

Parental Nurturance in Childhood and Adolescence Correlated to Anxiety in College Students

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Abstract

Parental nurturance is important for individuals in childhood, adolescence, and emerging adulthood. In general, high levels of parental nurturance helps individuals to be well-adjusted. However, anxiety disorders are prevalent among emerging adults, so the present study investigated a potential correlation between parental nurturance and college student anxiety. Participants consisted of undergraduate students who were at least 18 years old and enrolled in at least one psychology course. They were asked to complete the Parental Nurturance Scale and Overall Anxiety Severity and Impairment Scale. The results indicated a significant negative correlation between the two variables. Specifically, increases in parental nurturance were correlated with decreases in anxiety levels, and the results supported multiple prior studies that examined the relationship between parental nurturance and overall well-being. Since parental nurturance seems to have a significant relationship with anxiety in college students, counselors and university faculty should be educated about the correlation between the two variables.

Parental Nurturance in Childhood and Adolescence Correlated to Anxiety in College Students

Emerging adulthood is a period in the lifespan that is generally considered to consist of individuals who are between 18 and 25 years of age who are no longer in adolescence but are not yet adults (Arnett, 2000). Many people in this stage of life, particularly those who are enrolled in college, struggle with varying degrees of anxiety, and increased anxiety can often interfere with their current settings and academic goals (Nail et al., 2015). At times the anxiety levels may require a clinical diagnosis, but often people attempt to live with moderate levels of stress, simply because they assume that stress is a part of life. Common stressors for individuals in this age group include separating from their parents, navigating college or careers, forming an identity and peer group, and daily hassles. Stressors such as these can adversely impact a person's mood and often increase anxiety levels (Almeida, Wethington, & Kessler, 2002).

The perceived level of the parental nurturance that emerging adults experience may impact the concept of current feelings of anxiety. For example, a greater degree of parental nurturance is associated with a healthy level of psychological well-being as individuals enter emerging adulthood (Lee, Beckert, & Marsee, 2018). In addition, support from parents is important for children's overall emotional and psychological health as they become adults (Guan & Fuligni, 2015). Specifically, the level of parental nurturance may correlate to emerging adults' ability to manage their anxiety in this transitional time of their lives.

Parental Nurturance

Parental nurturance consists of the degree of support and concern that a parent shows to a child. Parental support includes the provision of love, attention, and direction, all of which lead to higher levels of self-esteem in the children who receive them (Buri, 1989). Gecas and Schwalbe (1986) expanded upon this by defining nurturance as "parental behavior that indicates

positive evaluation of the child, such as support, participation, and interest in the child...” (p. 38). In addition, nurturance is classified as parents showing concern for and acceptance of their children (Coopersmith, 1967). Parents can practically show acceptance to their children by taking interest in their lives and treating them with care. For example, a parent could nurture his or her children by asking them about their thoughts and feelings and showing gentleness, kindness, and empathy toward them. Therefore, parental nurturance is understood as the levels of support and concern that parents give to their children. More specifically, it is the level of support, attention, and acceptance of parents as it relates to the self-esteem of the children (Buri, 1989).

In Childhood

The psychological well-being and development of the self-esteem of children involves increasing resilience and the development of prosocial behaviors. Resilience requires adaptation in the midst of difficult situations and often results from resources and parental support. In a study of Japanese students, Tamura (2019) found that individuals who had good relationships with their mothers during childhood developed resilience skills that helped them to regulate their emotions. In addition, childhood cancer survivors who have positive relationships with their parents have reported higher levels of resilience and well-being than those who do not (Orbuch, Parry, Chesler, Fritz, & Repetto, 2005). Therefore, parental nurturance seems to be a key factor in developing the resilience that children need to cope with various stressors.

Parental nurturance is also linked to child well-being. This includes prosocial behaviors, which help children to learn to meet needs and establish close relationships (Holte et al., 2014). Putnick et al. (2018) found that in nine different countries, parents who socialize their children with warmth and support help them to develop prosocial behaviors and increase their overall

sense of well-being. In addition, psychological well-being consists of the ability to regulate emotions (Huppert, 2009). Parents begin helping their children learn this in infancy, and the process continues in childhood as they guide and support their children through the various emotions that they experience. This occurs through social referencing, displaying the behaviors that are involved with specific emotions, and the actions involved with emotional coping (Zeman, Cassano, Perry-Parrish, & Stegall, 2006). These are some characteristics of child psychological well-being and can be affected by parental nurturance.

A child's development is also impacted by his or her level of resilience, which is learned through parental nurturance in response to family stressors. "Longitudinal studies find that children's resilience depends largely on supportive family processes: how both parents, and their extended families, buffer stresses as they navigate...challenges and establish cooperative parenting networks..." (Walsh, 2016, p. 317). Therefore, a family as a whole must learn to deal with stressors such as a divorce, economic difficulty, or mental illness in a way that teaches the children how to react to emotional stress and take necessary risks (Masten & Monn, 2015). Families who deal with these adverse events and learn to cope in positive ways often become stronger and better equipped to deal with difficulties as they change throughout the life cycle (Walsh, 2016). Sometimes, it can be good for children to face stressful situations at early ages, because they can learn positive methods of coping and self-regulation which will help them to adapt to challenges later in their lives (Masten & Barnes, 2018). When parents nurture their children through supporting them in challenging circumstances, the children learn resilience.

