Depression during the College Years: The Family as a ‘Safety Net’

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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2016

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Abstract

Adolescents are at an increased risk for developing depression and the incidence of major depressive disorder peaks among individuals in their 20s (American Psychiatric Association, 2013). Depression among emerging adults and college students in particular, is understudied and has rarely been investigated in relation to family relationships. Guided by Bowen theory, we investigated the relationships between parent-child differentiation during adolescence and emerging adulthood, depressive symptoms and the fear of negative evaluation. 58 emerging adults, aged 20 – 25 years and their mothers, were recruited through undergraduate classes at a public, Midwestern University and the participants provided information about the variables of interest for two time points, adolescence and after the transition to college.

Results of structural equation models suggested that both dimensions of differentiation, togetherness and individuality, were related to depressive symptoms in emerging adulthood. During emerging adulthood, the child's perception of togetherness with both parents was negatively related to depressive symptoms. Interestingly, while the perception of individuality with fathers was negatively related, individuality with mothers was positively related to depressive symptoms. Family differentiation was related to the fear of negative evaluation via the pathway of depressive symptoms. Overall, our results suggest that family differentiation continues to impact the well-being of emerging adults.
after their transition to college. Importantly, the dimension of individuality emerged as a significant factor, both during adolescence and emerging adulthood. This study provides evidence for the increased use of family therapy in the treatment of depression during emerging adulthood and for the continued assessment of family processes at the relationship versus the family-level.
Acknowledgments

I have several people to thank for having played a part in my journey of learning until this point. I would like to express my gratitude to my advisor and mentor, Dr. Suzanne Bartle-Haring, who has directly and indirectly taught me several life lessons. Suzanne, you have walked side-by-side with me (and your other students) providing encouragement, support, prompt responses to emails and not to forget, stepping on my “ganglia” when it was necessary. It has been my privilege to have been trained by someone of your caliber.

Drs. Schoppe-Sullivan and Purtell, I am grateful that you agreed to be on my committee and for your role in making this process much less harrowing than it could have been. Sarah, thank you for your constructive feedback of my methodology paper for candidacy, which laid the foundation for my dissertation study. Kelly, thank you for checking in on me multiple times prior to candidacy and for your valuable feedback. Dr. Onate, thank you for agreeing to be the Graduate Faculty Representative for my defense.

The incredible CFT program at OSU has left a lasting mark on me and my hope is to pass on my learning as much as possible. I would like to thank Drs. Slesnick and Pratt, for supervising me when I first began in the program and shaping me into the therapist I am today. Natasha, thank you for your encouragement whenever I needed it and cheering
me on through small accomplishments. Keeley, thank you for providing me with internship opportunities and exposing us students to medical family therapy. Denitza, thank you for the wonderful supervision you provided and for helping me become a better therapist. To my friends and colleagues in both CFT and HDFS, I will miss you so much! I thoroughly enjoyed our classes together, the discussions, the complaining, the last-minute work etc.

The faculty members of HDFS have been wonderful teachers and mentors in different ways. I have learned so much from all the classes, both as an undergraduate and graduate student. Dr. Folden, thank you for your support when I first began teaching and the conversations we had in your office. Jody, thank you for having been available whenever I needed your help with official paperwork etc. My sincere ‘thank you’ to the instructors of several Human Sciences classes, who helped me with the recruitment for my dissertation study. For the students and parents who participated, I hope to continue in my efforts to advocate for the mental health needs of emerging adults.

Sister Mary Lobo, you are largely instrumental in bringing me to this place in my life. I am forever indebted to you for the role you have played. Dr. Rajani, thank you for showing me what a mentor can be; you have my deep gratitude.

I am very fortunate to be surrounded by family and friends, both in India and here in the U.S, who were untiring in their support and appreciation. Malu, I cannot thank you enough for having walked this path with me, all the way from India. Nini, thank you for leading by example. Kitcha mama and Vimala aunty, I could not have juggled school life and child care without your ever-willing support. Thank you for moving to 740. Sunita
and Arun anna, you laid the foundation…this is my way of saying “thank you”. Daddy and mummy, your combined capacity for hard-work, dedication and effective time-management skills seem to have rubbed off, even though the Math skills did not! I know you are proud of me and that means a lot.

Rahul Ponappa, thank you for coming into my life. I am grateful to God for you. To the “apple” and “orange” of my eyes, Rhea and Neha, I cannot believe how lucky I am to be your mother. I must have done something good in my past life…
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Emerging Adulthood and Depression

Major depressive disorder (MDD) is the most common psychiatric disorder in the United States, with over 16% of the population reporting at least one episode in their lifetime (Gladstone, Beardslee & O’Connor, 2011; Kessler et al., 2003). Adolescence is a time of increased risk for the development of MDD (American Psychiatric Association, 2013), with the lifetime prevalence increasing from 1% of the population under age 12 to approximately 17 to 25% by the end of adolescence (Anderson & Teicher, 2008). The incidence of MDD peaks among individuals in their 20s, with the prevalence in 18-29 year olds being three times higher than that of individuals 60 years or older (American Psychiatric Association, 2013). MDD is associated with several negative outcomes such as suicidality, declining academic performance and/or behavioral problems, eating disorders, anxiety, substance abuse and unemployment during adolescence and young adulthood (Fergusson, Borden & Horwood, 2007; Sheets et al., 2013).

We know that a supportive family environment and parental warmth are protective against adolescent depression (Gladstone et al., 2011; Van Woorhees et al., 2008); however, there is little information on family processes that may impact depressive symptoms during the college years. Importantly, we do not know how the family environment shapes the trajectory of depressive symptoms from adolescence
through the transition to college. Even if successfully treated during adolescence, the risk of subsequent episodes increases by age 24 (Sheets et al., 2013) and therefore, continued support may be needed during the developmental stage known as ‘emerging adulthood’ (Arnett, 2000).

Unlike in previous generations, the emerging adults of today are less likely to be monitored by parents when compared to adolescents and are less bound by roles when compared to adults (Arnett, 2000). They are in a unique situation where they are free to explore in several intrapsychic and interpersonal areas of development and yet, find themselves financially and to an extent, emotionally dependent on their parents. Besides the transition from the home and the family, college students experience additional stressors related to expectations for academic achievement and a highly competitive labor market (Arnett, 2007). The rate of college students diagnosed with depression increased from 10% in 2000 to 15% in 2006 (American College Health Association, 2008; Mahmoud et al., 2012) and suicide, which is related to depression, is the second leading cause of death on college campuses (Cukrowicz et al., 2011). This population may be especially vulnerable to subclinical depressive symptoms (symptoms that do not reach criteria for diagnosis or fall below the threshold of clinical significance) that often go undiagnosed and untreated (Cukrowicz et al., 2011; Hunt & Eisenberg, 2010). Cukrowicz and colleagues found that though suicidal ideation was highly elevated for students scoring highest on severity of depressive symptoms, elevation in suicidal ideation was also observed for students with mild and moderate scores.
Despite these statistics, little attention has been given to the study of depression in emerging adulthood. Moreover, research on emerging adults seldom takes into account the family context they come from and are still connected to (Ponappa, Bartle-Haring, Holowacz & Ferriby, in press). Bowen theory (Bowen, 1978) offers some insight into how family processes may impact depressive symptoms during both adolescence and emerging adulthood. According to this theory, *both* the experience of togetherness with other family members and the individuality to make developmentally-appropriate decisions are crucial to healthy identity development and well-being during adolescence and emerging adulthood (Bowen, 1978; Bartle-Haring, 1997). Bowen uses the term ‘differentiation’ to describe the capacity of the family system to tolerate both the forces of individuality and togetherness. Families with higher levels of differentiation experience low levels of anxiety and by tolerating both connection and separateness, facilitate the healthy emotional development of their members. On the contrary, poorly differentiated families are characterized by chronic anxiety and often experience extremes of either individuality or togetherness (also known as ‘fusion’) in the parental and parent-child relationships. This fusion in family relationships is related to poor ‘differentiation of self’ in individual family members and thereby, the development of physical and psychological symptoms (Bowen, 1978).

‘Differentiation of self’ is defined as an individual’s capacity to distinguish between his or her intellectual and emotional functioning, such that the emotional system does not dominate the intellect (Bowen, 1978). Individuals with higher levels of differentiation of self are able to balance their needs for connection with others and
individuality, are clear about their personal values and goals, and accountable for their emotional being under stress (Bowen, 1978; Friedman, 1991). On the other hand, individuals with low levels of differentiation of self, have an intellect dominated by the emotional system, are less flexible, less adaptable to stress and more emotionally dependent on others (Bowen, 1978) for a sense of self. The fear of negative evaluation by others, one of the diagnostic criteria for social anxiety disorder as per the DSM-5 (American Psychiatric Association, 2013) has been liked with poor differentiation of self among university students (Peleg-Popko, 2002). Thus, it is possible that for emerging adults growing up in poorly-differentiated families, increased anxiety related to how others may evaluate them is related to the development/maintenance of depressive symptoms.

There is some evidence linking family differentiation to depression for both young and late adolescents (Sbatelli & Anderson, 1991; Cohen et al., 2003; Gavazzi, 1993), however, there has been little research in this area during the past decade. A recent study suggests that adolescents experience healthy separation within the context of continued connection with their parents (Ponappa, Bartle-Haring & Day, 2014). To our knowledge, there is no research on how the togetherness-individuality patterns continue to impact the emotional functioning of the child after he or she transitions out of the family home. Some questions that remain unanswered are: Is there an increased demand for individuality after a child’s transition to college and how does the family system negotiate this demand? How do possible changes in the togetherness-individuality
dynamic between parents and children impact the child’s depressive symptoms after this transition?

**The Current Study**

The overarching purpose of this project was to identify family relationship processes that contribute to the increased emotional well-being of emerging adults particularly after their transition to college, while protecting against the experience of depressive symptoms. Guided by Bowen theory and the construct of family differentiation, this study explored how the experience of togetherness and individuality in parent-child relationships during adolescence and emerging adulthood impacts depressive symptoms during emerging adulthood. The primary goal of this study was to understand the relationship between (a) the family’s level of differentiation during the child’s adolescence and emerging adulthood, (b) the fear of negative evaluation by others and (c) depressive symptoms during emerging adulthood. The secondary goal was to understand if there are changes in the balance between individuality and togetherness after the child’s transition to college and whether these changes, if any, impact individual depressive symptoms. The long-term goal was to provide empirical evidence for family-systems therapy in the treatment of depression among college students.
Significance

This study is unique in its use of relationship data from parents as well as emerging adult children. Most existing studies utilize the perspectives of the emerging adults alone, a method that may not enable exploration of the shared as well as differing perspectives of multiple family members. Another unique contribution of this study is the retrospective assessment of relationship variables, which allows for the examination of change in the variables over time. Finally, this study hopes to extend the literature on depression in emerging adulthood by providing evidence for the inclusion of family relationships in prevention and intervention efforts for college students. College students struggling with depression and their family members may benefit from therapeutic methods that utilize the family system as a resource.
Chapter 2: Literature Review

**Depression in Adolescence**

Adolescence is a time of increased risk for the development of major depressive disorder, with the life-time prevalence increasing from 1% of the population under age 12 to approximately 17 to 25% by the end of adolescence (Anderson & Teicher, 2008; Kessler, 2003). Further, prevalence rates are twice as high for adolescent females as males, a ratio that is not apparent in childhood (Anderson & Teicher, 2008; Meadows, Brown & Elder, 2005). Depression is a major risk factor for adolescent suicide, the third leading cause of death in this population (Thapar et al., 2012).

