A Study of the Relationship between Parental Involvement and Mental Health of College Students

by

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Abstract

The purpose of this study was to describe the characteristics of parental involvement and mental health in a sample of traditionally aged college students and investigate the variance parental involvement predicts in mental health. Five hundred and eighty-eight freshmen at a large research university responded to a 97 question survey. Parental involvement was broken into parental involvement in college choice, social involvement, academic involvement, student satisfaction with parental involvement, frequency of contact, and frequency of visits. Mental health was constructed of emotional well-being, psychological well-being, and social well-being. Demographic information was also collected. Independent sample t-tests, one-way analyses of variance, multiple analyses of variance, and backward multiple regression analyses were performed to analyze the results.

The average parental involvement score for the entire sample was 59.96 on a 100 point scale. The most parental involvement occurred in students' social involvement followed by college choice then academic involvement. The average satisfaction score was 70.16 on a 100 point scale. Participants communicated with their parents an average of 9.99 times per week and visited an average of 7.06 times per semester. The average mental health score was 71.10 on a 100 point scale. In the sample, 59.7% were moderately mentally healthy followed by 30.4% who were flourishing and 9.9% who were languishing.

A multiple regression analysis revealed that 9% of the variance in mental health was accounted for by parental involvement for the entire sample and 14% for females. Implications of the study include: parental involvement does impact mental health status, especially in regards to students' satisfaction with their parents' involvement. Higher education institutions need to continue to find more ways to purposefully include parents in students' social and academic lives at college and create opportunities for parents and their students to communicate openly about their changing relationship.

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I. Introduction

Background

Student mental health is a current priority in higher education (Ambler, 2007; Astin, 1993; Kadison & DiGeronimo, 2004; Snyder, 2007), as there has been an increase in the number of students coming to college with mental health concerns, the number of students reporting to student counseling centers, and the severity of mental illness students are facing (American Psychiatric Association, [APA], 2000; Arehart-Treichel, 2002; Benton, Robertson, Tseng, Newton, & Benton, 2003; Riba, 2004). Previous research addressing student mental health has focused on poor or incomplete mental health, referred to by Keyes (2002, 2003, 2005, 2007) as languishing (Ambler, 2007). While this information is critical, Keyes, Amber, and others have called attention to an additional need for more research on positive or complete student mental health, Keyes' flourishing, to build a comprehensive understanding of contributing environmental variables (Ambler, 2007; Keyes, 2002, 2003, 2005, 2007; Keyes & Haidt, 2003; Keyes & Lopez, 2002).

An increase in the amount of involvement parents have in their college students' lives has also recently been observed on college campuses (Savage, 2007). Parents are advising their students on where to attend, helping them with applications, providing financial support, and engaging in continuous communication with their students once they begin school (Coburn, 2003, 2006; Colavecchio-Van Sickler, 2006; Daniel, Evans,

& Scott, 2001; Lange & Stone, 2001; Lum, 2006; McGinty, 2002; Merriman, 2007; Scott & Daniel, 2001, 2007; Strage & Brandt, 1999). A secure relationship with parents has been suggested as beneficial for students going through the difficult transition from high school to college (Baxter Magolda, 1999; Conneely, Good, & Perryman, 1999; Daniel et al., 2001; Elkind, 1994; Savage, 2007), but parental over-involvement, including parents engaging in constant contact with student and administrators, making academic decisions for students, and taking student failure personally, can have lasting negative effects for students that are not at this time fully understood (Astin, Tsui, & Avalos, 1996; College Board, 2005; Daniel et al., 2001; Epstein & Sanders, 2002; Hill & Taylor, 2004; Padilla, Trevino, Gonzalez, & Trevison, 1997; Pascerelli & Terenzini, 2005; Steinberg & Silk, 2002; Stone, 2006; Strage & Brandt, 1999). Previous research on parental involvement has focused predominately on kindergarten through high school and hence there is a lack of research on parental involvement in college.

Purpose

Positive parental involvement in kindergarten through 12th grade education has been linked with a number of outcomes when compared to students with too much or too little parental involvement. These include students making higher grades (Christenson, 1999; Desimore, 1999; Dornbusch , Ritter, Liederman, Roberts, & Fraleigh, 1985; Fehrmann, Keith, & Reimer, 1987; Lee, 1993; Martini, 1995; Muller, 1993; Perna & Titus, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Sui-Chu & Willms, 1996; Zick, Bryant, & Osterbacka, 2001), choosing positive peer groups (Brown, Mounts, Lamborn, & Steinberg, 1993; Falbo, Lein, & Amador, 2001), experiencing higher levels

of extracurricular achievement (Linver & Silverberg, 1997; Paulson, 1994), being less likely to drop out (Horn & West, 1992; McNeal, 1999; Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990; Sy, Rowley, & Schlenberg, 2007), and adjusting more successfully to transition (Lee, 1993; Reynolds, 1992; Wong & Hughes, 2006; Zick et al., 2001).

While appropriate levels of parental involvement may contribute to these positive outcomes, parental over-involvement in kindergarten through 12th grade education has been linked with delayed identity development, poor academic performance, increased conflict between parents and students, and increased experiences of internalizing disorder symptoms (Barber, Maughen, & Olsen, 2005; Nucci, 2001; Smetana, Crean, & Campion-Barr, 2005; Steinberg, Dornbusch, & Brown, 1992). Previous studies also show that over-involvement is most likely to occur during times of academic transition, such as elementary to middle school and middle school to junior high (Barber et al., 2005; Nucci, 2001; Smetana, Crean, & Campione-Barr, 2005; Steinberg, Lamborn, Dornbusch et al., 1992). The transition from high school to college is an especially challenging transition for many students, and the purpose of this study is to investigate if parental involvement again increases during the college transition and if parental involvement is therefore contributing to mental health concerns on college campuses.

This study focused on describing parental involvement that contributes to college student mental health, as defined by Keyes' (2002, 2003, 2005, 2007) continuum of mental health, which ranges from flourishing to moderate mental health to languishing. Traditionally aged college freshmen were the focus of the study because parental involvement has been found to have the strongest influence on younger students and the

impact of the transition is the strongest during the first year (Strage & Brandt, 1999; Dyson & Renk, 2006). Using Ambler's (2007) study of student engagement and mental health as a model, the purpose of the current study was to use Keyes' (2002) Mental Health Scales of Subjective Well-being and Oliver's (n.d.) Survey of Parental Involvement to explore students' perceived status of well-being and levels of parental involvement in their lives. Impact of gender, ethnicity, distance from home, and whether or not the student was a first generation college student was also investigated.

Statement of the Problem

Ambler (2007) revealed that only 17% of college students in her study were flourishing. Her study also revealed that a supportive campus environment was the most significant factor contributing to student well-being. Parents have become an integral part of the support system on college campuses. Colleges have an obligation to create an environment that promotes holistic student development and well-being (American College Personnel Association [ACPA], 1994, 1996), and understanding the relationship between parental involvement and student mental health is critical to fulfilling this obligation (Coburn, 2006; Daniel et al., 2001; Merriman, 2007; Scott & Daniel, 2001).

Significance of the Study

Higher numbers of students are attending college today yet fewer students are graduating (United States Department of Education [USDE], 1995; Strage & Brandt, 1999). A survey conducted by the American College Health Association [ACHA] (2006) reported 92% of students felt overwhelmed, 44% indicated experiencing debilitating

depression, and approximately 1% attempted suicide during the previous year (Kennedy, 2007). While some students flourish on their own, others need administrators to step in and help them make necessary changes in their environments, including their human aggregate environment, which parents dominate along with peers (Pascarella & Terenzni, 1980; Strange & Banning, 2001).

Parents have been told by the media and educators since their children were in kindergarten that it is important for them to take an active role in their children's education (Bird, 2006; Coleman, 1998; Lin, 2001 a, 2001 b; Perna & Titus, 2005; Sy et al., 2007; Steinberg, Lamborn, et al., 1992; Sui-Chu & Willms, 1996; Wong & Hughes, 2006; Zick et al., 2001). Technology makes this possible, even from a distance (Lange & Stone, 2000; Merriman, 2007; Savage, 2007; Strage & Brandt, 1999). Also, parents are concerned about campus safety in light of recent tragedies and about health risks such as smoking, alcohol, sleeping habits, and nutrition (Bylund, Imes, & Baxter, 2005; Mansfield & Warwick, 2005; Shellenbarger, 2006). Finally, higher education is a significant investment, and in today's society of consumerism, parents want to get their money's worth (Coburn, 2006; Conneely et al., 2001; Daniel et al., 2001; Lange & Stone, 2001; Merriman, 2007; Savage, 2007; Shellenbarger, 2006). Parents have pertinent reason to be involved in their students' lives. However, more research is needed to define the point at which parents become over involved and the impact this over involvement has on college students' mental well being (Daniel et al., 2001; Forbes, 2001; Padilla et al., 1997; Pascarella & Terenzini, 1998; Tinto, 1993; Strage & Brandt, 1999).

Research Questions

The following research questions were addressed in this study: 1) What are the characteristics of parental involvement and mental health experienced by a sample of traditionally aged undergraduate students, 2) What relationship does mental health category have with gender, ethnicity, distance from home, experience of being a first generation college student, and level of parental involvement in a sample of traditionally aged undergraduate students, 3) What relationship does level of parental involvement have with gender, ethnicity, distance from home, and experience of being a first generation college student, and 4) How does parental involvement predict variability in mental health of traditionally aged undergraduate students?

Limitations/Delimitations of the Study

Limitations of the research were:

1. Students self reported information and may have wished to represent themselves or their parents more positively.
2. The study was limited to freshmen at a large research university in Alabama, making it difficult to generalize to institutions in other states or of a different size.
3. In the state of Alabama, students must be 19 years of age or older to be considered an adult. Those older than 19 years of age must have parental consent to complete survey research. Only a minimal number of 18 year olds participated in the study.
4. The Survey of Parental Involvement is a new instrument in need of more validation.

Delimitations of the research were:

1. Parents were not surveyed in this study. Their personal perception of their involvement may be different from their students.
2. Parental involvement was not explored for upperclassmen students. Only freshmen taking a freshman orientation class were invited to participate in the study.

Definition of Terms

The following terms were used as defined below:

Student Mental Health: Keye's (2002) definition of the mental health continuum was used in this study, differentiating students as flourishing, experiencing high levels of emotional, psychological, and social well-being; languishing, experiencing low levels of the three domains of well-being; and moderately mentally healthy, falling somewhere in between.

Parenting: Philosophies and strategies used in rearing children from infancy through adolescence in regards to the three domains defined by social domain theory which are conventional, moral, and psychological (Nucci, 2001).

Parental Involvement: Parents' engagement in their students' education. At the kindergarten through 12th grade level, asking children about what they are learning; helping with homework; creating an environment that is conducive to learning in the home; introducing children to community resources; communicating with teachers; and participating in special events and organizations such as parent teacher associations and parents' day are considered

as parental involvement (Morrow, 1989; Stone, 2006; Sy et al., 2007). At the college level, assisting students in the college choice process; communicating with students via phone or email; advising students about social and academic involvement; visiting students at college; contacting faculty and administrators; and participating in special events such a parents' weekend all constitute as parental involvement (College Board, 2005; Conneely et al., 2001; Oliver, n.d.; Savage, 2007).

Organization of Study

Chapter I presents the background, purpose of the study, statement of the problem, significance of the study, research questions, limitations of the study, and definition of terms.

Chapter II reviews the literature related to this study. Parenting, parental involvement in elementary through secondary education, parental involvement in postsecondary education, and student mental health are addressed.

Chapter III addresses procedural details undertaken in this study including research design, population, data collection, and statistical analysis of data.

Chapter IV presents an interpretation of the data and findings.

Chapter V provides conclusions and recommendations for further research.

II. Review of Literature

Introduction

This study examined the relationship between parental involvement and mental health in traditionally aged college students. Chapter two provides a review of the literature regarding these constructs and previous research investigating the nature of their relationship. The following information is covered: (a) parental influence throughout the stages of development, (b) parental influence in education, (c) parental influence in elementary and secondary education, (d) parental influence in higher education, (e) parental influence on college student mental health, and (f) addressing mental health on the college campus.

Parental Influence throughout the Stages of Development

Students come to college at various stages of development and with varying dispositions, all of which are attributed in part to prior experiences during infancy through adolescence. While parents are the dominant authority during infancy and childhood, peers join the circle of influence in adolescence (Amato, 1994; Barnett, Kibria, Baruch & Pleck, 1991; Bumpass & Aquilino, 1994; Moore & Zaff, 2002; Shaw, Krause, Chatters, Connell & Ingersoll-Dayton, 2004; Umberson, 1992). Adolescents spend more time with peers, but parents still remain extremely influential (Astin, 1993;

Baumrind, 1991; Erikson, 1959; Moore & Zaff, 2002; Steinberg & Silverberg, 1986). According to the National Longitudinal Survey of Youth 1997 cohort (Moore, et al., 2004), in a cohort of more than 9,000 adolescents 84% reported thinking highly of their mother and 81% reported thinking highly of their father (Moore et al., 2004, p. 1). Other studies have confirmed that positive parent-teen relationships lead to fewer problem behaviors (Bahr, Maughan, Marcos, & Li, 1998; Bearman et al., 1997; Blum & Rinehart, 1997; Coombs, Paulson, & Richardson, 1991; Hundleby & Mercer, 1987; Miller, 1998; Whitbeck, Hoyt, Miller, & Kao, 1992) and holistic well-being in adolescents (Borkowsky, Ramey, & Bristol-Power, 2002; Hair, Moore, & Garrett, 2004; Barber & Erickson, 2001; Hair, Jager, & Garrett, 2002; Engels, Finkenauer, Meeus, & Dekovic, 2001; Franz, McClelland, & Weinberger, 1991; Kerns & Stevens, 1996; Zahn-Waxler & Smith, 1992). Research confirms that parental influence is critical throughout the early stages of development.

A New Developmental Stage

Today's parents are staying more involved in their children's lives for longer during a new developmental stage referred to as emerging adulthood (Andom, 2007; Arnett, 2000, 2004) or extended adolescence (Rudolf, 1994). Some theorists now consider college to represent a new developmental stage, basing the stages on life accomplishments rather than age (Daniel et al., 2001; Elkind, 1994). According to Arnett(2000) approximately 60% of college students enter college straight from high school, transitioning directly into what Rudolf (1994) calls an extended moratorium. During this time they are free from parental control but still dependent on parents

financially and in other ways (Andom, 2007; Wetherill, & Fromme, 2007; Wetherill, Neal, & Fromme, 2008).

This period was previously thought of as the beginning stage of adulthood or young adulthood, but researchers have begun to believe that while students are still in the education system full time this period is qualitatively different (Andom, 2007; Daniel et al., 2001; Elkind, 1994). Andom (2007) reported that 392 participants in his study defined reaching adulthood as measured by achieving financial independence, holding a steady career, moving out of the family home, and demonstrating responsible behavior. Fewer than 20% of those participating in the study believed that college students met the qualifications of adulthood (Andom, 2007).

Instead, this time between the ages of 18 and 28 is viewed as a stepping stone into adulthood when individuals can experience freedom and take time to decide the direction they want to pursue in their lives (Rudolf, 1994). Changes in social norms including people getting married later, having children later, and the social acceptance of job experimentation during these years have played a role in the emergence of this stage. Additionally, parents' ability financially and willingness to continue supporting their children allow this stage to take place (Andom, 2007; Arnett, 2004; Rudolf, 1994).

Parenting Theory and Practice

Regardless of the stage, it is necessary to be knowledgeable about parenting theory and practice in order to understand the parent-child relationship and its impact on children's development. Several different theories of parenting have emerged from different disciplines. This section outlines the prominent theories recognized across different areas of study and practice.

Precision Parenting

Several different theories have evolved to define effective parenting practices. One of the most well-known is authoritative parenting or what Mason, Cauce, Gonzales, and Higaga (1996) refer to as precision parenting. Precision parenting requires the appropriate balance between responsiveness, defined as the "extent to which parents foster individuality and self-assertion by being attuned, supportive, and acquiescent to children's requests," and demandingness, defined as "claims parents make on children to become integrated into society by behavior regulation, direct confrontation, maturity demands, and supervision of children's activities" (Baumrind, 2005, p. 61). Successfully finding this balance leads to autonomy development and general well-being in adolescents (Buamrind, 1991; Steinberg & Silk, 2002).

Authoritative parenting was originally identified by Baumrind (1967) through a study conducted on parent attachment behaviors. In her research observing parent-child and parent-adolescent interaction, she discovered that parenting fell into one of three different styles: authoritative, authoritarian, or permissive (Baumrind, 1967, 1971, 1999, 2005). Authoritative parenting is characterized by a balance between responsiveness and demandingness, in other words implementing boundaries while also being supportive. Passive parenting on the other hand favors responsiveness while setting minimal to no boundaries. Finally, authoritarian parenting asserts too much demandingness with limited support. Later, Baumrind (1971, 1991, 2005) added a fourth parenting style, disengaged, to depict parenting that incorporates neither demandingness nor responsiveness. Baumrind (1967, 1971, 1999, 2005) discovered the type of parenting

style practiced correlated with children and adolescents' levels of adjustment, socialization, and academic ability (Barber, 1996; Steinberg & Silk, 2002).

Social Domain Theory

While parents tend to utilize one of Baumrind's parenting styles the majority of the time (Baumrind, 1967, 1971, 1999, 2005), parenting is a complex endeavor that requires different levels of parental control in different situations (Turiel, 2005). According to the social domain theory, there are three different domains in which parents exercise control including the moral domain, conventional domain, and personal domain (Barber et al., 2005; Nucci, 2001; Nucci, Hasabe, & Lins-Dyer, 2005; Smetana, 1995; Smetana, Crean, & Campion-Barr, 2005; Turiel, 2005). Parenting in the moral domain includes parental influence on children's values and character development, while parenting in the conventional domain addresses teaching children social norms and expectations. Established norms in these domains are well recognized within families, communities, cultures, and society (Nucci, Hasabe et al., 2005; Turiel, 2005). The third domain, the personal domain, involves parental influence on children's identity development and is the most subjective domain (Barber et al., 2005; Baumrind, 2005; Nucci, Hasabe et al., 2005; Turiel, 2005).

Measuring parental involvement in the first two domains is accomplished through observing if children are able to behave and make decisions based on the norms they've been taught. Once they are able to consistently do so independently, parenting in these domains minimizes to only advising when needed (Barber, 1996; Barber et al., 2005). Parenting in the personal domain is more difficult to measure because identity development is constantly taking new directions during childhood and adolescence and

there is not an identity norm to strive for (Barber, 2002; Barber et al., 2005; Baumrind, 2005; Schaefer, 1965). In fact parents and adolescents often disagree on what falls within this domain and what does not (Barber et al., 2005; Baumrind, 2005; Turiel, 2005).

