cronbach's alpha of .96 for the ISS.

State-Trait Anxiety Scale

The State-Trait Anxiety Inventory (STAI) was developed as a research tool for the study of anxiety (Spielberger, 1983). The State-Trait Anxiety Inventory (STAI) contains two distinct self-reporting scales. The S-Anxiety Scale (STAI Form Y-1), which measures state anxiety, is made up of 20 statements that measure the respondent's feeling *right now, at this moment*. The T-Anxiety Scale (STAI form Y-2), which measures trait anxiety, is made up of 20 statements that measure how the respondent *generally* feels. Respondents indicate answers using a Likert scale from one (*Almost Never*), to four

(*Almost Always*). The scores for each scale ranges from 20 up to 80, with the higher scores suggesting higher state and/or trait anxiety levels.

The reliability alpha coefficients are quite high for both S-Anxiety = .93, and T-Anxiety = .90, indicating strong internal consistency. Similarly, test-retest correlations are moderately high for the T-Anxiety (r = .70) and low for the S-Anxiety (r = .33) which indicates the stability of the trait scale and the sensitivity of state scale that is affected by the situational factors during testing. As shown in Table 3, the present study found a Cronbach's alpha of .88 for the S-Anxiety scale, and .87 for the T-Anxiety scale.

State anxiety (S-Anxiety) is a temporary emotional condition characterized by apprehension, tension, and fear about a particular situation or activity accompanied by autonomic nervous system responses such as sweaty palms, rapid heart rate, heavy breathing, nervousness, pacing and/or restlessness. Trait anxiety (T-Anxiety) refers to relatively stable individual differences between a person's tendency to distinguish stressful situations as threatening or dangerous and to react in a specific way with predictable state anxiety (S-Anxiety) intensity. T-Anxiety is the predetermined level of anxiety experienced by an individual who is prone to be more anxious, and therefore reacts less appropriately to anxiety provoking situations.

Individuals with high T-Anxiety show high S-Anxiety more often than individuals with low T-Anxiety due to the tendency to construe more situations as threatening or dangerous. High T-Anxiety individuals are more likely to respond with elevated intensities of the S-Anxiety in situations involving threats to self esteem and personal relationships. In these situations, while an individual's perception of threats might have more impact on S-Anxiety levels than the actual danger linked to the

situation, fluctuations and variances in intensity over time might be noted in the S-Anxiety levels as a function of stressful situations affecting the individual. Permissions were purchased to use the inventory for this study (see Appendix D for sample items).

Table 3

Alpha Coefficients for Scales and Subscales

Scales and Subscales	Alpha coefficient (α)
Intrinsic Spirituality Scale	.96
State-Trait Anxiety Scale	
State anxiety	.88
Trait anxiety	.87
Risk Factors Assessment for School Youth	.86
Sociodemographic risk	.62
School absenteeism	.68
Drug and alcohol use	.74
Delinquent behaviors	.77

At-Risk Students and Demographics

Currently, there are no assessments that identify youth as at-risk for dropping out, though three assessment tools detect certain at-risk factors in adolescents, including the *The Hilson Adolsecent Profile* (HAP; Inwald, Brobst, & Morrissey, 1987); the *Student Risk Screening Scale* (SRSS; Drummond, 1994), and the *Youth Risk Behavior Survey* (YRBS; CDC, 2009b). While the YRBS assesses many at-risk factors, it is primarily used to determine health risk factors. More specific valid and reliable assessment options are needed.

A survey assessment, the Risk Factors Assessment for School Youth (RFASY) (see Appendix A) was developed for this study to reliably identify risk factors for youth

in the education community. Statistical data from the Colorado Department of Education (CDE, 2008), the Children's Defense fund (2008), coupled with the item rationale used in Youth Risk Behavior Survey (YRBS) (CDC, 2009a, b) and the research works of published authors (Eaton et al., 2008; Regnerus & Elder, 2003; Moore, Vandivere, & Redd, 2006) was used to create a risk factors assessment tool. Similarly, thanks to the extensive evidence based research identifying the main factors placing youth at risk for negative outcomes, a composite of the prevalent factors of risk were incorporated into the assessment tool (Dobizl, 2002; Duncan & Gunn, 2000; Eaton et al., 2008; Hernandez et al., 2006; Jessor, 1991; Masten & Coatsworth, 1998; Moore, 2006; Morris, 2000; NCSE, 2009; Schorr, 1989; Wright, 1996). These factors are: sociodemographics, school absenteeism, drugs and alcohol, and delinquent behaviors (i.e., violent and criminal behaviors).

RFASY Development

The RFASY (Appendix A) is comprised of 51 total items intended to assess self-reported factors of risk. Forty-five items assess sociodemographic risk, school absenteeism, drug and alcohol use, and delinquent behaviors. Six items collect respondent demographic information (age, gender, grade level, race/ethnicity, USA citizenship, and sexual orientation). All questions are assigned a numerical code and the total respondent score for each factor is an averaged summation of the original values of the coded questions. A composite score for factors of risk is calculated by adding the averaged scores from each of the four sections ranging from zero to 19. Scoring for a composite score for factors of risk is interpreted as follows: 0-3 = *no risk*, 4-7 = *low risk*,

8-11 = *moderate risk*, 12-15 = *high risk*, 16-19 = *very high risk*. As shown in Table 3, the present study found a Cronbach's alpha of .86 for total factors of risk.

Sociodemographic risk. Questions 1–7 are based on the works of Moore and associates (2006) who established multiple factors of a child's family structure influence his or her degree of risk. These factors are family structure, income, and size, parent education, and home ownership. Responses to the seven dichotomous questions are summated to create a single sociodemographic variable ranging from zero to 7. Three "Yes" responses, (questions 1, 3, 7) are coded as Yes = 0, No = 1. Four questions (2, 4, 5, 6) are reverse coded because Yes = 1, No = 0. Zero indicates no risk, while all other summations equal some risk. Scoring for this section is interpreted as follows: 0 = *no risk*, 1 = *low risk*, 2 = *moderately low risk*, 3 = *moderate risk*, 4 = *moderately high risk*, 5 = *high risk*, 6 = *very high risk*, 7 = *extremely high risk*. Permission was granted by Moore and associates (2006) to utilize these factors in the seven close-ended questions that require a 'Yes' or 'No' response. As shown in Table 3, the present study found a Cronbach's alpha of .62 for sociodemographic risk.

School absenteeism. Questions 8–11 assess the incidence of absenteeism in the last 30 days and have been adapted from the research of Eaton and colleagues (2008) who determined school absenteeism has been associated and documented with the participation in various risk behaviors from the 1970s into 2008. The four questions ask the respondent to indicate how many days he/she missed or skipped school. A respondent indicates answers by selecting one of five categorical options: *0 times, 1 to 3 times, 4 to 6 times, 7 to 9 times*, and *10 or more times*. The responses are summated and then averaged for a total score ranging from zero to 4. Scoring is interpreted as follows: 0 = *no risk*, 1 =

low risk, 2 = *moderate risk*, 3 = *high risk*, 4 = *very high risk*. Permission was granted by Eaton and colleagues (2008) to modify and utilize the content of two questions used from previous research. As shown in Table 3, the present study found a Cronbach's alpha of .68 for school absenteeism.