Individual physical factors such as brain and cognitive maturation (Steinberg, 2005; Thapar et al., 2012), psychological factors, as well as environmental factors such as the role of family (Meadows, Brown & Elder, 2005), peer relationships (Brendgen et al., 2005) and increased stress (Thapar et al., 2012) have been postulated as possible risk factors during adolescence.

Parental depression is a potent risk factor for adolescent depression and may be transmitted genetically or via exposure to a non-supportive family environment (Bouma et al., 2008). Bouma and colleagues (2008) found that the adolescent children of parents who had experienced a lifetime episode of depression were at increased risk for
depressive symptoms, particularly after the occurrence of stressful life events. The level of support, attachment and approval provided in the family environment is related to depressive symptoms within community (McFarlane et al., 1994; Sheeber et al., 2001), clinical (Armsden et al., 1990; Sheeber et al., 2001) and at-risk samples of adolescents (Garber & Little, 1999; Sheeber et al., 2001). Parent-child conflict and in some cases, the resultant deterioration of the parent-child relationship as the child moves into adolescence and early adulthood, may contribute to an increase in depressive symptoms during these stages (Buist et al., 2004; Meadows et al., 2005; Sheeber et al., 2007).

**Depression in Emerging Adulthood**

A review of studies in the past decade suggests that in comparison with adolescence, there has been relatively less interest in examining emerging adulthood as a unique context for the development and/or recurrence of depressive symptoms. This population experiences the highest incidence and cumulative prevalence of MDD as compared to any other age group (Kuwabara et al., 2007). Emerging adults with depression are more likely to experience lower academic and occupational achievement (Sheets et al., 2013), lower life satisfaction (Howard, Galambos, & Krahn, 2010), engage in sexually risky behaviors (Khan et al., 2009) and substance abuse behaviors (Gonzalez, Reynolds & Skewes, 2011) than their peers who do not experience depressive symptoms.

There is evidence that adolescent-onset depression confers a 45-66% chance of MDD recurrence by age 24 (Fergusson & Woodward, 2002; Sheets et al., 2013). Thus,
even if successfully treated during adolescence, the risk of subsequent episodes increases with each recurrence (Sheets et al., 2013).

Emerging adulthood (Arnett, 2000) is increasingly viewed as a “complex bridge between adolescence and assumption of adult responsibilities” (Berk, 2010, p. 367), which involves continued exploration in the areas of identity development, romantic relationships, social and peer networks, as well as academic and career goals (Arnett, 2000). This is also a time when most individuals experience significant life transitions such as graduating from high school, leaving the parental home to pursue higher education or a career and engaging in intimate relationships (Liem, Lustig & Dillon, 2009). Since emerging adults are less likely to be monitored by parents when compared to adolescents and are less bound by roles when compared to adults, there is a spike in risky behaviors such as unprotected sex, unsafe driving and substance abuse (Steinberg, 2005). The stressors and challenges associated with this transitional period are linked with an increased risk of depression (Kuwabara et al., 2007).

The rate of college students diagnosed with depression increased from 10% in 2000 to 15% in 2006 (American College Health Association, 2008; Mahmoud et al., 2012). Depression is linked with suicide, the second leading cause of death among college students, with 1100 lives lost each year (Mahmoud et al., 2012). Using a sample of 508 undergraduate students between the ages of 18 and 24, Mahmoud and colleagues found that depression, anxiety and stress were predicted by maladaptive coping strategies. Increased loneliness among college freshmen is also related to depressive symptoms (Wei, Russell, & Zakalik, 2005). Wei and colleagues (2005) found that college
freshman with high levels of attachment anxiety as well as avoidance experienced increased depressive symptoms.

Though emerging adulthood is recognized as a period when depression spikes (Arnett, 2000), there is a significant gap in our understanding of how individual, family, peer and societal factors impact depressive symptoms in this population.

**Bowen Theory and depression during adolescence and emerging adulthood**

According to Bowen theory, the development of depression in an adolescent is related to the level of differentiation in the family system (Bowen, 1978; Sabatelli & Anderson, 1991; Gavazzi, 1993). Differentiation in the family system is its capacity to tolerate both the forces of individuality and togetherness, which act to counterbalance each other (Bowen, 1978). The individuality force is the need of individuals to be self-contained while the togetherness force is the instinctual need to be connected to others (Kerr, 1981).

According to Bowen, neither force overrides the other in times of optimum family functioning, thus leaving the system sufficiently flexible to adapt to change (Bowen, 1978). However, regression occurs from the overriding of individuality by the togetherness forces, in the presence of chronic anxiety (Bowen, 1978). An example of regression is when an anxious teenager demands rights and freedom and the parents first object but later, agree to the demands in order to relieve the anxiety of the moment.
While most families experience these cycles that result in temporary shifts in balance, a
family that experiences chronic sustained anxiety rather than acute anxiety, may be more susceptible to regression (Bowen, 1978).

In a well-differentiated family system, family members, including spouses and children, are able to function as self-contained individuals and as parts of a cohesive group. On the other hand, a poorly differentiated family is characterized by chronic anxiety and fusion, wherein members may experience either blurred boundaries where individual autonomy is inhibited or rigid boundaries that inhibit intimacy (Sabatelli & Anderson, 1991).

The fusion in such families is characterized by a loss of self of the individuals involved, such that they form a “common self” (Bowen, 1978). Ironically, this also increases each individual’s alienation from the others due to the ongoing effort to regain the balance between the togetherness and individuality forces (Bowen, 1978). The spousal or parental system is also characterized by fusion, which is manifested in symptoms such as marital conflict, sickness or dysfunction in one spouse and the projection of problems to the children in the family (Bowen, 1978).

Parental control and authority in such systems is either restrictive, thus inhibiting children’s autonomous functioning or absent, thus failing to provide the necessary nurturance. Such systems are also overwhelmed by high conflict and tension (Sabatelli & Anderson, 1991), often resulting in escalation of intergenerational triangles and coalitions (Bowen, 1978; Sabatelli & Anderson, 1991). Children growing up in poorly-differentiated families are at greater risk for emotional and/or physical impairment over time and depression during adolescence is one such form of impairment (Bowen, 1978).
‘Family projection process’ is a term Bowen used to describe how the fusion in a marital relationship impairs the functioning of one or more children in a family. One manifestation of low differentiation in the parental relationship is the mother-father-child triangle, through which parental anxiety is transmitted to the target child through over-involvement (Bowen, 1978, p. 205). In a moderately severe instance of fusion in the parent-child relationship, there is a positive over-attachment in infancy, with gradually increasing symptoms of behavior or internalizing problems during childhood. During adolescence, this child’s unsuccessful attempts at “growing away” from the fusion may result in a rapid development of severe symptoms (Bowen, 1978).

**Individuation**

As seen above, the family’s level of differentiation plays a crucial role in the child’s adolescent years. This is a developmental stage when the child begins to form a separate identity through intense exploration within and outside the family, a process known as individuation (Bartle-Haring, 1997). Successful individuation requires that both parents and adolescent renegotiate their relationship to allow for the adolescent’s increasing individuality and ensure increased mutuality and symmetry in their relationship. The child also becomes less dependent on the parents for emotional support, leaning more on peers for social and emotional guidance. The optimal context for successful individuation is when both parental and peer influences co-exist in the adolescent’s life (Sabatelli & Anderson, 1991).
In a poorly-differentiated system, the adolescent’s individuation is often unsuccessful due to either the premature severance of ties or extreme closeness with parents. In the former case, the adolescent may rely intensely on peers in the absence of parental support, thus increasing the risk of adjustment difficulties if peer influences are negative. In the latter case, the adolescent may feel guilty or anxious for engaging in peer relationships, thus failing to form positive peer bonds (Sabatelli & Anderson, 1991).

Unsuccessful individuation impedes identity development and is related to a host of adjustment problems including running away from home, early initiation of sexual activity among females, depression and anxiety (Sabatelli & Anderson, 1991). Since identity development is the pathway to intimacy in adult relationships, unsuccessful resolution of individuation can result in long-term adjustment difficulties during adulthood (Allison & Sabatelli, 1988).

**Differentiation of Self**

Bowen theorists believe that the individuation process during early and middle adolescence sets the stage for the differentiation of self of the late adolescent (Allison & Sabatelli, 1988; Bartle-Haring, 1997). Thus, differentiation of self can be viewed as the culmination of the family’s emotional processes within an individual. According to Bowen (1978), the stage is set for a fixed ‘basic’ level of differentiation of self when the child leaves the parental home during early adulthood. After this point, however, slow change is possible via long-term therapy (Bowen, 1978).
Differentiation of self is defined as an individual’s capacity to differentiate between his or her intellectual and emotional functioning, such that the emotional system does not dominate the intellect (Bowen, 1978). Individuals with higher levels of differentiation of self are able to balance their needs for connection with others and individuality, are clear about their personal values and goals, and accountable for their emotional being under stress (Bowen, 1978; Friedman, 1991). On the other hand, individuals with low levels of differentiation of self, have an intellect dominated by the emotional system and are less flexible, less adaptable to stress and more emotionally dependent on others (Bowen, 1978).

An individual’s differentiation of self is manifested in four ways: emotional reactivity, the ability to take an I-position, fusion in relationships and emotional cut-off (Kerr & Bowen, 1988; Skowron & Friedlander, 1998). Thus, an individual with a relatively high differentiation of self may be able to think, speak and act objectively and engage in close relationships without fear of losing self. On the other hand, individuals with a lower differentiation of self typically resort to emotionally-motivated thoughts, speech and action and struggle to maintain a self within relationships.

As seen earlier, fusion between parents and a target child may result in severe symptoms during the child’s adolescence, due to attempts by the child to individuate (Bowen, 1978). In the case of more intense parent-child fusion, the child may remain relatively symptom-free until young adulthood, when he or she might “collapse in psychosis” during attempts to function away from the parents (Bowen, 1978, p. 381). According to Bowen, children who grow up to be poorly-differentiated, struggle to
separate from their parents and function independently as young adults. At this point, they tend to “cut-off” in order to maintain a “pseudo-separation” from the family (Bowen, 1978, p. 92).

The term ‘Emotional cutoff’ describes how poorly-differentiated individuals handle their unresolved attachment with their parents. Their response to the uncomfortable fusion in the relationship with their parents is to detach themselves from their families of origin physically, emotionally or in both ways. Thus, individuals who run away from their family of origin are as emotionally dependent as those who never leave home. Those who cut-off physically are more likely to get into impulsive relationships while those who continue to maintain some level of contact with their parents may develop more internalized symptoms such as depression, when under stress (Bowen, 1978).

**Family differentiation and depressive symptoms**

There is some evidence linking family differentiation to depression, for both young and late adolescents (Sabatelli & Anderson, 1991; Cohen et al., 2003; Gavazzi, 1993). Gavazzi (1993) found significant differences between families of adolescents (between 12 and 18 years of age) with higher or lower levels of differentiation in the areas of parent-child conflict, out-of-control behaviors, withdrawal from other family members, school-related difficulties, peer relationships, depressed affect, suicidal ideation, low self-esteem and engagement in illegal activities. Cohen and colleagues (2003) found that in families of adolescents between 17 and 22 years of age, the tolerance
for autonomy was related to the adolescent’s internalized distress symptoms such as depression, anxiety and worry.