It is also crucial that children learn self-regulation at a young age, because it aids in establishing resilience. Caregivers can help young children learn emotions and solve problems related to contact with their peers, thus helping children to develop self-regulation (Taket, Nolan,

& Stagnitti, 2014). Moreover, Eisenberg et al. (2001) hypothesized that parents who expressed their emotions would have children who would effectively learn regulation skills. To study this, they examined families with individuals in middle childhood. The children first completed a puzzle on their own, but the second time, they had to complete it without looking at it. In addition, their mothers were there to instruct them in how to complete the second puzzle. Upon completion, both the mothers and the children answered questions about emotional expressivity. The results showed that mothers who express their emotions and nurture through providing support were more likely to have socially competent children who were able to regulate their emotions and behaviors. This emotional regulation contributes to psychological well-being through helping children to develop resilience and prosocial behavior.

Parental nurturance is vital for children to grow socially and emotionally. A lack of parental nurturance in childhood can lead to an otherwise mentally healthy emerging adult having insecure attachments and feeling the need to seek reassurance (Raposa & Hammen, 2018). It is vital, therefore, that parents provide safety, security, and nurturance beginning at birth and continuing into childhood to promote positive mental health development. In a study of preschoolers, Daniel, Madigan, and Jenkins (2016) found that nurturance from both mothers and fathers is likely to result in prosocial behaviors as infants grow into children. Xiao, Spinrad, and Carter (2018) later performed a similar study that examined the effects of both parental nurturance and discipline, and they found that only nurturance is correlated with prosocial behavior. These studies all indicate that parental nurturance is vital in childhood and helps children to be mentally healthy as they grow into adolescents and adults. Therefore, parental nurturance in childhood helps to develop a foundation of resilience and prosocial behavior which can be further encouraged in adolescence.

In Adolescence

Nurturance and attention from parents are also keys to adolescent development. Adolescence can be a time of uncertainty and stress, so it is important for those individuals to receive emotional support from their parents. If mothers discuss problems that upset them, adolescents in turn often feel that they can also share their stressors (Chaparro & Grusec, 2015). A study conducted with Swedish junior high school students found that when parents respond to adolescents with warmth and understanding, the adolescents feel a connection to their parents and are well-balanced as they develop (Tilton-Weaver et al., 2010). This was determined through the reports of the students and their perceptions of their parents' reactions. Consequently, emotional disclosure between parents and adolescent children affects the children's mental development.

Emotional disclosure is an important skill for adolescents to grasp, and parental nurturance contributes to its development. Main, Loughheed, Disla, and Kashi (2019) examined this through studying adolescents' emotional disclosures to their mothers and the mothers' own emotions. They studied 50 adolescents and their mothers, and the participants consisted of both younger and older adolescents. Each pair was asked to discuss conflict in their relationship, and the researchers observed various degrees of emotions and disclosure through the interviews. The results showed that adolescents were more likely to disclose their emotions when their mothers showed interest. The mothers who validated their adolescents' feelings presented them with opportunities to share their emotions, so disclosure occurred earlier in the conversation than it did for the pairs whose mothers did not offer validation. Such emotion-coaching mothers coach their offspring to think about what they are feeling and talk through it, and at the same time, they develop an increased sense of trust with their adolescents. By nurturing through showing interest

and concern, mothers can help their adolescents to learn to disclose their emotions in healthy ways.

Similarly, the degree of communication between parents and adolescents is related to the degree of depressive symptoms. Finan, Ohannessian, and Gordon (2018) hypothesized that if adolescents had healthy levels of communication with their parents, then they would have fewer instances of depression. To examine this, they studied adolescents from public high schools over the course of several years. The teenagers completed surveys about their depressive symptoms and communication levels with their parents, and they completed similar follow-up surveys a few years later as emerging adults. Statistical analyses of the data revealed that communication with parents only correlated to fewer depressive symptoms for female adolescents. Similarly, girls who communicated with their mothers were more likely to experience a decline of depressive symptoms as they entered emerging adulthood. The results support the findings of Allen et al. (2006), which suggest that adolescents who have good relationships with their parents are less likely to experience symptoms of depression. The researchers came to this conclusion by studying middle school students' depressive symptoms, relationship qualities with parents, and observed autonomy. In communicating with their mothers, the students were able to relate to them, and those students also were found to have lower levels of depression. These studies suggest that communication as a form of parental nurturance is important for adolescent well-being.