Drug and alcohol use (marijuana, other drugs, and alcohol). Questions 12–27 ask the respondent to indicate answers by selecting one of five categorical options regarding frequencies of use ranging from *0 to 1 time*, up to *40 or more times*. There are three sections: *Marijuana* – (questions 12–14), *Other drugs* – (questions 15–22), and *Alcohol* – (questions 23–27). The responses from all three sections in the drug and alcohol portion are summated and then averaged for a total score ranging from zero to 4. Scoring is interpreted as follows: 0 = *no risk*, 1 = *low risk*, 2 = *moderate risk*, 3 = *high risk*, 4 = *very high risk*. The questions are similar to the items on the 2009 Youth Risk Behavior Survey (YRBS) which was initially used to determine the health risk behaviors among high school students. The YRBS measures multiple behaviors which have proven to be associated with negative educational and social outcomes such as school absenteeism, low school achievement, and dropping out of high school. No permission was required to use the YRBS questionnaire since it is in the public domain. The YRBS questions have demonstrated good test-retest reliability (*kappa* = 61%-100%) (CDC, 2009c). As shown in Table 3, the present study found a Cronbach's alpha of .74 for drug and alcohol use.

Delinquent behaviors (violence related and criminal behaviors). Questions 28–45 ask the respondent to indicate answers by selecting one of five categorical options regarding frequency of behaviors in the last month or year ranging from *0 times* to *10 or*

more times. There are two sections: *Violence related behaviors* – (questions 28–34) and *Criminal behaviors* – (questions 35–45). The responses from both sections in the delinquent behaviors portion are summated and then averaged for a total score ranging from zero to 4. Scoring is interpreted as follows: 0 = *no risk*, 1 = *low risk*, 2 = *moderate risk*, 3 = *high risk*, 4 = *very high risk*. The questions for *violence related behaviors* are similar to the YRBS questions, while the questions for *criminal behaviors* have been adapted from delinquency items used for an index constructed by Regnerus and Elder (2003). Permission was granted by Regnerus (2003) to modify the 11 delinquency questions utilized in the *Criminal behavior* section. The delinquency items report a high internal consistency reliability, $\alpha = .83$. As shown in Table 3, the present study found a Cronbach's alpha of .77 for delinquent behaviors.

Validity

In order to determine the appropriateness for using a new instrument in a specific setting, instrument validity and reliability must be established (Gliner & Morgan, 2000). Four types of measurement validity are standard in the research process: face, content, criterion-related, and construct. Nonetheless, for the purposes of this research, only face and content validity will be addressed.

Face validity is a term used by experts in the field to determine if the instrument *looks like* or *appears to* measure what it is intended to measure. While it lacks in statistical verification, face validity provides an important source of information in that it has a general appearance of validity. Similarly, content validity, also a non-statistical validation procedure, is determined by the judgment of the experts; however, it is more highly involved, requiring "...the systematic examination of the test content to determine

whether it covers a representative sample of the behavior domain to be measured" (Anastasi & Urbina, 1997 p. 114-115). Authors create the instrument to represent a measurement process based on a definition of a concept. Next the instrument is created based on empirical data that has measured the intended concept, with a careful selection of the items to build in a degree of content validity. Experts then review the instrument items to determine if they correspond to the concept being measured (Gliner & Morgan, 2000). Considerations such as reviewing for content clarity and bias (gender, culture, age, etc.) are important to examine because some of the items might not be understood by the test-taker (construct underrepresentation) or the instrument might measure more than it should (construct-irrelevant components) (Goodwin & Leech, 2003).

To ensure the RFASY (Appendix A) could assess the factors of risk among high school youth; the following content validity process was used for face and content validity. Five subject matter experts (SMEs) were selected based primarily on the degree of their experience working with and/or researching at-risk youth: (1) an assistant professor who works at a university in the US South Atlantic region and holds a Doctor of Philosophy degree in Education and Human Development and Family Studies degree with 28 years of at-risk youth experience, (2) a school counselor who works at a public high school in the US Mountain West region and holds a Masters of Education degree in Counseling and Career Development with 13 years of at-risk youth experience, (3) a resource development director who works for a non profit agency for youth in the US Mountain West region and holds a Masters degree in Education Philosophy and Policy with 9 years of at-risk youth experience, (4) a psychologist and professor emeritus in private practice and retired from a University in the US Pacific Northwest region holds a

Doctor of Philosophy degree in Psychology with over 35 years experience with at-risk children, youth, and adults, and (5) an executive director who works for a non profit agency for youth in the US Mountain West region and holds a Masters degree in Non-Profit Management with over 30 years experience with at-risk youth.

The SMEs were given a rating table for the 61-question target assessment titled Content Validity Rating Table (CVRT): Risk Factors Assessment for School Youth (RFASY). Included in the CVRT was the definition of at-risk and rating table instructions. First, the SME were asked to indicate academic degrees, occupation, employer, pertinent professional affiliations, and years with and/or researching at-risk youth. The SMEs were told that while their names and specific places of employment would not be disclosed, general information regarding their qualifications would be published. Next, the SMEs were asked to determine the relevancy of each item to the concept being measured, based on their own judgment, by selecting a numbered response corresponding to one of the Likert-type responses: *not related*, (0); *somewhat related*, (1 or 2); *moderately related*, (3 or 4); or *very related*, (5). Subsequently, they were asked to suggest additional relevant components that appeared to be missing in the initial pool of items while at the same time assessing for clarity and possible bias (gender, culture, age, etc.). They were asked to complete the relevancy analyses independently and to not share his or her results with other raters. Upon receiving the completed CVRT, token gifts ($20 department store gift cards) were mailed to the SMEs for their participation.

Interrater reliability was assured by retaining items rated by at least 3 SMEs (60%) as *somewhat related* (2), *moderately related* (3 or 4), or *very related* (5). Equally, items rated by at least 3 SMEs (60%) as *not related, (0),* or *somewhat related, (1)* were

removed. As a result, ten questions were removed from the assessment, thus reducing the number of assessment questions in the RFASY from 61 to 51. Based on additional recommendations of the SMEs, minor changes were made to the wording of a few questions to increase respondent understandability.

Reliability

A measurement instrument is said to be reliable if it consistently gets the same result repeatedly (Gliner & Morgan, 2000). While there are various methods to assess reliability, the researcher focused on Cronbach's alpha, an internal consistency reliability method. When determining internal consistency reliability, a single measurement instrument is administered one time to approximate reliability. Cronbach's alpha was appropriate for the risk factors in RFASY (Appendix A) for it has a multiple choice design, is regularly used in the fields of education and psychology, and requires a one-time only administration to determine interitem reliability. After administration to the study participants, Cronbach's alpha of internal consistency measured a coefficient of .86 for the overall scale, as shown in Table 3. The alphas for the subscales ranged from .62 to .77.

Data Analysis

To fully comprehend and understand the nature of spirituality and trait anxiety as they relate to at-risk factors in youth, three research questions were analyzed and the methods of analysis are provided for each.

Prior to data entry, each manila envelope and its survey contents were numbered from one to 105. A visual inspection of the data was performed. Data was checked for missing items or for multiple responses. When a multiple response was detected, an

averaged score was entered. All statistical analyses were completed using the computer programs Microsoft Excel 2007 and Statistical Analysis Software (SAS®).

Research question 1 examined the relationship between spirituality and at-risk factors in youth. Descriptive statistics were performed on both the Intrinsic Spirituality Scale (ISS) and the Risk Factors Assessment for School Youth (RFASY), along with measures of Cronbach's alpha of internal consistency. Analysis of covariance (ANCOVA) was used to assess the relationship between spirituality and at-risk factors while accounting for differences in demographics (age, sex, and race).