Sabatelli & Anderson (1991) studied college students between 18 and 25 years and found that individuals reporting dysfunctional relationships between their parents and participating in intergenerational coalitions reported greater depressive symptoms. Similarly, triangulation into parental conflict has been linked to internalizing behaviors such as anxiety, depressive affect and withdrawal, problems in peer interactions and increased self-blame during adolescence (Buehler, Franck & Cook, 2009; Grych, Raynor & Fosco, 2004).

A related hypothesis is that the triangulated child functions as a ‘distance-holder’ or ‘distance-regulator’ in the parental relationship (Byng-Hall, 1980; Bartle & Rosen, 1994). When there is intense fusion in a relationship, a symptom may surface and regulate the boundaries such that neither partner feels threatened by too much closeness or too much distance (Bartle & Rosen, 1994). According to Byng-Hall (1980), the triangulated child monitors the distance between his or her parents, ready to pull them together when they get too distant or come between them if they get too close. This child is perceived as a cause of discomfort and therefore, is likely to develop symptoms and become the designated patient (Byng-Hall, 1980).

From the above review, it appears that the level of differentiation in the family is related to the experience of depressive symptoms during adolescence as well as after the transition to college. Since differentiation involves both individuality and togetherness, it is important to continue to investigate how these two forces are balanced in today’s
The evolving context of ‘emerging adulthood’ wherein individuals often move away from the parental home and yet, are dependent on their parents for their financial and emotional needs.

**Fear of negative evaluation.**

The construct of fear of negative evaluation includes feelings of apprehension and distress about others’ negative evaluation as well as the expectation of being evaluated negatively by others (Weeks et al., 2005). According to cognitive-behavioral models, social anxiety is a response to the fear of negative evaluation (Wells et al. 1995). Social anxiety in college students is, among other outcomes, related to increased likelihood of alcohol consumption for conformity and coping reasons (Lewis et al., 2008), negative body image for both sexes and the fear of intimacy among females (Cash et al., 2004) as well as academic dishonesty (Wowra, 2007).

There is some evidence that FNE may be a heritable trait along with other dimensions that are related to social anxiety, such as trait anxiousness, submissiveness and social avoidance (Stein, Jang & Livesley, 2002). The lack of perceived social acceptance by peers during adolescence is also linked with subsequent FNE (Teachman & Allen, 2007). From a Bowen theoretical perspective, FNE among university students has been linked with their differentiation of self (Peleg-Popko, 2002) as well as the level of differentiation in the parental dyad (Peleg, 2005). Since increased differentiation is related to greater goal-directedness versus other-directedness (Bowen, 1978), It may be appropriate to assume that individuals from poorly-differentiated families would be more
emotionally dependent on others and therefore, experience increased fear of negative evaluation.

There is some evidence linking FNE with depression. FNE predicted depression in a sample of 612 Taiwanese undergraduate students and the authors of the study assert that this association makes sense because negative thought is central to depression (Wang et al., 2011). FNE has also been found to partially mediate the association between academic stress and depression (Nonterah et al., 2015) among college students.

While family differentiation has been associated with both FNE and depression, we are not aware of any study that has investigated associations between all three variables. It is possible that differentiation in a family system impacts an individual’s FNE, which in turn impacts his or her depressive symptoms. It is also possible that differentiation impacts depressive symptoms, which then impact the FNE.

**The Current Study**

The purpose of this study was to investigate how the experience of togetherness and individuality (level of differentiation) in a family system impacts depressive symptoms during adolescence and emerging adulthood. We also hoped to explore the relationship between family differentiation (during adolescence as well as emerging adulthood), fear of negative evaluation and depressive symptoms in emerging adulthood. A related goal was to examine if any changes in the togetherness-individuality balance in the family system after the child’s departure to college were related to depressive symptoms.
**Aim 1:** To investigate the relationship between family differentiation during adolescence as well as emerging adulthood, fear of negative evaluation and depressive symptoms during emerging adulthood.

**Hypothesis.** Family differentiation (balance in togetherness and individuality without compromising one or the other) will be negatively related to an individual’s fear of negative evaluation by others, which will be positively related to depressive symptoms.

**Aim 2:** To investigate if the interplay between individuality and togetherness in the family changes between adolescence and emerging adulthood and if this change impacts depressive symptoms during the college years.

**Hypothesis.** If individuality-togetherness changes from adolescent to emerging adulthood such that both increase, this will be negatively related to depressive symptoms. However, an increase or decrease in one factor alone (indicative of poor differentiation) will be positively related with depression.
Chapter 3: Methods

Participants and Procedure

Participants were recruited from undergraduate classes at a large, public university in the Midwestern United States. After obtaining IRB approval, we contacted instructors from undergraduate programs including Human Development and Family Science (HDFS), Hospitality Management, Human Nutrition and Consumer Science and sought their permission to present the study and recruit participants from their classes. This researcher then entered a classroom, requested the instructor to step out to avoid any feelings of coercion and made a two-three minute presentation about the study, its voluntary aspect and the incentives. Students were specifically informed that participation or non-participation would not impact their grades in the specific class. Interested students who were between 20 and 25 years of age provided their email addresses as well as the email addresses of one or both of their parents (based on whether they came from a single or two-parent family). Students were informed that all participating family members must possess at least High School level English reading skills in order to participate. Subsequently, participants were sent email invitations with further information about the study and a link to the online survey. The consent form was
attached to the online survey and each participant was emailed a gift card worth $ 5.00 once he or she agreed to participate in the survey. We also held a random drawing and emailed additional $50.00 gift cards to ten winning families. Out of 125 student surveys and 214 parent surveys that were distributed, we received a total of 83 student responses and 133 parent responses. After filtering out incomplete responses and matching student surveys with one or both parents, we had data from 66 families. Although 43 pairs of parents reported that their child had invited both his and her parents to participate in the study, we had completed surveys of both parents from 35 families and only one parent from the remaining 31 families. Out of the 66 families, we had complete data from 58 mothers and their undergraduate children (35 two-parent surveys and 23 only-mother surveys) and therefore, elected to omit the remaining 8 families with only-father surveys from our analysis. Out of the 58 participating families, 46 emerging adults provided data on their fathers’ perspectives of relationships in the family, thus allowing us access to multiple familial relationships despite not having data from the fathers.

Table 1 displays demographic characteristics for our sample. Mean age of the students was 20.77 years (SD = .88). There were 54 female and 4 male students in our final sample. Out of the 58 students, 51 (87.9%) reported Caucasian ethnicity, three students (5.2%) reported Asian, two students reported (3.4%) African-American, one student (1.7%) reported Hispanic and one student (1.7%) reported “other” ethnicity. Four students (6.9%) reported less than one year of education, 42 students (72.4%) reported between two and three years and 12 students (20.6) reported four or more years of education since High School. In terms of Undergraduate majors, 19 students (32%)
reported that they were majoring in Human Development and Family Science and the rest of the participants were divided among Majors such as Kinesiology, Social Work, Speech and Hearing Science, Human Nutrition, Dietetics, Biology, Math, Molecular Genetics, Occupational Therapy, Linguistics, Education and Business. 47 students (81%) reported that their parents were in a committed relationship or marriage at the time of the study and 52 students (89.7%) reported that their parents had been in a committed relationship or marriage when the student was a sophomore in High School.

Mean age of the mothers in our sample was 50.18 years ($SD = 7.33$). Out of the 58 mothers, 50 (86.2%) reported Caucasian ethnicity, 3 (5.2%) Asian, 3 (5.2%) Hispanic and 2 (3.4%) reported African-American ethnicity. 13 mothers (22.4%) reported one year of education, four mothers (6.9%) reported two years and 41 mothers (70.7%) reported four or more years of education after High School. In terms of annual household income, three mothers (5.2%) reported between $10,000 and $20,000, two mothers (3.4%) reported between $20,000 and $30,000, two mothers (3.4%) reported between $30,000 and $50,000, 19 mothers (32.8%) reported between $50,000 and $100,000 and 29 mothers (50%) reported an annual household income of $100,000 and above.
Measures

Demographic Information

All participants were asked for information on their age, biological sex, ethnicity, highest level of educational attainment, household income, prior diagnosis of depression and any related medication, if applicable. The demographic variables were coded as follows: sex (1 = male, 2 = female); ethnicity (1 = Caucasian, 2 = African-American, 3 = Asian, 4 = Hispanic, 5 = Native American and 6 = other ethnicity) and household income (1 = less than/equal to $10,000, 2 = between $10,000 and $20,000, 3 – between $20,000 and $30,000, 4 = between 30,000 and 50,000, 5 = between 50,000 and 100,000 and 6 = 100,000 and above). Both mothers and emerging adults were asked to report on the number of years of education since High School on a continuous scale of: < 1 year, 1 year, 2 years, 3 years, 4 years and > 4 years. Participants were asked to respond with 1 = yes and 2 = no for whether they had a prior diagnosis of depression and if yes, whether they were currently using medication as treatment. Students also reported on their specific majors in college.

Depressive Symptoms were assessed using the Patient Health Questionnaire (PHQ-9) (Kroenke, Spitzer & Williams, 2001), which consists of 9 items. Each item is scored from 0 (not at all) to 3 (nearly every day) and the total score ranges from 0 to 27. We used this as a continuous variable for our analysis, with higher scores indicating greater depressive symptoms. Items include, “Over the last 2 weeks, how often have you been bothered by
any of the following problems? “Little interest or pleasure in doing things”, “thoughts that you would be better off dead or of hurting yourself in some way”. Student participants responded to these questions for two time periods- adolescence (when they were 14-15 years old) and during the time of the study. Parents reported on their depressive symptoms for any two week period in the six months leading up to the study. The PHQ-9 has previously been used with college student samples (Eisenberg et al., 2007; Garlow et al., 2008). It has demonstrated strong internal consistency and test-retest reliability and is highly correlated ($r = .73$) with scores on the Beck Depression Inventory in the general population (Smarr & Keefer, 2011). Reliability of the PHQ-9 for our emerging adult sample was $\alpha = .83$ and for the sample of mothers was .87.

**Togetherness** was assessed using seven items from the Social Connectedness Scale (Lee, Draper, & Lee, 2001) and each student answered each set of seven items twice (for a total of 14 questions) to report on his or her perspective of the togetherness from a) child to parent and b) parent to child. Mothers responded to 14 items and reported on the togetherness from a) Mother to child and b) Child to mother. Participants responded on a Likert scale from 1 (Strongly disagree) to 5 (agree). Sample items included “I feel distant from my child” and “I feel understood by my mother”. All participants answered the questions for two time periods- a) when the student was an adolescent and b) during the time of the study. Higher scores represent greater perceived levels of togetherness in the specific relationship. For our analysis, we created a latent variable for togetherness with mother using the child’s report of togetherness from child to mother and mother to child.
as well as mother’s report of togetherness from mother to child and child to mother (four indicators). We also created a latent variable for togetherness between child and father, using the child’s report of togetherness from child to father and father to child (two indicators). This inventory has previously been used with college-aged siblings, with reliabilities for togetherness with fathers and mothers for the older sibling at .85 and .91 and for the younger sibling at .84 and .93 (Ferriby, 2015). Reliability of the togetherness scale for our emerging adult sample was $\alpha = .91$ and for the sample of mothers was .93.