Skill development is also established in adolescence. Parents are often vital to this learning process, and their relationships with their adolescents can foster various levels of growth. According to Slicker, Picklesimer, Guzak, and Fuller (2005), the "parental characteristics necessary to facilitate life-skills development appear to be warmth, nurturance,

encouragement, and a responsive connection between parent and child” (p. 240). One of the most important life skills that parents help their adolescents develop is emotional regulation, and Farley and Jungmeen (2014) found that those who have good relationships with their parents might be better at emotional regulation than those who do not. If parents nurture their adolescents through warmth and responsiveness, adolescents can better adjust to changes in their lives and prepare for emerging adulthood.

In contrast, a lack of parental nurturance can lead to negative consequences for developing adolescents. For example, Valdes, Laursen, Guimond, Hartl, and Denner (2016) determined that parental psychological control harms adolescent adjustment. The researchers defined psychological control as “parental behaviors that intrude upon the cognitive, emotional, and psychological experiences of the child” (p. 2152). These behaviors oppose nurturance behaviors, so to study their effects on adolescents, the researchers surveyed young teenagers and their mothers about the psychological control that was present, the anxiety the children experienced, and the youth’s behavioral problems. The results indicated that the adolescents had difficulties adjusting when their mothers exercised psychological control. Specifically, they experienced greater levels of internal and external symptoms of anxiety than their peers whose mothers did not exercise psychological control. Therefore, psychological control is thought to be harmful to adolescent development.

In Emerging Adulthood

In emerging adulthood, the period of life from approximately 18-25 years of age, people go through changes as they decide what they will do with their lives and who they are in their communities. Transitions that often take place during this period may be related to attending college, beginning careers, leaving home for the first time, and struggling to find one’s place in

the world. McKinney, Morse, and Pastuszak (2014) studied the mitigating effects that effective parents have on college students. The researchers defined effective parenting as consisting of warmth and acceptance with appropriate levels of discipline. Therefore, they hypothesized that emerging adults who had effective parents would be better adjusted psychologically than those whose parents were ineffective. The study consisted of college students who completed questionnaires about their parents' parenting styles and levels of conflict and relationships between them. They also completed surveys about various psychopathologies that they might have been experiencing. The results showed that the college students with one effective parent were better adjusted than their peers, but those whose parents were both effective reported the highest level of psychological adjustment. The reverse was also true, which suggests a correlation between effective parenting and psychological adjustment in college students. Therefore, emerging adults who are nurtured by effective parents can better adapt to the stressors that they experience in that time of their lives.

Emerging adults handle many stresses during this. To study the relationship between their stress levels and the behaviors of their parents, Donnelly, Renk, and McKinney (2013) surveyed college students about their parents' levels of overprotection, time spent with their children, and discipline. Participants also answered questions about their perceptions of stress in their own lives. The results of the study showed that positive parenting behaviors were correlated with adaptive behaviors and healthier stress levels for the college students. Therefore, continual parental nurturance positively affects the development of individuals in this stage by fostering positive methods of coping with stress.

However, the relationships between emerging adults and their parents can become strained. The process of separation-individuation sometimes causes emerging adults to distance

themselves from their parents as they search for independence and unique identities (Koepke & Denissen, 2012). As emerging adults separate themselves from their parents, disclosure between the two groups of individuals can become difficult, because an emerging adult's need for independence can hinder his or her perceptions of the parent's receptiveness (Jiang, Yang, & Wang, 2016). In addition, parents often give their emerging adults undesired support, which impedes the latter's growing independence (Johnson & Benson, 2012).

To study the effects of various levels of parental support for emerging adults, Wang (2019) studied pairs of college students and their parents. The students completed surveys about the amount of support they desired from their parents and the quality of support that they received, and both the students and the parents answered questions about their relationship satisfaction and psychological well-being. The results revealed that a lack of support was correlated with lower levels of well-being. Excessive support from parents was generally not well-received, so it is important for parents to offer emerging adults only the amounts of support that they desire. Overall, appropriate support from parents is an important factor for the development of emerging adults and potentially alleviates higher levels of anxiety and stress in this stage.

Anxiety

The American Psychiatric Association (APA; 2013) defined anxiety as an expectation of danger that frequently results in tension and avoidance. People who experience anxiety generally notice differences in their behaviors, emotions, and cognitions, and they can also be affected by anxiety physically (Lindsey, 2014). Anxiety disorders, therefore, are characterized by persistent anxiety that often becomes worse without treatment. The symptoms that anxiety disorders present can inhibit a person's quality of life and result in various difficulties. For example,

symptoms of generalized anxiety disorder include fatigue, restlessness, muscle tension, and extreme worry (American Psychiatric Association, 2013). Overall, anxiety disorders can impair the functioning of individuals who are diagnosed with them.

Generalized Anxiety Disorder

Generalized anxiety disorder is commonly present with other types of anxiety disorders. The American Psychiatric Association (2013) stated that the anxiety that characterizes this disorder often is about everyday circumstances. For college students, this includes routine tasks such as exams, papers, social gatherings, and finances. In the United States, 2.9% of adults had been affected by this disorder in the 12-month period prior to completing surveys about various disorders (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). In many cases, individuals who are diagnosed with this disorder also have symptoms of other depressive or anxiety disorders (American Psychiatric Association, 2013). Though generalized anxiety disorder does not have a high prevalence rate, its rate of co-occurrence with other disorders commonly harms individuals' abilities to function at a normal rate.