Research question 2 examined the relationship between trait anxiety and at-risk factors in youth. Descriptive statistics were performed on the State-Trait Anxiety Inventory (STAI) along with measures of Cronbach's alpha of internal consistency. ANCOVA was used to asses the relationship between trait anxiety and at-risk factors while accounting for differences in demographics (age, sex, and race).

Research question 3 determined which combination of trait anxiety and spirituality together could predict at-risk factors in youth, while holding demographics constant (age, sex, and race). ANOVAs were performed to determine the relationship of demographic variables obtained from the RFASY (see Appendix A) to risk factors, and ANCOVA was used to determine the combined effect of spirituality and trait anxiety together on at-risk factors.

CHAPTER 4 – RESULTS

This chapter has several sections. The first section includes a description of the participant characteristics, followed by the exploratory data analysis, the second section that includes the variable recoding process and the summation of scales. The third section analyzes the demographic variables using analysis of variance and tests the assumptions for each statistic. The fourth section analyzes the research questions using analyses of covariance. Each assumption is tested and the results are presented. A summary of results concludes the chapter.

Participant Characteristics

One hundred and five participants from a US Mountain West region public high school completed the survey. The demographic questionnaire, developed by the researcher and a subsection of the Risk Factors Assessment for School Youth (RFASY), collected information about age, sex, grade level, race/ethnicity, US citizenship, and sexual orientation. As indicated by Table 4, there were 56 (54%) female and 48 (46%) male participants, and one individual who did not provide demographic information. About half of the participants, 47%, were age 14, nearly two-thirds of the participants, 59%, were ninth graders, and 63% were Caucasian. There were no responses to the Race / Ethnicity subcategories Native Hawaiian / Pacific Islander or American Indian /Alaska Native, necessitating exclusion from the frequency table. A total of 103 participants indicated US citizenship status, with 95 (92%) indicating positively and 8 (8%) responding negatively as having US citizenship status. Of the 105 survey participants, a

total of 101 responded to sexual orientation, with 90 (89%) participants responding as heterosexual, 9 (9%) responding as bisexual, and 2 (2%) responding as homosexual.

Exploratory Data Analysis

All data entered for this study was examined using exploratory data analysis. This included a visual check for missing data, verifying item responses, and rechecking raw data. A numerical check was performed on item response frequencies to confirm accurate minimum and maximum scores and to recheck for missing items.

Table 4

Participant Demographics

Demographic Type	Frequency	Percent (%)
Age (n = 104)		
13	3	3
14	49	47
15	22	21
16	14	13
17	13	13
18	3	3
Sex (n = 104)		
Male	48	46
Female	56	54
Grade (n = 104)		
9	61	59
10	18	17
11	13	12
12	12	12
Race / Ethnicity (n = 104)		
White / Caucasian	66	63
Hispanic / Latino	31	30
Black / African American	3	3
Asian	4	4
US Citizen (n = 103)		
No	8	8
Yes	95	92
Sexual Orientation (n = 101)		
Heterosexual	90	89
Bisexual	9	9
Homosexual	2	2

Recoding Demographic Variables (Covariates)

A visual inspection of the frequencies of the demographics deemed it necessary to recode select categories. Due to too few responses in a category, the subcategories of age, grade level and race were collapsed into smaller groups. As indicated by Table 5, the age subcategories, 13 (n = 3) and 14 (n = 49), and 17 (n = 13) and 18 (n = 3) were combined to create new subcategories labeled 13-14 (50%), and 17-18 (15%), respectively. The grade level subcategories, 10 (n = 18), 11 (n = 13), and 12 (n = 12) were collapsed into one subcategory labeled 10-12 (41%). However, due to the high correlation of grade level to age, the grade level variable was dropped from the data set. The Race / Ethnicity subcategories Hispanic/Latino (n = 31), Black/African American (n = 3), and Asian (n = 4) were collapsed into one subcategory renamed Other (37%). Finally, the categories US citizenship (yes, n = 95) and sexual orientation (heterosexual, n = 90) were dropped from the data set due to the high frequency responses in respective subcategories.

Table 5

Demographic Variables Used for the Study

Type	Frequency (n = 104)	Percentage (%)
Age		
13-14	52	50
15	22	21
16	14	14
17-18	16	15
Gender		
F	56	54
M	48	46
Race		
Caucasian	66	63
Other	38	37

Summated Factors Samples Characteristics

For all of the analyses, the three scales and subscales were summated to obtain composite scores or factors. The Risk Factors Assessment for School Youth (RFASY) was calculated by adding the averaged factors from each of the four at-risk subscales ranging from zero to 19. The mean value for the total risk are (M = 2.03, SD = 1.69). The Intrinsic Spirituality Scale (ISS) was summated with factors ranging from zero to 60, with a mean value of (M = 16.95, SD = -2.72). The subscale, trait anxiety, of the State-Trait Anxiety Inventory (STAI) was summated based on a specified scoring scale with trait anxiety factors ranging from 22 to 70, reporting a mean value of (M= 39.51, SD = 9.28) The means, standard deviations, and numbers for all the summated factors by age are listed in Table 6 and the means, standard deviations, and numbers for all the summated factors by gender and race are listed in Table 7.

Table 6

Means, Standard Deviations and n for Summated Scales and Subscales by Age

	14 years old (n = 52)		15 years old (n = 22)		16 years old (n = 14)		17 years old (n = 16)	
Source	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
At-Risk Total	1.80	1.62	2.06	1.82	2.65	1.77	2.22	1.72
Sociodemographic	1.44	1.41	1.45	1.57	1.57	1.22	13.1	1.53
Absenteeism	.12	.21	.17	.21	.48	.60	.45	.32
Drug and Alcohol	.09	.22	.18	.29	.33	.46	.28	.31
Delinquent Behaviors	.14	.21	.25	.31	.27	.28	.18	.23
Spirituality	35.80	14.65	26.09	18.23	31.57	18.09	22.50	17.35
State Anxiety	37.23	9.97	41.70	10.11	35.14	7.65	37.50	7.88
Trait Anxiety	38.44	8.17	43.45	12.78	39.04	8.41	37.88	7.10

Table 7

Means, Standard Deviations and n for Summated Scales and Subscales by Gender and Race

	Female (n = 56)		Male (n = 48)		Caucasian (n = 66)		Other (n = 38)	
Source	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
At-Risk Total	2.15	1.81	1.88	1.56	1.66	1.39	2.68	1.99
Sociodemographic	1.48	1.46	1.39	1.38	1.07	1.18	2.07	1.58
Absenteeism	.28	.39	.18	.26	.26	.31	.18	.38
Drug and Alcohol	.20	.35	.14	.23	.15	.27	.21	.35
Delinquent Behaviors	.19	.25	.18	.25	.17	.25	.21	.26
Spirituality	30.87	16.57	31.44	17.54	27.61	18.45	37.24	11.87
State Anxiety	39.57	10.46	36.03	8.01	37.99	10.11	37.84	8.56
Trait Anxiety	40.78	10.07	38.00	8.23	39.72	9.72	39.11	8.72

Analysis of Variance (ANOVA)

Factorial ANOVA is used when there are more than two independent variables with a small number of categories or levels. Factorial ANOVA is an appropriate statistic to examine the relationship of the demographic variables to At-risk Factors. The F-test is used to determine if the means of all the groups are equal. The factorial ANOVA assumptions are that there are independent observations, there is a normal distribution of the dependent variable, and the groups have equal standard deviations (Leech, Barrett, & Morgan, 2008). SAS statistical software computes the R^2 value from the ANOVA table which is calculated from the between group sum-of-squares divided by the total sum-of-squares. R^2 is a portion of the total variance caused by differences among the group means; a descriptive statistic that measures the strength of the relationships analyzed. Other statistical programs refer to it as η^2 (eta squared) rather than R^2. However, the

adjusted R^2 accounts for the degrees of freedom that are related to the sum-of-squares which affect the residual variance. Thus, adjusted R^2 is thought to be a more precise goodness-of-fit measure than R^2. For the purposes of this study, adjusted R^2 values will be reported rather than η^2 values (GraphPad Software, 2007).