Tripartite Parenting Behaviors

Building on Schafer's (1965) parenting behavior classifications of acceptance, psychological control, and firm control along with Baumrind's (2005) parenting typologies, Steinberg, Dornbusch et al. (1992) developed an updated model of tripartite parenting behaviors. According to this model, parental control over the moral domain and conventional domain, behavior control, focuses on teaching children socially and morally appropriate behavior by monitoring activity and setting limits (Barber et al., 2005; Baumrind, 2005; Nucci, Hasabe et al., 2005). As children develop through childhood to adolescence, parents gradually decrease the amount of behavior control they exercise in order to promote self regulation and independence (Barber, 1996; Barber et al., 2005). Parental support, the next parenting behavior, involves being nurturing and showing affection towards children and adolescents to create a safe environment that allows for optimal autonomy development. Parental support is exercised throughout development in each domain (Barber et al., 2005; Schaffer, 1965; Steinberg & Dornbusch et al., 1992). Finally, parental control over the personal domain, psychological control, attempts to influence children's personal interests, style, and conduct. Excessive use of psychological control has been linked to negative outcomes including delayed identity development, poor academic performance, increased conflict between parents and children, and more internalizing disorder symptoms such as anxiety and depression

(Barber et al., 2005; Nucci, 2001; Schaffer, 1965; Smetana, Crean, & Campion-Barr, 2005; Steinberg, Dornbusch et al., 1992).

Steinberg, Dornbusch et al. (1992) discovered in their research that parents have a tendency to practice more psychological control during transitions such a moving to junior high or high school. Also, parents of lower socio-economic status have been found to exercise higher levels of psychological control due to the perception of increased risk in their environment (Lins-Dyer, 2005; Nucci, Camino, & Minitsky-Sapiro, 1996; Smetana, Crean, & Daddis, 2002; Smetana & Daddis, 2002; Turiel, 2005). Psychological control plays the largest role in the parent child relationship post childhood, especially during times of transition.

Influences on Parenting Behaviors

According to Serbin and Karp (2003), parenting style is a combination of the parenting style one grew up with, individual personality, and situation. Other studies have identified a number of factors that influence parenting styles and behaviors including work hours, marital relationship, financial status, personal goals, social networks, and recreational activities amongst others (Barber et al., 2005; McNall, Eisenberg, & Harris, 1991; Roberts, Block, & Block, 1984; Turiel, 2005). The most significant factor, according to the developmental niche theory, is parents' cultural beliefs about development and their own experience growing up with their parents (Gallimore, Goldenberg, & Weisner, 1993; Super & Harkness, 1986; Sy et al., 2007). According to Chao's (2002) educational niche theory, this influence carries over into parental involvement in a child's education as well. Parents' beliefs about education and what constitutes appropriate educational attainment determine their level of involvement

parents have in their children's education (Chao, 2002; Coleman & Churchill, 1997; Kim & Rohner, 2002; Martini, 1995; Sy et al., 2007).

Parental Influence in Education

Parental influence also carries over into the educational experience, impacting students' performance in elementary, secondary and higher education (Chao, 2002; Hair, Moore et al., in press; Herman, Dornbusch, Herron & Herting, 1997; Moore et al, 2004). In education, no one is more invested in the operation of a school than the parents of the children who attend. Parents provide a source of quality assurance and social capital, as they encourage both the school and their children to perform to their potential (Coleman, 1998; Lin 2001a, 2001b; Perna & Titus, 2005). According to Perna and Titus (2005), "aspirations and family support foreshadow student success" (p. 12). Parental expectations for children to attend college is one of the strongest predictors of students enrolling in college and persisting (Association for the Study of Higher Education [ASHE], 2007; Perna & Titus, 2005). Persistence is further impacted by the attention parents gave to education and the study routines they taught their children during elementary and middle school, which are carried on to college (Schilling & Schilling, 1999). Involving parents in their children's education benefits the children themselves, the families, the school, and the community at large (Sliwka & Istance, 2006; Sy et al., 2007).

Successfully fostering healthy involvement in education is a challenging task, however. Families in today's society are diverse, representing various structures, dynamics, cultures, and ranges of socio-economic status (Levine & Curetan, 1998). It is

necessary to understand what constitutes appropriate involvement and availability for each family in order to assist them in being a positive, active influence in their students' education and development (Griffith, 1998; Hill, 2001; Hill et al., 2004; Jeynes, 2003; Wong & Hughes, 2006). Adding to the challenge, parental involvement is a difficult construct to study due to the subjective nature of parent and teacher self reporting, the tendency of parents to exaggerate their level of involvement, researchers using different definitions of parental involvement, and different perceptions of appropriate involvement (Baumrind, 2005; Fan & Chen, 2001; Griffith, 1998; Hill, 2001; Nord, Lennon, Liu, & Chandler, 1999; Reynolds, 1992; Smetana, 1995; Wong & Hughes, 2006). Also, the majority of research on parental involvement in education until recently has focused on elementary and secondary education. More research is needed to determine the impact of parental involvement at the college level.

Despite these barriers, researchers have come a long way in understanding parenting and the role of parents in their children's education. The parent-child relationship is a complicated phenomenon to navigate across the development of the child, but understanding the influence of, theory behind, and best practices for parenting arm parents and educators with some guidelines (Turiel, 2005). Additionally, understanding parents' approach to parenting in general offers insight into their approach to involvement in their child's education. Parental involvement has the potential to benefit students at all levels of education from pre-school through college, but only when it is exercised appropriately, allowing for autonomy and identity development (Hill et al., 2004; Jeynes, 2003; Wong & Hughes, 2006). It is imperative that educators understand how to define and foster appropriate involvement, and due to mandates of No Child Left

Behind and highly involved parents today, reaching this understanding is no longer optional (Savage, 2007; Sy et al., 2007; United States Department of Education [USDE], 2005).

Benefits of Parental Involvement in Education

The benefits of parental involvement in children's education are well established in the research. It has been linked with students being more motivated (Wong & Hughes, 2006), making higher grades (Christenson, 1999; Desimore, 1999; Dornbusch et al., 1987; Fehrmann et al., 1987; Lee, 1993; Martini, 1995; Muller, 1993; Perna & Titus, 2005; Steinberg, Lamborn, et al., 1992; Sui-Chu & Willms, 1996; Zick et al., 2001), choosing positive peer groups (Brown et al., 1993; Falbo et al., 2001), experiencing higher levels of extracurricular achievement (Linver & Silverberg, 1997; Paulson, 1994), adjusting more successfully to transition (Lee, 1993; Wong & Hughes, 2006; Zick et al., 2001; Reynolds, 1992), and being less likely to drop out (Horn & West, 1992; McNeal, 1999; Rumberger et al., 1990; Sy et al., 2007). Additionally, parents who are involved in their child's education are more satisfied with the education their child is getting (Bird, 2006).

Defining Parental Involvement in Education

Referring back to the Chao's (2002) educational niche theory, being "involved" means something different to each parent based on his or her experiences. While it is important to remember to not make assumptions about parents' preferred level of involvement, research has established some trends on this subject. Parents who have attained higher degrees of education themselves experienced more satisfaction with their own educational experiences, feel more confident in their ability to assist their child in

his or her education, are in a traditional family structure, have a larger social network, and are of higher socio-economic status all of which contribute to more involvement (Coleman & Churchill, 1997; Moles, 1993; Nord & West, 2001; Reynolds & Grill, 1994; Sheldon, 2002; Stone, 2006). At the other end of the continuum, research has shown that ethnic minority parents, immigrant parents, and parents of a lower socio-economic status tend to be less involved (Chavkin & Williams, 1993; Hill et al., 2004; Kohl, Weissberg, Reynolds, & Kasprow, 1994). Boethel (2003) pleads the case that this is not necessarily due to lack of interest but could be a result of lack of understanding of what is appropriate involvement, lack of transportation, and conflicting work schedules.

It is also important to remember that parental involvement can take many different forms. Sy et al. (2007) provide a broad definition of parental involvement as "parental behaviors aimed at promoting or enhancing a child's educational development" (p. 2). These behaviors can occur across multiple contexts including at home, in school, and in the community. At home, parents create an environment that is conducive to learning and assist their children with homework assignments (Baker, Kessler-Sklar, Piotrkowski, & Parker, 1999; Chao, 2002; Choi, Bemechat, & Pinsberg, 1994; Kim, 2002; Mau, 1997). Also, holding conversations about what the child is learning in school and showing interest is a way to be actively involved (Stone, 2006). At school, parents can take advantage of different opportunities for involvement and build relationships with teachers and administrators (Morrow, 1989). Finally, parents can utilize resources in the community that connect to the skills and material their children are learning in school, such as visiting a history museum (Grolnick 2003; Gutman & McLoyd, 2000; Sun,

1998). Just as parental involvement occurs differently in different families, different levels of education take different approaches to parental involvement.

Parental Involvement in Elementary and Secondary Education

Parents begin their involvement in their children's education at the elementary school level. The majority of research on parental involvement in education has focused on these years through the high school years. This section outlines the components of parental involvement during this stage.

Opportunities for Parental Involvement

Encouraging parental involvement is a regular for practice educators in elementary and secondary education, especially since No Child Left Behind made it a mandate (Dornbusch & Glasgow, 1996; Sliwka & Istance, 2006; Stone, 2060; USDE, 2005). Opportunities for parental involvement in elementary through high schools are abundant, especially at the lower levels, including parent associations, family day events, fundraising projects, sporting events, and volunteering to list some traditional venues. Some schools are also encouraging involvement through creative means of offering parent workshops, parent socials, and extra credit for students who are taking their education seriously at home, as seen through parent report cards submitted to the school (Benson & Martin, 2003; Carlise, Stanley, & Kemple, 2005; Sliwka & Istance, 2006). Finally, technology is connecting parents to schools through Student Information Systems, allowing parents to monitor their children's attendance, grades, and involvement via their computers at any time that is convenient to them (Bird, 2006). Parents have full access to all their students' information.

Barriers to Appropriate Parental Involvement

Despite well-established benefits of and ample opportunities for parental involvement, there are still some parents who are not involved in their children's education. Some possible reasons are not feeling welcome, fearing consequences for children, language barriers, and feeling unsure about appropriate levels of involvement (Al-Hassan & Gardner, 2002; Coleman & Churchill, 2007; Sheldon, 2002; Sliwka & Istance, 2006). Also, some teachers contribute to lack of involvement due to feeling threatened by it or not understanding how to cultivate it (Hilliard & Pelo, 2001; Hurt, 2000; Keyser, 2001; Sliwka & Istance, 2006). Barriers to involvement must be identified and removed in each school in order to create an environment that is welcoming to parents (Lee, 1993; Wong & Hughes, 2006; Zick et al., 2001; Reynolds, 1992).

Encouraging Appropriate Parental Involvement

Keeping in mind that parents are stakeholders in schools, it is important to make adjustments to meet their needs (Carlisle et al., 2006; Ferrera & Ferrera, 2005; Sliwka & Istance, 2006). This is a complex task considering the diverse group of parents educators are working with today, but research has uncovered some best practices for overcoming barriers and achieving increased levels of parental involvement for all families (Lee & Manning, 2001; Levine & Curetan, 1998; USDE, 2005; Swick, 2006; Sy et al., 2007). Personalized communication to parents, including phone calls and written correspondence, makes parents feel more welcomed into the school environment and as a result into their child's education (Benson & Martin, 2003; Halsey, 2004; Swick, 2006). Creating a welcoming environment physically also encourages parents to come. Signs should be in place to direct parents to the appropriate place to check in and staff should

assist parents with making their way to their destination (Benson & Martin, 2003; Swick, 2006). Another best practice is including parents as members of the classroom by recognizing them for their contributions and providing them with educational opportunities themselves (Benson & Martin, 2003; Comer, 2001; Halsey, 2004; Swick, 2006). Finally, when teachers schedule appointments and events, it is important to keep in mind that parents may have alternative work schedules or other children to take care of. Educators must be creative to make parental involvement possible, for example by welcoming extended family to events, providing babysitting, and holding events at alternate times (Benson & Martin, 2003; Boethel, 2003; Griffith, 1998; Hill, 2001; Hill et al., 2004; Jeynes, 2003; Swick, 2006; Wong & Hughes, 2006).

Parental Involvement in Higher Education

While educators in elementary and secondary schools are looking for ways to get parents more involved in their children's education, educators in higher education are trying to learn how to manage the increase in parental involvement on their campuses (Coburn, 2006; Colavecchio-Van Sickler, 2006; Daniel et al., 2001; Lange & Stone, 2001; Lum, 2006; McGinty, 2002; Merriman, 2007; Scott & Daniel, 2001). Popular media has recently been highlighting this phenomenon of parents of college students being hyper-involved in their children's education, referring to them as helicopter parents (American Broadcasting Company [ABC], 2006; Davidson, 2008; Ettinger, 2006; Freedman, 2004; Jacobson, 2003; Kadaba, 2004; Lane, 2004; Strauss, 2006). In determining what qualifies as appropriate parental involvement for each family, educators in higher education must help families understand their developing students

and changing relationship with their students (Gerdes, 2004; Hill, 2001; Hill et al., 2004; Griffith, 1998; Jeynes, 2003; Levine & Cureton, 1998; Wong & Hughes, 2006). Compounding this challenge, more research is needed to understand and define appropriate parental involvement in postsecondary education (Daniel et al., 2001; Epstein & Sanders, 2002; Hill & Taylor, 2004; Stone, 2006).

Parental Over-Involvement

While there is no mandate requiring administrators in higher education to engage parents in their children's education, it is necessary to do so in order to meet parents' expectations and survive in today's competitive market (Coburn, 2006; Daniel et al., 2001; Lange & Stone, 2001; Lum, 2006; Merriman, 2007; Pattenaude, 2000; Savage, 2007; Scott & Daniel, 2001). College students' parents are more involved than ever before in their children's college experience (Coburn, 2006; Colavecchio-Van Sickler, 2006; Daniel et al., 2001; Lange & Stone, 2001; Lum, 2006; McGinty, 2002; Merriman, 2007; Scott & Daniel, 2001). They are assisting their children with choosing where to attend (Bers, 2005; Brooks, 2004; Coburn, 2006; David, Ball, Davies, & Reay, 2003; Mansfield & Warwick, 2005; McGinty, 2002) , providing financial support (Daniel et al., 2001; Scott & Daniel, 2001; Hossler & Vesper, 1993; Lange & Stone, 2001), responding when their children experience issues (Conneely et al., 2001; Daniel et al., 2001), and communicating with their students via email, text messaging, and cell phones (Merriman, 2007; Savage, 2007; Strage & Brandt, 1999).

It is understandable why parents are so involved in their college students' education. They have been told by the media and educators since their children were in kindergarten that it is important for them to take an active role in their children's

education (Bird, 2006; Coleman, 1998; Lin, 2001 a, 2001 b; Perna & Titus, 2005; Sy et al., 2007; Steinberg & Lamborn et al., 1992; Sui-Chu & Willms, 1996; Wong & Hughes, 2006; Zick et al., 2001). Technology also makes parental involvement possible, even from a distance, and students are often the ones initiating the involvement (Lange & Stone, 2000; Merriman, 2007; Savage, 2007; Strage & Brandt, 1999). In addition, parents are concerned about campus safety and health risks such as smoking, alcohol, sleeping habits, and nutrition (Bylund et al., 2005; Mansfield & Warwick, 2005; Shellenbarger, 2006). Finally, a child's higher education is a significant investment, and in today's society of consumerism, parents want to get their money's worth (Coburn, 2006; Conneely et al., 2001; Daniel, Evans, & Scott, 2001; Lange & Stone, 2001; Merriman, 2007; Savage, 2007; Shellenbarger, 2006).

Parents can easily become over-involved in their college students' lives and often do due to being worried about their student, not having correct information, or not having an accurate understanding of how to appropriately support their student (Gerdes, 2004; Merriman, 2007; Savage, 2007). The transition from high school to college presents multiple challenges for students. They are living on their own for the first time, facing new academic challenges, deciding on a career, learning to manage their finances, and being exposed to diverse situations that are unfamiliar to them (Baxter-Magolda, 1999; Conneely et al., 1999; Dyson & Renk, 2006; Evans, Forney, & Guido-Dibrito, 1998; Smith & Renk, 2007). While these challenges result in development for college students, they can also result in anxiety for parents (Boyer, 1987; Hood, 1984; Kuh et al., 2005; Pascarella & Terrenzini, 1991, 2005). The college transition is a significant event in the

lives of parents too, as they must adjust and learn to appropriately support their students' independence, intimacy, identity, and intellectual development (Coburn, 2003).

Parental Involvement and College Student Outcomes

Parental involvement in college has received mostly negative attention recently, but some researchers are pointing out positive effects of parental influence on college students. Parental support can be extremely helpful to students going through the difficult transitions college presents by helping students feel comfortable taking on challenges and risking failure (Baxter-Magolda, 1999; Conneely et al., 1999; Daniel et al., 2001; Elkind, 1994; Holahan & Moos, 1981). According to The American Freshman: National Norms for Fall 2007 reported by the Higher Education Research Institute [HERI] (2007), college freshman were satisfied with the level of involvement their parents took in their college experience. Over 70% of students surveyed reported that the amount of involvement their parents had in assisting them with completing applications, choosing courses, and choosing activities was just right. Over 75% of these students reported their parents' involvement in encouraging them to attend college and dealing with college officials was just right (HERI, 2007). The percentage of students indicating their parents' involvement was too little was less than 10% in all areas (HERI, 2007).

While some students are content with their parents' involvement in their lives, more information is needed about what behaviors make up this parental involvement and the impact it is having on students. Several recent studies have looked at the relationship between parental influence and different student outcomes, and findings have been mixed.

Parental Support, Parental Involvement, and College Student Persistence

Ratell, Larose, Guay, and Senecal (2005) looked at the relationship between perceived parental involvement and student persistence amongst college students in a science curriculum. In the study, 729 undergraduates in Quebec completed a survey adapted for the study that measured socioeconomic status, achievement in science, perceived parental autonomy support, perceived parental involvement, feelings of competence, feelings of autonomy, feelings of relatedness, and persistence in a science program. The study used Grolnick's (2003) definition of parental involvement which includes spending time with and emotionally supporting children and his definition of parental autonomy support which is recognizing children's individual strengths and allowing them to make their own choices. Findings support a relationship between parental autonomy support and parental involvement with student feelings of competence, autonomy, and relatedness. Researchers also found that parental autonomy support predicted student persistence but parental involvement did not directly. Ratell et al.'s (2005) study supports that parental autonomy support and involvement are beneficial to students in helping build competence and autonomy, which in turn are necessary for students to persist.