Generalized anxiety disorder can result in decreased quality of life for those who are diagnosed with it. Mendlowicz and Stein (2000) studied the quality of life that individuals with various types of anxiety disorders experienced. The results showed that many people who were diagnosed with generalized anxiety disorders struggled in their workplaces and collected disability benefits from the government. Furthermore, Massion, Warshaw, and Keller (1993) found that individuals with generalized anxiety disorders reported decreased rates of emotional health and social functioning, especially when they also were diagnosed with panic disorders. Overall, the quality of life tends to be lower for individuals who are diagnosed with generalized anxiety disorder.

Social Anxiety

Another common form of anxiety is social anxiety disorder, which is a result of feelings of fear in social situations. The APA (2013) defined this disorder as the presence of intense fear of social settings and judgement from others. In stressful social situations, many people who are diagnosed with this disorder present symptoms that are similar to those that occur as a result of generalized anxiety disorder. The research of Kessler et al. (2012) has revealed that approximately 7% of adults in the United States were affected by this disorder in a 12-month period. Social anxiety disorder sometimes occurs alongside generalized anxiety disorder and is characterized by an overall anxiety about social interactions.

Socially anxious college students face several challenges in their daily lives. Individuals who struggle with this disorder fear negative reactions from their peers and are often afraid to participate or speak in their classes (Sharkin, 2006). Additionally, many who are diagnosed with this disorder constantly feel a need to hide their anxiety from others who they believe would judge them to be weak (Purdon, Antony, Monteiro, & Swinson, 2001). This is partly because individuals who struggle with social anxiety commonly have low levels of self-esteem and are critical of themselves (Cox, Fleet, & Stein, 2004). For these reasons, social anxiety disorder is a concern and presents challenges for emerging adults.

Weymouth and Buehler (2018) sought to determine the correlation between the levels of hostility that exist between adolescents and their parents and symptoms of social anxiety in the adolescents. To examine this, the researchers surveyed a sample of 416 American sixth graders and their parents once per year for three years. The participants filled out questionnaires and participated in activities and discussions under the observation of the researchers. The surveys and observations provided data about the adolescents' symptoms of social anxiety as well as the

hostility that they experience from and towards their parents. After the data were analyzed, the information revealed that the adolescents who faced regular hostility from their parents were more likely to experience the symptoms of social anxiety, particularly a desire to conform to their peers. This shows the negative consequences that parental hostility can have as adolescents develop into emerging adults.

Anxiety and College Students

There are several reasons for anxiety in college students. Navigating the process of separation individuation can have this effect, as can a constant need to receive approval (Lindsey, 2014). High stress levels due to assignments might also be involved, and “these students may have to face the task of taking on more adult-like responsibilities without having yet mastered the skills and cognitive maturity of adulthood” (Pedrelli, Nyer, Yeung, Zulauf, & Wilens, 2014, p. 503). Additionally, college students might not get enough sleep or eat properly, which can contribute to the stress that they experience (Ross, Niebling, & Heckert, 1999). Any combination of these factors can lead to feelings of anxiety among college students.

Lindsey’s (2014) study hypothesized that a positive correlation exists between the process of separation-individuation and anxiety that emerging adults face. To study this, undergraduate psychology students were asked to complete surveys about their anxiety and obstacles that they faced in achieving separation-individuation. The results indicated that the students who have struggled to complete the process of separation-individuation were more likely to struggle with anxiety than their peers who did not. For this reason, it is important for emerging adults to form identities that are neither disengaged from nor enmeshed with their parents.

Ross, Niebling, and Heckert (1999) sought to determine the most predominant sources of stress for college students that can contribute to anxiety. To examine this, they recruited 100 undergraduate students from a single university and asked them to complete surveys about their stress levels. The results revealed that the most common stressors were changes in patterns of sleeping or eating, vacations, and increased workloads or levels of responsibility. Since the majority of college students are affected by changes such as these regularly, it is important that they learn to regulate their stress levels before they develop anxiety struggles.

A recent study by Auerbach et al. (2018) examined surveys administered by the World Mental Health International College Student project to universities in eight different countries. The participants were students in their first year of college, and they answered questions about their mental health and symptoms of mood disorders. The survey results showed that approximately one-third of the sampled college students reported struggling with a mental disorder, with generalized anxiety disorder being the second most prevalent. The results from this convenience sample cannot be generalized to all college students, but they do show that anxiety among this population is an issue in society that needs future studies.