All instrument scores were summated and averaged based on individual responses; a strong likelihood for normal distribution. The first two assumptions, independent with normal distributions, were met by plotting the residuals versus the predicted values. A visual inspection indicated no extreme outliers for the scale and subscale summated factors, with most demonstrating approximate normal distribution. As indicated by Table 8, the subscale factors for absenteeism (skewness = 2.08), drug and alcohol use (skewness = 2.22), and delinquent behaviors (skewness = 1.74) were the most skewed. Although the original scales showed some evidence of skewness, the residuals from the analysis of variance models indicated absenteeism (skewness = 1.56), drug and alcohol use (skewness = 1.90), and delinquent behaviors (skewness = 1.78. Scatter plots of the residuals versus the predicted values indicated mild skewness and independence. The assumption of normality was not violated. The *F*-test for equality was used to meet the third assumption, equal standard deviations.

Table 8

Mean, Standard Deviation and Skewness for Summated Scales and Subscales

Source (n = 105)	Range				Skewness	
	Min	*Max*	*M*	*SD*	*Statistic*	*SE*
Trait Anxiety	20.00	70.00	39.51	9.283	.830	.236
Sociodemographic risk	0	5	1.43	1.42	.866	.236
Absenteeism	.00	2.00	.24	.34	2.078	.236
Drug and Alcohol use	.00	1.56	.18	.30	2.222	.236
Delinquent behaviors	.00	1.11	.19	.25	1.738	.236
Total Risk	.00	6.50	2.03	1.69	1.131	.236
Spirituality	.00	60.00	30.97	16.95	-.272	.236

Relationship of Demographic Covariates to At-Risk Factors

There are four categories that compose At-Risk factors: (a) sociodemographics, (b) absenteeism, (c) drug and alcohol use, and (d) delinquent behaviors. Factorial ANOVA was used to examine the relationship of the three demographic covariates (age, gender, and race) on each of the four categories of At-Risk Factors and on the total At-Risk Factors score.

First, the relationship of demographic covariates to sociodemographic risk was examined. ANOVA results revealed no significant interaction between both age and gender on sociodemographic risk as indicated by Table 9. There was, however, a significant main effect of race on sociodemographic risk, $F(1, 98) = 14.30$, $p < .001$. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .09, close to a medium effect. Post hoc pairwise comparisons revealed the mean sociodemographic risk for

Caucasian ($M = 1.11$) was significantly lower than that for Other ($M = 2.20$), $p < .001$. Pairwise comparisons for age and gender were not significant, $p > .05$.

Table 9

Analysis of Variance for Sociodemographic Risk as a Function of Age, Gender, and Race

Variable and Source	*df*	*MS*	*F*	*p*
Sociodemographic Risk				
Age	3	1.92	.35	.791
Gender	1	.65	.35	.555
Race	1	26.35	14.30**	.000**
Error	98	1.84		

** $p < .001$

The next relationship examined was demographic covariates to absenteeism. The results revealed no significant interaction between both gender and race on absenteeism as indicated by Table 10. There was, however, a significant main effect of age on absenteeism, $F(3, 98) = 7.42$, $p < .001$. Using Cohen's guidelines, the overall adjusted R^2 was .17, a medium effect. Post hoc pairwise comparisons revealed the mean absenteeism scores for ages 16 ($M = .48$) and 17 ($M = .44$) were significantly higher than ages 14 ($M = .12$) and 15 ($M = .17$, $p < .05$). The pairwise comparisons for gender and race were not significant, $p > .05$.

Further analyses examined the demographic covariates to drug and alcohol use. The results revealed no significant interaction between gender and drug and alcohol use $F(1, 98) = .95$, $p = .33$. However, there were significant main effects of age $F(3, 98) = 4.28$, $p = .007$, and race $F(1, 98) = 4.19$, $p = .04$ on drug and alcohol use. Using Cohen's guidelines, the overall adjusted R^2 was .09, close to a medium effect. Post hoc pairwise

comparisons revealed the mean drug and alcohol scores for ages 16 (M = .36) and 17 (M = .32) were significantly higher than age 14 (M = .09), $p < .05$.

Table 10

Analysis of Variance for Absenteeism as a Function of Age, Gender, and Race

Variable and Source	*df*	*MS*	*F*	*p*
Absenteeism				
Age	3	.70	7.42**	.000**
Gender	1	.13	1.38	.244
Race	1	.00	.05	.826
Error	98	.09		

** $p < .001$

A fourth analysis examined the relationship of demographic covariates to delinquent behaviors. Results indicated there were no significant interactions between age F (3, 98) = 1.73, p = .17, gender F (1, 96), p = .85, and race F (1, 98), p = .29. Final analyses examined the demographic covariates to the composite score for the four factors of risk, referred to as the total risk factors. ANOVA results showed there was no significant interaction between both age and gender on total risk as indicated by Table 11. There was, however, a significant main effect of race on total risk, F (1, 98) = 14.30, $p <$ .001. Using Cohen's guidelines, the overall adjusted R^2 was .11, close to a medium effect. Post hoc pairwise comparisons revealed that the mean total risk for Caucasian (M = 1.78) was significantly lower than that for Other (M = 3.07), $p < .05$.

Table 11

Analysis of Variance for Total At-Risk Factors as a Function of Age, Gender, and Race

Variable and Source	*df*	*MS*	*F*	*p*
At-Risk Factors				
Age	3	5.96	2.33	.079
Gender	1	2.22	.87	.354
Race	1	26.35	14.30**	.000**
Error	98	1.84		

** $p < .001$

Analysis of Covariance (ANCOVA)

As stated earlier in this chapter, factorial ANOVA is used when there are more than two independent variables with a small number of categories or levels. The same principle applies to ANCOVA, except that ANCOVA is used to control for the effects of select continuous variables, or covariates, on the dependent variable. ANCOVA is an appropriate statistic to use for these analyses due to the scale of measurement variables. In addition to the three assumptions of ANOVA, a fourth assumption must be met; the covariates and the dependent variable form a linear relationship and have equivalent slopes known as homogeneity of regression slopes. The *F*-test of significance is used to test the interactions of the independent variables with the covariates and the dependent variable. Non-significant *F* values infer the slopes are homogenous, whereas statistically significant interactions violate the assumption. Simple effects contrast analyses examine and compare least square means to original covariate values when significant relationships are present to determine the role of the covariates on the interaction (Leech, et al., 2008).

Research Question 1

The first question sought to determine the relationship between spirituality and at-risk factors in youth while holding demographics constant. Analyses of covariance were used to first assess the relationship of spirituality on each of the four at-risk categories (i.e., sociodemographics, absenteeism, drug and alcohol, and delinquent behaviors) and then on total risk. The initial analysis examined the relationship of spirituality to sociodemographic risk, while holding demographics (age, gender, and race) constant. ANCOVA results indicated that after holding age, gender, and race constant, there was no significant interaction of spirituality on sociodemographic risk, $F(1, 97) = 3.53, p = .063$.