Parenting Style, Parental Involvement, and College Student Goal Orientation

Gonzalez, Greenwood, and WenHsu (2001) researched perceived parenting style, parental education, parental involvement, and college students' goal orientation. A sample of 311 students completed a survey adapted from the Goals Inventory (Roedel, Schaw, & Plake, 1994) and the Parental Authority Questionnaire (Buri, 1991). Results indicated a relationship between a mastery goal orientation, where students are interested

in genuine learning and challenge and tend to be intrinsically motivated, and maternal authoritativeness, where mothers offer high levels of autonomy support and realistic demands (Baumrind, 1967; Ginsburg & Bronstein, 1993). An additional relationship was found between performance orientation, where students are interested in successfully completing tasks and tend to be extrinsically motivated and paternal authorianism, where fathers put high demands on their children and offer minimal support. Performance orientation was also related to parents helping with homework (Ginsburg & Bronstein, 1993). While parental involvement was found to be positively correlated with authoritative parenting, no direct relationship was found between parental involvement and goal orientation besides parental help with homework assignments. Overall, Gonzalez et al.'s (2001) study does not support that parental involvement is related to college student goal orientation.

Parenting Style and Self-Regulation in College Students

Numerous studies have supported a relationship between parenting style and favorable academic outcomes in pre-college aged students (Dornbusch et al., 1987; Steinberg, Lamborn et al., 1994; Steinberg, Lamborn et al., 1992). Strage (1998) conducted a study with 465 college students to determine if these benefits also exist at the college level. Each participant completed the Student Attitudes and Perceptions Survey. As predicted, students who perceived their parents as authoritative and their families as close also scored positively for confidence, positive goal orientation, concern about planning for their future, adjustment to college, self-regulated learning behaviors, and a sense of being in control when it comes to academics. On the other end of the continuum, students who perceived their parents as authoritarian felt out of control of

their academic lives. Strage's (1998) study provides additional support for parental influence impacting college students.

Parenting Style, Parental Support, and Academic-Related Stress in College Students

Smith and Renk (2007) investigated the relationship between college student coping strategies, social support, parenting style, and academic stress. A sample of 93 undergraduate students completed a survey measuring each of these constructs. Findings involving parents and student stress were mixed. Researchers did find a positive relationship between social support from parents and the use of problem focused coping, which is characterized by attempting to change a situation to alleviate stress (Lazarus & Folkman, 1984), but did not find a direct relationship between parenting style and stress. Only paternal use of authoritarian parenting during female students' childhood years showed a significant positive relationship to student stress. The researchers postulated that perhaps parental influence makes an impact during pre-college years and then begins to play less of a significant role once students transition to college.

Parenting Style and Perfectionism in College Students

Following up from a study conducted by Frost, Lahart, and Resnblate (1991) that uncovered a relationship between perfectionism in mothers and college-aged daughters, Flett, Hewitt, and Singer (1995) looked at perfectionism and parenting style in college students. One hundred college students participated by completing the Multideminsional Perfectionism Scale (Hewitt & Flett, 1991) and the Parental Authority Questionnaire (Buri, 1991). They found positive significant relationships between both maternal authorianism and paternal authoritarianism and socially prescribed perfectionism in

males. In the female portion of the sample, significant relationships emerged between both maternal authoritativeness and paternal authoritativeness and self-oriented perfectionism. Flett et al. (1995) attributed these findings to the trend of parents placing more emphasis on achievement with sons (Huston, 1983; Parsons, Adler, & Kaczala, 1982) and daughters setting higher goals for themselves when they have strong family support. Overall, this study provides support for a relationship between parenting style and perfectionism in college students.

Parenting Style and Self-Actualization in College Students

Dominguez and Carton (1997) investigated parenting style and self-actualization in college students. Abraham Maslow's (1954, 1970) theory of motivation, postulates that individuals must first meet lower level needs in order to achieve self-actualization and positive social support from others helps facilitate progress. In a previous study, Nystul (1984) found a positive relationship between positive parenting behaviors and characteristics of self-actualization in children. The purpose of this study was to find if the same relationship existed with college students. Two hundred college students participated, completing the Short Index of Self-Actualization (Jones & Crandall, 1986) and the Parental Authority Questionnaire (Buri, 1991). As predicted, findings did indicate a significant positive relationship between both maternal authoritative parenting and paternal authoritative parenting and self-actualization as well as a significant negative relationship between parental authoritarianism and self-actualization in college students. Parents exercising positive involvement in their student's lives through and appropriate balance of responsiveness and demandingness does contribute to their students reaching their full potential.

Parenting Style and Self-Perception in College Students

Multiple studies have found a relationship between parenting style and self-perception in adults (Gecas & Schwalbe, 1986; Graybill, 1978; Hopkins & Klein, 1993; Thomas & Raj, 1985). Klein, O'Bryant, and Hopkins (1996) conducted a similar study to find out if the same is true in a sample of college students. As predicted, in a sample of 207 college students results indicated a significant negative relationship between both maternal and paternal authoritarianism and positive self-perception as well as a significant positive relationship between both maternal and paternal authoritativeness and positive self-perception. College students whose parents practiced authoritative parenting possessed higher self-perception than their peer whose parents practice authoritarian parenting techniques. These results support an influence of past parenting practices on college students' experiences in college and resulting perceptions of themselves and their abililties.

Parenting Style and College Academic Adjustment and Success

Strage and Brandt (1999) studied the role parenting style plays in the academic adjustment and success of college students. In their study, 236 students ranging from freshmen to seniors completed the Student Attitudes and Perceptions Survey, which gathers data regarding students' relationship with their parents, confidence, persistence, ability to remain focused, and perception of instructors as a source of support. The results showed several meaningful relationships. Parental use of autonomy granting was found to be positively correlated with overall grade point average, persistence, and a good relationship with instructors. Parent demandingness was positively correlated with student confidence and a good relationship with instructors. Finally parent

supportiveness was positively correlated with confidence, persistence, and teacher rapport. These findings provide well-rounded support that parents indeed have an impact on their college students. Strage and Brandt found that this impact is stronger during the initial college years and decreases as students near graduation.

Parenting Style and College Student Self-Esteem, Self-Efficacy, and Depression

While the majority of studies looking at the impact of parenting style on college students assesses parenting style used during childhood, Oliver and Paull (1995) assessed current parenting style used and its impact on college students' self-esteem, self-efficacy, and depression. One hundred and eighty-six students participated by completing the Self Esteem Inventory (Cooper Smith 1967, 1981), Self Efficacy Scale (Tipton- & Washington, 1984), Child Report of Parental Behavior Inventory (Schaefer, 1965), Family Environment Scale (Moos, Ingel, & Humphrey, 1974), and the Beck Inventory (Center for Cognitive Therapy, 1978). Results of the study confirmed that parenting style was responsible for 13% of the variance in the sample's reported levels of self-esteem, self-efficacy, and depression. This study confirms that parenting does play a role in children's sate of mental well-being and should be investigated further to determine how parents can have a positive effect.

Parenting Style and College Student Decision Making

As individuals move through adolescence, their focus shifts significantly from parents to peers, impacting their decision making processes (Erikson, 1959; Larson, 1974, 1983). Bednar and Fisher (2003) conducted a study to determine how parenting style influences decision making in college students. The researchers found that students who grew up with authoritative parents tended to turn to their parents for guidance with

moral and informational decisions while students with authoritarian or neglectful parents turned to peers for this guidance. It can be assumed that the impact of these different decision making strategies can be extreme, especially when life-altering decisions are being made.

Parental Generativity and College Student Outcomes

According to Erickson's (1982) theory of psychosocial identify development, generativity versus stagnation is the conflict faced during midlife, when many parents experience their children leaving for college. Peterson (2006) conducted a four-year longitudinal study to research the impact of parental generativity, a focus on making a positive contribution to future generations (Erikson, 1982), on college student outcomes. Sixty-nine students participated, and the results confirmed a positive relationship between parental generativity and several student outcomes including positive affect, future orientation, and prosocial characteristics such conscientiousness and openness to new experiences. A negative relationship was identified between parental generativity and neuroticism in the college students. His study supports the notion that parental influence does impact the college experience, specifically in terms of mental health. The impact parents had was positive and can even help students with avoiding negative mental health experiences.

Overview of Studies

The majority of past studies looking at parental influence and college student outcomes have focused on parenting styles, especially parenting styles used during students' childhood and adolescence. Researchers have found that children internalize early relationships and experiences with parents, which then influence them for the

entirety of their lives (Bowlby, 1982). However, a limitation of these studies lies in the acknowledgement that retrospective reports are subject to bias. Nevertheless, the studies do provide support that parenting style positively influences goal orientation, self-regulation, perfectionism, self-actualization, self-perception, academic adjustment, self-efficacy, and decision making in college students (Bednar & Fisher, 2003; Dominguez & Carton, 1997; Frost et al., 1991; Gonzalez et al., 2001; Klein et al., 1996; Oliver & Paull, 1995; Smith & Renk, 2007; Strage, 1998; Strage & Brandt, 1999; Ratell et al., 2005).

Several studies looked specifically at parental involvement, time and emotional support provided to students (Grolnick, 2003). Findings provide evidence that parental involvement does impact feelings of competence and autonomy, but no direct relationships were found with goal orientation or persistence (Gonzalez et al., 2001; Ratell et al., 2005). Finally, Peterson (2006) looked at parental generativity, which was found to encourage pro-social behaviors and defend against neuroticism. Overall, parental influence does impact college students, especially in regards to parenting style used and especially during the earlier years of college (Weiss & Schwarz, 1996; Strage & Brandt, 1999). Some of the outcomes demonstrated parents can have a negative effect on student mental health while other confirmed a positive effect is possible. More research is needed to gain a clearer understanding of what leads to these positive effects.

Parental Influence on College Student Mental Health

The previous studies confirm that parents do impact their college students in multiple capacities. The majority of the findings support opportunities for parents to positively influence their students through their involvement. However, there is also

evidence supporting that parental involvement can be harmful to students when exercised inappropriately (Lapsley, Rice, & Shadid, 1989; Sax, Bryant, & Gilmartin, 2002). Multiple studies have confirmed that the majority of adolescents who struggle with internalizing disorder symptoms grew up having unhealthy relationships with their parents (Chorpita & Barlow, 1998; Davies & Windle, 1997; Kataine et al., 1999; O'Conner et al., 1998; Wagner, Cohen, & Brooks, 1996). In fact, parents are believed to have the strongest impact on adolescent emotional well-being, especially for females (Jackson, Bijstra, Oostra, & Bosma, 1998; Juang & Silbereisen, 1999; Kenny & Donaldson, 1991; Mayhew & Lempers, 1998; Rogers & Holmbeck, 1997).

Parenting during the college years is especially challenging due to the significant transitions experienced by both students and parents. Both parties find themselves living new routines that bring new responsibilities, roles, and assumptions. Relationships with parents during this time are determined by multiple factors including heredity (Bouchard & McGue, 1990; Elkins, McGue, & Iacono, 1997; Hur & Bouchard, 1995; McGue, Elkins, Walden, & Iacono, 2005; Plomin & Bergeman, 1991; Plomin, McClearn, Pedersen, Nesselroade, & Bergeman, 1988; Rowe, 1981, 1983), parenting style (Bates, Petit, Dodge, & Ridge, 1998; Rubin, Burgess, Dwyer, & Hastings, 2003; Stoolmiller, 2001), and adolescent personality (Paulussen-Hoogeboom, Stams, Hermanns, & Peetsma, 2007; South et al., 2008). Additionally, during emerging adulthood parents' willingness and ability to support their child plays a part. Considering these numerous influences, the parent-adolescent or parent-emerging adult relationship can take many different turns based on these factors. Parents are left to figure out how to best support their children in

making good decisions through these transitions while adapting themselves to a changing relationship with their child.

Understanding Mental Health on the College Campus

The mental health scene of a college campus is determined by the makeup of the individuals on campus and the definition of mental health adopted by the observer. A consistent operational definition of mental disorder does not exist; however, the most respected definition, offered by APA (2000), is "a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress or disability or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom." (p. xxxi) Mental disorders fall into one of the following categories: disorders first diagnosed in infancy childhood, or adolescence; cognitive disorders; mental disorders due to a general medical condition; substance-related disorders; psychotic disorders; mood disorders; anxiety disorders; factitious disorders; dissociative disorders; sexual and gender identity disorders; eating disorders; sleep disorders; impulse-control disorders; adjustment disorders; personality disorders; or not yet identified disorders (APA, 2000). Any of these disorders could be present on a college campus.

Challenges of the College Transition

Entering into college is a significant and stressful life transition. Chandler and Gallager (1996) categorize the challenges students face as social, academic, and psychological. Socially students are adjusting to changes in their social network that at times can leave them with a weak support system (Sax, 1996). Also, some students experience difficulties balancing different groups of friends such as high school friends

and college friends or on campus and off campus friends (Christie & Dinham, 1991). Romantic relationships can contribute to stress as well, especially when long distance relationships or breakups are involved (Guldner, 1996; Kaczmark, Backlund, & Bremer, 1990; Mearns, 1991; Reisman, Whalen, Frost, & Marganthall, 1991; Sax, Bryant et al., 2002). Academically students must learn how to succeed under new academic demands. The typical college classroom with large enrollment and minimal opportunities for interaction does not provide the same supportive environment the high school classroom students are accustomed to does (Martinez Aleman, 1997; Sax, Bryant et al., 2002). Also, students are faced with the challenge of choosing an academic discipline and beginning to define career goals while adjusting to all of these changes (Evans et al., 1998; Sax, 1996).

All of these stressors can add up and lead to psychological distress. Learning to live independently in itself creates stress (Baxter-Magolda, 1999; Conneely et al., 1999; Smith & Renk, 2007). Many students make poor health decisions including excessive drinking (O'Malley & Johnston, 2002; Slutsko et al., 2004; Wechsler, Dowdall, Davenport, & Castillo, 1995), drug use (Schulenberg et al., 2005), poor nutrition (Beerman, 1991; Hertzler & Frary, 1992; Watabe-Dawson & Sosak, 2000), sexual activity with multiple partners (Desiderato & Crawford, 1995), and lack of sleep (Gallagher, Gill, & Goldstrom, 1998). Financial stress also plays a role with current increases in tuition and decreases in availability of financial aid. More and more students have to work while in school, taking away from study and personal time (Andrews & Wilding, 2004; Sax et al., 2002). The end result of all these factors is

increased stress levels and higher mortality rates in college students (Fromme, Kruse, & Corbin, 2008; Hingson et al., 2005).

In their book *College of the Overwhelmed: The Campus Mental Health Crisis and What to Do about It*, Kadison and DiGeronimo (2004) explain that the college transition is especially challenging for today's student. Recent tragedies including September 11 and shootings on college campuses have created a state of uncertainly in our country. Also contributing to this uncertainty are the ongoing conflicts overseas. In a study carried out by the Associated Press and Music Television University (Lipka, 2008) out of over 2,000 college students surveyed 50% reported knowing someone who was currently serving or had served in a war. Out of those students 55% reported this adding to stress in their lives. The economy today is another contributor to the current state of uncertainty. Students today feel more pressure to not only attend college but to choose a career that will provide a significant income, even if that area of study does not match their skills (Kadison & DiGeronimo, 2004). Previous studies have found that incongruence such as this in career choice can easily lead to stress and depression (Hinkleman & Luzzo, 2001).

Reason for Concern

Astin (2003) identified in *What Matters in College: Four Critical Years Revisited* that levels of student psychological well-being are declining during the college years. More students are experiencing common mental health issues while in college including depression, anxiety, relationship issues, drug and alcohol abuse, eating disorders, learning disabilities, obsessive compulsive disorder, and grief issues in addition to sexual abuse, suicide, and more advanced disorders such as schizophrenia and bipolar personality

disorder (Arehart-Treichel, 2002; Caba, 2003; Benton, Robertson, Tseng, Newton, & Benton, 2003; Kadison & DiGeronimo, 2004; Ambler, 2007). Several possible explanations exist including that more students are coming to college with these disorders; onset of more advanced disorders does not typically occur until the early twenties; and students face a significant number of stress factors today (APA, 2000; Riba, 2004).

It is not uncommon for college freshmen to experience feelings of loneliness and depression (Sax, Bryant, et al., 2000). According to data from the 2000 College Institutional Research Program's [CIRP] Freshman Survey and 2001 Your Freshman College Year [YFCY] Survey, out of a sample of 3,680 freshmen 10.7% of females and 5.5% of males reported frequent feelings of depression. Fifty-nine percent of females and 48.2% of males experienced depressive symptoms occasionally (Sax, Bryant et al., 2002). The American College Health Association National College Health Assessment Spring 2007 Reference Group Data Report, which summarizes the findings from 71,860 college student respondents, further supports a reason for concern. Over the previous year 63.3% of respondents had felt helpless, 93.2% overwhelmed, 90.0% exhausted, 70.2% sad, and 45% felt so depressed it was difficult to function. Fifteen percent or 10,995 students had actually been diagnosed with depressions at some point in their life. Out of this group of 10,995, 32.5% had received a diagnosis within the past year, 24.8% were in therapy when they took the survey, and 34.9% were taking medication for their depression. Some of the students taking the survey had even attempted, 1.5%, or seriously considered, 9.8%, suicide. Due to the close proximity in which college students

live and interact, when even a small percentage of students are dealing with mental health concerns such as these it can be disruptive for the entire living environment.

Addressing Mental Health Concerns on the College Campus

After World War I, returning veterans appeared on college campuses to pursue an education and brought with them the adjustment challenges and mental health challenges that accompany return from war. As a result, postsecondary institutions brought advisors and counselors onto campus to help their student population address these needs. Again after World War II, more veterans arrived on campus and the critical need arose for college counseling centers (Rudolf, 1994; Schneider, 1977). Counseling centers today have become standard on college campuses and play a leading role in addressing the mental health needs of students (Ellen, 2005). Over the past decades the majority of these centers' focus has been on developmental and transitional issues, and once again campuses are experiencing a change in the mental health needs of their students with an increase in the number of students dealing with mental illness and an increase in the severity of these issues (APA, 2000; Riba, 2004). Counseling centers are being expected to adapt to these needs while operating with the same resources. Dr. Michelle Riba (2004), a leader in the American Psychological Association, has called attention to this problem and the need to address it.