Stress and Anxiety

Individuals in emerging adulthood, especially those who are college students, are under large amounts of stress, and Misra and McKean (2000) hypothesized that academic stress levels are positively correlated with anxiety. To study this, researchers surveyed randomly selected undergraduate students about their academic stress levels and perceptions of stress. They also answered questions about both their trait and state anxieties. Statistical analyses revealed that many students felt pressured to succeed and as a result inflicted stress upon themselves. The

students also displayed emotional reactions to stress, and there was therefore a significant positive correlation between their stress levels and the anxiety that they experienced.

There are many potential causes of stress in college students' lives. One predictor of stress is psychological distress in the form of anxiety, depression, or low self-esteem (Saleh, Camart, & Romo, 2017). In addition, a sense of self-efficacy can also be a factor in a college student's stress symptoms (Han, 2005). However, the most obvious reason for stress among this population is general worry about exams, papers, and grades as students prepare for future careers (Hirsch, 2001). Stress, no matter the cause, is related to anxiety and is a cause for concern in college students.

Attachment Theory and Anxiety

Anxiety is also related to insecure attachment. Nolte, Guiney, Fonagy, Mayes, and Luyten (2011) stated, "[Attachment theory] responds to the stress provoked by environmental threats by promoting strategies that best maintain proximity to the caregiver" (p. 7). For example, people who are experiencing fear or stress might become distraught when separated from an attachment figure (Sbarra & Hazan, 2008). In addition, people who have a secure attachment style can control their anxiety through connections to attachment figures or remembering methods of coping with anxiety in the past (Diamond & Aspinwall, 2003). Similarly, Hill (2009) stated that children who are securely attached are able to comprehend their emotions and ways of thinking, which can help them in regulating their thoughts.

In 1997, Warren, Huston, Egeland, and Sroufe studied the correlation between anxious attachment styles and anxiety disorders in children and adolescents. They hypothesized that "chronic vigilance and anxiety may set the stage for the development of an anxiety disorder later" (p. 638). To research this, they studied anxiety experienced by new mothers in high risk

family situations and attachment styles of their one-year-old children. When those same children were around 17.5 years old, they were assessed to determine various anxiety disorder diagnoses. The results showed that the majority of adolescents who had anxiety disorders had an anxious attachment style in infancy. These results suggest that an anxious attachment style might be the strongest attachment-related predictor of anxiety disorders later in life, because the results could not be generalized to other forms of insecure attachment.

Similar research performed by Bosquet and Egeland (2006) hypothesized that infants who had insecure attachment styles would have difficulties regulating their emotions, poor relationships with peers, and anxiety as they grew up. In a replication study of the Strange Situation of Ainsworth and Bell (1970), Bosquet and Egeland (2006) examined 155 infants to determine their attachment styles. Those same participants were later studied when they were of preschool age to determine their abilities to regulate their emotions in frustrating situations. In kindergarten, first grade, sixth grade, and at age 16, the children were evaluated on their social competencies, peer relationships, and levels of anxiety. The results found relationships between insecure attachment styles, negative relationships with peers, and anxiety in both childhood and adolescence. These results indicate that both anxious and avoidant attachment styles affect children throughout the years that they are growing and can lead to poor emotional regulation and anxiety.

To further study the relationship between attachment theory and anxiety, Colonnese et al. (2011) performed an analysis of 46 studies that explored the correlations between those two factors. They studied both types of insecure attachment, which includes both anxious and avoidant attachment styles. The results indicate that the correlation between insecure attachment and anxiety is most potent in the teenage years, which is the time that attachment styles and

feelings of anxiety begin to become more consistent. These findings suggest that both types of insecure attachment can be related to anxiety.

Conclusion

Low degrees of nurturance in parent-child relationships might be related to the anxiety that many emerging adults experience. It is important for young children to securely attach to their parents and receive reassurance. This will encourage emotional disclosure to their parents into adolescence and adulthood and contribute to strong relationships with parents. Such ties can lend the support that many college students need to maintain strong mentalities and emotional health. Therefore, it is important for parents to establish strong relationships with their children, nurture them, and support them in every possible way.

Hypothesis

It is possible that there is a correlation between parent-child relationships and feelings of anxiety that the children have in emerging adulthood, such that a negative correlation exists between levels of parental nurturance and anxiety in emerging adults. The hypothesis, therefore, is that as the level of parental nurturance increases, college student anxiety will decrease. The null hypothesis is that the correlation between these two variables will be zero.

Method

Participants

Participants were undergraduate students who were at least 18 years old. To qualify for the study, each participant was also enrolled in at least one psychology course. There were originally 289 participants who began the survey, but three individuals did not meet the criteria and were therefore disqualified. In addition, 20 participants exited the survey before they completed all questions, so their data were removed. The final sample consisted of 266

participants, with 15% classified as freshmen, 17% as sophomores, 26% as juniors, and 42% as seniors. In addition, participants were asked to identify the marital statuses of their parents. The sample consisted of students who described their parents as either married (75%), cohabiting (1%), separated/divorced (11%), never married (11%), widowed (1%), or other (2%). The demographic representation of this sample is displayed in Table 1.