The next analysis examined the relationship of spirituality to absenteeism. ANCOVA results indicate after holding age, gender, and race constant, there was no significant interaction between spirituality and absenteeism $F(1, 97) = .00, p = .97$. Further analyses examined the relationship of spirituality to drug and alcohol use. ANCOVA results indicate that after holding age, gender, and race constant, there was no significant interaction between spirituality and drug and alcohol use $F(1, 97) = 3.08, p = .08$. After that, the relationship of spirituality to delinquent behaviors was examined. ANCOVA results indicate that after holding age, gender, and race constant, there was no significant interaction between spirituality and delinquent behaviors $F(1, 97) = .27, p = .61$.

Final analyses examined the relationship of spirituality to the total risk. ANCOVA results as indicated in Table 12, revealed that after holding age, gender, and race constant, there is a significant effect of spirituality on total risk $F(1, 97) = 4.01, p = .048$. Using

Cohen's (1988) guidelines, the overall adjusted R^2 was .14, a medium effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on *t*-tests revealed that for every unit increase in spirituality (M = 30.97, SD = 16.95), there is a .02 unit decrease in total risk t (97) = -2.00, p = .048.

Research Question 2

The second question sought to determine the relationship between trait anxiety and at-risk factors in youth while holding demographics constant. Analyses of covariance were used to first assess the relationship of trait anxiety on each of the four at-risk categories (i.e., sociodemographics, absenteeism, drug and alcohol, and delinquent behaviors) and then on total risk. The initial analysis examined the relationship of trait anxiety to sociodemographic risk, while holding demographics (age, gender, and race) constant. ANCOVA results indicated that after holding age, gender, and race constant, there was a significant effect of trait anxiety on sociodemographic risk, F (1, 97) = 3.53, p = .043. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .11, close to a medium effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on *t*-tests revealed that for every unit increase in trait anxiety (M = 39.51, SD = 9.28), there is a .03 unit increase in sociodemographic risk, t (97) = 2.05, p = .04.

Table 12

Analysis of Covariance for Total At-Risk Factors as a Function of Spirituality and Trait Anxiety

Variable and Source	*df*	*MS*	*F*	*p*	*Adjusted* R^2
Total At-Risk					
Spirituality	1	9.95	4.01*	.048*	.139
Trait Anxiety	1	16.54	6.84*	.010*	.163
Error	97	1.84			

* $p < .05$

A subsequent analysis examined the relationship of trait anxiety to absenteeism. ANCOVA results indicate after holding age, gender, and race constant, there was no significant interaction between trait anxiety and absenteeism $F(1, 97) = .38, p = .54$. Further analyses examined the relationship of trait anxiety to drug and alcohol use. ANCOVA results indicate that after holding age, gender, and race constant, there was no significant interaction between trait anxiety and drug and alcohol use $F(1, 97) = 2.69, p = .10$. Next, the relationship of trait anxiety to delinquent behaviors was examined. ANCOVA results indicate that after holding age, gender, and race constant, there was a significant effect of trait anxiety on delinquent behaviors $F(1, 97) = 7.78, p = .006$. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .18, a medium effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on *t*-tests revealed that for every unit increase in trait anxiety

(M = 39.51, SD = 9.28), there is a .007 unit increase in delinquent behaviors, t (97) = 2.79, p = .006.

Final analyses examined the relationship of trait anxiety to the total risk. ANCOVA results as indicated in Table 12, revealed that after holding age, gender, and race constant, there is a significant effect of trait anxiety on total risk F (1, 97) = 6.84, p = .01. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .16, a medium effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on t-tests revealed that for every unit increase in trait anxiety (M = 39.51, SD = 9.28), there is a .045 unit increase in total risk t (97) = 2.62, p = .01.

Research Question 3

The third question sought to determine if there was a combination of spirituality and trait anxiety that predicted at-risk factors in youth better than any one predictor variable alone while holding demographics constant. Analyses of covariance were used to first assess the relationship of spirituality and trait anxiety on each of the four at-risk categories (i.e., sociodemographics, absenteeism, drug and alcohol, and delinquent behaviors) and then on total risk. The initial analysis examined the relationship of trait anxiety and spirituality together to sociodemographic risk. ANCOVA results indicated that when trait anxiety and spirituality were examined together while holding age, gender, and race constant, there was no significant interaction between both trait anxiety F (1, 96) = 2.39, p = .08 and spirituality F (1, 96) = 2.39, p = .13 on sociodemographic risk. The next analysis examined the relationship of trait anxiety and spirituality together on

absenteeism. ANCOVA results indicated that when trait anxiety and spirituality were examined together while holding age, gender, and race constant, there was no significant interaction between both trait anxiety F (1, 96) = .38, p = .54 and spirituality F (1, 96) = .01, p = .94) on absenteeism. Further analysis examined, together, the relationship of trait anxiety and spirituality to drug and alcohol use. ANCOVA results indicated that when trait anxiety and spirituality were examined together while holding age, gender, and race constant, there was no significant interaction between both trait anxiety F (1, 96) = 1.82, p = .18) and spirituality F (1, 96) = 2.19, p = .14 on drug and alcohol use.

The fourth analysis examined the relationship of trait anxiety and spirituality, together, on delinquent behaviors. ANCOVA results indicated that when trait anxiety and spirituality were examined together while holding age, gender, and race constant, trait anxiety continued to be significant on delinquent behaviors F (1, 96) = 7.41, p = .008, while spirituality was not significant F (1, 96) = .0, p = .98. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .06, a small effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on t-tests revealed that for every unit increase in trait anxiety (M = 39.51, SD = 9.28), there is a .007 unit increase in delinquent behaviors t (97) = 2.72, p = .007.

Final analyses examined the relationship of trait anxiety and spirituality, together, on total risk. ANCOVA results indicated that when trait anxiety and spirituality were examined together while holding age, gender, and race constant, trait anxiety continued to be significant on total risk F (1, 96) = 5.29, p = .02, while spirituality had a marginal

effect on trait anxiety F (1, 96) = 2.52, p = .12. Using Cohen's (1988) guidelines, the overall adjusted R^2 was .18, a medium effect. [The assumptions of independent observations, homogeneity of variances, and normal distributions of the dependent variable were checked. The assumption of homogeneity of variances was violated; thus, results should be viewed with caution.] Simple effects contrast analyses based on t-tests revealed that for every unit increase in trait anxiety (M = 39.51, SD = 9.28), there is a .015 unit increase in total risk t (97) = 2.72, p = .007.

Summary of the Results

There are several findings from these analyses. The first major finding is that there are considerable differences in race regarding sociodemographic risk and total risk. This means that Caucasian students reported lower scores of sociodemographic risk and total risk than students in the race/ethnicity class of Other (Hispanic/Latino, Black/African American/, and Asian). However, there were no gender differences in total risk or in the four subcategories of risk. This means that females and males reported similar scores on total risk and the four subcategories of risk. Age played a significant role in absenteeism and drug and alcohol use. This means that older students, ages 16, 17, and 18, reported higher absences and drug and alcohol use than the younger students.