College Campus Mirroring Society

The field of psychology overall has experienced this shift to a focus on mental illness (Ambler 2007; Keyes & Lopez, 2002; Keyes & Haidt, 2003; Seligman, 1998a). In fact prior APA president Seligman (1998a) named mental health psychology's forgotten

mission (Ambler, 2007). College students are not the only ones struggling with the uncertainties of today and the impact is evident in the current mental health status of society at large (Keyes, 2007). Only 20% of the entire adult population in the United States is functioning at optimal psychological health (Keyes, 2002, 2003, 2004, 2005).

Until recently, physical health care had been the sole focus of national population health. The health care field has successfully increased the life expectancy in this country by approximately 30 years through improving care to reduce and in many instances eliminate infectious diseases and lower infant mortality rates (Gribble & Preston, 1993; Keyes, 2007). However, longer life does not guarantee improved quality of life; instead this country has seen increases in chronic diseases and also mental disorders (Epel et al., 2004; McEwen, 1998; Stiles, 2005). According to Blue Cross and Blue Shield (2006), health care accounts for the largest percentage of gross domestic product in the United States, which is more than housing costs and food costs.

Mental health care has now entered the focus of population health by moving into the position of being the third most costly condition to treat (Keyes & Lopez, 2002; Keyes, 2007). Mental illness is one of the top five illnesses that contribute to shortened life span across the world (Murray & Lopez, 1996, 1997). In the United States, 50% of adults will experience a serious mental illness before they reach 55, and 25% will experience one consistently every year (Robins & Regier, 1991; United States Public Health Service, 1999).

The Need for a Paradigm Shift

Keyes (2007) is calling for a paradigm shift in how mental health is studied and addressed. It is no longer sufficient to focus solely on mental illness; it is imperative that

mental health also be understood and advocated for (Ambler, 2007; Diener, 2003; Harvey & Pauwels, 2003; Keyes, 2002, 2003; Keyes & Haidt, 2003; Keyes & Lopez, 2002; King, 2003; Peterson & Seligman, 2004; Ryff, 2003; Seligman, 1998a, 1998b; Seligman & Pawelski, 2003; Snyder & Lopez, 2002). Keye's mental health continuum is a useful framework to use for making this shift.

The mental health continuum views mental health not as the presence or absence of mental illness but rather as a continuum of health that can be measured as a continuous or categorical variable (Keyes, 2002, 2005, 2007). Categorically, individuals are classified as flourishing, languishing, or moderately mentally healthy. The classification process is similar to diagnosing any mental disorder listed in the *Diagnostic Manual of Mental Disorders* (Keyes, 2007). Mental health, according to the continuum model, is made up of positive emotions, which includes the variables of emotional well-being, and positive psychological functioning, which includes variables of psychological well-being and social well-being. The positive emotions dimension is measured by the level of positive affect and avowed quality of life an individual expresses. The second dimension, positive psychological functioning, is measured by levels of six symptoms of psychological well-being including self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others and five symptoms of social which are social acceptance, social actualization, social contribution, social coherence, and social integration. These three areas of functioning mirror Seligman's (1998b) pillars of positive psychology which include positive subjective experience, positive individual characteristics, and positive institutions and communities (Ambler, 2007; Aspinwall & Staudinger, 2003; Peterson & Seligman, 2004)

Individuals who have high levels on one or more symptoms of positive emotions and on six or more symptoms of positive social functioning are considered to be flourishing. On the other end of the continuum, those who have low levels on one or more symptoms of positive emotions and on six or more symptoms of positive social functioning are considered to be languishing. Those who do not fit criteria for either of those are considered moderately mentally healthy (Keyes, 2007).

In his multiple studies testing the mental health continuum with middle aged adults, Keyes (2002, 2004, 2005a, 2005b) has established a qualitative difference exists between individuals who are diagnosed as flourishing and those diagnosed as languishing. He has repeatedly found that those who fit the definition of flourishing have had a lower prevalence of mental disorders throughout their lifetime while those who are languishing have shown the highest prevalence of having two or more mental disorders during the past year alone. Keyes (2007) also defines complete mental health as flourishing and having never experienced a mental disorder. Individuals in his studies who qualified as anything other than complete mental health missed more days at work, experienced limitations in carrying out daily activities, suffered chronic physical impairments, and visited their health care provider more often (Keyes, 2002, 2004, 2005a, 2005b). While more research is needed on Keyes' Mental Health Continuum, especially with different populations, it provides a sound framework for addressing the mental health crisis in this country today.

Using the Mental Health Continuum with College Students

According to the American College Personnel Association's [ACPA] *Principles of Good Practice* (1996), college administrators are called to assist students in reaching

their potential. Many theorists have now begun to consider college as a stage of emerging adulthood during which students can explore what they want to do with their lives (Andom, 2007; Elkind, 1994; & Rudolf, 1994). Considering that college campuses have multiple support resources available for students, the college years are a critical and logical time to encourage complete mental health (Ambler, 2007; Murano, 2002). Many mental disorders have an estimated onset during the early twenties (Arehart & Treichel, 2002; APA, 2003; Riba, 2004). Researchers have found that individuals who experience a single episode of mental illness are at a significantly higher risk of experiencing mental illness again (Angst, 1988; Gonzales, Lewinsohn, & Clarke, 1985; Lewinsohn, Hoberman, & Rosenbaum, 1988; Piccinelli & Wilkinson, 1994). If college students can be placed in an environment that promotes flourishing, perhaps the onset of these initial episodes and potential future episodes can be avoided, and students can enter adulthood in a state of flourishing.

In 2007, Virginia Ambler was the first to apply Keyes (2007) Mental Health Continuum to traditionally aged college students. She conducted a study with 534 students to find out the mental health status of a representative sample of college students and test the relationship between mental health and student involvement. The participants in the study completed a single questionnaire that included questions from the National Survey of Student Engagement to measure student involvement, Keyes' (2002) mental health scales, and demographic questions. The student involvement questions addressed Kuh's (2005) five measures of involvement including academic challenge, active/collaborative learning, student/faculty interaction, enriching educational experiences, and supportive campus environment (Ambler, 2007, p. 40). Keyes' (2002)

three scales of well-being including emotional well-being, psychological well-being, and social well-being were addressed by the mental health questions. Finally, gender, race, and parents' educational attainment were collected in the demographic questions.

Ambler (2007) found that the mental health status of her sample mirrored Keyes's +(2005) findings with his sample of 25 to 74 year olds. Approximately 15% of her sample was flourishing, 67% was moderately mentally healthy, and 17% was languishing. No significant differences were found in gender, parents' educational attainment, or grade point average amongst the three groups. However, there were significant differences in the student involvement scores between those who were flourishing and moderately mentally healthy and between those who were moderately mentally healthy and those who were languishing. A stepwise regression analysis revealed that supportive campus environment was the strongest predictor of student mental health. It accounted for 19% of the variance in mental health in males and 20% in females. More specifically, supportive relationships with faculty had the biggest impact on males and quality relationships with peers made the biggest difference for females. Ambler (2007) urges researchers to conduct more research on the mental health status of college students to learn more about what contributes to student flourishing.

Parents as Part of a Supportive Campus Environment

Ambler (2007) found a supportive campus environment to play a significant role in the mental health of college students. As parents of college students are becoming more involved, it is important to explore the role they play in a supportive campus environment and in students' mental health status. Barber et al.'s (2005) four year longitudinal study tracking parenting across development provides reason for concern

that relationships with parents may not have the same positive effect as those with faculty and peers. In their study, parents and adolescents reported on the use of each tripartite parenting behavior during the stages of adolescence. Results showed that levels of parental support remained stable across adolescence, with the exception of a steady decrease of physical affection as adolescents aged. In regards to parental behavior control, which includes limit setting and parental monitoring, parents and adolescents had differing opinions. Adolescents reported that levels of behavioral control remained stable while parents felt they gradually declined. Researchers speculated that adolescents adapt to parents' initial levels of control and maintain their behavior accordingly despite decreases in intentional control on the part of parents. This phenomenon has also been observed in other studies (Hair, Jager et al., 2002). Finally, researchers found that the use of psychological control fluctuated throughout adolescence, peaking every time the adolescent experienced a major transition such as moving from middle school to junior high school and then from junior high to high school. This raises the question of if the same occurs during the high school to college transition.

The findings concerning psychological control call for additional research. Excessive use of psychological control has been connected with delayed identity development, poor academic performance, increases in parent-child conflict, adjustment difficulties, and internalizing disorder symptoms such as anxiety and symptoms of depression (Barber et al., 2005; Nucci, 2001; Schaffer, 1965; Smetana, Crean, & Campion-Barr, 2005; Steinberg & Dornbusch et al., 1992), especially in populations who are exposed to more risk such as children growing up in lower socio-economic communities (Lins-Dyer, 2005; Nucci & Camino et al., 1996; Smetana, Crean, & Daddis,

2002; Smetana & Daddis, 2002; Turiel, 2005). Barber et al.'s (2005) findings lead to the question of whether or not parental use of psychological control peaks again during the transition from high school to college, creating the same potential for negative outcomes and contributing to the current increase in mental health concerns on college campuses.

Summary

Today the college years are viewed as a period of emerging adulthood during which students enjoy freedom to explore and parents remain involved as their primary source of support. This trend is a natural progression for parents, who were encouraged to be involved throughout their children's elementary and secondary school experiences and who are now concerned about their college students making the most of this significant investment.

Overwhelming amounts of research support the benefits of parental involvement in education during the elementary and secondary years. More research is needed to confirm if these benefits are replicated during the college years. Some research has suggested that they are not, and in fact inappropriate parental involvement may contribute to negative outcomes for students. Parents have been found to exercise the most psychological control, which is linked to negative mental health outcomes, during times of transition such as the transition from high school to college. Ambler (2007) found that a supportive campus environment is the strongest predictor of college student mental health. Increased levels of parental involvement today make parents a component of this environment for many students, and more research is needed to understand the impact parents have on their students' mental health.

III. Methods

Introduction

This study was conducted to examine the mental health status and levels of parental involvement of traditionally aged undergraduate college students. This chapter addresses the (a) Research Design, (b) Population, (c) Procedures, and (d) Measures used in the study. Demographic data, student mental health data, and parental involvement data were collected to address the following research questions:

1. What are the characteristics of parental involvement and mental health experienced by a sample of traditionally aged undergraduate students?

    1a. What impact does gender have on sampled students' experienced levels of parental involvement and mental health?

    1b. What impact does ethnicity have on sampled students' experienced levels of parental involvement and mental health?

    1c. What impact does distance from home have on sampled students' experienced levels of parental involvement and mental health?

    1d. What impact does being a first generation student have on sampled students' experienced levels of parental involvement and mental health?

    1e. What impact does mental health category have on sampled students' experienced levels of parental involvement and mental health?

1f. What impact does level of parental involvement have on sampled students' experienced levels of parental involvement and mental health?

2. What relationship does mental health category have with each independent variable in a sample of traditionally aged undergraduate students?

    2a. Is there a relationship between mental health category and gender?

    2b. Is there a relationship between mental health category and ethnicity?

    2c. Is there a relationship between mental health category and distance from home?

    2d. Is there a relationship between mental health category and experience of being a first generation college student?

    2e. Is there a relationship between mental health and level of parental involvement?

3. What relationship does level of parental involvement have with each independent variable in a sample of traditionally aged undergraduate students?

    3a. Is there a relationship between level of parental involvement and gender?

    3b. Is there a relationship between level of parental involvement and ethnicity?

    3c. Is there a relationship between level of parental involvement and distance from home?

    3d. Is there a relationship between level of parental involvement h and experience of being a first generation college student?

4. How does parental involvement impact variability in mental health of traditionally aged undergraduate students?

    4a. When gender is included as a moderating variable is the relationship between parental involvement and mental health altered?

    4b. When ethnicity is included as a moderating variable is the relationship between parental involvement and mental health altered?

    4c. When distance from home is included as a moderating variable is the relationship between parental involvement and mental health altered?

    4d. When experience of being a first generation college student is included as a moderating variable is the relationship between parental involvement and mental health altered?

Research Design

An exploratory correlational design was utilized in carrying out this study. Every participant completed the same survey measuring their mental health status and parental involvement. The strengths of this design were the possibilities to study a large sample size, to measure the strength of the relationship, and to determine what aspects of parental involvement if any had the strongest relationship with student mental health by conducting a multiple regression analysis. The weaknesses of this approach were that causation could not be established because "observational independent variables will always be confounded with all other variables that are naturally related to them" (Jaccard & Becker, 1997, p. 248). The variables may only be related by chance and further study will be needed (Jaccard & Becker, 1997; Tuckman, 1999), but this weakness does not

detract from the importance of this exploratory study which provides information about potential contributors to student mental health concerns (Gall, Borg, & Gall 1996).

Parental involvement as measured by Oliver's (n.d.) Survey of Parental Involvement was the primary independent variable and a dependent variable in the study. Several moderating independent variables were also analyzed to determine if an interaction effect exists, altering the relationship between parental involvement and mental health for different populations. These included gender, ethnicity, distance from home, and experience of being a first generation college student. Group-focused research recognizes that different populations have different reactions and allows for analysis of these individualized experiences (Schulenberg & Maggs, 2005; Snyder, 2004). Parents have a tendency to be more involved when their children are going through major transitions where there is perceived risk (Barber et al., 2005). Gender, ethnicity, distance from home, and experience of being a first generation college student all have the potential to affect perceived levels of risk and were therefore included in this study (Barber et al., 2005; Nucci, 2001; Schaffer, 1965; Smetana, Crean, & Campion-Barr, 2005; Steinberg, Darnbusch, & Brown, 1992). Mental Health as measured by Keyes' (2002, 2005, 2007) Mental Health Scales of Subjective Well-Being was the dependent variable in this study.

Population

The target population for this study was traditionally aged undergraduate college students, specifically freshmen. Freshmen were selected as the target population because parental involvement has been found to have the strongest impact on younger students

(Strage & Brandt, 1999). The sample for this study included freshmen at a large research university. Students enrolled in a one hour freshman orientation course were given the opportunity to participate through modified cluster sampling. This was carried out through the researcher only visiting a portion of the courses each semester. All freshmen have the opportunity to take one or more of these classes in the fall and spring semesters. All sections of freshman orientation classes were invited to participate but only those students in classes with instructors who invited the researcher to visit had the opportunity to participate. Through taking this course, each participant received the same opportunities to connect to faculty and resources on campus to assist them in their transition, providing more control for confounding variables than found in the entire freshman class at large.

While random selection was accomplished through students randomly selecting certain sections of the freshmen orientation class and instructors randomly choosing to participate in the study, the sample does have limitations. Conducting the study at a large residential research university limits gerneralizability to students at other types of institutions such as commuter and smaller campuses. Also, students who selected to take these classes may have a disposition towards having more positive mental health or may have more involved parents, who encouraged them to enroll in the course. Limitations in generalizability are permissible due to the exploratory nature of the study aiming to establish if a relationship exists (Ambler, 2007; Gall, Borg, & Gall, 1996).

The participants included 617 undergraduate students enrolled in a freshman orientation class at a large research university. While the freshman orientation classes are reserved for freshman students, upperclassmen that are experiencing academic

Table 1

Frequencies and Percentages for Demographic Variables (N = 588)

Variable	*f*	%
Gender		
Male	248	42.2
Female	338	57.5
NR	2	0.3
Race/Ethnicity		
African American	90	15.3
Asian/Pacific Islander	6	1.0
Caucasian	464	78.9
Hispanic	14	2.4
Native American	3	0.5
Other	9	1.5
NR	2	0.3
Distance from Home		
0-199 miles	338	57.5
200-399 miles	143	24.3
400-599 miles	46	7.8
600+ miles	53	9.0
NR	8	1.4
First Generation		
Yes	61	10.4
No	495	84.2
NR	32	5.4
Academic Term		
Fall	254	43.2
Spring	334	56.8

Note. NR = not reported.

difficulties are also permitted to take these courses. The participants included 588 freshmen and 29 upperclassmen. Only data for those students classified as freshmen were included in the sample. Participants identified their gender, ethnicity, distance the

institution was from their home, and whether or not they were a first generation college student. This information can be found in Table 1.

Procedures

The researcher submitted the research protocol form to the Institutional Review Board of the participating institution and it was approved for this study (Appendix A). Upon receiving approval from the Institutional Review Board to proceed, the researcher contacted every instructor teaching a freshman orientation to gain permission to visit their class and invite their students to participate in this study (Appendix B). In the fall of 2007, eight instructors invited the researcher to visit their classes. Approximately 200 students were invited to participate in the study and 112 submitted completed surveys, providing a 56% response rate. In the Spring semester of 2008, the researcher visited 25 classes and approximately 625 students, 356 of whom participated in the study yielding a 57% response rate. Data was collected again in the Fall semester of 2008 to include more students who were brand new to college. The researcher visited 13 classes including 325 students, and 149 or 46% completed the survey.

For each class meeting the researcher was invited to attend, she arrived approximately 10 minutes early to organize her materials. When class started and the instructor had finished covering his or her agenda, the researcher introduced herself and her study by following the Institutional Review Board approved Survey Administrator Script (Appendix C). The researcher invited students to participate in the study explaining that completing the survey would take approximately 10 minutes. It was stressed that the survey was anonymous and was not a requirement for the class. Also,

students were given the option to take the survey at that time and submit it, take the survey at a later time and mail it in using the provided envelope, or not complete the survey at all. In the state of Alabama, individuals must be 19 years of age to be considered an adult and to participate in research studies without parental consent. Students under the age of 19 only had the options to complete the survey at a later time once parental consent was attained or to not participate in the study. No surveys were received in the mail and this is included as a limitation in the study. Students who did not participate were provided with a list of questions (Appendix D) to consider in order to prepare them to apply the presentation to their personal lives. The presentation was provided after surveys were submitted and therefore did not have an impact on students' answers.

Once all questions were answered, each student was handed a packet including an Information Letter (Appendix E), Parental Permission/Child Assent Form (Appendix F), addressed envelope, copy of the survey (Appendix G), list of questions to consider, and referral list for the event the a student had mental health questions or concerns after completing the survey (Appendix H).

Measures

Each participant in the study completed a single hard copy survey including demographic questions, Keye's (2002) Mental Health Scales of Subjective Well-Being, and Oliver's (n.d.) Survey of Parental Involvement. Participants were given the option of completing the survey in class while the researcher was present or by completing the survey at a later date and mailing it in through campus mail.

Mental Health Scales of Subjective Well-Being

According to Keyes' (2002), mental health breaks down into three types of symptoms including emotional well-being, psychological well-being, and social well-being. The Mental Health Scales of Subjective Well-Being measure respondents' overall score with 40 items gathering data on each of these sub-scales.

