IOWA STATE UNIVERSITY
Digital Repository

2016

How parent-child financial exchange influences adult children's Depressive Symptoms

Pinding Li
Iowa State University

Follow this and additional works at: http://lib.dr.iastate.edu/etd

 Part of the Sociology Commons

How parent-child financial exchange influences adult children's depressive symptoms

by

Pinding Li

A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Sociology

Program of Study Committee:
Anastasia Helene Prokos, Major Professor
Susan Diane Stewart
Stephen Graham Sapp

Iowa State University

Ames, Iowa

2016

TABLE OF CONTENT

ABSTRACT

This thesis examines how family relationships and financial exchange influence the depressive symptoms of adult children. In contemporary U.S. society, adult children face challenges that may influence their depressive symptoms. Compared with their older parents, contemporary adult children have limited financial and social resources to overcome crises in their lives. If adult children cannot solve these problems, their financial stress will increase their depressive symptoms. This research proposes that adult children's unemployment and the parent-children financial relationship influence the depressive symptoms of adult children. The data for the research comes from Add Health, a longitudinal study of a nationality representative sample of adolescent to adult health. The sample for this research consists of respondents aged 25-34. The thesis uses several indicators to analyze the effects of parent-child financial and social relationships. Key independent variables include unemployment, financial exchange, and social relationship. The dependent variable is a commonly used measure of depressive symptoms (CES-D). This thesis uses regression and descriptive statistics to analyze five hypotheses. The results show three findings. Firstly, unemployment is associated with higher depressive symptoms. Secondly, both financial supports from parents and to parents are associated with higher depressive symptoms. Finally, social supports from parents have multiple influences on adult children's depressive symptoms. Better communication with mothers is associated with higher depressive symptoms. Further research should pay attention to two perspectives: 1) relationship with other family members 2) small sums of financial supports.

Keywords: family crisis theory, financial support, parent-child relationship, adult children, and depressive symptoms

CHAPTER 1. INTRODUCTION

This section introduces the background and purpose of this thesis. This study focuses on depressive symptoms and financial support for adult children. From a depressive symptoms perspective, this study purposes to test how family relationship and structure influence family members' lives. Research result shows that having low income is associated with higher depressive symptoms. In addition, this thesis shows family relationships with children and spouses are associated with depressive symptoms.

Purpose Statement

Depressive symptoms include negative mood (sadness, crying, spells, and unhappiness), somatic conditions (aches and pains, trouble sleeping, fatigue), and cognitive vulnerability (feelings of worthlessness, failure, loss) as well as behaviors that could disrupt an individual's social relations (Lakdawall et al., 2002). Depressive symptoms also cause associated health problem. According to a report from the World Health Organization, it has been estimated that between 5% and 25% of the global population has experienced depressive symptoms. This population with depressive symptoms is prone to a variety of related problems, such as alcoholism and suicide. For example, research in 2002 showed that up to 15% of depressed population will commit suicide (Lakdawall et al., 2007).

In the thesis, I use CESD as the operationalization of depressive symptoms. It is the most common screening tests for helping an individual to determine his or her depression quotient. Lenore Radloff of Utah State University originally developed the Center for Epidemiologic Studies Depression Scale (CES-D). It tests the depressive feeling and behaviors during the past seven days (Radloff, 1977).

Young adulthood is a critical period for understanding the influence of depressive symptoms. In this thesis, I focus on adult children between 24 and 32 years old. Young adults go through important life transitions. The Early Life structure for Early Adulthood (22 to 28) is the time for building and maintaining an initial mode of adult living. And the age 30 Transition (28 to 33) is an opportunity to reappraise and modify the entry structure and to create the basis for the next life structure (Levinson, 1986). Before 30 years old, young adults have to face challenges related to both family and career. Compared with other social groups (like adolescences and old adults), they have to build experience and educational resources for success in their careers. In addition, they need to invest time and money to take care of their children and partners. Individuals who have substantial levels of higher depressive symptoms during young adult years are at increased risk for recurrent depressive problems in the rest of their lives (Compas et al., 1993).