Another major finding is that there was an inverse relationship of spirituality to total risk. This means that students reporting higher spirituality were less likely to engage in risky behaviors. A third major finding was that trait anxiety was significantly related to total risk. This means that as trait anxiety increased there was an increase in total risk. To find the specific relationships, the subcategories of total risk were examined. First, there was a strong relationship of trait anxiety to sociodemographic risk. This means that

students reporting higher sociodemographic risk had a greater likelihood of reporting higher trait anxiety. Similarly, delinquent behaviors were significantly related to trait anxiety. This means that students with higher trait anxiety were more likely to engage in delinquent behaviors.

The fourth major finding was that when trait anxiety and spirituality were examined together, trait anxiety continued to be significantly related to total risk. However, it appeared as though spirituality might have a small moderating effect on trait anxiety, which means that students who are more spiritual might be less anxious. To find the specific relationships, the subcategories of total risk were examined. The findings indicated that when trait anxiety and spirituality were examined together, trait anxiety continued to be significantly related to delinquent behaviors. This means that students with higher trait anxiety were more likely to engage delinquent behaviors. The same moderating effect of spirituality on trait anxiety was observed on delinquent behaviors.

CHAPTER 5 – DISCUSSION

There are five sections which are (a) discussion of findings, (b) limitations of findings, (c) implications for counselors and educators (d) recommendations for future research, and (d) the conclusion. The discussion of findings for each research question is discussed relative to existing literature. The limitations of the current study discuss the restrictions for causal assertions and generalizations. Practical application principles are suggested for counselors and educators, followed by suggestions for future research. The last section, the conclusion, brings to a close the findings from the current research.

Discussion of Findings

Research Question 1

The first question sought to determine, while holding demographics constant, the relationship between spirituality, as measured by the Intrinsic Spirituality Scale (ISS), and at-risk factors in youth, as measured by the Risk Factors Assessment for School Youth (RFASY). In this study, the results demonstrated a strong relationship between these two variables. These results suggest that students reporting higher spirituality scores were more likely to report lower scores of total risk. These results were not surprising and are consistent with the literature.

Recent studies by Brown et al. (2001) and Ritt-Olson et al. (2004) maintain that among youth, spirituality is a protective factor against drug and alcohol use and delinquent behaviors. Using a similar spirituality scale devoid of religious references, adapted from the Systems of Belief Inventory (Holland et al., 1998), the correlational

study of 382 students deemed at risk for drug use from alternative high school, and 260 students deemed lower risk from a public high school concluded spirituality was protective against the monthly use of alcohol, marijuana, and cigarettes (Ritt-Olson et al., 2004). Research is scant regarding the protective influence of spirituality among adolescents. This might be attributed, in part, to the increased use of religiosity measures versus spiritual measures that address belief systems unrelated to religious groups.

When examining the covariates in the current study, results indicated strong differences in Race. Caucasian students reported significantly lower scores of sociodemographic risk and total risk than students in the race/ethnicity class of Other (Hispanic/Latino, Black/African American/, and Asian). These results appear to be consistent with the literature.

The results of Brown and colleagues (2001), a 3-year longitudinal study examining the relationship between religiosity and racial differences in adolescent (ages 14-19) alcohol use, indicated that attending church was a predictor of alcohol use in black youth, and religious beliefs was a predictor of alcohol use in white adolescents. Again, a main difference with the current study is that spirituality was not associated with church attendance. Therefore, this comparison, while similar, should be viewed with caution, because church attendance can, at times, be viewed as protective resources akin to organized sports and after school activities (Ritt-Olsen).

While the research of Brown and colleagues indicated racial differences in adolescent alcohol use, it also indicated gender differences in alcohol consumption, with church attendance and religious beliefs serving as moderating factors. This contradicts the findings in the current study. Instead, the results indicate a significant relationship

between age and drug and alcohol use, finding that older students (ages16, 17, and 18) appear to use drugs and consume alcohol more than younger students (ages 13 and 14).

Research Question 2

The second question sought to determine, while holding demographics constant, the relationship between trait anxiety, as measured by the State-Trait Anxiety Inventory (STAI) form Y2, and at-risk factors in youth, as measured by the Risk Factors Assessment for School Youth (RFASY). In this study, the results demonstrated a strong relationship between these two variables. These results suggest that students reporting higher trait anxiety scores were more likely to report higher scores of total risk. These results were not surprising and are consistent with current literature which indicates youth with higher anxiety levels might be resorting to gambling, alcohol, and illegal drugs in order to escape the psychological effects of anxiety (Ste-Marie et al., 2002; Woodward & Fergusson, 2001). Engaging in these risky behaviors can be detrimental, perhaps ending in death (U. S. Department of Health and Human Services [DHHS], 2004; Silverman & Ginsburg, 1998).

Woodward and Fergusson (2001) investigated associations between various anxiety disorders in adolescents from ages 14 to16 years. One of the findings indicated non-anxious adolescents were about one and one-half times more likely to take a college-level training course and 2 and one-half times more likely to attend college than adolescents diagnosed with at least 3 anxiety disorders. The findings suggested that adolescents with anxiety disorders are at an increased risk of subsequent anxiety and educational underachievement as young adults.

Past research investigating the relationship between trait anxiety and spirituality in at risk adolescents showed that females reported significantly higher trait anxiety scores than males. The current study found no gender difference in trait anxiety scores which was unexpected and inconsistent with the literature. One possible explanation could be that the participants were encouraged to ask questions pertaining to the study prior to survey administration. Another could be that the past barriers of prejudice regarding female academic achievement are dissipating.

Research Question 3

The third question sought to determine if there was a combination of spirituality and trait anxiety that predicted at-risk factors in youth better than any one predictor variable alone while holding demographics constant. In this study, the results demonstrated that when spirituality and trait anxiety were examined together, trait anxiety continued to be significantly related to delinquent behaviors and total risk, while spirituality had a small moderating effect only on trait anxiety. There are no studies that have looked these two variables as at-risk factor predictors. However, Janzen (2005) examined the relationship between anxiety and spirituality in adults. Findings indicated spiritual practices and spiritual well-being affect anxiety levels, and thus suggest assessment of clients who maintain religious and/or spiritual beliefs in an effort to utilize spiritual/religious tools in conjunction with other therapeutic techniques.

Limitations of the Study

There are a number of limitations to this study; the research design, the sampling method, self-report data collection, and instrumentation.

The first limitation is the cross-sectional research design of the current study which prevents causal explanations. Another limitation is the convenience sampling method. Given a sole high school was targeted for sample selection; the sample might not be an accurate representation of the population. Therefore, the results of this study are not generalizable (Gliner & Morgan, 2000).

A third limitation is that all data was collected by self-administered questionnaires which increases the possibility of self-report bias whereby respondents underestimate or overestimate his or her responses based on social desirability (Gliner & Morgan, 2000). Some student respondents might not have fully understood what was being asked in particular questions. This could result in answers not indicative of the respondent's true beliefs, skipped items, or randomly selected responses, causing inaccurate and erroneous data.

The last limitation is related to the Risk Factors Assessment for School Youth (RFASY). One concern is that the coding of race/ethnicity is insensitive to multiethnic respondents, asking students to select only one race/ethnicity group, though some participants might have multi-group identity. Another concern is that the sociodemographic risk questions require the respondent to answer questions pertaining to socioeconomic status (SES), i.e., parent's education level, homeownership, and financial assistance. These responses may not provide an accurate SES assessment. A final concern is that the drug and alcohol and delinquent behavior questions are highly personal. Students might not answer the questions truthfully if they are uncertain as to how the assessment will be used.