Seven items making up the emotional well-being scale measure positive affect (Keyes, 2002, 2005, 2007). Respondents are asked to rank how much of the time they have felt (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life over the past thirty days on a five-point Likert scale ranging from one (all the time) to five (none of the time). Each of these items is reverse coded and then summed to determine the score for one of two symptoms of emotional well-being. The other symptom is measured by an eighth item asking respondents to rate their life overall on a scale of 0 (worst possible life overall) to 10 (best possible life overall).

Eighteen items making up the psychological well-being scale measure respondents' level of thriving in their personal lives (Ambler, 2007; Keyes, 2002, 2005, 2007). Psychological well-being is constructed of self acceptance, positive relationships, personal growth, purpose, mastery of environment, and autonomy. Three questions are included to measure each of these dimensions to which respondents indicate the degree to which they agree with statements on a Likert scale ranging from one (strongly agree) to seven (strongly disagree). Ten of the items are reverse coded and then each sub-scale is summed to determine the score for 6 of the 13 symptoms of positive functioning. The questions for each subscale are listed in Table 2.

Table 2

Psychological Well-Being Items

Sub-scale	Survey Item
Self-Acceptance	I like most parts of my personality.* When I look at the story of my life, I am pleased with how things have turned out so far.* In many ways I feel disappointed about my achievement in life.
Purpose in Life	Some people wander aimlessly through life, but I am not one of them.* I live life one day at a time and don't really think about the future. I sometimes feel as if I've done all there is to do in life.
Environmental Mastery	The demands of everyday life often get me down. In general, I feel I am in charge of the situation in which I live.* I am good at managing the responsibilities of daily life.*
Positive Relations with others	Maintaining close relationships has been difficult and frustrating for me. People would describe me as a giving person, willing to share my time with others.* I have not experienced many warm and trusting relationships with others.
Personal Growth	For me, life has been a continuous process of learning, changing, and growth.* I think it is important to have new experiences that challenge how I think about myself and the world.* I gave up trying to make big improvements or changes in my life a long time ago.
Autonomy	I tend to be influenced by people with strong opinions. I have confidence in my own opinions, even if they are different from the way most other people think.* I judge myself by what I think is important, not by the values of what others think is important.*

*Items must be reverse coded.

Table 3

Social Well-Being Items

Sub-scale	Survey Item
Social Coherence	The world is too complex for me. I cannot make sense of what's going on in the world. I try to think about and understand what could happen next in our country.*
Social Integration	I don't feel I belong to anything I'd call a community. I feel close to other people in my community.* My community is a source of comfort.*
Social Acceptance	People who do a favor expect nothing in return.* People do not care about other people's problems. I believe that people are kind.*
Social Contribution	I have something valuable to give the world.* My daily activities do not create anything worthwhile for my community. I have nothing important to contribute to society.
Social Actualization	The world is becoming a better place for everyone.* Society has stopped making progress. Society isn't improving for people like me.

*Items must be reverse coded.

Fifteen items making up the social well-being scales measure respondents' level of satisfaction with their social lives and environment (Ambler, 2007; Keyes, 2002, 2005, 2007). The questions are related to social interactions and personal growth. Social acceptance, actualization, contribution, coherence, and integration are the sub-scales for this area of well-being and three items are included in the instrument to measure each of them. Again, items, seven for this scale, are reverse coded and then each sub-scale is

summed to determine the score for the remaining five symptoms of positive functioning. The questions for each subscale are listed in Table 3.

Keyes (2007) conducted a reliability analysis when he utilized these scales with middle aged adults to establish internal consistency. He found Cronbach alpha scores of .81 on the Psychological Well-Being and Social Well-Being scales and .91 on the Emotional Well-Being Scale (Keyes, 2007). Ambler (2007) repeated this analysis with her data because she was the first researcher to use the survey with traditionally aged college students. She found similar Cronbach alpha coefficients of .86 on the Emotional Well-Being Scale, .82 of the Social Well-Being Scale, and .80 on the Psychological Well-Being Scale. All forty items yielded a coefficient of .90. The same analysis run for this study yielded Cronbach alpha scores of .86 for the Emotional Well-Being Scale, .81 for the Psychological Well-Being Scale, .83 for the Social Well-Being Scale, and .90 overall. According to Jaccard and Becker (1997), scores of .60 or greater are acceptable for exploratory studies, and scores over .80 are desired for all studies. Following these guidelines, Ambler's (2007) results and the results of this study provide preliminary support for using this scale with college aged students.

Validity of the data generated through this survey is supported by Ambler's confirmatory factor analysis yielding an Adjusted Goodness of Fit Index of .81, which is just below the ideal .90, and Root Mean Square Error of Approximation of .058, which is greater than the ideal minimal value of .05 (Ambler, 2007; Keith, 2006). Content validity is supported through the theoretical foundation of the items on survey.

Following Keyes' (2007) recommendation, mental health was analyzed as a categorical variable using mental health categories (i.e. flourishing, moderate mental

health, and languishing) and as a continuous variable using a calculated mental health score in order to obtain more information and compare results. Each participant in the sample was classified by mental health category based on Keyes (2002) mental health continuum. According to the continuum guidelines, individuals scoring in the upper tertile on one or both of the two emotional well-being scales and a minimum of six of the total 11 functional well-being scales, which includes psychological well-being and social well-being, were classified as flourishing. At the other end of the continuum, individuals scoring in the lower tertile on one or both of the two emotional well-being scales and a minimum of 6 of the 11 functional well-being scales were classified as languishing. All remaining individuals were classified as moderate.

Using Keyes' (2002, 2005, 2007) scales to measure mental health allowed for replication of Ambler's (2007) analysis of experiences of mental health of traditionally aged undergraduate students and allowed for an in depth follow up to her findings of supportive campus environment being the strongest predictor of student flourishing. Parents today are an important component of the campus environment and this study investigated the role parents have on their students and the environment.

Survey of Parental Involvement

Oliver (n.d.) breaks down parental involvement into the following theoretically derived subscales: parental involvement in college choice, parental involvement in student social involvement, parental involvement in student academic involvement, student satisfaction with parental involvement, frequency of contact between students and parents, and frequency of visits with parents. A total of 35 quantitative questions and three qualitative questions make up the instrument to measure parental involvement. All

quantitative questions are answered on a Likert scale ranging from one (strongly disagree) to four (strongly agree) and including zero (not applicable) as an option.

The college choice scale is measured by six items addressing the following: parents assisting with filling out applications, parents writing college essays, parents helping in the college decisions process, parents giving reminders about application deadlines, parents putting pressure on students to attend their alma mater, and parents putting pressure on students to attend college period. Seven items make up the social involvement scale. The items address parents encouraging students to be involved on campus, parents encouraging students to join a fraternity or sorority, parents speaking to students about drinking, parents speaking to students about drugs, parents speaking to students about social pressures, parents encouraging students to live on campus, and parents forcing students to live on campus. Finally, the academic involvement scale consists of six items addressing parent involvement in scheduling classes, parents providing wake up calls, parents reminding students of assignments, parents being knowledgeable about when tests take place, parents attending orientation, and parents asking about grades.

Following the same structure used with Keye's (2002, 2005, 2007) Mental Health Scales of Subjective Well-Being, parental involvement was also analyzed as a categorical variable and a continuous variable. A composite parental involvement score was computed by summing the 19 items making up the college choice, social involvement, and academic involvement scales. Participants were classified by level of parental involvement based on their scores on the subscales. College choice, social involvement, and academic involvement scores were divided into tertiles. Individuals scoring in the

upper tertile on at least two of the three subscales were classified as experiencing high parental involvement. Those scoring in the lower tertile on at least two of the subscales were classified as experiencing low parental involvement. All remaining participants were classified as having medium levels of involvement. This allowed for further analysis of the data.

Table 4

Student Satisfaction with Parental Involvement Items

Scale	Survey Item
College Choice	Parent involvement in college choice was positive. Parents helped college choice process.
Social Involvement	Parents helped transition from high school activities to college. Parent involvement in college social life helped transition. Parent involvement in college social life hindered transition.* Parent involvement in college social life was positive.
Academic Involvement	Parents helped transition you from high school course load to college. Parent involvement in academics was a hinderence.* Parent involvement in academics was positive. Parent involvement in academics improved your GPA.

*Items must be reverse coded.

An additional 12 items are included on the survey to measure student satisfaction with parental involvement. Table 4 lists the satisfaction items for each scale. Also, one item asks about general satisfaction with parents' overall level of involvement and another about general satisfaction with the academic institution.

The survey also asks about frequency of contact between students and parents. Participants are asked to provide the number of times they email, instant message, talk on the phone, and exchange mail with parents per week. Another set of questions asks participants how many times they travel home, parents come to visit, and they meet in other locations per semester. For both forms of contact, regular communication and in person visits, participants indicate who initiates the contact most often.

Finally, three qualitative questions offer participants an opportunity to comment on their parents' involvement. The first question asks what students would change about their parents' involvement. A second question asks students to describe their relationship with their parents. A final question inquires about how relationships with parents have impacted their college experience. Responses to these questions were itemized by topic to identify common themes.

Oliver (n.d.) is currently using his survey for the first time and therefore, a reliability analysis was run on a sample of surveys (N = 48) collected for this study to estimate reliability of the data. Cronbach Alpha coefficients were calculated for each category of involvement utilizing the items assessing involvement. Moderate reliability scores were found for each category as follows: College Choice r = .650, Social Involvement r = .597, and Academic Involvement r = .493. The 19 total items assessing involvement showed a strong correlation (r=.708). The 12 items assessing satisfaction with parental involvement also showed strong internal consistency (r = .776). A follow up reliability analysis was run the full sample of 588 and the following was found: college choice r = .599, social involvement r = .707, academic involvement r = .590, satisfaction r = .795, and all involvement items r = .773. All reliability scores either

exceeded or were just below the acceptable level for explorative studies (.60) and therefore data for each scale and overall were included in analyses. Future studies of parental involvement may want to add more questions to enhance internal consistency. This is included as a limitation of the study. Content validity is supported again through theoretical foundation of items on the survey.

Parental involvement was analyzed as both a categorical variable using levels of parental involvement (i.e. high, medium, and low) and as a continuous variable using calculated parental involvement scores. Using Oliver's (n.d.) survey to measure parental involvement allowed for replication of his analysis of experiences of parental involvement for traditionally aged undergraduate students and provided valuable data to explore a possible relationship with student mental health.

Analyses

Results were analyzed using a statistical software program. One-way analyses of variance were conducted to examine differences in mental health scores between different subgroups. Multiple analyses of variance were performed to investigate differences in the six subscales of parental involvement between the groups. An alpha level of .05 was observed to determine significance. Scores for mental health, parental involvement, parental involvement in college choice, parental social involvement, parental academic involvement, and student satisfaction with parental involvement were converted to a 100 point scale to allow for comparison. The conversion was calculated by dividing the obtained score by the total possible score for each subscale and the overall scale. Frequency of communication was reported by week while frequency of

visits was reported by semester. Also, a backward multiple regression analysis was carried out to determine the impact parental involvement has on variance in mental health of college students.

Summary

This study examined parental involvement and mental health in traditionally aged undergraduate college students. Each participant in the study was classified as having low, moderate, or high levels of parental involvement and assigned a parental involvement score. They were also classified as languishing, moderately mentally healthy, or flourishing and computed a mental health score. This data was used to examine if a relationship exists between parent involvement and mental health in college students. Qualitative responses were also collected concerning students' perception of their parents' involvement to provide more in depth information about their experience. All data was gathered using a single hard copy survey administered directly to students over the course of three academic semesters.

IV. Results

Introduction

The purpose of this study was to explore levels of mental health and parental involvement in traditionally aged undergraduate college students and relationships between these variables. Gender, ethnicity, distance from home, and experience of being a first generation college student were all considered as independent variables. The study addressed the following research questions: (a) What are the characteristics of parental involvement and mental health experienced by a sample of traditionally aged undergraduate students?; (b) What relationship does mental health status have with each independent variable in a sample of traditionally aged undergraduate students?; (c) What relationship does level of parental involvement have with each independent variable in a sample of traditionally aged undergraduate students?; and (d) How does parental involvement impact variability in mental health of traditionally aged undergraduate students? This chapter presents the results of the study.

Descriptive Statistics

In addition to being assigned a mental health score and a parental involvement score, every participant was identified as having a mental health status (flourishing, moderately mentally healthy, or languishing) and a level of parental involvement (high,

Table 5

Frequencies and Percentages for Levels of Parental Involvement (N = 588)

Variable	*f*	%
Level of Parental Involvement		
High	163	27.7
Medium	258	43.9
Low	167	28.4

Table 6

Means and Standard Deviations for Parental Involvement Variables

Variable	Total N = 588	
	Mean	SD
Parental Involvement	59.96	10.37
College Choice	57.45	13.65
Social Involvement	67.72	15.12
Academic Involvement	45.70	10.28
Satisfaction	70.16	13.38
Communication	9.99	10.13
Visits	7.06	4.52

Note. Parental Involvement variables were measured by Oliver's (n.d.) Survey of Parental Involvement. All scores were placed on a 100-point scale.

medium, or low). In the sample, 43.9% (n = 258) experienced medium levels of parental involvement, 28.4% (n = 167) experienced low levels, and 27.7% (n = 163) experienced high levels.

Table 7

Frequencies and Percentages for Mental Health Categories (N = 588)

Variable	*f*	%
Mental Health Category		
Flourishing	179	30.4
Moderately Mentally Healthy	351	59.7
Languishing	58	9.9

Table 8

Means and Standard Deviations for Mental Health Variables

Variable	Total N = 588	
	Mean	SD
Mental Health	71.10	8.32
Emotional Well-Being	57.45	13.65
Psychological Well-Being	67.72	15.12
Social Well-Being	45.70	10.28

Note. Mental Health variables are measured by Keyes's (2002) Mental Health Scales of Subjective Well-Being. All scores were placed on a 100-point scale. Sub-scale items were summed to calculate composite mental health scores.

In regards to mental health status, 59.7% (*n* = 351) were moderately mentally healthy, 30.4% (*n* = 179) were flourishing, and 9.9% (*n* = 58) were languishing. Keyes' (2002) survey has been used with college students in one other study conducted by Amber (2007) who found that 67.2% (*n* = 359) of her sample were moderately mentally healthy, 17.4% (*n* = 93) were languishing, and 15.4% (*n* = 82) were flourishing.

Research Question 1

Research Question 1: What are the characteristics of parental involvement and mental health experienced by a sample of traditionally aged undergraduate students?

The results are listed in Table 9. Additional analyses were run to address the question taking moderating variables into account.

The mean mental health score for the entire sample was 71.10 (SD = 8.32), and the mean parental involvement score was 59.96 (SD = 10.37). Means and standard deviations were also calculated for parental involvement variables and include the following: parental involvement in college choice (M = 57.45, SD = 13.65), parental social Involvement (M = 67.72, SD = 15.12), and parental academic involvement (M = 45.70, SD = 10.28). The mean score for students' satisfaction with their parents' involvement was 70.16 (SD = 13.38). Students communicated with their parents via email, instant messenger, telephone, and/or mail an average of 9.99 (SD = 10.13) times per week with 38.4% initiating the communication the majority of the time themselves, 33.9% having the communication initiated by parents the majority of the time, and 27.7% having equal initiation as parents. Participants saw their parents either at school, at home, or in an alternate location as average of 7.06 (SD = 4.52) times per semester with

15.5% initiating the visits the majority of the time themselves, 77.8% having the visits initiated by parents the majority of the time, and 6.7% having equal initiation as parents. When responses from all 588 participants were included the mean number of visits was 8.85 with a standard deviation of 17.13. Due to the extremely high standard deviation, outliers were excluded from the analysis and only scores falling within 1 standard deviation from the mean (n = 552) were considered in each analyses of visits.

Table 9

Mental Health and Parental Involvement Continuous Variables

Variable	Total N = 588		
	Mean	SD	Reliability
Mental Health[1]	71.10	8.32	.90
Parental Involvement[2]	59.96	10.37	.708
College Choice	57.45	13.65	.599
Social Involvement	67.72	15.12	.707
Academic Involvement	45.70	10.28	.590
Satisfaction	70.16	13.38	.795
Communication	9.99	10.13	.191
Visits	7.06	4.52	.265

[1] Mental Health Score is the sum of all items on the Subjective Well-Being Scales. Scores were weighted based on Keyes' (2002) factor analysis then calculated on a 100-point scale.

[2] Parental Involvement variables were measured by Oliver's (n.d.) Survey of Parental Involvement. Scores were placed on a 100-point scale.

Research Question 1a: What impact does gender have on sampled students' experienced levels of parental involvement and mental health?

Two hundred and forty-eight male and 338 female traditionally aged undergraduate freshmen completed the survey.

Mental Health - The average mental health score for males was 69.78 (SD = 9.33) and for females was 72.05 (SD = 7.38). A One Way Analysis of Variance (ANOVA) was run to determine if significant differences in mental health scores were present between male and females. An alpha level of .05 was utilized to determine significance. The test revealed females scored significantly higher than males ($F(1,570) = 11.278$, $p = .001$).

Parental Involvement - Males' overall average parental involvement score was 59.00 (SD = 9.79) while females' average overall score was 60.64 (SD = 10.72). Descriptive statistics revealed that females had higher means on five of the six parent involvement subscales. More specifically, females reported greater parental involvement in terms of social, academic, communication, visits, and satisfaction while males reported higher levels for college choice. Group means and standard deviations are summarized in Table 10.

A multivariate analysis of variance test was run to determine if males and females differenced significantly in regards to parental involvement. Again an alpha level of .05 was utilized to determine significance. The test revealed a Wilks' Lamba of .899 ($p < .001$) with females scoring significantly higher on parent academic involvement, parent social involvement, student satisfaction with parental involvement, frequency of

communication, and frequency of visits. Males had significantly more parental involvement in college choice.

Table 10

Parental Involvement Continuous Variables by Gender

Variable	Males N = 248		Females N = 338		MANOVA Results	
	Mean	SD	Mean	SD	F	*p*
College Choice	58.62	12.90	56.55	14.17	4.215	.041*
Social Involvement	65.49	14.31	69.34	15.43	8.148	.002*
Academic Involvement	44.27	10.30	46.76	10.15	8.148	.004*
Satisfaction	67.42	13.21	72.10	13.20	17.565	< .001**
Communication	7.73	7.72	11.61	11.31	22.307	< .001**
Visits	6.06	3.81	7.84	4.85	17.597	< .001**

* $p < .05$, ** $p < .001$

Parental Involvement variables are measured by Oliver's (n.d) Survey of Parental Involvement. Scores were placed on a 100-point scale.