**Individuality** was assessed using a modified 3-item version of the Healthy Separation subscale of the Separation Individuation Test for Adolescents (Levine, Green & Millon, 1986). We reworded some original items were reworded since they were “double-barreled” items. Students and mothers answered each set of three items twice to report on the sense of individuality in the relationship between a) child and parent and b) parent and child. All participants answered the questions for two time periods, the child’s adolescence and emerging adulthood. Sample items include, “My father and I are different from each other in some ways”, “I am comfortable with some degree of conflict with my child” and “My child feels that he/she and I have some different interests.” Responses ranged from 1 “strongly disagree” to 5 “strongly agree” with higher scores indicating a higher sense of individuality. For our analysis, we created a latent variable for child’s perception of individuality with mother using the child’s report of individuality from child to mother and mother to child (two indicators) and a latent variable for mother’s perception of individuality with child using mother’s report of
individuality from mother to child and child to mother (two indicators). We also created a third latent variable for individuality with father using the child’s report of individuality from child to father and father to child (two indicators). This inventory has previously been used with college-aged siblings, with reliabilities for togetherness with fathers and mothers for the older sibling at .86 and .75 and for the younger sibling at .78 and .69 (Ferriby, 2015). Reliability of the individuality scale for our emerging adult sample was $\alpha = .87$ (child to mother) and $\alpha = .83$ (child to father). Reliability for the sample of mothers was .84.

**Fear of Negative Evaluation** was assessed using the Brief Fear of Negative Evaluation Scale (Leary, 1983). This scale is composed of 12 items describing fearful or worrying cognition. The respondent indicates the extent to which each item describes himself or herself on a Likert Scale ranging from 1 (“Not at all”) to 5 (“Extremely”). Sample items include, “I am frequently afraid of other people noticing my shortcomings”, “I often worry that I will say or do the wrong things” and “I am afraid others will not approve of me”. Reliability in a clinical sample was excellent ($\alpha = .97$) with a test–retest correlation of .94 over two weeks (Collins et al., 2005). Reliability of the fear of negative evaluation scale for our emerging adult sample was $\alpha = .82$. 

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Data Analysis

We performed structural equation modeling using SPSS AMOS version 22.0 (Arbuckle, 2013) in order to a) create our measurement models using confirmatory factor analyses (CFA) and b) create the structural models to test the relationships between family differentiation (togetherness and individuality), the fear of negative evaluation (FNE) and depression during emerging adulthood. SEM is useful for testing associations while simultaneously allowing for the nonindependence of related family members.

We used several fit indices to determine how well our models fit the data. A non-significant Chi-Square value ($p > .05$) is usually indicative of perfect fit. The root-mean-squared error of approximation (RMSEA) with a value of .08 or less indicates close fit. Values greater than .95 for the comparative fit index (CFI), incremental fit index (IFI) and the Tucker Lewis Index (TLI), also indicate good fit while values higher than .90 are indicative of acceptable fit (Atkinson et al., 2011; Schreiber et al., 2006).

First, we used CFA procedures to determine the best-fitting indicators for our hypothesized latent variables to represent togetherness and individuality. We started with a single latent variable for individuality and one for togetherness using all the reciprocal dyad scores from the emerging adults and their mothers. This resulted in a poor fit to the data. We then separated the indicators into two or more latent variable depending on which dyadic relationship was the target (mother-child, father-child or mother-father). We then examined the fit as well as the estimates of the loadings for the indicators and the amount of variance accounted for by the latent variable to determine which set of
indicators was best for the latent variables. The results of the final accepted CFA model (please see figure 1) are presented in the next section. Togetherness was best represented by two dyadic factors (child and mother and child and father) and individuality was best represented by three dyadic factors (child to mother, mother to child and child and father).

Our original structural model included all five latent variables (togetherness and individuality) as exogenous variables with FNE and depression in emerging adulthood as endogenous variables. This model had paths leading from the differentiation variables to FNE and a path from FNE to depression. The results of this model are presented in the next section.

Next, in order to determine if there was an indirect relationship between differentiation and FNE via the pathway of depression, we estimated a model with paths leading from the differentiation variables to depression in emerging adulthood and a path from depression to FNE. Since this model fit the data better (results presented in the next section), we elected to accept this as our baseline model. We estimated this model twice, first for emerging adulthood and then for adolescence.

Our second research question was aimed at determining any differences (and their impact on depression) in the perceptions of togetherness and individuality between adolescence and emerging adulthood. For this purpose, we first computed variables for the reliable change scores of each subscale. The reliable change (RC) scores were computed by first calculating the difference in subscale means between adolescence and emerging adulthood and subsequently dividing this difference by the standard error of the
difference in means. RC scores greater than 1.96 reflect “actual” change (Jacobson & Truax, 1991). We then transformed these RC variables into categorical variables by coding a positive RC as 1 (reflective of a significant increase), no RC as 2 and negative RC (reflective of a significant decrease) as 3. We then estimated a model after including these categorical variables as exogenous variables with paths leading to depression. The results of this model are presented in the next section.

Finally, we included household income, mother’s education, child education, child gender and mother’s report of depressive symptoms as exogenous variables in our emerging adulthood model. We chose to retain only mother’s education and household income in our final model (please see figure 2), since the other demographic variables had no significant associations with depression.

We had no missing data for depression in emerging adulthood. The FNE and adolescent depression variables had one count of missing data each. For the togetherness and individuality subscales, we had missing data for 13-19 dyads (22 – 32%) on each subscale related to emerging adults and their mothers. Out of the 46 families with data on fathers, we had missing data from 12 to 13 cases on togetherness and individuality in the emerging adult-father relationship. We used Full Information Maximum Likelihood (FIML) estimation to handle the missing data.
Chapter 4: Results

Table 2 provides the correlation coefficients, means, standard deviations and Cronbach’s alphas of the study variables. The means for the six togetherness subscales (29.22, 29.09, 30.21, 30.69, 28.88 and 28.93) were all on the higher end of the 7-35 point scale. The means of the individuality subscales (11.60, 10.97, 11.61, 11.59, 11.50 and 10.88) were also on the higher end of the 3-15 point scale. These means indicated that overall, both the emerging adults and their mothers perceived high levels of togetherness as well as individuality in their relationships. The mean for depression in emerging adulthood was 7.29 (SD = 5.10) on a scale of 0-27 and the mean for FNE was 33.68 (SD = 8.16) on a scale of 5-60.

Correlations

Emerging Adulthood

Participants’ report of their sense of togetherness with the other (mother or child) was significantly and positively related to their perception of how the other viewed the relationship. Thus, the emerging adults’ sense of togetherness in the relationship with their mothers and fathers as well as their view of their mothers’ and fathers’ sense of togetherness in the relationship (r = .87; r = .89) were highly correlated. The mothers’ sense of togetherness in the relationship and their perception of the child’s sense (r = .95) was highly correlated. Similarly, the emerging adults’ sense of individuality with their
mothers and fathers as well as their perception of their mothers’ and fathers’ sense of individuality with their children ($r = .85; r = .85$) were highly correlated. Finally, the mothers’ sense of individuality in the relationship and their perception of the child’s sense ($r = .91$), was highly correlated.

The emerging adults’ sense of togetherness and individuality in their relationships with their mothers was significantly and positively correlated to their sense of togetherness and individuality with their fathers. Thus, the emerging adults’ sense of togetherness with their mothers from both the child’s and mother’s perspective was positively correlated with their sense of togetherness with their fathers ($r = .44; r = .44; r = .36; r = .48$). Also, the emerging adults’ sense of individuality with their mothers from both the child’s and mother’s perspective was positively correlated with their sense of togetherness with their fathers from both perspectives ($r = .56; r = .63; r = .56; r = .69$).

The emerging adults’ sense of togetherness with their mothers ($r = .45; r = .42$) was correlated with their mothers’ report of the same. However, their sense of individuality was not significantly correlated with their mothers’ report of individuality in the relationship ($r = -.03; r = .02; r = .04; r = .12$).

Depression during emerging adulthood was significantly and negatively associated with the emerging adults’ report on their mothers’ perception of togetherness in the relationship ($r = -.36$) and the emerging adult’s report on their fathers’ perception of togetherness in the relationship ($r = -.37$). However, depression was not significantly correlated with the emerging adults’ own perception of togetherness in their relationships.
with their parents or with their mothers’ report of togetherness. Further, depression in emerging adulthood was not significantly correlated with any individuality subscale.

Depression during emerging adulthood was significantly and positively associated with depression during adolescence \( (r = .53) \) and the emerging adults’ fear of negative evaluation by others \( (r = .44) \). Fear of negative evaluation was not significantly correlated with any differentiation subscale for emerging adulthood.

**Adolescence**

Depression during adolescence, based on retrospective reports, was significantly and positively correlated with the fear of negative evaluation during emerging adulthood \( (r = .54) \). Adolescent depression was also negatively correlated with the children’s perception of togetherness with their mothers \( (r = -.55; r = -.51) \) as well as the mothers’ perception of togetherness \( (r = -.37) \) during adolescence. There were no significant correlations between adolescent depression and togetherness with fathers or individuality with either parent. Fear of negative evaluation in emerging adulthood was related to the children’s sense of togetherness with their mothers \( (r = -.34) \) as well as the mothers’ sense of togetherness \( (r = -.33) \) during adolescence.

**Change in Togetherness and Individuality from Adolescence to Emerging Adulthood**

**Adulthood**

The means of the six togetherness subscales during adolescence \( (25.95, 26.97, 27.47, 27.88, 26.32 \text{ and } 27.03) \) were slightly lower than the means during emerging
adulthood. The difference in the means of the togetherness variables between emerging adulthood and adolescence were as follows: 3.27, 2.12, 2.74, 2.81, 2.56, and 1.90. The means of the six individuality variables during adolescence (11.20, 10.80, 11.61, 11.65, 11.20 and 10.88) however, were very similar to those during emerging adulthood. The difference in the means of the individuality subscales between emerging adulthood and adolescence were as follows: 0.40, 0.17, 0.00, -0.06, 0.30 and 0.00).

The students’ perspectives of togetherness in the child-mother relationship during adolescence and emerging adulthood \((r = .53; r = .48)\) as well as in the child-father relationship \((r = .41; r = .54)\) were positively and significantly correlated. The mothers’ perspectives of togetherness as viewed by their children \((r = .39)\) were correlated, however, their own perception of togetherness between adolescence and emerging adulthood was not \((r = .29)\). All participants’ reports of individuality during adolescence and emerging adulthood were highly correlated. Thus, the emerging adults’ perspectives on the relationships with their mothers \((r = .78; r = .92)\) and their fathers \((r = .87; r = .93)\) as well as the mothers’ perspectives \((r = .84; r = .82)\) were positively and significantly correlated.

**Model Tests**

To begin with, we performed CFA procedures to specify our measurement model. Our primary goal was to determine the indicator variables that would best fit our proposed latent variables – togetherness and individuality. First, we specified a two-factor model, with all six related subscales loading on to each factor. Next, we specified a
model with two factors each for togetherness and individuality, one representing the a) child and mother relationship and one representing the b) child and father relationship. This model reflected an improvement in fit as compared to the previous model. Finally, while retaining the two-factor model for togetherness, we specified a three-factor model only for individuality, representing it through the a) child to mother, b) mother to child and c) child and father relationship. This model seemed to provide the best fit and we retained it as our measurement model.