Implications for Counselors and Educators

This study developed a survey instrument, the Risk Factors Assessment for School Youth (RFASY) (see Appendix A) to reliably identify risk factors for youth in the education community. The assessment reports a strong coefficient alpha of .86 of internal reliability. Schools who utilize the RFASY could offer possible early intervention to help identify and support youth demonstrating and/or participating in the factors designated as at-risk by offering services to help students stay in school. Currently, 7% of 16-19 year olds fail to complete high school (Children's Defense Fund, 2008). In order to retain these students, it is important to identify the factors placing them at risk, such as anxiety (Ste-Marie et al., 2002), living in poverty, exhibiting or engaging in delinquent behaviors, school absenteeism, and alcohol and/or drug use (Dobizl; Duncan & Brooks-Gunn, 2000; Eaton, Brener, & Kann, 2008; Hernandez, Montgomery, & Kurtines, 2006; Jessor; Masten & Coatsworth; Moore, 2006; Morris, 2000; NCSE; Schorr; Wright).

In this current study, the results demonstrated a strong relationship between trait anxiety and total risk. The importance of assessing for childhood anxiety cannot be stressed more. Even though anxiety is one of the most commonly diagnosed disorders in youth, it continues to significantly affect the lives of youth, often interfering with daily functioning (Morris et al., 2008). These disruptions can be expressed in poor school performance that can lead to low self-esteem, dropping out of school, substance abuse, violence, loss of friendships, and suicide (Silverman & Ginsburg, 1998; Wittchen et al., 1999; Woodward & Fergusson, 2001). Early detection allows for early intervention, possibly preventing additional adulthood complications.

The finding that students reporting higher spirituality scores were more likely to report lower scores of total risk points to the importance of considering the role spirituality has in adolescent's lives. Past literature indicates children appear to have strong experiences and a keen awareness for spirituality (Cloyd, 1997) yet, research has consistently overlooked the issues of spirituality in the counseling process with regards to adolescents (Frame, 2003). Assessing for spirituality explores avenues for tapping into adolescent strengths that might have a positive effect on his or her mental health. It is anticipated that a few mental health professionals might be reluctant to open up spiritual discussions due to personal viewpoints or discomfort. Assessing the role spirituality plays in overcoming difficulties permits the adolescent the opportunity to communicate his or her spiritual viewpoints. This provides a more thorough representation of the adolescent's belief system which helps to create more coping strategy options (Frame, 2003).

Recommendations for Future Research

One recommendation for future research is to replicate this study among a representative sample of high school students to confirm the overall, race, and age specific results. The results suggest that race, age, anxiety, and spirituality have important relationships with factors of risk in adolescents. These findings hint to the value of assessing the spiritual and anxiety levels of students deemed at-risk, particularly ethnic minorities.

A second recommendation for future research is to investigate the effectiveness of the RFASY in determining at-risk status when compared to present student at-risk determinations. Schools use a variety of ways to identify students who are at-risk of failing or likely to drop out of school, such as questionnaires, academic performance,

truancy, inclusive behaviors, and economic status of family (Dobizl, 2002), yet the methods are inconsistent. Since multiple risk factors across multiple areas be must be considered to accurately identify students at risk (Kennelly & Monrad, 2007; Hammond, Linton, Smink, Drew, 2007), the RFASY supports this finding.

A final recommendation for future research is to investigate the protective influence of spiritual beliefs on adolescents. The results of the current study found an inverse relationship of spirituality to total risk, meaning students reporting higher spirituality were less likely to engage in risky behaviors. Extant research is negligible regarding the protective influence of spirituality among adolescents. More research is needed to accurately determine the influence spirituality has on youth in various environments such as mental health residential facilities and alternative schools.

Conclusion

The principle focus of this research study was to investigate the nature of spirituality and trait anxiety on at-risk factors in high school youth. The results indicate several findings. The first finding is that there are considerable differences in race regarding sociodemographic risk and total risk. Though there were not gender differences in total risk, there were significant differences between older and younger students regarding absenteeism and drug and alcohol use.

The next finding is that spirituality was inversely related to total risk. A third finding was that trait anxiety was significantly related to sociodemographic risk and delinquent behaviors and total risk. The final finding was that when trait anxiety and spirituality were examined together, trait anxiety continued to be significantly related to

delinquent behaviors and total risk, while spirituality had a small moderating effect only on trait anxiety.

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APPENDIX A: RISK FACTORS ASSESSMENT FOR SCHOOL YOUTH

Risk Factors Assessment for School Youth

Directions:
Make sure to read every question and select the answer that is most like you.
Please circle your answer.

Sociodemographics (adapted from Moore, Vandivere, & Redd, 2006)

1. Do you live with at least one parent or guardian? Yes No

2. Do more than three children live in your home? Yes No

3. Does one of your parents or guardians have a high school diploma or GED? Yes No

4. Is one of your parents or guardians on welfare? Yes No

5. Does one of your parents or guardians receive food stamps? Yes No

6. Does one of your parents or guardians worry about paying the bills? Yes No

7. Does one of your parents or guardians own the home you live in? Yes No

School absenteeism (adapted from Eaton, Brenner, & Kann, 2008)

8. In the last 30 days, how many days did you **miss school** for any reason?
   0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

9. In the last 30 days how many days did you **miss school** because you didn't want to go?
   0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

10. In the last 30 days, how many days did you **skip a class** for any reason?
    0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

11. In the last 30 days, how many days did you **skip a class** because you didn't want to go?
    0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

Drug and Alcohol Use - marijuana, other drugs, and alcohol {modified from Youth Risk Behavior Survey (CDC, 2009a)}

Marijuana (also known as grass, pot, weed, reefer, or bud)

12. In your life, how many times have you used marijuana?
    0 to 5 times 6 to 19 times 20 to 59 times 60 to 99 times 100 or more times

13. In the last 30 days, how many times did you use marijuana?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

14. In the last 30 days, how many times did you use marijuana at school?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

Other Drugs {modified from Youth Risk Behavior Survey (CDC, 2009a)}

15. In your life, how many times have you used cocaine, powder, crack, or freebase?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

16. In your life, how many times have you sniffed or inhaled glue, markers, or sprays to get high?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

17. In your life, how many times have you used heroin?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

18. In your life, how many times have you used methamphetamines (speed, crystal, or ice)?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

19. In your life, how many times have you used ecstasy (MDMA, X, XTC)?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

20. In your life, how many times have you taken steroid pills or shots without a prescription?
0 to 1 time 2 to 7 times 8 to 19 times 20 to 39 times 40 or more times

21. In your life, how many times have you used needles to inject illegal drugs in your body?
0 times 1 time 2 times 3 times 4 or more times

22. In the last year, how many times were you offered, sold, or given illegal drugs at school?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

Alcohol {modified from Youth Risk Behavior Survey (CDC, 2009a)}

23. In your life, how many days did you have a drink of alcohol?
0 to 5 times 6 to 19 times 20 to 59 times 60 to 99 times 100 or more times

24. In the 30 days, how many days did you drink alcohol?
0 to 2 days 3 to 8 days 9 to 19 days 20 to 29 days All 30 days

25. In the 30 days, how many days did you have 5 or more drinks of alcohol in 2 hours?
0 to 1 days 2 to 5 days 6 to 9 days 10 to 19 days 20 or more days

26. In the last 30 days, how did you get your alcohol?

I did not drink	I bought it myself	Gave money to friend to buy	From an 18 year old or older	I took/stole it