Research Question 1b: What impact does race/ethnicity have on sampled students' experienced levels of parental involvement and mental health?

Four hundred and sixty-four Caucasian and 122 Non-Caucasian traditionally aged undergraduate freshmen completed the survey.

Mental Health - The average mental health score for Caucasian students was71.18 (SD = 8.30) and for Non-Caucasian students was 70.73 (SD = 8.49). An ANOVA revealed no significant differences.

Table 11

Parental Involvement Continuous Variables by Ethnicity

Variable	Caucasian N = 464		Non-Caucasian N = 122		MANOVA Results	
	Mean	SD	Mean	SD	F	*p*
College Choice	58.44	13.26	53.44	14.46	13.642	$p < .001$**
Social Involvement	68.57	14.44	64.17	16.99	5.539	.019*
Academic Involvement	45.747	10.12	45.35	10.87	.531	.467
Satisfaction	70.21	13.20	69.67	13.97	.003	.953
Communication	9.67	10.03	10.97	10.42	2.141	.144
Visits	6.89	4.26	7.77	5.38	3.384	.066

* $p < .05$, ** $p < .001$

[1] Mental Health Score is the sum of all items on the Subjective Well-Being Scales. Scores were weighted based on Keyes' (2002, 2005) factor analysis then calculated on a 100-point scale.

[2] Parental Involvement variables are measured by Oliver's Survey of Parental Involvement. Scores were placed on a 100-point scale.

Parental Involvement – Caucasian students' overall average parental involvement score was 60.57 (SD = 9.92) while Non-Caucasian students' average overall score was 57.32 (SD = 11.57). Caucasian students reported greater parental involvement in terms

of college choice, social, academic, and satisfaction while Non-Caucasian students reported higher levels for communication and visits. Group means and standard deviations are summarized in Table 11.

A multivariate analysis of variance test was run to determine if Caucasian and Non-Caucasian students differenced significantly in regards to parental involvement. Again an alpha level of .05 was utilized to determine significance. The test revealed a Wilks' Lamba of .954 ($p < .001$) with Caucasian students scoring significantly higher on parental involvement in college choice and social involvement.

Research Question 1c: What impact does distance from home have on sampled students' experienced levels of parental involvement and mental health?

Amongst the students who completed the survey, 338 were from fewer than 200 miles and 242 were from 200 or more miles away from the location of campus.

Mental Health - The average mental health score for those closer to home was 71.32 (SD = 7.32) and for those further away was 70.71 (SD = 9.60). Results from an ANOVA indicated no significant differences in mental health scores based on distance from home.

Parental Involvement - Students from fewer than 200 miles away scored an average parental involvement score of 59.79 (SD = 11.28) while students living further than 200 miles had an average score of 60.13 (SD = 9.03). Students from less than 200 miles away reported greater parental involvement in terms of college choice, academic, satisfaction, communication, and visits while students from more than 200 miles away reported higher levels for social. Group means and standard deviations are summarized in Table 12.

A multivariate analysis of variance test was executed to determine if distance from home significantly impacted parental involvement. Again an alpha level of .05 was utilized to determine significance. The test revealed a Wilks' Lamba of .843 ($p < .001$) with students closer to home scoring significantly higher on parental involvement in college choice, academics, and visits.

Table 12

Parental Involvement Continuous Variables by Distance from Home

Variable	< 200 Miles N = 338		> 200 Miles N = 242		MANOVA Results	
	Mean	SD	Mean	SD	F	*p*
College Choice	58.10	14.53	56.82	12.16	4.854	.028*
Social Involvement	66.65	15.72	68.98	14.08	.855	.355
Academic Involvement	45.90	10.99	45.37	9.32	4.161	.042*
Satisfaction	70.50	16.68	69.77	12.84	1.123	.290
Communication	10.14	10.26	9.67	10.00	.047	.829
Visits	8.62	4.71	5.03	3.32	27.909	< .001**

* $p < .05$, ** $p < .001$

[1] Mental Health Score is the sum of all items on the Subjective Well-Being Scales. Scores were weighted based on Keyes' (2002, 2005) factor analysis then calculated on a 100-point scale.

[2] Parental Involvement variables are measured by Oliver's Survey of Parental Involvement. Scores were placed on a 100-point scale.

Research Question 1d: What impact does being a first generation college student have on sampled students' experienced levels of parental involvement and mental health?

Sixty-one participants identified themselves as first generation college students while 495 identified themselves as not.

Table 13

Parental Involvement Continuous Variables by First Generation Experience

Variable	First Generation N = 338		Not First Generation N = 242		MANOVA Results	
	Mean	SD	Mean	SD	F	*p*
College Choice	54.17	15.65	57.69	13.48	2.488	.115
Social Involvement	63.17	18.36	68.29	14.82	3.274	.071
Academic Involvement	44.15	9.67	46.01	10.35	2.047	.153
Satisfaction	69.20	15.25	70.37	13.02	.047	.828
Communication	8.98	5.65	9.98	10.48	.155	.694
Visits	9.11	5.94	6.93	4.30	11.880	.001*

* $p < .05$, ** $p < .001$

[1] Mental Health Score is the sum of all items on the Subjective Well-Being Scales. Scores were weighted based on Keyes' (2002, 2005) factor analysis then calculated on a 100-point scale.
[2] Parental Involvement variables are measured by Oliver's Survey of Parental Involvement. Scores were placed on a 100-point scale.

Mental Health - The average mental health score for first generation college students was 72.38 (SD = 6.86) and for students who are not first generation was 70.83

(SD = 8.50). Results from an ANOVA indicated no significant differences in mental health between first generation and non-generation participants.

Parental Involvement - First generation students scored an average parental involvement score of 56.64 (SD = 12.07) while non-first generation students had an average score of 60.36 (SD = 10.23). Non-first generation students reported greater parental involvement in terms of college choice, social, academic, satisfaction, and communication while first generation students reported more frequent visits with parents. Group means and standard deviations are summarized in Table 13.

A multivariate analysis of variance test was run to determine if first generation and non-first generation students differenced significantly in regards to parental involvement. Again an alpha level of .05 was utilized to determine significance. The test revealed a Wilks' Lamba of .964 ($p = .005$) with non-first generation students scoring significantly higher on visits.

Research Question 1e: What impact does mental health status have on sampled students' experienced levels of parental involvement?

Amongst the students who completed the survey, 179 were identified as flourishing, 351 as having moderate mental health, and 58 as languishing.

Parental Involvement – Flourishing students scored an average parental involvement score of 59.78 (SD = 10.12). Moderately mentally healthy students scored an average score of 60.35 (SD = 10.40) and finally languishing students' average score was 58.06 (SD = 10.91). Flourishing students reported higher scores in terms of social involvement, satisfaction with involvement, communication, and visits. Moderate students reported more academic involvement and languishing students reported more

involvement in college choice. Group means and standard deviations are summarized in Table 14.

Table 14

Parental Involvement Continuous Variables by Mental Health Category

Variable	Flourishing N = 179		Moderate N = 351		Languishing N = 58	
	Mean	SD	Mean	SD	Mean	SD
Mental Health[1]	77.12	5.50	70.19	5.98	58.03	10.34
Parental Involvement[2]	59.78	10.13	60.35	10.40	58.06	10.91
College Choice	56.65	13.70	57.79	13.79	57.83	12.76
Social Involvement	68.96	14.34	67.95	15.17	62.56	16.27
Academic Involvement	44.53	10.22	46.32	10.38	45.61	9.73
Satisfaction	73.22	12.75	69.87	12.98	62.35	14.49
Communication	11.15	11.34	9.46	8.49	9.58	14.44
Visits	7.36	4.16	6.98	4.62	6.64	5.02

[1] Mental Health Score is the sum of all items on the Subjective Well-Being Scales. Scores were weighted based on Keyes' (2002, 2005) factor analysis then calculated on a 100-point scale.
[2] Parental Involvement variables are measured by Oliver's Survey of Parental Involvement. Scores were placed on a 100-point scale.

A multivariate analysis of variance test was run to determine if parental involvement scores differenced significantly based on mental health status. Again an alpha level of .05 was utilized to determine significance. The test revealed a Wilks'

Lamba of ..882 (p = < *.001*). Significant differences were found in social involvement (p = .018) and satisfaction (p < .001). MANOVA results are summarized in Table 15.

Table 15

Multiple Analysis of Variance for Parental Involvement Continuous Variables by Mental Health Category

	MANOVA Results	
	F	*p*
College Choice	1.172	.322
Social Involvement	2.749	.018*
Academic Involvement	1.682	.137
Satisfaction	5.694	< .001**
Communication	.116	.989
Visits	.759	.579

* p < .05, ** p < .001

A Tukey post hoc analysis revealed that flourishing students (p = .032) and moderately mentally healthy students (p = .048) both had significantly higher amounts of social involvement than languishing students. Also, flourishing students were significantly (p = .015) more satisfied with their parents' involvement than moderately mentally healthy students, and moderately mentally healthy students were significantly (p < .001) more satisfied with their parents' involvement than students who were languishing.

Research Question 1f: What impact does level of parental involvement have on sampled students' experienced levels of mental health?

Amongst the students who completed the survey, 163 were identified as experiencing high levels of parental involvement, 258 as experiencing medium levels, and 167 experiencing low levels.

Mental Health - The average mental health score was 71.70 (SD = 7.82) for students with high involvement, 70.55 (SD = 8.81) for students with medium levels, and 71.37 (SD = 8.00) for those with low levels. A one-way ANOVA was executed to determine if significant differences were present amongst students with different levels of parental involvement. An alpha level of .05 was utilized to determine significance and no significant differences in mental health were found based on level of parental involvement the students were classified in.

Research Question 2: What relationship does mental health category have with gender, ethnicity, distance from home, experience of being a first generation college student, and level of parental involvement in a sample of traditionally aged undergraduate students?

In order to determine if observed frequencies differed from expected frequencies of flourishing, moderately mentally healthy, and languishing students, chi square tests for independence were executed to examine differences by gender, ethnicity, distance from home, experience of being a first generation student, and level of parental involvement. The results for each of these analyses are summarized in Table 16. No significant differences in the number of participants classified in each of the mental health categories were found based on any of the variables studied.

Research Question 2a: What relationship does mental health category have with gender in a sample of traditionally aged undergraduate students?

Table 16

Crosstabulation of Mental Health Category and Independent Variables

Variable	X^2	*p*
Gender	2.30	.317
Ethnicity	1.20	.600
Distance	2.84	.242
Generation	.935	.627
Level of Parental Involvement	2.493	.646

In order to find out if the observed frequencies of flourishing, moderately mentally healthy, and languishing students differed significantly from the expected frequencies based on gender, a chi square test for independence was run. The test showed that 27.0% of the men were flourishing, 62.5% were moderately mentally healthy, and 10.5% were languishing. Out of the females, 32.8% were flourishing, 57.7% were moderately mentally health, and 9.5% were languishing. The proportion of males and females in each mental health category did not differ significantly; there is no relationship between mental health category and gender, X^2 (2, N = 586) = 2.30, p = .317.

Research Question 2b: What relationship does mental health category have with ethnicity in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of flourishing, moderately mentally healthy, and languishing students differed significantly from the expected frequencies based on ethnicity, a chi square test for independence was run. The test showed that 30.6% of the Caucasian students were flourishing, 60.1% were moderately mentally healthy, and 9.3% were languishing. Out of the non-Caucasian students, 30.3% were flourishing, 57.4% were moderately mentally health, and 12.3% were languishing. The proportion of Caucasian and Non-Caucasian students in each mental health category did not differ significantly; there is no relationship between mental health category and ethnicity, X^2 (2, N = 586) = 1.20, p = .600.

Research Question 2c: What relationship does mental health category have with distance from home in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of flourishing, moderately mentally healthy, and languishing students differed significantly from the expected frequencies based on distance from home, a chi square test for independence was run. The test showed that 29.6% of the students who were from less than 200 miles away were flourishing, 62.1% were moderately mentally healthy, and 8.3% were languishing. Out of the students who were more than 200 miles away, 31.4% were flourishing, 56.6% were moderately mentally health, and 12.0% were languishing. The proportion of students from the two groups did not differ significantly; there is no relationship between mental health category and distance from home, X^2 (2, N = 580) = 2.84, p = .242.

Research Question 2d: What relationship does mental health category have with experience of being a first generation college student in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of flourishing, moderately mentally healthy, and languishing students differed significantly from the expected frequencies based on experience of being a first generation college student, a chi square test for independence was run. The test showed that 31.1% of first generation students were flourishing, 62.3% were moderately mentally healthy, and 6.6% were languishing. Out of the students who were not first generation, 29.7% were flourishing, 5.8% were moderately mentally health, and 10.5% were languishing. The proportion of first generation students and non-first generation students did not differ significantly; there is no relationship between mental health category and experience of being a first generation student, X^2 (2, N = 556) = .935, p = .627.

Research Question 2e: What relationship does mental health category have with level of parental involvement in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of flourishing, moderately mentally healthy, and languishing students differed significantly from the expected frequencies based on level of parental involvement, a chi square test for independence was run. The test showed that 30.5% of students with low parental involvement were flourishing, 58.7% were moderately mentally healthy, and 10.8% were languishing. Out of the students with medium parental involvement, 27.9% were flourishing, 61.6% were moderately mentally health, and 10.5% were languishing. Out of the students with high parental involvement, 34.3% were flourishing, 57.7% were moderately mentally health, and 8.0% were languishing. The proportion of students with each level of parental involvement did not differ significantly; there is no direct relationship between mental health category and level of parental involvement, X^2 (4, N = 588) = .2.493, p = .646.

Research Question 3: What relationship does level of parental involvement have with gender, ethnicity, distance from home, and experience of being a first generation college student in a sample of traditionally aged undergraduate students?

In order to determine is observed frequencies differ from expected frequencies for levels of high, medium, and low parental involvement, chi square tests for independence were run and the results are summarized in Table 17.

Table 17

Crosstabulation of Level of Parental Involvement and Independent Variables

Variable	X^2	*p*
Gender	8.92	.012*
Ethnicity	8.49	.014
Distance	1.106	.595
Generation	4.775	.595

. * $p < .05$

Research Question 3a: What relationship does level of parental involvement have with gender in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of students with high, medium, and low levels of parental involvement differed significantly from the expected frequencies based on gender, a chi square test for independence was run. The test showed that 21.4% of the men experienced high levels of parental involvement, 49.2% experienced medium levels, and 29.4% experienced low levels. Out of the females,

32.3% experienced high levels of parental involvement, 40.2% experienced medium levels, and 27.5% experienced low levels. The proportion of males and females in each mental health category did differ significantly; there is a relationship between level of parental involvement and gender, X^2 (2, N = 586) = 8.92, p = .012. A higher percentage of females had high parental involvement. On the other end of the continuum a higher percentage of males had medium and low parental involvement. The analysis shows that parents are more involved in their female students' lives than their male students' lives. An additional backward regression analysis was run later to determine the amount of variance in mental health that parental involvement is responsible for in both males and females.

Research Question 3b: What relationship does level of parental involvement have with ethnicity in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of students with high, medium, low parental involvement differed significantly from the expected frequencies based on ethnicity, a chi square test for independence was run. The test showed that 30.6% of the Caucasian students experienced high levels of parental involvement, 60.1% experienced medium levels, and 9.3% experienced low levels. Out of the Non-Caucasian students, 32.3% experienced high levels of parental involvement, 40.2% experienced medium levels, and 27.5% experienced low levels. The proportion of Caucasian and Non-Caucasian students in each mental health category did differ significantly; there is a relationship between mental health category and ethnicity, X^2 (2, N = 586) = 8.49, p = .014. A higher percentage of Caucasian students had high and medium parental

involvement and a higher percentage of Non-Caucasian students had low parental involvement.

Research Question 3c: What relationship does level of parental involvement have with distance from home in a sample of traditionally aged undergraduate students?

In order to find out if the obse-rved frequencies of students with high, medium, and low parental involvement differed significantly from the expected frequencies based on distance from home, a chi square test for independence was run. The test showed that 27.8% of the students who were from less than 200 miles away experience high levels of parental involvement, 42.3% experienced medium levels, and 29.9% experienced low levels. Out of the students who were more than 200 miles away, 27.3% experienced high levels of parental involvement, 46.3% experienced medium levels, and 26.4% experienced low levels. The proportion of students from fewer than 200 miles away and students from more than 200 miles away did not differ significantly; there is no relationship between level of parental involvement and distance from home, X^2 (2, N = 580) = 1.106, p = .575. The advancement of technology and ease of transportation has contributed to parental involvement being possible regardless of physical location.

Research Question 3d: What relationship does level of parental involvement have with experience of being a first generation college student in a sample of traditionally aged undergraduate students?

In order to find out if the observed frequencies of students with high, medium, and low levels of parental involvement differed significantly from the expected frequencies based on experience of being a first generation college student, a chi square test for independence was run. The test showed that 16.4% of first generation college

students were flourishing, 49.2% were moderately mentally healthy, and 34.4% were languishing. Out of the students who were not in the first generation in their families to attend college, 29.7% were flourishing, 42.2% were moderately mentally health, and 28.1% were languishing. The proportion of first generation college students and non-first generation college students did not differ significantly; there is no relationship between level of parental involvement and experience of being a first generation college student, X^2 (2, N = 556) = 4.775, p = .092. Parents will engage in involvement in their students' college experience as they see fit regardless of whether or not they attended college themselves.

Research Question 4: How does parental involvement predict variability in mental health of traditionally aged undergraduate students?

A backward multiple regression analysis was run to determine if parental involvement variables predict variance in mental health. The following independent variables were considered: (a) parental involvement in college choice score, (b) parental involvement in student social involvement score, (c) parental involvement in student academic involvement score, (d) student satisfaction with parental involvement, (e) frequency of communication with parents, and (f) frequency of visits with parents. Following Ambler's (2007) recommendation, Variance Inflation Factor values and magnitude of effect scores are also reported in Table 18. According to Keith (2006), VIF values over five signify an issue with multicollinearity. In terms of effect sizes, β's under .05 are too small to consider while β's over .25 signify a large effect and those falling in between have a moderate effect (Keith, 2006).