Thus, our measurement model was a five-factor model, with two togetherness factors and three individuality factors. The latent variable for togetherness with mother had four indicators, two from the child’s perspective and two from the mother’s perspective. The latent variable for togetherness with father had two indicators to represent the child’s perspective (since we did not use the fathers’ perspectives for our analyses). Individuality was represented by three latent variables – a) child’s perception of individuality with mother (with two indicators), b) mother’s perception of individuality with child (with two indicators) and c) individuality in child’s relationship with father, from the child’s (two indicators) perspective. This model provided good fit to the data; $\chi^2(45) = 51.57, p = .23$, RMSEA = 0.05, IFI = .98, TLI = .97, CFI = .98. All indicator variables loaded significantly on to their latent variables. The fit indices for all our estimated models are displayed in table 3.
**Estimating a model for Aim 1:** To investigate the relationship between family differentiation during adolescence as well as emerging adulthood, fear of negative evaluation and depressive symptoms during emerging adulthood.

Hypothesis: Family differentiation (balance in togetherness and individuality without compromising one or the other) will be negatively related to an individual’s fear of negative evaluation by others, which will be positively related to depressive symptoms.

**Emerging Adult model.**

We estimated a structural model to test this hypothesis, with paths leading from the differentiation variables to FNE and from FNE to depression in emerging adulthood. Based on our original hypothesis, we wanted to test if family differentiation is related to depressive symptoms via the pathway of the fear of negative evaluation. This model had an acceptable fit; $\chi^2 (62) = 84.26, p = .03$, RMSEA = 0.07, IFI = .95, TLI = .91, CFI = .95. The emerging adult’s sense of individuality with mother (from child’s perspective) was positively related to his or her FNE ($\beta = .50, p = .05$). The only other significant relationship in this model was the path from FNE to depression ($\beta = .43, p < .01$). This model accounted for 15% of the variance in FNE ($R^2 = .16$) and 19% of the variance ($R^2 = .19$) in depression.

Next, we elected to estimate a model with a direct path from the differentiation variables to depression and a path from depression to FNE. This model provided a better fit to the data; $\chi^2 (62) = 77.19, p = .06$, RMSEA = 0.06, IFI = .96, TLI = .94, CFI = .96.
Togetherness with father ($\beta = -.40, p = .01$) and individuality in the relationship with father ($\beta = -.49, p = .03$) were both negatively related to depressive symptoms. The emerging adult’s perception of individuality in the relationship with mother ($\beta = .71, p = .003$) was significantly and positively related to the experience of depressive symptoms. Depression was significantly and positively related to FNE ($\beta = .43, p < .01$).

Togetherness with mother as well as mother’s perception of individuality in the relationship with child were not significantly related to depressive symptoms. This model accounted for 38% of the variance in depression ($R^2 = .38$) and 19% of the variance ($R^2 = .19$) in FNE.

**Adolescence model.**

In order to investigate the impact of family relationships during adolescence, we estimated a similar model with paths from differentiation during the child’s adolescence to depression in emerging adulthood and from depression to the fear of negative evaluation. This model provided slightly better fit than the emerging adulthood model; $\chi^2 (62) = 71.87, p = .18$, RMSEA = 0.05, IFI = .98, TLI = .96, CFI = .97. Individuality with father during adolescence was significantly and negatively associated with depression in emerging adulthood ($\beta = -.73, p = .02$). Individuality with mother during adolescence (from child’s perspective) was also significantly but positively associated with depression in emerging adulthood ($\beta = .83, p = .003$) and depression was positively associated with FNE ($\beta = .43, p < .01$). Unlike in the emerging adulthood model, togetherness with father during adolescence was not significantly related to depressive symptoms during emerging
adulthood. This model explained 32% of the variance in depression \( (R^2 = .32) \) and 19% of the variance \( (R^2 = .19) \) in FNE.

**Estimating a model for Aim 2.** To investigate if the interplay between individuality and togetherness in the family changes between adolescence and emerging adulthood and if this change impacts depressive symptoms during the college years.

Hypothesis: If individuality-togetherness changes from adolescent to emerging adulthood such that both increase, this will be negatively related to depressive symptoms. However, an increase or decrease in one factor alone (indicative of poor differentiation) will be positively related with depression.

As mentioned in the data analysis section, we computed reliable change (RC) scores for each of the differentiation subscales by dividing the difference in means between adolescence and emerging adulthood by the standard error of the difference in means. The distribution of the RC scores (Figure 2) suggested that from the children’s perspective, togetherness and individuality in their relationships with both their mothers and fathers either increased or remained the same since adolescence. Mothers in our sample reported mostly increased or same togetherness with their children, but in terms of individuality, they mostly reported no change. We transformed these RC variables into categorical variables by coding a positive reliable difference as 1, no difference as 2 and negative difference as 3 and included these categorical variables as exogenous variables in our emerging adult model. This model decreased fit considerably; \( \chi^2 (110) = 179.50, p = .00, \) RMSEA = 0.10, IFI = .89, TLI = .76, CFI = .87. This model resulted in a negative
and significant path between togetherness in the emerging adult-mother relationship and depression ($\beta = -0.18, p = .04$) and a positive and significant path between individuality in the emerging adult-mother relationship (as perceived by the child) ($\beta = 0.90, p = .001$) and depression. As in the previous model, both togetherness ($\beta = -0.28, p = .02$) and individuality ($\beta = -0.68, p = .01$) between the emerging adult and father were negatively associated with depression. Among the RC variables, the only significant relationship was between the difference in individuality in the mother-child relationship (as perceived by mother) ($\beta = -0.34, p = .03$) and depression. Thus, when mothers perceived an increase in individuality between adolescence and emerging adulthood, the emerging adult’s depressive symptoms increased.

**Final model including control variables.**

In order to investigate the impact of demographic characteristics, we included household income, mother’s education, child’s education, child’s gender and mother’s report of depressive symptoms as exogenous variables in our emerging adulthood model. Out of these variables, only mother’s education and household income were significantly related to depression and we included these variables in our model with RC variables (please see figure 3). This model provided poorer fit than the previous models; $\chi^2 (126) = 240.64, p = .00$, RMSEA = 0.12, IFI = .84, TLI = .63, CFI = .81. Togetherness in the emerging adult-mother relationship ($\beta = -0.15, p = .01$), individuality in the emerging adult-mother relationship (as perceived by the child) ($\beta = 0.49, p = .001$), togetherness in the emerging adult-father relationship ($\beta = -0.29, p = .007$) and individuality in the
emerging adult-father relationship ($\beta = -.40, p = .04$) were associated with depression. Mother’s perception of the difference in individuality between emerging adult and mother ($\beta = -.27, p = .04$) was negatively associated with depression, as was household income ($\beta = -.35, p = .01$). Mother’s education was no longer significantly associated with depression. As expected, depression was positively associated with FNE ($\beta = .43, p < .01$). The standardized regression estimates from this model are displayed in figure 3. This model accounted for 45% of the variance in depression ($R^2 = .45$) and 19% of the variance ($R^2 = .19$) in FNE.
Chapter 5: Discussion

The purpose of our study was to investigate how family differentiation (togetherness as well as individuality in relationships) (Bowen, 1978) impacts the experience of depressive symptoms in emerging adulthood. Our results partially supported Bowen theory and extant literature postulating negative relationships between family differentiation and depressive symptoms (Bowen, 1978; Cohen et al., 2003; Sabatelli & Anderson, 1991).

Togetherness in the relationship between emerging adults and their mothers and fathers was negatively associated with depressive symptoms, indicating that as the perception of togetherness increased, the emerging adults experienced fewer depressive symptoms. This finding supports previous literature relating depression to togetherness as well as other similar constructs such as family cohesion (Harris & Molock, 2000) and parental support (Fingerman et al., 2012; Meadows, Brown & Elder, 2006).

In terms of individuality, however, our findings only partially supported previous studies. When the emerging adults perceived increased individuality with their fathers, they experienced fewer depressive symptoms. However, their perception of increased individuality with their mothers, both during adolescence and emerging adulthood, was
linked to more depressive symptoms. This finding seems counterintuitive particularly with reference to Bowen theory. Cohen et al., 2003 found a relationship between family autonomy and internalizing symptoms and Gavazzi (1993) as well as Sabatelli & Anderson (1991) found that family differentiation, as measured by its tolerance for intimacy and autonomy, was negatively associated with depressive symptoms. It is important, however, to recognize that a) Cohen and colleagues combined child, mother and father scores to create one factor each for family intimacy and individuality whereas we separated the perspectives into dyadic factors and b) Gavazzi combined the individuality and intimacy scores into one ‘differentiation’ factor. Further, there were significant differences in the gender composition of previous samples of college students; our sample included 56 female and 4 male students while a) the study by Sabatelli & Anderson included 30 males and 30 females and b) the study Gavazzi included 35 males and 25 females.

It is possible that there are differences in the quality of the emotional relationship between emerging adults and their mothers versus their fathers. When Bowen discussed parent-child fusion, he often related it to the mother-child relationship and depicted the father as a “distant” figure, involved only as much as the mother needed him to be. In today’s context, where both fathers and mothers are involved in providing financial, social and emotional support to emerging adults (Fingerman et al., 2012; Nelson et al., 2011), it is possible that the threshold for fusion or cut-off is different for the father-child versus the mother-child dyad and also for male versus female children. Nelson and colleagues (2011) found that emerging adults had better outcomes with mothers who
were high on response and low on control (authoritative) and also with mothers who scored high on both response and control dimensions (inconsistent). With fathers, however, only an authoritative parenting style was related to increased adjustment. The authors also found that mothers of emerging adults demonstrated more warmth and involvement while their fathers engaged in more controlling behaviors. Further research examining mother-child and father-child differentiation may help clarify these differences.

The child’s gender may also impact these relationships differently. Since our sample included a majority of female students, it may be that adolescent and emerging adult females view increased emotional distance from their mothers more negatively than they do emotional distance with their fathers. Thus, the items we used to measure individuality (ex-“I am comfortable with some degree of conflict with my mother”) may have assessed emotional cut-off between female students and their mothers. Since most of the emerging adults in this sample were females with more than two years of college education, further studies with newly matriculating students and a more diverse sample will enable better understanding of the differing complexities of mother-daughter, mother-son, father-daughter and father-son relationships during this transitional period.

**Changes in individuality-togetherness between adolescence and emerging adulthood.**

A unique aspect of this study was its focus on exploring family differentiation during adolescence and its impact on depressive symptoms during emerging adulthood,
based on retrospective data. Notably, togetherness with fathers and mothers during adolescence was not related to depressive symptoms in emerging adulthood. Individuality during adolescence, however, was related to depressive symptoms in emerging adulthood. These findings may be best understood in the context of adolescent individuation, a critical developmental task that sets the stage for differentiation of self in young adulthood (Bartle-Haring, 1997). In well-differentiated families, both the parents and the adolescent renegotiate their relationship to allow for the child’s increasing sense of individuality. Moreover, the adolescent relies less on parents and more on peers for social and emotional support (Sabatelli & Anderson, 1991). Longitudinal research linking family differentiation during childhood and adolescence to mental health outcomes in emerging adulthood may be useful in extending this literature.