Among the factors that influence young adults' depressive symptoms, family financial support plays an important role. Parents and children will give financial support to each other (Lin, 2008). There are two kinds of financial assistance in the process: financial support from parents and financial support to parents. Financial supports between parents and adult children have multiple influences on depressive symptoms. On the one hand, less financial support from parents may increase financial pressure on these young adults. On the other hand, financial supports from parents could provide financial resource to adult children to improve their social relationships with family members.

To explore the role of financial supports, the thesis must discuss some related factors. Firstly, family income, education, race and other socioeconomic factors influence family members' ability to provide financial supports. Researchers demonstrate that socioeconomic

status influences financial exchange between family members. For example, adult children from low-income and black families provide more financial resources to their parents and get less assistance from their families (Napolitano, 2015).

Based on the research summarized above, this study focuses on how family relationship and financial exchange influence depressive symptoms. This study has following objectives: a) Provide resources that show how financial stress influences adult children's depressive symptoms. b) Test if parent-child relationship and financial exchange mediate the effects of financial stress on depressive symptoms.

Research Question

a) How does unemployment (a type of financial stress) influence the depressive symptoms of adult children?

b) Do parent-child relationships and financial exchange mediate the effects of financial stress on depressive symptoms?

Organization of the Thesis

There are five chapters in the thesis: introduction, literature review, methodology, findings, and conclusion. The first chapter introduces the background and purpose of this research. The literature review provides previous research related to family crisis, adulthood, financial support, and stress theories. The study uses family crisis theory as the basis to test the research questions, and the previous research provides the concepts for the major predictors in the research.

In chapter three, the study introduces the methodology. This chapter includes an explanation of the sampling, questionnaires, coding, and a basic introduction of the dataset,

Add Health. The public use Add Health dataset provided data on 5,114 interviews in 2008. These interviews provide respondents' socioeconomic status, financial exchange with their parents, and other key variables used in the study. The chapter concludes with a description of the measurement of variables used in the analysis and a brief explanation of the analysis plan. The analysis plan summarizes the statistical tests used for each of the hypotheses.

The fourth chapter introduces the results from data analysis. This chapter introduces the analysis process and rationale. Unemployment influences the depressive symptoms of adult children and family financial relationship influences the effects of unemployment on depressive symptoms. In addition, social support from parents and other family members (children and partner) influence the depressive symptoms of adult children.

Finally, the fifth chapter explains the results from data analysis. Based on the explanations, the chapter summarizes findings and provides conclusions: family relationship and parent-child financial exchange have multiple influences on the depressive symptoms of adult children. In addition, Chapter five provides limitations and implications for future researchers and policy makers.

CHAPTER 2. LITERATURE REVIEW

To explore how family parent-child financial exchange influences the depressive symptoms of adult children, the study reviews research in the following areas: recent demographic and descriptive features in adult children's lives in the U.S., challenges for adult children in the U.S., theories about family crisis, and research about adult children's depressive symptoms. Demographic features provide a basic background for this study. Family crisis theory is used to understand the importance of the key independent variables, unemployment and financial support from parents. This thesis creates a new model. In the model, financial stress among family members influences the depressive symptoms of adult children. I use this model to analyze the family relationship and depressive symptoms of adult children.

Demographic Features of Adult Children

Several important demographic features of adult children in the U.S. are relevant to this study. Firstly, many adult children suffered from depressive symptoms. Secondly, adult children with financial stress choose to live with their parents. Thirdly, there are a lot of competitions in labor market. In addition, later marriage among adult children changes family structures. These features create much uncertainty in adult children's lives, and they have at least two important influences: more financial stress and stressful family relationship. The study tests how these factors influence the depressive symptoms of adult children.

Depressive symptoms and related mental illness are common among adults in modern U.S. society. Anxiety disorder, depressive disorder, mood disorder, and substance disorder hurt the mental health of adults. In 2007, researchers showed that 43.8 percent of 18 to 29

years old adults suffered from some mental illness (including anxiety, mood, and impulse-control or substance disorders). Compared with young adults, other groups of adults (29-45) have lower rates of mental disorders (Kessler, 2007). Adult children face many challenges in their lives, and they have limited social and financial resources to overcome these difficulties.