27. In the last 30 days, how many days did you drink at school or during school hours?

0 to 2 days	3 to 8 days	9 to 19 days	20 to 29 days	All 30 days

Delinquent Behaviors

Violence Related Behaviors {modified from Youth Risk Behavior Survey (CDC, 2009a)}

28. In the last 30 days, how many days did you carry a weapon (bat, knife or gun)?

0 days	1 day	2 or 3 days	4 or 5 days	6 or more days

29. In the 30 days, how many days did you carry a weapon (bat, knife or gun) to school?

0 days	1 day	2 or 3 days	4 or 5 days	6 or more days

30. In the 30 days, how many days did you miss school because you felt unsafe?

0 days	1 day	2 or 3 days	4 or 5 days	6 or more days

31. In the last year, how many times were you threatened or hurt with a weapon at school?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

32. In the last year, how many times were you in a physical fight?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

33. In the last year, how many times did you see the doctor because you got hurt in a fight?

0 times	1 time	2 or 3 times	4 or 5 times	6 or more times

34. In the last year, how many times were you in a physical fight at school?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

Criminal behaviors (adapted from Regnerus & Elder, 2003)

35. In the last year, how many times did you paint, graffiti or tag property that wasn't yours?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

36. In the last year, how many times did you destroy property on purpose?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

37. In the last year, how many times did you lie to your parents about where you were or who you were with?

0 times	1 to 3 times	4 to 6 times	7 to 9 times	10 or more times

38. In the last year, how many times did you steal from a store?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

39. In the last year, how many times did you steal something that cost more than $50?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

40. In the last year, how many times did you steal something that cost less than $50?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

41. In the last year, how many times did you go into a house, business or building to steal?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

42. In the last year, how many times did you threaten to use a weapon to get what you wanted?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

43. In the last year, how many times did you run away from home?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

44. In the last year, how many times did you drive a car without the owner's permission?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

45. In the last year, how many times did you sell marijuana or other drugs?
0 times 1 to 3 times 4 to 6 times 7 to 9 times 10 or more times

Demographics

46. How old are you? _____

47. What is your sex?
Male Female

48. What grade are you in?
9th 10th 11th 12th

49. What is your race / ethnicity? (Select one or more responses)
White or Caucasian | Hispanic or Latino | Black or African American | Native Hawaiian or Pacific Islander | Asian | American Indian or Alaska Native

50. Are you a citizen of the United States?
No Yes

51. What is your sexual orientation?
Heterosexual Bisexual Homosexual

APPENDIX B: INTRINSIC SPIRITUALITY SCALE

INTRINSIC SPIRITUALITY SCALE

For the following six questions, *spirituality* is defined as one's relationship to God, or whatever you perceive to be Ultimate Transcendence

The questions use a sentence completion format to measure various attributes associated with spirituality. An incomplete sentence fragment is provided, followed directly below by two phrases that are linked to a scale ranging from 0 to 10. The phrases, which complete the sentence fragment, anchor each end of the scale. The 0 to 10 range provides you with a continuum on which to reply, with 0 corresponding to absence or zero amount of the attribute, while 10 corresponds to the maximum amount of the attribute. In other words, the end points represent extreme values, while five corresponds to a medium, or moderate, amount of the attribute. Please circle the *number* along the continuum that best reflects your initial feeling.

1. In terms of the questions I have about life, my spirituality answers

no questions										**absolutely all my questions**
0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	***10***

2. Growing spiritually is

more important than anything else in my life										**of no importance to me**
10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	***0***

3. When I am faced with an important decision, my spirituality

plays absolutely no role										**is always the overriding consideration**
0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	***10***

4. Spirituality is

the master motive of my life, directing every other aspect of my life										**not part of my life**
10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	***0***

5. When I think of the things that help me to grow and mature as a person, my spirituality

has no effect on my personal growth										**is absolutely the most important factor in my personal growth**
0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	***10***

6. My spiritual beliefs affect

absolutely every aspect of my life										**no aspect of my life**
10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	***0***

APPENDIX C: RECRUITMENT SCRIPT

RECRUITMENT SCRIPT
For a research study titled
"The Nature of the Relationship between
Anxious Youth, Spirituality, and Factors of Risk

Hi, my name is D.A. Erickson. I am a counselor at one of the schools in _____. I am going to school like you, and I am working on a research project called a dissertation. Your school has given me permission to do my project here.

I enjoy working with teenagers and am interested in the area of anxiety, spirituality, and risky behaviors such as drinking, smoking, taking drugs, destroying property, stealing, using a weapon, and violence. Past research on teenagers has helped counselors and teachers understand why some of you try smoking or drinking, and why others might be more willing to fight. My study would like to understand how anxiety and spirituality affect those risk taking behaviors.

You might be thinking, so what does a study look like? There are three surveys that you are asked to complete – one on anxiety, one about spirituality, and another on risky behaviors. You will answer the questions as truthfully as possible and then return the answered surveys to me. It will take about 35 minutes. The surveys will not have any names, addresses, or any information about you. No one will know how you answered the questions, not even me. Some of the questions you are asked might make you feel uncomfortable. In case your uncomfortable feelings don't go away and continue after you finished the surveys, you will be able to talk with a counselor in your counseling center.

All of your survey answers will be used in my doctoral dissertation and might be published in a professional journal, and/or presented at a professional meeting. While there is no direct benefit to you, this information is hoped to help schools and other organizations create more programs that help teenagers do better in high school and reduce some of the behaviors that lead to dropping out of high school.

It is important for you to know that you will not miss class time if you participate, because your teacher has decided to give you extra-credit for taking part in this study. It is also important to let you know that you don't have to do this study. If you do participate, you can stop at any time. You will not get into any trouble and it won't affect your grade. If you decide not to take part in the study, your teacher will give you another extra credit activity. If you decide to do the research, you will stay in the classroom and complete the surveys. If you decide not to participate, you will go to the library to work on the other extra credit activity.

Now, there is one key point...before you are able to participate in this study, you will need to get your parents and/or guardians permission if you aren't 18; this is a legal requirement. I have a consent form that I will send home with you to have them read. If they feel good about allowing your participation in the study, they will sign the form and there is a place for you to sign, too. Because, even though your parents and/or guardians give their consent for you to participate, your participation in the study is your choice.

For those of you who are interested in participating in this study, I am offering a drawing for a $20 movie theater gift card to each class for the students who return signed Parent/Guardian Consent forms. You will have about 10 days to return your signed forms. At the end of that time, I will hold the drawing for the theater gift card.

Do you have any questions? Please, feel free to ask any study related question. Who would like to participate in this study? If you are interested now, I will give you the Parent/Guardian Consent form to take. If you need more time, I will leave the consent forms with your teacher to give to you if you want to participate.

APPENDIX D: STATE-TRAIT ANXIETY INVENTORY SAMPLE ITEMS

State-Trait Anxiety Inventory for Adults Sample Items

The **S-Anxiety scale** consists of twenty statements that evaluate how respondents feel "right now, at this moment."

1	2	3	4
Not At All	**Somewhat**	**Moderately So**	**Very Much So**

A.	**I feel at ease**	**1**	**2**	**3**	**4**
B.	**I feel upset**	**1**	**2**	**3**	**4**

The **T-Anxiety** scale consists of twenty statements that assess how respondents feel "generally."

1	2	3	4
Almost Never	**Sometimes**	**Often**	**Almost Always**

A.	**I am a steady person**	**1**	**2**	**3**	**4**
B.	**I lack self-confidence**	**1**	**2**	**3**	**4**