A related goal of this study was to understand if any changes occurred in the levels of togetherness and individuality between adolescence and the transition to college and if so, how these changes impacted depressive symptoms after the transition. The results partially supported our hypothesis that change in one dimension alone (either togetherness or individuality) would be positively related to depressive symptoms. As the mothers perceived increased individuality in their relationships with their children between adolescence and emerging adulthood, the emerging adults experienced more depressive symptoms. This finding is interesting when viewed in the light of the fact that, as seen in figure 2, the mothers in our sample reported greater decrease in individuality since adolescence, than increase. Since change in differentiation after the transition to college has not been measured in previous studies, we could only hypothesize that at least
in our sample, the mothers’ perception of decreased emotional distance with their children seemed to have a positive impact on the well-being of the emerging adults who were in college. Once again, this is counterintuitive with respect to Bowen theory but consistent with our findings related to Aim 1. This finding leads to a larger question: Is it possible that mothers today find it more difficult to “let go” of their emerging adult children and therefore, compensate for their sense of loss by perceiving or even expecting reduced individuality?

Depressive symptoms were positively associated with the emerging adult’s fear of being negatively evaluated by others, a cognitive-behavioral feature of social anxiety (Wang et al., 2012). Previous studies suggest that FNE is related to differentiation (Peleg-Popko, 2002; Peleg, 2005) and depressive symptoms (Nonterah et al., 2015; Wang et al., 2012). However, we did not find a direct association between family differentiation and FNE but rather, an indirect association via the experience of depressive symptoms. A possible explanation is that the family’s level of differentiation impacts the child’s depressive symptoms during the developmental years, which in turn impact the child’s differentiation of self and FNE as a young adult. Since, to our knowledge, this is the first study to explore associations between all three variables, it may be important to attempt to replicate our results using a larger, more diverse sample.

Of the demographic variables, household income was negatively associated with depressive symptoms in emerging adulthood. That is, emerging adults experienced fewer depressive symptoms when their family’s income was higher. Today’s parents and young adults tend to expect financial support from parents to be an important part of their
relationship and offspring report increased well-being when they perceive intense support from their parents in the financial, advice and emotional realms (Fingerman et al., 2012). Thus, it is possible that lower family incomes necessitate increased self-reliance on the part of the emerging adult, therefore adding stress and possibly exacerbating depressive symptoms.

Taken together, our findings suggest that differentiation in parent-child relationships impacts depressive symptoms in emerging adulthood. Higher levels of togetherness as well as individuality (at least between emerging adults and their fathers) in family relationships seem to be protective against depressive symptoms. Family differentiation during the child’s adolescence also seems to have an impact on later depressive symptoms.

This study highlights the differential impact of child-mother versus child-father differentiation, which may be related to differences in parenting styles or the quality of dyadic emotional bonds. Bowen postulated that in times of high anxiety, the family system pulls for togetherness, until one member “fights” for increased individuality, at which point the system rebalances its differentiation. It may be that the system experiences increased anxiety when a child transitions out of the family home to go to college, which triggers another period of rebalancing. Unlike in the emerging adult-father relationship, individuality in the emerging adult-mother relationship was consistently related to greater depressive symptoms during adolescence and after the transition. It is possible that in keeping with Bowen theory, the emerging adult-mother dyads experienced greater anxiety during and after the transition and therefore, pulled for
increased togetherness. Families with a higher level of differentiation may complete the rebalancing process as the child reaches full-blown adulthood and it is possible that the impact of parent or child gender diminishes at this stage. Again, longitudinal studies of differentiation into adulthood are needed to test this idea.

Bowen maintained that the process of rebalancing the individuality-togetherness forces was a recurring, step-by-step process and our findings suggest that this process may look different for different relationships within the family. Thus, it may be important to continue to assess for each family member’s perception of differentiation within individual relationships rather than at the family level. Bartle-Haring & Slesnick (2013) point out that when a participant responds to a “family level” question, the actor, partner and relationship effects as sources of variation, are not taken into account. Thus, items used to measure family processes such as differentiation should ideally be relationship-directed and from multiple perspectives (Bartle-Haring & Slesnick, 2013; Cook & Kenny, 2004).

**Limitations**

The main limitation of this study was its small sample size, which yielded very low power to test closeness of fit of our models to the data. The power for the test of not-close fit using the RMSEA value was .16 (MacCallum, Browne & Sugawara, 1996; Preacher & Coffman, 2006). The next limitation of this study was its cross-sectional design. Family differentiation is a dynamic process and a study focusing on one time-period limits our understanding of its lifetime impact. Though we assessed family
relationships during adolescence, we have to acknowledge that the retrospective accounts may have yielded biased data due to factors such as making meaning of memories, recall, and mood states at the time of retrospective recall (Hardt & Rutter, 2004). Another important limitation of this study is that it used a sample of convenience, obtained from a very homogeneous population of college students. Our sample comprised mostly females from white, higher SES families, thus preventing generalization of our findings to the larger population of emerging adults. Our results might have been different had our sample included at least an equal number of emerging adult males. We did conduct our analyses with data from the 54 emerging adult females (after excluding the four males), but found no differences in our results. Possibly due to the homogeneity of our sample and its demographics, most of our participants reported high levels of togetherness and individuality, which may not be a characteristic of all families with emerging adults.

Though our original goal was to include the child’s as well as both parents’ perspectives, we were unable to utilize data from fathers, again due to the small number of fathers who completed the surveys. Another limitation of this study was that we did not ask whether the emerging adults were living on/near the college campus or still in their parental homes. We also did not assess how far the parent(s) lived from the college students.

While our togetherness items demonstrated high reliability, we encountered some challenges with our individuality items. As mentioned earlier, these items were adapted from the Separation Individuation Test for Adolescents (Levine, Green & Millon, 1986) and the revised items were reworded to remove the “double-barrel” effect. For example, the item, “While I like to get along with my parent, if I disagree with something he/she is
doing, I usually feel free to say so” was revised as, “If I disagree with something my father is doing, I usually feel free to say so” and we used this item reciprocally as well as to assess for the child’s relationship with the other parent. Unfortunately, the reliability for our original individuality items in this sample was very low and we chose to use the three items that best fit together and had higher reliability. As mentioned previously, these three items might have measured “cut-off”, at least in the child-mother relationship.

**Individuality: A clinical interpretation of measurement problems**

While our revised individuality scale seemed to represent this construct well from a theoretical point of view, we, as researchers and students of Bowen theory, may have had the advantage of understanding the complexity of the items better than the average individual with no exposure to this theory. We encounter this as clinicians, when a client develops better insight into his or her relationship patterns and behaviors following a therapeutic discussion of theoretical constructs such as triangulation, distance-regulation etc. Perhaps, a brief explanation of what each set of questions hopes to measure may help. For example, if we had stated, “the next set of questions will help us understand the extent to which you feel like an individual in your relationship with each of your parents”, might the participant have responded differently?

Qualitative research into how male and female emerging adults and their parents perceive closeness and distance in their relationships, may reveal new ways of measuring these constructs. Even though the U.S is considered an individualistic society, the pull of the “togetherness force” (Bowen, 1978) may be culturally dominant. Thus, while the
society encourages an individual’s pursuit of success, conformity with the larger “group”, whether it is in the work, academic or interpersonal realm, is also highly valued. Within the clinical population, feeling “different” from one’s family, in terms of not meeting parental or a partner’s expectations, seems to correlate with reduced mental health. Therefore, today’s emerging adults may experience better mental health when they feel more similar to and receive the approval of the parent they feel closer to. However, if Bowen theory were to hold true, this may be a sign of fusion in the relationship, which is likely to lead to cut-off and dysfunctional distance-regulation strategies in the long term.

Implications.

Despite its limitations, this study highlights the continued importance of family relationships in emerging adulthood, specifically after the child’s transition to college. As mentioned earlier, college students may be vulnerable to subclinical depressive symptoms that may go undiagnosed and untreated (Cukrowicz et al., 2011; Hunt & Eisenberg, 2010). Depressive symptoms are related with suicidality, a leading cause of death on college campuses (Mahmoud et al., 2012). It is a disconcerting fact that only 25% of college students struggling with depression receive any treatment (American College Health Association, 2008; Hunt & Eisenberg, 2010). Our results suggest that family therapy which incorporates a systemic perspective of relationships may be an effective treatment for this population. Systems-based therapy is possible with one or more clients, provided the therapist focuses on the impact of relationships. Importantly, our findings emphasize the significance of individuality, a factor that may be overlooked
for the seemingly more important notions of “cohesion” or “closeness” in family
relationships. Whether in a clinical or educational setting, parents and children may
benefit from learning about how balancing togetherness and individuality in their
relationships impacts mental health positively.
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Appendix A: Tables and Figures
Table 1: Sample Demographic Characteristics

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<tr>
<td></td>
<td>n</td>
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*Notes. Dep = Depression.*
Table 2: Correlations, Means, Standard Deviations and Cronbach’s Alphas

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Mean: 29.22  29.03  30.21  30.69  28.88  28.93  11.60  10.97  11.61  11.59  11.50  10.88  33.68  7.29
SD: 5.73  4.98  4.70  4.66  5.26  4.22  2.60  2.63  2.13  1.87  2.17  2.14  8.16  5.10
α: .90  .88  .87  .85  .87  .78  .76  .70  .78  .45  .73  .54  .81  .83

*p<.05.  **p<.01

Notes: Correlations for Emerging Adulthood shown above the diagonal and correlations for Adolescence below the diagonal. C=Child; M= Mother; D= Father; Tog = Togetherness; Ind = Individuality; (M) = Mother’s perspective; (C) = Child’s perspective; FNE = Fear of Negative Evaluation; Dep = Depressive Symptoms.
Table 3: Fit Indices for Model Tests

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<th>Model #</th>
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<th>χ²</th>
<th>df</th>
<th>p</th>
<th>RMSEA</th>
<th>IFI</th>
<th>TLI</th>
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Notes. CFA = Confirmatory Factor Analysis; Diff = Differentiation Variables; FNE = Fear of Negative Evaluation; Dep = Depressive symptoms; RC = Reliable Change
Figure 1: Conceptual Model

- Togetherness with Mom
- Togetherness with Dad
- Depression in Emerging Adulthood
- Fear of Negative Evaluation
- Individuality with Mom
- Individuality with Dad
Figure 2: Change in Togetherness-Individuality from Adolescence to Emerging Adulthood
Notes.
Tog = Togetherness; Ind = Individuality.

1) Child to mother togetherness; 2) Mother to Child Togetherness; 3) Child to father togetherness; 4) Child to mother Individuality; 4) Mother to child individuality; 6) Child to father individuality.

1 = Increase in variable; 2 = no change in variable; 3 = decrease in variable.
Figure 3: Final Model with Standardized Regression Weights

Notes: *=<.05; **=<.01
\[ \chi^2 (126) = 240.64; \text{CFI} = .81; \text{TLI} = .63; \text{IFI} = .840; \text{RMSEA} = .12; \]

\[
\begin{align*}
\text{Depression in Emerging Adulthood} & \\
\text{Togetherness with Dad} & \\
\text{Income} & \\
\text{FNE} & \\
\end{align*}
\]
Appendix B: Research and Recruitment Documents
Class-room Recruitment Material

“My name is Sujata Ponappa and I am a doctoral student in Human Sciences. I am working with my advisor, Dr. Suzanne Bartle-Haring on a research study on family dynamics and well-being during young adulthood and would like to see if any of you would be willing to participate. We have just started recruiting students for this study and hope to complete data collection and analysis by spring semester 2015.”