Table 1

Demographic Breakdown of Sample

	Characteristic	Frequency	Percentage
Year in College	Freshman	41	15
	Sophomore	45	17
	Junior	68	26
	Senior	112	42
Marital Status of Parents	Married	200	75
	Cohabiting	2	1
	Separated/Divorced	29	11
	Never married	29	11
	Widowed	2	1
	Other	4	2

The participants were all students at a private Christian university in the United States. Since they completed the survey by opening a link on the university's webpage for psychology activities, the data were collected through convenience sampling. The students who participated in the research were compensated with course credit.

Measures

Parental Nurturance Scale. Perceived parent-child relations can be determined through administering the Parental Nurturance Scale (Buri, 1989). The scale consists of a series of questions that asked participants to rate the perceived levels of nurturance that they received from their mothers. Each question presented a 5-point Likert scale that required participants to

determine their level of agreement about each statement, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An example of a question from this scale is, “My mother expresses warmth and affection for me.” Some questions required reverse scoring, and the total score was calculated by adding the values for each question. The potential scores ranged from 24 to 120, with higher scores indicating higher degrees of maternal nurturance. In the current study, the participants’ scores ranged from 34 to 120, with an average score of 99.9 and an internal consistency reliability of $\alpha = 0.959$.

Overall Anxiety Severity and Impairment Scale. To examine anxiety, participants completed a survey using an Overall Anxiety Severity and Impairment Scale (Norman, Hami Cissell, Means-Christensen, & Stein, 2006). This scale is a series of five questions that assessed the levels of anxiety that participants experienced and the effects that the anxiety has on their functioning. An example of a question from this scale is, “In the past week, when you have felt anxious, how intense or severe was your anxiety?” Each question was measured on a 5-point answer scale, which ranged from 1 (*no anxiety or impairment from anxiety*) to 5 (*constant anxiety or extreme impairment from anxiety*). The total score was calculated by adding the values for each question, with the possible scores ranging from 5 to 25. The actual scores for the present study ranged from 5 to 22, with an average score of 10.6 and an internal consistency reliability of $\alpha = 0.882$.

Procedure

The procedures used in the study were approved by the university’s Institutional Review Board. The survey was posted on the university’s psychology website, which provides research options for students. Participants self-selected by clicking on the link to begin the study. They then read an informed consent form before they began the measures of the study. The consent

form stated that they would participate in a study researching the correlation between parental nurturance and anxiety in a college student population. They answered three questions through Qualtrics that determined their eligibility to participate in the research followed by two demographic questions. Upon completion of these measures, the participants answered the questions presented by the Parental Nurturance Scale and the Overall Anxiety Severity and Impairment Scale.

Results

A Pearson correlation analysis was conducted using SPSS (Version 25) to determine whether high total scores on the parental nurturance scale were related to low total scores on the overall anxiety severity and impairment scale. The initial data screening revealed that the data for the parental nurturance scale totals was highly negatively skewed. The descriptive statistics revealed that $M = 99.91$ and $SD = 17.963$. In addition, the data for the overall anxiety severity and impairment scale totals was approximately symmetric, and the descriptive statistics revealed that $M = 10.95$ and $SD = 3.605$.

A Pearson correlation coefficient was computed to determine the relationship between the total scores on the parental nurturance and overall anxiety severity and impairment scales. The results indicated a significant negative correlation between the variables ($r = -0.293, p < 0.05$). As parental nurturance scores increased overall anxiety severity and impairment scores significantly decreased. Therefore, the null hypothesis that the correlation between these variables would be zero was rejected.