Table 18

Summary of Backward Multiple Regression Analysis

Variable	*B*	*SE B*	*β*	*t*	Sig.	*VIF*
Full Model						
College Choice	.-.052	.026	-.093	-2.009	.045	1.226
Social Involvement	.018	.024	.036	.751	.453	1.317
Academic Involvement	-.110	.031	-.170	-3.573	< .001	1.302
Satisfaction	.160	.028	.277	5.799	< .001	1.309
Visits	-.109	.073	-.011	-.265	.791	1.070
Communication	.083	.033	.109	2.523	.012	1.061
Restricted Model						
College Choice	.-.049	.026	-.087	-1.922	.005	1.187
Academic Involvement	-.107	.030	-.166	-3.528	< .001	1.265
Satisfaction	.165	.026	.286	6.343	< .001	1.164
Communication	.086	.032	.112	2.637	.009	1.033

The entire sample was analyzed first, and the results are displayed in Tables 18 and 19. The analysis concluded the best model for predicting mental health included four of the six variables studied: student satisfaction with parental involvement, parental involvement in student academic involvement, frequency of communication with parents, and parental involvement in college choice, $R^2 = .094$, F (4, 523) = 13.850, $p < .001$.

VIF scores were all under two, raising no concern of multicollinearity. Effect sizes varied with satisfaction having a large effect (β = .286), parental academic involvement (β = -.166) and communication with parents (β = .122) having a moderate effect, and parental involvement in college choice (β = .87) having a small but meaningful effect on students' mental health. All the variables together accounted for 9% of the variance in students' mental health score, indicated by an adjusted R^2 of .089.

Table 19

Model Summary for Backward Multiple Regression Analysis

Model	R	R^2	Adj. R^2	$R^2\Delta$	F	Sig.
Full	.312	.098	.087	.098	9.322	< .001
Restricted	.311	.096	.089	.001	13.850	< .001

a. Predictors: (Constant), College Choice, Social, Academic, Satisfaction, Visits, Communication
b. Predictors: (Constant), College Choice, Academic, Satisfaction, Communication

The only variable that displayed significant differences in mental health score in previous analyses was gender (t (584) = -3.281, p = .001) with females (M = 72.05, SD = 7.38) having significantly higher mental health scores than males (M = 69.78, SD = 9.33). Separate backward multiple regression analyses were run for females and males to determine which parental involvement variables contributed to mental health for each subgroup and to calculate the impact parental involvement had on variance in mental health for each subgroup individually. Results for these analyses can be found in Table 20 and Table 21.

Table 20

Summary of Backward Multiple Regression Analysis in Females

Variable	*B*	*SE B*	*β*	*t*	Sig.	*VIF*
Full Model						
College Choice	-.059	.032	-.122	-1.839	.067	1.286
Social Involvement	-.025	.030	-.054	-.840	.402	1.426
Academic Involvement	-.144	.039	-.231	-3.710	.000	1.354
Satisfaction	.227	.037	.398	6.210	.000	1.430
Visits	-.094	.084	-.063	-1.120	.264	1.088
Communication	.037	.035	.057	1.039	.300	1.042
Restricted Model						
College Choice	-.064	.031	-.123	-2.060	.040	1.235
Academic Involvement	-.148	.038	-.238	-3.881	.000	1.316
Satisfaction	.212	.033	.370	6.402	.000	1.168

A linear combination of parental involvement in college choice, academic involvement, and student satisfaction with parental involvement were included in the restricted model for predicting mental health in females, $R^2 = .146$, F (3, 301) = 17.025, $p < .001$. VIF scores were all under 2.5, raising no concern of multicollinearity. Student satisfaction with parental involvement ($\beta = .370$) had a large effect on female students'

mental health while parental involvement in college choice (β = .031) and academic involvement (β = -.238) had moderate effects. The variables together accounted for 14% of the variance in female students' mental health score, indicated by an adjusted R^2 of .138.

Table 21

Model Summary for Backward Multiple Regression Analysis in Females

Model	R	R^2	Adj. R^2	$R^2\Delta$	F	Sig.
Full	.392	.154	.136	.154	8.930	< .001
Restricted	.383	.146	.138	.003	17.025	< .001

a. Predictors: (Constant), College Choice, Social, Academic, Satisfaction, Visits, Communication
b. Predictors: (Constant), College Choice, Academic, Satisfaction

A separate backward regression analysis was run to determine the extent to which parental involvement impacted variance in mental health in males.

A linear combination of satisfaction with parental involvement and communication with parents were included in the restricted model for predicting mental health in males, $R^2 = .060$, $F(2,219) = 6.979$, $p = .001$. VIF scores were all under 2.5, raising no concern of multicollinearity. Both satisfaction with parental involvement (β = .129) and communication (β = .199) had moderate effects. The variables together accounted for 5% of the variance in male students' mental health score, indicated by an adjusted R^2 of .052.

Table 22

Summary of Backward Multiple Regression Analysis in Males

Variable	*B*	*SE B*	*β*	*t*	Sig.	*VIF*
Full Model						
College Choice	-.002	.46	-.004	-.053	.958	1.267
Social Involvement	-.043	.039	.079	1.094	.275	1.215
Academic Involvement	-.077	.050	-.113	-1.560	.120	1.211
Satisfaction	.082	.043	.138	1.925	.056	1.177
Visits	.082	.137	.040	.594	.553	1.032
Communication	.216	.075	.194	2.876	.004	1.047
Restricted Model						
Satisfaction	.077	.039	.129	1.957	.052	1.006
Communication	.222	.074	.199	3.017	.003	1.006

Summary

Descriptive statistics, independent sample t-tests, one-way analyses of variance, chi square tests for independence, multiple analyses of variance, and backward multiple regression analyses were all executed to analyze the characteristics of parental involvement and mental health in the sample. Both parental involvement and mental health were analyzed as continuous and categorical variables.

Table 23

Model Summary for Backward Multiple Regression Analysis in Males

Model	R	R^2	Adj. R^2	$R^2\Delta$	F	Sig.
Full	.275	.076	.050	.076	2.908	.010
Restricted	.246	.060	.052	-.009	6.979	.001

a. Predictors: (Constant), College Choice, Social, Academic, Satisfaction, Visits, Communication
b. Predictors: (Constant), Satisfaction, Communication

Parental involvement was further broken down based on Oliver's (n.d.) Survey of Parental Involvement into parental involvement in college choice, academic involvement, social involvement, student satisfaction with parental involvement, frequency of communication with parents, and frequency of visits with parents. The average parental involvement score for the entire sample was 59.96 (SD = 10.37). The most parental involvement occurred in students' social lives (M = 67.72, SD = 15.12) followed by college choice (M = 57.45, SD = 13.65) and academic involvement (M = 45.7, SD = 10.28) for the entire sample and each subgroup studied. Student satisfaction had the largest effect size (β = .286). Participants communicated with their parents an average of 9.99 (SD = 10.13) times per week with 38.4% initiating the communication the majority of the time themselves, 33.9% having the communication initiated by parents the majority of the time, and 27.7% having equal initiation as parents. Participants visited an average of 7.06 (SD = 4.52) times per semester with 15.5% initiating the visits the majority of the time themselves, 77.8% having the visits initiated by parents the majority of the time, and 6.7% having equal initiation as parents.

Significant differences in parental involvement were found based on gender, ethnicity, distance from home, experience of being a first generation college student, and mental health status. Females reported significantly greater amounts of parental involvement in their social (p = .002) and academic (p = .004) lives, had significantly more contact through communication (p = <.001) and visits (p = <.001) with their parents, and were significantly more satisfied ((p = <.001) with their parents' involvement. On the other hand males had significantly more parental involvement in their college choice process (p = .041). Caucasian students reported significantly higher amounts of parental involvement in their college choice process (p < .001) and their social lives (p = .019). Students from fewer than 200 miles away reported significantly higher scores on parental involvement in college choice (p = .028), academics (p = .042), and visits (p = < .001). First generation college students visited with parents significantly more often (p = .001) with 90% of the participants initiating the visits the majority of the time. Finally, students identified as flourishing (p = .032) and moderately mentally healthy (p = .048) experienced significantly more parental involvement in their social lives than students identified as languishing. Also, flourishing students were significantly more satisfied (p = .015) with parental involvement than moderately mentally healthy students who were significantly more satisfied (p = < .001) than languishing students.

Mental Health was further broken down based on Keyes' (2002) Scales of Subjective Well-Being into emotional, social, and psychological well-being. The average mental health score for the entire sample was 71.10 (SD = 8.32). Significant differences in mental health were found based on gender with females scoring significantly higher (p = .001). A backward multiple regression analysis revealed that 9% of the variance in

mental health for the entire sample was due to parental involvement in college choice and academics, student satisfaction with parental involvement, and communication with parents. Parental involvement in college choice and academics and satisfaction accounted for 14% of the variance in mental health scores for females. Finally, satisfaction and communication contributed to 5% of the variance in mental health scores for males.

V. Conclusions and Recommendations

This chapter provides an account of the conclusions and recommendations based on the findings for the following questions:

1. What are the characteristics of parental involvement and mental health experienced by a sample of traditionally aged undergraduate students?
2. What relationship does mental health category have with each independent variable in a sample of traditionally aged undergraduate students?
3. What relationship does level of parental involvement have with each independent variable in a sample of traditionally aged undergraduate students?
4. How does parental involvement impact variability in mental health of traditionally aged undergraduate students?

Conclusions

Parental involvement contributed to 9% of the variance in mental health in this study. More specifically it was parental involvement in the college choice process, involvement in academics, students' satisfaction with their parents' involvement, and communication that mattered. Parental involvement was especially impactful for females, contributing to 14% of the variance in their mental health scores. Only a third of the participants in the study were classified as flourishing and 10% were classified as

languishing. The findings of this study provide further evidence that a need still exists to find ways to address inadequate mental health on college campuses and implicates that parental involvement is one variable to consider. The quantitative results and qualitative comments from this study provide insight into positive parental involvement that can contribute to flourishing in college students. Additionally, results uncovered areas for further research. Significant findings are outlined in this section.

Parental involvement in the college experience begins with the college search process. This facet of involvement was actually one of the three areas that contributed to variance in mental health. In regards to college choice, participants made contradicting comments. Some wished their parents had been less involved and "made [them] take on the responsibility of filling out applications on time and remembering to write essays instead of doing it for them." Others wished their parents had been more involved and "known more about their school before [they] enrolled there." According to these comments, students want parents to be knowledgeable about the institutions their students are considering but hold the student accountable for the application process.

Academic involvement was another contributing variable to mental health. Again students made contradicting comments. The majority of students commented that they would like their parents to be more involved in their academics by "anticipat[ing] test dates and encourage[ing] them on those days" and "know[ing] more about the classes [they] are taking." Those who wanted less academic involvement wrote about parents logging into their email and picking their classes. A common concern that was mentioned was parents understanding the difference between high school and college and not expecting the same performance in college. One student wrote "I wish they could

understand the change in academic achievement from high school to college." Another wrote she wished her mom would "understand the fact that tests in college are harder than high school and that's why [she] doesn't score very high."

Social involvement did not directly contribute to variance in mental health, but every subgroup of students reported parents being most involved in this area. It was not surprising that social involvement scores were high considering parents' tendency to increase amounts of psychological control during times of transition such as going to college (Barber, Maughen & Olsen, 2005; Nucci, 2001; Nucci, Hasabe, & Lins-Dyer, 2005; Smetana, 1995; Smetana, Crean, & Campion-Barr, 2005; Steinbuerg et al., 1992; Turiel, 2005) and increased parent concerns about student safety and health risks (Bylund, Imes, & Baxter, 2005; Mansfield & Warwick, 2005; Shellenbarger, 2006). However, it is intriguing that social involvement did not significantly contribute to mental health variance. Social involvement is the facet of involvement most closely related to parental psychological control, which when exercised in excess has been linked with negative mental health outcomes including delayed identity development, increased parent-child conflict, and internalizing disorder symptoms such as anxiety and depression (Barber et al., 2005; Nucci, 2001; Schaffer, 1965; Smetana, Crean, & Campion-Barr, 2005; Steinberg, Dornbusch et al., 1992). Also, participants in this study who were classified as flourishing and moderately mentally healthy had significantly higher parental social involvement scores than those who were languishing.

Qualitative comments relating to social involvement provide some insight. Most students commented that they enjoyed sharing with their parents about their social life but when it was on their terms and absent of parent lectures. One student wrote that he

wished his parents wouldn't "be so pushy about asking about the love life." Another student wrote "They were crazy in college and they get mad at me for doing the same things they did." A third student commented "I would change some of the phone calls about certain organizations I should join." Perhaps social involvement is an area that does not change significantly from high school to college and remains a constant variable.

Student satisfaction with parental involvement was found to be the leading factor impacting variance in mental health. When asked on the survey what they would change about their parents' involvement the majority of participants commented that they were satisfied with their parents' involvement and would not change anything. One student wrote "They care about how I'm doing but don't force themselves into my life." Another student commented "They call just enough and aren't overly attentive and involved. They realize that I am independent." A third student wrote "They are great! A perfect balance between parent/friend/teacher."

The final variables were communication and visits with parents. Students commented that they actually would like more contact with their parents including more phone calls, more mail, and more visits. One student wrote "I would change the fact that my parents are four hours away… that way they would be closer if I needed them." Students take comfort in knowing that parents are there to support them and appreciate parents showing that support through phone calls to just listen, visits to say hello, and mail.

Based on the findings of this study, college students appreciate a balance between autonomy support and solicited guidance from parents in all areas of involvement, which

are the same principles of precision parenting prescribed for parenting in childhood through adolescence. These findings suggest that parenting with today's college student is not qualitatively different from what parents are accustomed to, supporting the concept of college now representing an extended adolescence. The practical implications for parents are that new variables, especially distance and new academic demands, introduce the need for parents to be creative in finding new ways to communicate and be involved. Maintaining open lines of communication that allow students to express their needs and level of satisfaction with their parents' involvement will contribute to parents having a positive influence on their students' mental health and overall college experience. Implications for professionals are new challenges of preparing students for transitioning into the workforce where they are expected to function independently when they are accustomed to relying on parental involvement.

Recommendations

Based on the findings of this study, the following recommendations are presented:

1. It is recommended that higher education admissions offices work with high school guidance offices to make parents partners in their students' college search process. They should ensure that the student is actively carrying out the application process.
2. It is recommended that higher education admissions offices and high school guidance offices do more to explain the difference between high school and college academics to assist parents with establishing realistic academic expectations.

3. It is recommended that higher education institutions continue to search for ways to appropriately include parents in students' social and academic lives such as invitations to special parent social events or academic award events. Technology should also be utilized to keep parents informed and connected to their students' college experience as this has been a successful strategy in the kindergarten through high school system.
4. It is recommended that higher education administrators consider implementing required senior capstone courses that address strategies for establishing independence and practicing self reliance upon graduating from college and entering the workforce.
5. It is recommended that college counseling centers and referral coordinators on college campuses include questions to gather information about parental involvement to determine if parents are contributing to student concerns or could potentially be a valuable component of an intervention.
6. It is recommended that parents exercise precision parenting for extended adolescence by establishing appropriate boundaries. Boundaries should foster a balance between independence and support.
7. It is recommended that parents and students communicate openly about ways parents can best support their students to ensure student satisfaction with parents' involvement. Higher education institutions can assist by creating vehicles that empower students and encourage discussion of student and parental expectations, for example purposeful opportunities during orientations and guiding questions based on critical academic moments.

8. It is recommended that further research be carried out to determine other factors that impact mental health status in college students in order to decrease the number of languishing students.
9. It is recommended that further research be carried out to determine how student needs for parental involvement change over the college experience beyond the freshman year.
10. It is recommended that more survey instruments be developed and validated to specifically investigate parental involvement with college students, allowing the research to advance beyond exploratory studies.

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APPENDIX A

Institutional Review Board Research Approval Form

AUBURN
UNIVERSITY

Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubjec@auburn.edu

October 8, 2007

MEMORANDUM TO: Ruthanna Payne
Education Foundation Leadership Technology

PROTOCOL TITLE: "A Study of the Relationship between Parental Involvement and Student Mental Health"

IRB AUTHORIZATION NO: 07-201 EP 0710

APPROVAL DATE: October 5, 2007
EXPIRATION DATE: October 4, 2008

The above referenced protocol was approved by IRB Expedited procedure under 45 CFR 46.110 (#7):

> "Research on individual or group characteristics or behavior (including, but not limited to, research of perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies."

You should report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. Please reference the above authorization number in any future correspondence regarding this project.

If you will be unable to file a Final Report on your project before October 4, 2008, you must submit a request for an extension of approval to the IRB no later than September 20, 2008. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to October 4, 2008, you must suspend the project immediately and contact the Office of Human Subjects Research for assistance.

A Final Report will be required to close your IRB project file. You are reminded that you must use the stamped, IRB-approved parental consent/assent and information sheet (enclosed) when you consent your participants. Please remember that you must keep signed informed consents for three years after your study is completed.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

Peter W. Grandjean, Chair
Institutional Review Board for the Use of Human Subjects in Research

Enclosures

cc: Dr. Jose Llanes
Dr. James E. Witte

APPENDIX B

Email to Instructors to Allow Researcher to Visit and Administer Surveys

Dear [Instructor],

I am in the process of gathering my data for my dissertation and have received permission from Kathryn to invite the UNIV students to take my survey. I was wondering if I could come to your class next semester and invite your students to participate? I could either leave the surveys for them and come pick them up the following week or I would also love to teach the lesson for that day. My topic is the impact of parental involvement on students' college experience and it fits in nicely with our mission to help students with their transition to college. I have a presentation that I can do with them about transforming your relationship with your parents. Let me know if either of these would fit into your schedule and not disrupt your class. Just wanted to check now while we are all in the syllabus writing process.

Thank you so much and have a wonderful break!
Ruthie

APPENDIX C

Administrator Script

Survey Administrator Script

I will begin by thanking the students and instructor for allowing me to come speak to them. Next, I will read the following script to invite them to participate. After questions are answered, students will receive a packet including an information letter, parental consent form, survey instruments, and list of mental health resources. Finally, to contribute to the goals of University courses to educate students about healthy relationships and student development, I will lead a brief activity and discussion about development and the impact students' parents have. .