The following information will be presented via a power point slide:

We are looking for:

1. Ohio State students between 20-25 years of age as well as their parents or parental figures to participate in this study about parent-child relationships and well-being.
2. We would like to invite your biological, step, foster parents or other parental figures who are primarily responsible for your care. If you had one parental figure, please invite him or her for the study.
3. All participating family members will be expected to have High School-level English reading skills, so as to comprehend and respond to our online surveys

Participation is entirely voluntary and will have no bearing on your grade in this class.

That is why we requested your instructor to leave the room!

- In order to participate, we ask that you and your parent(s) fill out an anonymous, online survey that will provide us information about relationships within your family and how that impacts your sense of well-being.
- There is a consent form at the beginning of the online survey, which lets you know that your identifying information will be erased once we receive your and your parents’ responses.
- Also, you are free to close your browser at any point during the survey if you do not wish to continue answering the questions.
- You will proceed to the survey only if you click the button that says “yes, I consent to participating in the survey”.


If you are interested in participating in this study:

1. Please write your email address and your parent(s)’ email address on the sign-up sheets provided. Please note there are 2 sign-up sheets (for male and female students).

2. We will contact you and your parent(s) via email and send each of you a link to an anonymous, online survey that you will be asked to complete independently.

3. Please note that a 5.00 Amazon gift card will be emailed to every participant once we receive your survey response. We will also enter each participating family into a drawing for an additional $50.00 Amazon gift card. Each participating family’s odds of winning this drawing are 1 out of 10.

Please email me at ponappa.3@osu.edu or Dr. Bartle-Haring at haring.19@osu.edu if you have any questions about what was presented today or if you need further clarification about the study. Please feel free to sign up if you are interested. Thank you for your patience!
### Sign-up Sheet 1 (MALE STUDENTS ONLY)

**PLEASE WRITE CLEARLY!**

<table>
<thead>
<tr>
<th>Male (OSU student) email address</th>
<th>PARENT 1 email address</th>
<th>PARENT 2 email address</th>
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</thead>
<tbody>
<tr>
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</table>

### Sign-up Sheet 2 (continued) (FEMALE students ONLY)

**PLEASE WRITE CLEARLY!**

<table>
<thead>
<tr>
<th>Female (OSU student) email address</th>
<th>PARENT 1 email address</th>
<th>PARENT 2 email address</th>
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<tbody>
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</table>
Subject: Young Adulthood study invitation

Dear OSU Student,

Thank you for agreeing to participate in our research study about family relationships and development during young adulthood. Suzanne Bartle-Haring and Sujata Ponappa, from the department of Human Sciences at The Ohio State University are the investigators for this project. The purpose of this study is to understand how family relationships can be a source of support for young adults.

As an expression of our gratitude to you for agreeing to participate, we will email you an Amazon gift card worth $5.00 and enter your family into a drawing for an additional $50.00 Amazon gift card, after you agree to take the survey that you can find at this link (link here). This link leads to a confidential online survey which may take you up to 30 minutes to complete. Please note that your participation in this study is completely voluntary. You are able to skip any question you prefer not to answer. You may choose to withdraw from the survey simply by closing your browser. If you decide not to participate in the survey you will not incur any penalty or loss of benefits you may be entitled to at The Ohio State University.

Thank you!
Suzanne Bartle-Haring, Ph.D.
Professor
Program Director, Couple and Family Therapy
College of Education and Human Ecology Human Sciences, HDFS
114 Campbell Hall, 1787 Neil Ave, Columbus, OH 43210
614-688-3259 -Office
haring.19@osu.edu
Subject: Young Adulthood study invitation

Dear parent of OSU Student,

Your child who is currently a student at The Ohio State University gave us your e-mail address to invite you to participate in a research study that involves both of you. This research study is about family relationships and development during young adulthood. Suzanne Bartle-Haring and Sujata Ponappa from the department of Human Sciences at The Ohio State University are the investigators for this project. The purpose of this study is to understand how family relationships can be a source of support for young adults.

As an expression of our gratitude to you for agreeing to participate, we will email you an Amazon gift card worth $5.00 and enter your family into a drawing for an additional $50.00 Amazon gift card, after you agree to take the survey that you can find at this link (link here).

This link leads to a confidential online survey which may take you up to 30 minutes to complete. Please note that your participation in this study is completely voluntary. You are able to skip any question you prefer not to answer. You may choose to withdraw from the survey simply by closing your browser.

If you decide not to participate in the survey, neither you nor your son/daughter will incur any penalty or loss of benefits you may be entitled to at The Ohio State University.

Thank you!

Suzanne Bartle-Haring, Ph.D.
Professor
Program Director, Couple and Family Therapy
College of Education and Human Ecology Human Sciences, HDFS
114 Campbell Hall, 1787 Neil Ave, Columbus, OH 43210
614-688-3259 -Office
haring.19@osu.edu
Survey Questions

First Screen in the on-line Survey for Consent:

Dear participant,

Thank you for agreeing to participate in our research study, the purpose of which is to understand development during emerging adulthood and how parent-child relationships can be a source of support for young adults. The data collected from the online surveys will be aggregated and analyzed to gain a better understanding of ‘emerging adulthood’ as a life span stage and the impact of family relationships on this developmental stage.

Please follow the instructions as you go along and answer the questions by selecting the appropriate response. If for any reason you don't wish to answer a question, just skip that one and go on to the next. We understand that you may experience discomfort when reporting on your family relationships. Our hope is that the information gathered through this study might help researchers and clinicians devise interventions.

Once we have your responses, we will erase your identifying information from our files and your data will be de-identified. All reports about this survey will be in aggregate form, no family or individual will be identified. We will work to make sure no one sees your online responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. Since that means they could have access to your IP address or e-mail address, this information could be used to identify you.

We thank you in advance for completing this survey. It should take you no more than 30 minutes to complete. For questions or if you feel you have been harmed as a result of study participation, please feel free to contact the principal investigator, Suzanne Bartle-Haring, Ph.D. (haring.19@osu.edu) at 688-3259. She will be glad to speak with you about the survey or what may be making you uncomfortable about completing it.

Your participation is completely voluntary. You can withdraw from the study at any time simply by closing your browser. Your decision to participate or not will in no way impact your relationship with The Ohio State University. If you have questions or concerns about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
As an expression of our gratitude to you for agreeing to participate in this survey, we will email you an Amazon gift card worth $5.00. We will also enter your family into a drawing to win an additional $50.00 Amazon gift card. Each participating family’s odds of winning this drawing would be 1 out of 10.

Please select an option below.

- Yes, I consent to participating in this survey.

- No, I do not consent to participating in this survey.
Student Survey

We ask that you complete this questionnaire independently of your other family member(s) who is/are a part of this study.

We would like to know the 2 individuals (parent figures) who are primarily responsible for you. Please select one or two parent figures that you have chosen for this study:

- Biological mother
- Biological Father
- Stepmother
- Stepfather
- Adoptive Mother
- Adoptive father
- Foster parent(s)
- Grandmother
- Grandfather
- Aunt
- Uncle

What is your age?

What is your race or ethnicity?

What is your gender?

What year of college are you currently in?

What is your current major in college?

What is your family’s annual income?

Were your parent figures participating in this study in a committed relationship or marriage when you were a sophomore in high school (15-16 years old)?

Are your parent figures participating in this study in a committed relationship or marriage currently?
Togetherness scale

Now, we will ask you to answer some questions regarding relationships between you and your parents. As you have moved away to college, you might have noticed a change in these relationships. We would like you to think about 2 time periods while answering these questions: 1) When you were a sophomore in High School (between 15 and 16 years old) and 2) currently

INSTRUCTIONS Please use the following scale to say how much you agree or disagree with the statement for each parent.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Generally Disagree</th>
<th>Slightly Agree</th>
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<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>When you were 15 – 16 years old</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt distant from my mother</td>
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</tr>
<tr>
<td>2. My mother felt distant from me.</td>
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</tr>
<tr>
<td>3. My mother felt distant from my father.</td>
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</tr>
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<td>10. I didn’t feel that I really belonged around my mother</td>
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<tr>
<td>11. My mother did not feel like she really belonged around me</td>
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</tr>
<tr>
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</tr>
<tr>
<td>13. I was able to relate to my mother</td>
<td>13. I am able to relate to my mother</td>
</tr>
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</tr>
<tr>
<td>15. My mother was able to relate to my father</td>
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</tr>
<tr>
<td>16. I felt understood by my mother</td>
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<td>17. My mother felt understood by me</td>
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<td>19. I saw my mother as friendly and approachable.</td>
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</tr>
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</table>
Togetherness Scale Continued

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</tr>
</tbody>
</table>
### Individuality scale

**INSTRUCTIONS** Please use the following scale to say how much you agree or disagree with the statement for your parent.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
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<th>Slightly Agree</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**When you were 15 – 16 years old**

1. I felt I could be myself with my mother.
2. My mother felt she could be herself with me.
3. My mother felt she could be herself with my father.
4. My mother and I had some different interests.
5. My mother felt that she and I had some different interests.
6. My mother felt that she and my father had some different interests.
7. I was comfortable with some degree of conflict with my mother.
8. My mother was comfortable with some degree of conflict with me.
9. My mother was comfortable with some degree of conflict with my father.
10. My mother and I were different from each other in some ways.
11. My mother felt that she and I were different from each other in some ways.
12. My mother felt that she and my father were different from each other in some ways.
13. If I disagreed with something my mother was doing, I usually felt free to say so.
14. If my mother disagreed with something I was doing, she usually felt free to say so.
15. If my mother disagreed with something my father was doing, she usually felt free to say so.

**Now**

1. I feel I can be myself with my mother.
2. My mother feels she can be herself with me.
3. My mother feels she can be herself with my father.
4. My mother and I have some different interests.
5. My mother feels that she and I have some different interests.
6. My mother feels that she and my father have some different interests.
7. I am comfortable with some degree of conflict with my mother.
8. My mother is comfortable with some degree of conflict with me.
9. My mother is comfortable with some degree of conflict with my father.
10. My mother and I are different from each other in some ways.
11. My mother feels that she and I are different from each other in some ways.
12. My mother feels that she and my father are different from each other in some ways.
13. If I disagree with something my mother is doing, I usually feel free to say so.
14. If my mother disagrees with something I am doing, she usually feels free to say so.
15. If my mother disagrees with something my father is doing, she usually feels free to say so.
### Individuality Scale Continued

<table>
<thead>
<tr>
<th>When you were 15 – 16 years old</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt I could be myself with my father.</td>
<td>1. I feel I can be myself with my father.</td>
</tr>
<tr>
<td>2. My father felt he could be himself with me.</td>
<td>2. My father feels he can be himself with me.</td>
</tr>
<tr>
<td>3. My father felt he could be himself with my mother.</td>
<td>3. My father feels he can be himself with my mother.</td>
</tr>
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<td>5. My father felt that he and I had some different interests.</td>
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</tr>
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</tr>
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</tr>
<tr>
<td>12. My father feels that he and my mother are different from each other in some ways.</td>
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<td>14. If my father disagreed with something I was doing, he usually felt free to say so.</td>
<td>14. If my father disagrees with something I am doing, he usually feels free to say so.</td>
</tr>
<tr>
<td>15. If my father disagreed with something my mother was doing, he usually felt free to say so.</td>
<td>15. If my father disagrees with something my mother is doing, he usually feels free to say so.</td>
</tr>
</tbody>
</table>
Fear of Negative Evaluation Scale

Instructions: Please read each of the following statements carefully and indicate how characteristic it is of you according to the following scale:

1 = Not at all characteristic of me
2 = Slightly characteristic of me
3 = Moderately characteristic of me
4 = Very characteristic of me
5 = Extremely characteristic of me

1. I worry about what other people will think of me even when I know it doesn't make any difference.
2. I am unconcerned even if I know people are forming an unfavorable impression of me.
3. I am frequently afraid of other people noticing my shortcomings.
4. I rarely worry about what kind of impression I am making on someone.
5. I am afraid others will not approve of me.
6. I am afraid that people will find fault with me.
7. Other people's opinions of me do not bother me.
8. When I am talking to someone, I worry about what they may be thinking about me.
9. I am usually worried about what kind of impression I make.
10. If I know someone is judging me, it has little effect on me.
11. Sometimes I think I am too concerned with what other people think of me.
12. I often worry that I will say or do the wrong things.
**Depression questions:** (sum of responses to all questions; higher score = more symptoms)

Please use the scale below to indicate how often you have felt or behaved this way for a 2-week period during

a) Your sophomore year (15-16 years of age)

b) the past six months

<table>
<thead>
<tr>
<th>Question</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
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</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
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</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
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<tr>
<td>6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down</td>
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<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
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<tr>
<td>8. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual</td>
<td></td>
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<tr>
<td>9. Thoughts that you would be better off dead or of hurting yourself in some way</td>
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</tr>
</tbody>
</table>

Have you ever received a diagnosis of depression? If yes, do you currently take any prescription medication for depression?
Parent Survey

We ask that you complete this questionnaire independently of your other family member(s) who is/are part of this study

What is your age?