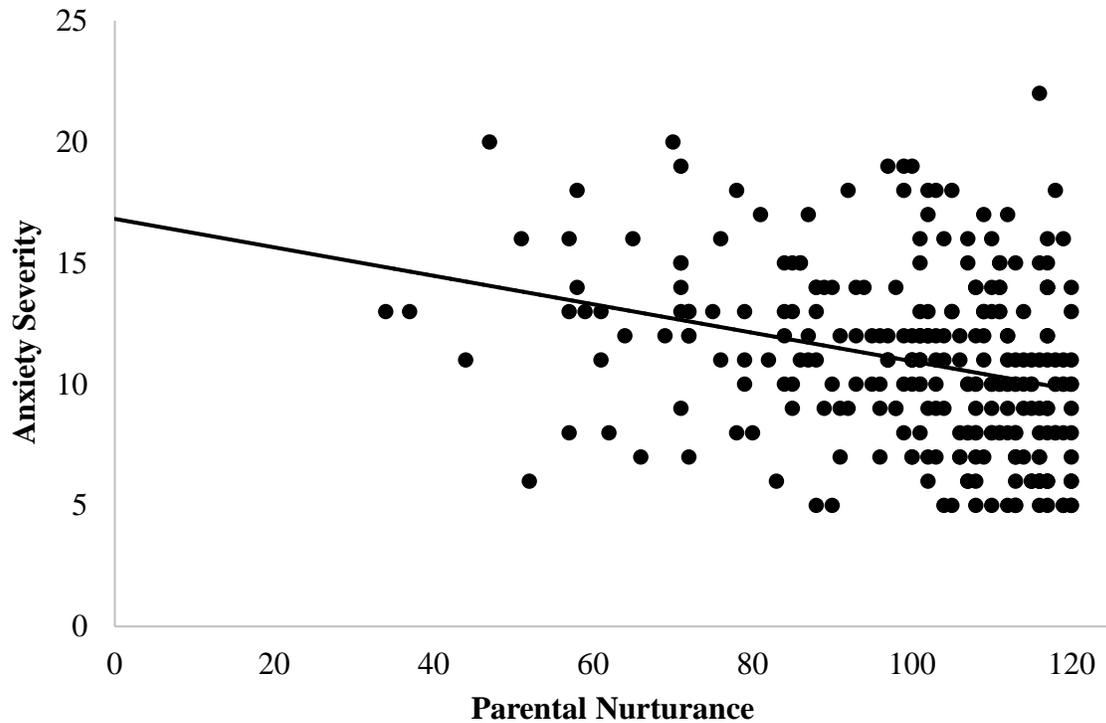


Figure 1. Relationship between parental nurturance and anxiety. This scatter plot displays the negative correlation between parental nurturance and anxiety among 266 participants.

There were also differences in the correlations among the four different student classifications. Table 2 highlights the differences among the descriptive statistics and correlations of freshmen, sophomores, juniors, and seniors. On the parental nurturance scale, the freshman scores ranged from 34 to 120, sophomore scores from 37 to 119, junior scores from 47 to 120, and senior scores from 51 to 120. On the overall anxiety severity and impairment scale, the freshman scores ranged from 5 to 18, sophomore scores from 5 to 18, junior scores from 5 to 20, and senior scores from 5 to 22. When the sample was separated this way, only the total scores of the freshmen and seniors resulted in significant correlations between parental nurturance and anxiety.

Table 2

Correlation Differences Among Classifications

Year in College	PNS <i>M</i>	PNS <i>SD</i>	OASIS <i>M</i>	OASIS <i>SD</i>	Pearson Correlation	Significance (Two- tailed)
Freshman	105.20	15.72	10.12	3.66	-0.363	0.020
Sophomore	101.60	18.95	10.27	3.32	-0.252	0.095
Junior	98.76	17.11	11.54	3.47	-0.169	0.168
Senior	98.79	18.45	11.08	3.72	-0.322	0.001

Discussion

The present study measured the relationship between the overall anxiety that college students experienced and the perceived levels of parental nurturance that they received. The general data trend was that participants who received high scores on the parental nurturance scale also received low scores on the overall anxiety severity and impairment scale, and vice versa. Therefore, the results supported the hypothesis that there is a negative correlation between parental nurturance and anxiety in college students. These results support studies that have suggested that parental nurturance is beneficial for children's mental health, even as they grow into adults (e.g. Allen et al., 2006; Donnelly et al., 2013; Finan et al., 2018; McKinney et al., 2014; Raposa & Hammen, 2018; Wang, 2019).

Bulanda and Majumdar (2009) found that low levels of parental nurturance are related to low levels of self-esteem in adolescence. Further research by Reed, Ferraro, Lucier-Greer, and Barber (2015) suggested that individuals continue to be affected by negative levels of nurturance as they enter emerging adulthood. Upon coming to this conclusion, the researchers reasoned that "An adverse family environment, acting as a source of chronic stress, and amplified by the discrete life event of the transition to college, erodes self-efficacy, which increases vulnerability and diminishes one's ability to cope with these stressors" (p. 2717). Therefore, the participants in

the present study who were measured as having high levels of overall anxiety might have difficulties with attachment, emotional regulation, or managing stressors, all of which could be related to their family environments and the low levels of nurturance that they have received from their parents.

The majority of students who had highly supportive and nurturing parents reported low levels of anxiety, but a considerable minority reported high levels of both parental nurturance and anxiety. Therefore, it is possible that these participants' parents have provided too much nurturance and can at times be overbearing. Such overinvolved parents, who are commonly referred to as "helicopter parents," are often positively correlated with emerging adults who have symptoms of anxiety (Cui, Janhonen-Abruquah, Darling, Chavez, & Palojoki, 2019). Helicopter parents such as these can harm an emerging adult's process of separation-individuation, which can cause stress and harm to his or her overall well-being (Johnson & Benson, 2012). These principles provide a possible explanation for the participants who perceived both high levels of nurturance and moderate levels of anxiety.

Conversely, there were a few participants who reported low levels of both parental nurturance and anxiety. This suggests that though parental nurturance is a factor in anxiety levels for emerging adults, it is not necessarily the sole deciding component. College students can manage their anxiety and stress through seeking social support from their peers and relying on meaning-focused coping skills (Leipold, Munz, & Michéle-Malkowsky, 2018). Therefore, these students who reported low levels of parental nurturance likely had other supports and methods of coping with their stress that led to their low levels of overall anxiety.