Living with parents

Half of adult children aged 18-24 live with their parents (Kreider & Elliott, 2009. In 2007, researchers found that over 55 percent of men and 47.5 percent of women (they are 18-24 years old) lived with their parents (Kreider & Elliott, 2009). Socioeconomic background and marital status influence if adult children choose to live with their parents. For example, some researchers pointed out that economic recession and housing crises have profound effects on the low-income multigenerational households and may also encourage co-residence among them (Keene & Baston, 2010). Another study in 2010 showed that young single parents are more likely to live with old parents than previous generations. These single adults need a lot of social and financial support from their family relationships than those in couples (Smits et al., 2010). For adult children, living with parents affect the family relationship. Family conflicts are greater when adult children live with their parents. From a life-course perspective, a 2007 study showed that different family norms and views about independence might produce serious strains on parent-children relationships (Ward & Spitzer, 2007). Adult children live with parents and they are involved in their parents' lives. If adult children do not agree with their parents' decision, co-residence with parents increases the agreements between parents and children.

Higher education and employment experience

Young adult children are more likely to pursue higher education and employment experience than previous generations. From 1970, total undergraduate enrollment in degree-granting postsecondary institutions increased from 7.4 million to 16.4 million in 2008. More recently (between 1997-98 and 2007-2008), the number of bachelor's degrees increased by 32 percent (Aud et al., 2010). Gaining a higher education requires much financial investment and social resources. Different from other industrialized countries, the United States does not provide developed welfare for adult children. As a result, adult children rely on their families for financial support (Furstenberg, 2010). It is also true that in modern U.S. society, adult children could get much social and financial resource as a result of higher education and employment experience. The enrollment rate increases by 24 percent from 2000 to 2008. And the influence of this increasing trend will last for the next decade (Aud et al., 2010).

Another important resource for adult children is the employment experience. Before they gain financial independence, they need necessary experience to obtain financial resources. Women, ethnic minorities, and low-income individuals have fewer social resources to get employment experience in the labor market (DeNavas-Walt, Proctor & Smith, 2010). Without the experience, these adults have many social and financial problems in their lives.

Later marriage

The last demographic change that influences adult children's lives is the later marriage since the 1970s. The need for employment experience and higher education encourages

young adult children to put off their marriage plans. Because of the change of labor market, people need extra education and start their families later. As they rely on their parents, parents need to invest much financial and social resource (Furstenberg, 2010). In terms of higher education, students are more likely to get a degree or training before their marriage. Education provides a kind of advantage for them in the future labor market (Roksa, 2009). The median age at first marriage for young people increased to 27 for men and 26 for women (up from the 1970s' 23 for men and 21 for women (Furstenberg, 2010)). This change of family structure renews the thoughts of family members and family relationship.

Instead of marriage, many adult children choose cohabitation. In contemporary U.S. society, one-quarter of the couples choose cohabitation as the family structure (Bumpass, 2000). Related research shows that there is much dissatisfaction between cohabiting couples (King & Scott, 2005). This dissatisfaction influences the quality of adult children's lives, and they need to get necessary support from other family members.

Age at marriage, higher education, employment, and co-residing with parents are connected to each other. Higher education and employment needs a lot of financial and social support from families. Adult children choose to live with their parents to get resources. In addition, they have to put off their marriage and parenting to get a financial and social foundation for their own families. In this process, adult children started to prepare and strive for adult roles and responsibilities, which is very important for the development of the society (Edin. 2011: 9). This study focuses on adulthood and how its influence adult children' depressive symptoms.

Challenges for Adult Children

In family life, young adult children face many challenges. These challenges transform them into adults. In this process, the challenges also change family relationships and the depressive symptoms of family members. Adults between 18 and 34 years old have limited resources to solve these challenges and the changing family relationship increases the stress for adult children. This section summarizes how these challenges influence adult children.

Adult children and uncertainty

Adult children face uncertainty in their lives. During early adulthood period, individuals start to face changes in their lives. The first change is that their social relationships reshape. Romantic relationship and children become important parts of adult children's lives and they invest much social resource to manage these desires (Shanahan, 2000). In addition, they face uncertainty in their work. After they become adults, they leave schools and become members of the labor market. Without very much employment experience and social resources, adult children have few resources to get jobs and solve financial problems in their lives (Furlong, 2009). Finally, adults face the uncertainty in their own well-being that is not always alleviated by social welfare. Compared with other industrialized countries, the US government does not provide very much social welfare (Napolitano, 2015). Children's education, health care and other problems trouble the adult children. These problems may also threaten the depressive symptoms of adult children (Napolitano, 2015).