What is your race or ethnicity?

What is your gender?

How many number of years of education since High School?

What is your family’s annual income?

Were you and your child’s other parent figure in a committed relationship or marriage when your child was a sophomore in High School (15-16 years old)?

Are you and your child’s other parent figure in a committed relationship or marriage currently?
**Togetherness scale**

Now, we will ask you to answer some questions regarding the relationships between you and your child. We would like you to think about 2 time periods while answering these questions: 1) When your child was a sophomore in High School (between 15 and 16 years old) and 2) currently

**INSTRUCTIONS** Please use the following scale to say how much you agree or disagree with the statement for each parent.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
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<td>5</td>
</tr>
</tbody>
</table>

**When your child was 15 – 16 years old**

1. I felt distant from my child  
2. My child felt distant from me.  
3. My child felt distant from his/her father.  
4. I felt like an outsider with my child  
5. My child felt like an outsider with me  
6. My child felt like an outsider with his/her father  
7. I felt close to my child  
8. My child felt close to me  
9. My child felt close to his/her father  
10. I didn’t feel that I really belonged around my child  
11. My child did not feel like he/she really belonged around me  
12. My child did not feel like he/she really belonged around his/her father  
13. I was able to relate to my child  
14. My child was able to relate to me  
15. My child was able to relate to his/her father  
16. I felt understood by my child  
17. My child felt understood by me  
18. My child felt understood by his/her father.  
19. I saw my child as friendly and approachable.  
20. My child saw me as friendly and approachable  
21. My child saw his/her father as friendly and approachable.

**Now**

1. I feel distant from my child  
2. My child feels distant from me.  
3. My child feels distant from his/her father.  
4. I feel like an outsider with my child  
5. My child feels like an outsider with me  
6. My child feels like an outsider with his/her father  
7. I feel close to my child  
8. My child feels close to me  
9. My child feels close to his/her father  
10. I don’t feel that I really belong around my child  
11. My child does not feel like he/she really belongs around me  
12. My child does not feel like she really belongs around his/her father  
13. I am able to relate to my child  
14. My child is able to relate to me  
15. My child is able to relate to his/her father  
16. I feel understood by my child  
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19. I see my child as friendly and approachable.  
20. My child sees me as friendly and approachable  
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<td>5. My child’s father felt like an outsider with me</td>
<td>5. My child’s father feels like an outsider with me</td>
</tr>
<tr>
<td>6. My child’s father felt like an outsider with my child</td>
<td>6. My child’s father feels like an outsider with my child</td>
</tr>
<tr>
<td>7. I felt close to my child’s father</td>
<td>7. I feel close to my child’s father</td>
</tr>
<tr>
<td>8. My child’s father felt close to me</td>
<td>8. My child’s father feels close to me</td>
</tr>
<tr>
<td>9. My child’s father felt close to my child</td>
<td>9. My child’s father feels close to my child</td>
</tr>
<tr>
<td>10. I didn’t feel that I really belonged around my child’s father</td>
<td>10. I don’t feel that I really belong around my child’s father</td>
</tr>
<tr>
<td>11. My child’s father did not feel like he really belonged around me</td>
<td>11. My child’s father does not feel like he really belongs around me</td>
</tr>
<tr>
<td>12. My child’s father did not feel like he really belonged around my child</td>
<td>12. My child’s father does not feel like he really belongs around my child</td>
</tr>
<tr>
<td>13. I was able to relate to my child’s father</td>
<td>13. I am able to relate to my child’s father</td>
</tr>
<tr>
<td>14. My child’s father was able to relate to me</td>
<td>14. My child’s father is able to relate to me</td>
</tr>
<tr>
<td>15. My child’s father was able to relate to my child</td>
<td>15. My child’s father is able to relate to my child</td>
</tr>
<tr>
<td>16. I felt understood by my child’s father</td>
<td>16. I feel understood by my child’s father</td>
</tr>
<tr>
<td>17. My child’s father felt understood by me</td>
<td>17. My child’s father feels understood by me</td>
</tr>
<tr>
<td>18. My child’s father felt understood by my child</td>
<td>18. My child’s father feels understood by my child</td>
</tr>
<tr>
<td>19. I saw my child’s father as friendly and approachable.</td>
<td>19. I see my child’s father as friendly and approachable.</td>
</tr>
<tr>
<td>20. My child’s father saw me as friendly and approachable</td>
<td>20. My child’s father sees me as friendly and approachable</td>
</tr>
</tbody>
</table>
**Individuality scale**

**INSTRUCTIONS** Please use the following scale to say how much you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Generally Disagree</th>
<th>Slightly Agree</th>
<th>Generally Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When your child was between 15 and 16 years old</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt I could be myself with my child</td>
<td>1. I feel I can be myself with my child</td>
</tr>
<tr>
<td>2. My child felt he/she could be herself with me</td>
<td>2. My child feels he/she can be herself with me</td>
</tr>
<tr>
<td>3. My child felt he/she could be herself with his/her father</td>
<td>3. My child feels he/she can be herself with his/her father</td>
</tr>
<tr>
<td>4. My child and I had some different interests.</td>
<td>4. My child and I have some different interests.</td>
</tr>
<tr>
<td>5. My child felt that he/she and I had some different interests</td>
<td>5. My child feels that he/she and I have some different interests</td>
</tr>
<tr>
<td>6. My child felt that he/she and my child’s father had some different interests</td>
<td>6. My child feels that he/she and his/her father have some different interests</td>
</tr>
<tr>
<td>7. I was comfortable with some degree of conflict with my child</td>
<td>7. I am comfortable with some degree of conflict with my child</td>
</tr>
<tr>
<td>8. My child was comfortable with some degree of conflict with me</td>
<td>8. My child is comfortable with some degree of conflict with me</td>
</tr>
<tr>
<td>9. My child was comfortable with some degree of conflict with my child’s father</td>
<td>9. My child is comfortable with some degree of conflict with his/her father</td>
</tr>
<tr>
<td>10. My child and I were different from each other in some ways.</td>
<td>10. My child and I are different from each other in some ways.</td>
</tr>
<tr>
<td>11. My child felt that he/she and I were different from each other in some ways.</td>
<td>11. My child feels that he/she and I are different from each other in some ways.</td>
</tr>
<tr>
<td>12. My child felt that he/she and my child’s father were different from each other in some ways.</td>
<td>12. My child feels that he/she and his/her father are different from each other in some ways.</td>
</tr>
<tr>
<td>13. If I disagreed with something my child was doing, I usually felt free to say so.</td>
<td>13. If I disagree with something my child is doing, I usually feel free to say so.</td>
</tr>
<tr>
<td>14. If my child disagreed with something I was doing, he/she usually felt free to say so.</td>
<td>14. If my child disagrees with something I am doing, he/she usually feels free to say so.</td>
</tr>
<tr>
<td>15. If my child disagreed with something his/her father was doing, he/she usually felt free to say so.</td>
<td>15. If my child disagrees with something his/her father is doing, he/she usually feels free to say so.</td>
</tr>
<tr>
<td><strong>When your child was 15 – 16 years old</strong></td>
<td><strong>Now</strong></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>1. I felt I could be myself with my child’s father</td>
<td>1. I feel I can be myself with my child’s father</td>
</tr>
<tr>
<td>2. My child’s father felt he could be himself with me</td>
<td>2. My child’s father feels he can be himself with me</td>
</tr>
<tr>
<td>3. My child’s father felt he could be himself with my child</td>
<td>3. My child’s father feels he can be himself with my child</td>
</tr>
<tr>
<td>4. My child’s father and I had some different interests</td>
<td>4. My child’s father and I have some different interests</td>
</tr>
<tr>
<td>5. My child’s father felt that he and I had some different interests</td>
<td>5. My child’s father feels that he and I have some different interests</td>
</tr>
<tr>
<td>6. My child’s father felt that he and my child had some different interests</td>
<td>6. My child’s father feels that he and my child have some different interests</td>
</tr>
<tr>
<td>7. I was comfortable with some degree of conflict with my child’s father</td>
<td>7. I am comfortable with some degree of conflict with my child’s father</td>
</tr>
<tr>
<td>8. My child’s father was comfortable with some degree of conflict with me</td>
<td>8. My child’s father is comfortable with some degree of conflict with me</td>
</tr>
<tr>
<td>9. My child’s father was comfortable with some degree of conflict with my child</td>
<td>9. My child’s father is comfortable with some degree of conflict with my child</td>
</tr>
<tr>
<td>10. My child’s father and I were different from each other in some ways</td>
<td>10. My child’s father and I are different from each other in some ways</td>
</tr>
<tr>
<td>11. My child’s father felt that he and I were different from each other in some ways</td>
<td>11. My child’s father feels that he and I are different from each other in some ways</td>
</tr>
<tr>
<td>12. My child’s father felt that he and my child were different from each other in some ways</td>
<td>12. My child’s father feels that he and my child are different from each other in some ways</td>
</tr>
<tr>
<td>13. If I disagreed with something my child’s father was doing, I usually felt free to say so.</td>
<td>13. If I disagree with something my child’s father is doing, I usually feel free to say so.</td>
</tr>
<tr>
<td>14. If my child’s father disagreed with something I was doing, he usually felt free to say so.</td>
<td>14. If my child’s father disagrees with something I am doing, he usually feels free to say so.</td>
</tr>
<tr>
<td>15. If my child’s father disagreed with something my child was doing, he usually felt free to say so.</td>
<td>15. If my child’s father disagrees with something my child is doing, he usually feels free to say so.</td>
</tr>
</tbody>
</table>
Depression questions: (sum of scores for all questions; higher score=more depressive symptoms)

Below is a list of ways you might have felt or behaved. Please use the scale below to indicate how often you have felt or behaved this way for a 2-week period over the past six months.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Have you ever received a diagnosis of depression? If yes, do you currently take any prescription medication for depression?