Overall, the correlation between parental nurturance and anxiety was significant, but when the data were separated by classification, the significance was found in only two of the

four classifications. Though the junior class had the lowest average parental nurturance total and the highest average anxiety severity total, the correlation between the two was not significant. Only the data of the freshman and senior classes resulted in a significant correlation, which might have implications for students in these classifications. Of the four classifications, the freshmen reported the highest average parental nurturance total and the lowest average anxiety. This might suggest that students who have recently begun to attend college are still strongly connected to their parents, who provide support as they begin to navigate emerging adulthood. Additionally, freshmen commonly struggle with homesickness, which can hinder their adjustment to college (English, Davis, Wei, & Gross, 2017). This may cause them to increase communication with their parents, who provide nurturance and potential help with anxiety.

Conversely, the senior class also had a significant correlation, but their average total nurturance was lower and average total anxiety was higher than the freshman class. By the time emerging adults are seniors in college, they have likely separated from their parents more than freshmen have, which could explain the lower levels of perceived parental nurturance. Moreover, they might have increased levels of anxiety due to the stress of more difficult classes and making plans for after their graduations (Iorga, Dondas, & Zugun-Eloae, 2018). However, they might have learned coping methods that freshmen have not yet grasped. The freshmen and seniors, therefore, are at different places in their lives, and both demonstrated a significant correlation between parental nurturance and anxiety. Because students in these two classifications are in transitional times of their lives, future research could benefit from replicating this study using a population of undergraduate transfer students.

Limitations

Due to the nature of the population that was surveyed for this study, the generalizability of the results is limited. All participants were taken from the psychology department of a private Christian university. Therefore, it is likely that a majority of the participants identify as Christians. This could explain the reason for the negative skewness of the Parental Nurture Scale data. Wilcox (1998) found that protestant Christian parents were likely to express warmth and emotions to their children. Therefore, this could explain why many scores for that scale were high, and some were even perfect, because the participants perceived high levels of parental nurturance due to the Christian faith that encompassed their homes as they were raised. Similarly, many participants might have reported low levels of anxiety because they rely on their faith, which can be an effective coping skill (Agorastos, Demiralay, & Huber, 2014). Therefore, the faith and beliefs of the Christian population who completed this survey might have affected the results.

Furthermore, the sample does not accurately represent the general population. It only included students who were enrolled in psychology courses, and individuals in this population might have greater knowledge of ways to cope with anxiety than their peers who do not take psychology courses. Also, a majority (75%) of the participants reported that their parents are married, and this is not representative of the population as a whole. Future research could benefit from utilizing a more diverse sample to increase the data's relevance to other populations. In addition, it could be beneficial to analyze the data based on the various categories of the parents' marital statuses that were reported. Analyses such as these were not completed for this sample, because many of the categories had very small sample sizes. However, it is possible that correlations between parental nurturance and anxiety in college students might have only existed

in certain populations, such as those whose parents were married or those whose parents were separated or divorced. Therefore, future research could further analyze the role that marital status has in this negative correlation.

Another limitation is that the parental nurturance scale only utilized questions that asked participants about their perceptions of their mothers. Since most students reported that their parents were married, it is likely that both their mothers and their fathers displayed various levels of nurturance that could have been related to their anxiety impairment. In addition, the students who categorized their parents in any other classification of marital status might have a better relationship with the parent that they live with, which is not necessarily always the mother. Therefore, future research could benefit from presenting participants with two versions of the parental nurturance scale: one that asks questions about their mothers, and a second that asks questions about their fathers.

Implications

Though the current study has demonstrated a significant negative correlation between parental nurturance and anxiety, it was only conducted among undergraduate students. Therefore, it could be beneficial to replicate this study with other populations. Research conducted with children and adolescents could potentially help to determine the onset of anxiety, which can help to further study its relationship with parental nurturance. Furthermore, research conducted with older adults can aid in determining the strength of the correlation and whether it is possible that the relationship between parental nurturance and anxiety decreases as emerging adults grow older and leave the stressors of college behind them. Overall, research with other populations could be valuable.

Research that relates the results of this study to the various parenting styles could also be beneficial. Different parenting styles, such as permissive and authoritative, tend to involve greater levels of nurturance than others do, so it could be valuable to determine the effects that these styles have on anxiety in emerging adults. Kenney, Lac, Hummer, Grimaldi, and Labrie (2015) found that students who were raised by authoritative parents were able to better adjust to college than their peers whose parents utilized other styles. In addition, research has shown that authoritative parenting is related to lower levels of depressive symptoms in adolescents and emerging adults (Liem, Cavell, & Lustig, 2010). Therefore, parenting style and nurturance might both affect the anxiety levels of college students.

Since anxiety is a common struggle for college students, mental health professionals and university employees should be aware of its relationship with parental nurturance. Though the correlation does not imply causation, it would be beneficial for mental health professionals to explore students' family dynamics as they are counseling them. Knowledge of the relationship between the two variables can be a powerful tool for counselors and college students both to recognize.

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