- I would like to invite you to complete a survey being conducted by myself, an Academic Counselor and graduate student of the Education Leadership program here at Auburn University.
- The survey is being conducted to investigate the relationship between parental involvement and student mental health
- The survey will take approximately ten minutes to complete and does not ask for any identifying information.
- It does not ask for any identifying information, and therefore, you will remain anonymous.
- Please read the information letter attached to your survey before completing it. This letter is yours to keep.
- If you are under the age of nineteen you must also have parental consent to participate. There is a parental consent form in your packet if you need one. You need to have your parent sign it and then you may turn in your survey via campus mail in the envelope included in your packet.
- If you would like to participate you may complete the survey at this time and submit it in the collection box, or you may take it with you to complete at a later time. If you choose to take it with you, surveys may be submitted via campus mail in the provided envelope.
- If you choose to participate, it is our hope that this survey will allow you to consider the impact that your parents have on your college experience and reflect on your current mental health status. If this experience raises concerns or questions about your or a friend's mental health, you are encouraged to contact one of the resources listed on the mental health resource list in your packet. Please feel free to contact me if I can answer any questions for you about these or other resources.
- Information collected will be published in my dissertation and my be published in a journal and/or presented at a professional meeting.
- Thank you for considering participating in this research. Please feel free to ask any questions at this time or to direct any questions to the email address listed on the survey. Also, please remember to read the Information Letter/Parental Consent Letter attached to your survey before completing the survey.

APPENDIX D

Alternative Questions

Questions to Think About…

Take a few moments to reflect on the following questions relating to the presentation. It will prepare you to apply the presentation to your own experiences and relationships. You may make notes if you would like. This handout will not be collected.

- How would you describe your experience of transitioning to college life?
- How have you changed since you started college?
- Are you happy with these changes?
- What role did your parents play in your decision to come to college?
- How often do you talk to your parents?
- How many times have you been home since you started college?
- How has your relationship with your parents changed since you started college?

APPENDIX E

Information Letter

Auburn University

Auburn University, Alabama 36849-5221

The Auburn University Institutional Review Board has approved this document for use from 10/5/07 to 10/4/08. Protocol # 07-201 EP 0710

Educational Foundations
Leadership and Technology
4036 Haley Center

Telephone: (334) 844-4460
FAX: (334) 844-3072

NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.

INFORMATION LETTER
for a Research Study Entitled
A Study of the Relationship between Parental Involvement and Student Mental Health

You are invited to participate in a research study being conducted to explore the relationship between parental involvement and student mental health. This study is being conducted by Ruthanna Payne under the supervision of Dr. James E. Witte, Associate Professor in the Auburn University Department of Education, Foundations, Leadership, and Technology. I hope to learn how parents' involvement in their student's college experience impacts student mental health. You were selected as a possible participant because you are taking a UNIV1000 or UNIV1050 course, and are 19 years of age or older.

If you decide to participate, we will collect your anonymous survey and compile the information with the other surveys to determine if a connection exists between parental involvement and student mental health. The survey will take approximately ten minutes to complete. You have the option to complete the survey and submit it to the collection box at this time or take it with you to complete at a later time. If you choose to complete it later, you have been provided with a pre-addressed envelope to mail in your surveys via campus mail.

No identifying information is collected on the survey, and therefore your responses will remain anonymous. If you choose to not finish the survey you may simply discard it.

It is our hope that this survey along with the class presentation will allow you to reflect on your parent(s)'/guardian(s)' involvement in your college experience and on your mental health status at this stage in your life. If this experience leads to any concerns or questions about your personal mental health, you are encouraged to contact one of the resources listed in the referral list you received with this survey. Please feel free to contact me for additional information about resources at the phone number or email listed below.

Information collected through your participation will be published in my dissertation and possibly published in a journal and/or presented at a professional meeting.

Your decision whether or not to participate and whether or not to withdraw your survey will not jeopardize your future relations with Auburn University, your UNIV1000/UNIV1050 instructor, or the EFLT department.

If you have any questions I invite you to ask them now. If you have questions later I will be happy to answer them: 844-3468, blakerl@auburn.edu.

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu .

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

Ruthanna Payne 9.24.07
Investigator's signature Date

Ruthanna Payne
Print Name

APPENDIX F

Parental Permission/Child Assent Form

Auburn University

Auburn University, Alabama 36849-5221

The Auburn University Institutional Review Board has approved this document for use from 10/5/07 to 10/4/08. Protocol # 07-201 EP 0710

Educational Foundations
Leadership and Technology
4036 Haley Center

Telephone: (334) 844-4460
FAX: (334) 844-3072

NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.

Parental Permission/Child Assent for a Research Study Entitled A Study of the Relationship between Parental Involvement and Student Mental Health

Your child has been invited to participate in a research study being conducted to explore the relationship between parental involvement and student mental health. This study is being conducted by Ruthanna Payne under the supervision of Dr. James E. Witte, Associate Professor in the Auburn University Department of Education, Foundations, Leadership, and Technology. I hope to learn how parents' involvement in their student's college experience impacts student mental health. Your child was selected as a possible participant because he or she is taking a UNIV1000 or UNIV1050 course. Since your child is age 18 or younger we must have your permissions to include him/her in the study.

If you decide to allow your child to participate, I will collect his/her anonymous survey and compile the information with the other surveys to determine if a connection exists between parental involvement and student mental health. Your child's time commitment will be approximately ten minutes. Your child may submit the surveys if he or she chooses by mailing through campus mail via the provided envelope.

No identifying information is collected on the survey, and therefore responses will remain anonymous. If your child chooses to not finish the survey he or she may simply discard it.

It is my hope that this survey along with the class presentation will allow your child to reflect on his/her parents' involvement and his/her mental health status at this stage in life. If this experience leads to any concerns or questions about personal mental health, your child is encouraged to contact one of the resources listed in the referral list received with this survey. Please feel free to contact me for additional information about resources at the phone number or email listed below.

Information collected through your child's participation will be published in my dissertation and possibly published in a journal and/or presented at a professional meeting.

Your decision to allow your child to participate and whether or not to withdraw his/her survey will not jeopardize future relations with Auburn University, his/her UNIV1000/UNIV1050 instructor, or the EFLT department. If you or your child have any questions I invite you to contact me at 844-3468, blakerl@auburn.edu.

For more information regarding your child's rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu .

Parent/Guardian Initials_____
Participant Initials_____

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH FOR YOUR CHILD TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR CHILD'S SIGNATURE INDICATES HIS/HER WILLINGNESS TO PARTICIPATE.

Participant's signature Date

Print Name

Parent's or Guardian Signature Date

Print Name

Ruthanna Payne 9.24.07
Investigator obtaining consent Date

Ruthanna Payne
Print Name

The Auburn University
Institutional Review Board
has approved this document for use
from 10/5/07 to 10/4/08
Protocol # 07-201 EP 0710

APPENDIX G

Survey of Parental Involvement and Student Well Being

SURVEY OF PARENTAL INVOLVEMENT & STUDENT WELL BEING

I. Demographics (Circle One)

Year in School: Freshman Sophomore Junior Senior

Gender: Male Female

Race: African American Alaskan Native Asian/Pacific Islander Caucasian

Hispanic Native American Other_____

Distance from Home: 0-199 miles 200-399 miles 400-599 miles 600 miles or more

Home Town (City & State): _____

Are you the first one in your immediate family to attend college? Yes No

The following questions are to be answered on a 4 point scale from Strongly Disagree to Strongly Agree. The choices will be Strongly Disagree-SD, Disagree-D, Agree-A, Strongly Agree-SA, and Not Applicable-NA. SD=1, D=2, A=3, SA=4.

II. College Choice	**SD**	**D**	**A**	**SA**	**NA**
1. Parents helped fill out applications	SD	D	A	SA	NA
2. Parents wrote college essays	SD	D	A	SA	NA
3. Parents helped in college decision process	SD	D	A	SA	NA
4. Parents reminded you of application deadlines	SD	D	A	SA	NA
5. Parents pressured you to attend the same college theydid	SD	D	A	SA	NA
6. Parents pressured you to attend college	SD	D	A	SA	NA
7. Parent involvement in college choice was positive	SD	D	A	SA	NA
8. Parents helped college choice process	SD	D	A	SA	NA
III. Social Involvement	**SD**	**D**	**A**	**SA**	**NA**
9. Parents encourage you to be involved on campus	SD	D	A	SA	NA
10. Parents encouraged you to join a fraternity/sorority	SD	D	A	SA	NA
11. Parents spoke to you about drinking	SD	D	A	SA	NA
12. Parents spoke to you about drugs	SD	D	A	SA	NA
13. Parents spoke to you about social pressures you would face	SD	D	A	SA	NA
14. Parents encouraged you to live on campus	SD	D	A	SA	NA
15. Parents made you live on campus	SD	D	A	SA	NA
16. Parents helped transition from high social activities to college	SD	D	A	SA	NA
17. Parent involvement in college social life helpedtransition	SD	D	A	SA	NA
18. Parent involvement in college social life hindered transition	SD	D	A	SA	NA
19. Parent involvement in college social life was positive	SD	D	A	SA	NA
IV. Academic Involvement	**SD**	**D**	**A**	**SA**	**NA**
20. Parents involved in scheduling your classes	SD	D	A	SA	NA
21. Parents called to wake you up for class	SD	D	A	SA	NA

22. Parents called to remind you of assignments	SD	D	A	SA	NA
23. Parents knew when tests were	SD	D	A	SA	NA
24. Parents attended freshman orientation	SD	D	A	SA	NA
25. Parents ask what your grades are	SD	D	A	SA	NA
26. Parents helped transition you from high course load to college	SD	D	A	SA	NA
27. Parent involvement in academics was a hindrance	SD	D	A	SA	NA
28. Parent involvement in academics was positive	SD	D	A	SA	NA
29. Parent involvement in academics improved your GPA	SD	D	A	SA	NA
30. I am satisfied with the overall level of my parent's involvement in my college life	SD	D	A	SA	NA

What would you change about your parents' involvement in your college life?:

_____

_____

_____

31. I am satisfied with the institution I attend	SD	D	A	SA	NA

32. **How often do you communicate with your parent(s)?**

Via email _____ per week
Via instant messenger _____ per week
Via phone _____ per week
Via mail _____ per week

33. Who initiated the majority of this contact?____Parent _____Student

34. **How often do you see you parent(s) per semester?**

You travel home _____ per semester
Parents visit campus _____ per semester
In other locations _____ per semester

35. Who made trips more often?_____Parent _____Student

Describe your relationship with your parents: _____

_____

_____

_____

How has your relationship with your parents impacted your college experience? _____

_____

_____

_____

During the past 30 days, how much of the time did you feel…

	ALL THE TIME	MOST OF THE TIME	SOME OF THE TIME	A LITTLE OF THE TIME	NONE OF THE TIME
a. …cheerful?	All	Most	Some	Little	None
b. …in good spirits?	All	Most	Some	Little	None
c. …extremely happy?	All	Most	Some	Little	None
d. …calm and peaceful?	All	Most	Some	Little	None
e. …satisfied?	All	Most	Some	Little	None
f. …full of life?	All	Most	Some	Little	None

Using a scale from 0 to 10 where 0 means "the worst possible life overall" and 10 means "the best possible life overall," how would you rate your life overall these days?

WORST										BEST
0	1	2	3	4	5	6	7	8	9	10

Please indicate how strongly you agree or disagree with each of the following statements.

	AGREE				DISAGREE		
	STRONGLY	SOME WHAT	A LITTLE	DON'T KNOW	A LITTLE	SOME WHAT	STRONGLY
I like most parts of my personality	SA	A	AL	N	DL	D	SD
When I look at the story of my e, I am pleased with how things ve turned out so far.	SA	A	AL	N	DL	D	SD
Some people wander aimlessly rough life, but I am not one of em	SA	A	AL	N	DL	D	SD
The demands of everyday life ten get me down	SA	A	AL	N	DL	D	SD
In many ways I feel disappointed out my achievements in life	SA	A	AL	N	DL	D	SD

	AGREE				DISAGREE		
	STRONGLY	SOME WHAT	A LITTLE	DON'T KNOW	A LITTLE	SOME WHAT	STRONGLY
Maintaining close relationships s been difficult and frustrating for e	SA	A	AL	N	DL	D	SD
I live life one day at a time and n't really think about the future	SA	A	AL	N	DL	D	SD
In general, I feel I am in charge of e situation in which I life	SA	A	AL	N	DL	D	SD
I am good at managing the sponsibilities of daily life	SA	A	AL	N	DL	D	SD
. I sometimes feel as if I've done there is to do in life.	SA	A	AL	N	DL	D	SD
. For me, life has been a ntinuous process of learning, anging, and growth	SA	A	AL	N	DL	D	SD
. I think it is important to have w experiences that challenge how I ink about myself and the world	SA	A	AL	N	DL	D	SD
. People would describe me as a ving person, willing to share my me with others.	SA	A	AL	N	DL	D	SD
. I gave up trying to make big provements or changes in my life ong time ago	SA	A	AL	N	DL	D	SD
. I tend to be influenced by people th strong opinions	SA	A	AL	N	DL	D	SD
. I have not experienced many rm and trusting relationships with ners	SA	A	AL	N	DL	D	SD
. I have confidence in my own inions, even if they are different m the way most other people think	SA	A	AL	N	DL	D	SD
. I judge myself by what I think is portant, not by the values of what ners think is important.	SA	A	AL	N	DL	D	SD

Please answer the following questions are about how you have been feeling and how you have been functioning during the past month. Place a check mark in the box that best represents how often you have experienced or felt the following:

During the past month, how often did you feel …	NEVER	ONCE OR TWICE	ABOUT ONCE A WEEK	ABOUT 2 OR 3 TIMES A WEEK	ALMOST EVERY DAY	EVERY DAY
1. happy						
2. interested in life						
3. satisfied						
4. that you had something important to contribute to society						
5. that you belonged to a community (like a social group, or your neighborhood)						
6. that our society is becoming a better place for people						
7. that people are basically good						
8. that the way our society works makes sense to you						
9. that you liked most parts of your personality						
10. good at managing the responsibilities of your daily life						
11. that you had warm and trusting relationships with others						
12. that you have experiences that challenge you to grow and become a better person						
13. confident to think or express your own ideas and opinions						
14. that your life has a sense of direction or meaning to it						

Thank you for completing this survey.

APPENDIX H

Referral List of Auburn-Area Mental Health Service Providers

REFERRAL LIST OF AUBURN-AREA MENTAL HEALTH SERVICE PROVIDER

INDIVIDUAL/AGENCY	SERVICES AVAILABLE	COST/HOUR
Crisis Center (334)821-8600	Phone Counseling (only)	(No Charge)
Student Counseling Services 400 Lem Morrison Dr. Suite 2086 Auburn University, AL 36849 (334) 844-5123	Individual & Group Therapy	(No Charge)
Auburn University Psychological Services 1122 Haley Center Auburn, AL 36849-5234 (334)844-4889	Marriage, Family, and Individual Therapy	$25-55 Based on income
East Alabama Mental Health 2506 Lambert Dr. Opelika, Al 36801 (334)742-2700 (334)742-2877	Individual & Group Therapy	Sliding Scale Based on income
Clinical Psychologists 248 E. Glenn Ave. Auburn, AL 36849	Individual & Group Therapy	Initial Appt: $130 Other Appt: $120

As of June 2007
Compiled by OHSR

APPENDIX I

Scoring Information for Keyes' Scales of Subjective Well Being

Scoring Instructions for Subjective Well-Being Scales:
By Corey L. M. Keyes, Emory University and the MIDMAC (Successful Midlife Development) MacArthur Foundation Network.

Emotional well-being:

Positive Affect scale = Reverse code items EWB1a through EWB1f, then sum items.

Psychological well-being (section PWB items):
(Reverse code the following items: 1, 2, 3, 8, 9, 11, 12, 13, 17, 18)

Self-Acceptance scale = sum items 1, 2, 5.
Purpose in Life scale = sum items 3, 7, 10.
Environmental Mastery scale = sum items 4, 8, 9.
Positive Relations with Others scale = sum items 6, 13, 16.
Personal Growth scale = sum items 11, 12, 14.
Autonomy scale = sum items 15, 17, 18.

Social well-being (section SWB items):
(Reverse code the following items: 3, 4, 5, 6, 11, 12, 14)

Social Coherence scale = sum items 1, 8, 12.
Social Integration scale = sum items 2, 6, 11.
Social Acceptance scale = sum items 3, 10, 14.
Social Contribution scale = sum items 4, 7, 15.
Social Actualization scale = sum items 5, 9, 13.

Subjective Well-Being Scale Item Weights based on Confirmatory Factor Analysis based on Keyes' (2002, 2005) Mental Health Continuum Model

Emotional Well-Being (EWB), Psychological Well-Being (PWB), Social Well-Being (SWB)

ITEM	Weight
EWB1a	.04
EWB1b	.038
EWB1c	.019
EWB1d	.006
EWB1e	.01
EWB1f	.018
EWB2	.06
PWB1	.133
PWB2	.108
PWB3	.063
PWB4	.037
PWB5	.073
PWB6	.041
PWB7	-.011
PWB8	.044
PWB9	.069
PWB10	.004
PWB11	.07
PWB12	.036
PWB13	.022

ITEM	Weight
PWB14	.01
PWB15	.004
PWB16	.047
PWB17	.024
PWB18	.023
SWB1	.019
SWB2	.014
SWB3	.003
SWB4	.045
SWB5	.008
SWB6	.024
SWB7	.014
SWB8	.011
SWB9	.012
SWB10	.011
SWB11	.018
SWB12	.003
SWB13	.018
SWB14	.024
SWB15	.058

APPENDIX J

Letter of Approval

From: "Oliver, Bryan" <[redacted]>
To: "Ruthanna Payne" <[redacted]>
Date: 9/20/2007 10:28:55 AM
Subject: RE: Dissertation

Ruthanna,

Consider this permission to use any of the material related to my dissertation as long as it is properly cited and follows all the rules of plagiarism of course. If you need anything else please let me know.

Bryan

From: "Corey Keyes Dr" <[redacted]>
To: "Ruthanna Payne" <[redacted]>
Date: 9/20/2007 8:45:24 AM
Subject: RE: Mental Health Continuum

Dear Ruthanna,

I think your proposed research will be very useful for colleges as well as parents. I really am encouraged by the interest in applying this work in the school arena.

I have attached the questionnaire that was used in the MIDUS study and represents what I have been calling the long form for the mental health continuum. Because the response formats on these questions are the usual likert self descriptive (agree/disagree) kind, the long form presents a challenge in terms of deciding cutpoints (I have used tertiles in our MIDUS national data). So, I have moved toward using the attached short form of the mental health continuum. I like the latter because it represents a single item from each dimensions/scale of psychological and social well-being, and uses response formats that are identical to the response format use to diagnose major depressive episode (e.g., has someone had depressed affect "all of the time" or "most of the time" for a period of 2 weeks or more ...).

Both documents include descriptions for the assessment and diagnosis along with some citations. I can also send you the recent Am. Psychologist article I published earlier this year if you haven't read it, as it summarizes the research up to that point.

Best of luck with your research. By the way, you should check out the website for the "Healthy Minds" study, which include my short form for annual assessment of college students' mental health.

Cheers,
Corey