To solve the uncertainty, adults rely on family for social support and resources. In 2005, Schoeni and Ross showed that financial support from parents plays important role in adult children's lives. In their study, 34 percent of respondents (ages from 18 to 24) receive

financial or other support from their parents. Between 18 and 24 years old, the total average financial support from parents was over 38,000 dollars (Schoeni & Ross, 2005). In parent-child financial relationships, adult children play different roles. In 1995, researchers showed that only 9.2 percent of adult children provided cash support to their parents (McGarry & Schoeni, 1995). This kind of financial relationship may influence the parent-child relationship and create some stress for the adult children.

Interdependence and adult children

Another challenge for adults is the interdependence. Without enough employment experience and a financial foundation, adult children are much likely to get assistance from their social network. Different from dependence, interdependence is related to maintaining positive, healthy, reciprocal relationships (Edin & Tach, 2011: p 14). The foundation of the relationship is that the family members support each other. In this familial social network, adult children do not just get financial and social resources from other family members, but they also provide financial support and care for other family members. Although this interdependence could provide important support for adult children, adult children also suffer from this relationship.

Previous research mostly focuses on the financial support from parents to adult children, but seldom researchers focus on the financial interdependence. For example, Schoeni and Ross (2005) only focus on the financial support from parents to children. Their research did not provide all useful information of the financial exchange between parents and children (Schoeni & Ross, 2005). Napolitano (2015) pointed out that researchers and policy-makers

should also pay attention to the financial support to parents from children, which is common among low-income families.

Indeed, adult children from low-income families face many challenges in family life (Edin & Tach, 2011: p 14). They may get less financial and social support from their parents. In addition, these adults have obligations to supply basic financial support and caregiving for their poor parents. At the same time, these adults often face unemployment and other family issues. For example, researchers showed that low-income black adults provide more financial support for their parents and they have more financial pressure in family life than white adults from high-income families (Fingerman et al., 2011). As a result, the family financial exchange enlarges the inequality and increases the depressive symptoms of adult children.

In the parent-child financial interdependence, researchers showed that gender has an influence on the family relationship and depressive symptoms of family members. For example, Lutzky and Knight (1994) found that women reported more distress than male in the caregiving and financial support for parents. Firstly, these adult daughters may get fewer resources from social network. In addition, they have more common social contact with their parents than adult sons (Lutzky & Knight, 1994). These two factors influence the parent-child interdependence and their depressive symptoms.

Family Crisis Theory and Unemployment

Adult children and their parents face at least three distinct kinds of problems in their lives: emerging crises, ongoing problems and everyday needs (Fingerman, 2011). With increasing demands, adult children need support from family relationships. Types of supports between family members include: financial, emotional, practical and companion. Unlike other kinds

of support, low-income families often can only support limited financial support to their adult children. For example, the adult children (between 18 to 24 years old) from high-income families got over $70,000 from their families. The low-income families only provided $25,000 to their children (Schoeni & Ross, 2005). As a result, financial support has a different influence on the family relationship.

Family crisis theory provides a theoretical connection between the parent-child financial relationship and the depressive symptoms of adult children. From above section (demographic features of adult children), the study provides many resources about parents and adult children's increasing demands for financial support. In the current research, the key independent variables measure the financial relationship between parent and children. In addition, depressive symptoms of adult children are analyzed as a kind of adaption to the crisis.

In this the family crisis framework, major events including the several above problems (emerging crises, ongoing problems and everyday needs) have important influence on depressive symptoms. Facing these major events, people use social support to solve these problems. If they solve the problems successfully, one would expect that people would benefit much psychologically from this process. However, if people fail to solve these problems, stress and other negative factors influence their depressive symptoms (Bierman, 1999, p195). In the theoretic framework, researchers focus on the situation and its consequence, but not just how people control the financial support to solve problems. In the current study, unemployment and financial stress is considered as the crisis or conflict. With employment or educational problems, adult children could not resolve the conflicts. On the

other hand, they can only provide limited financial support to their parents if they face financial stress.

Family stress is a kind of respond to change in family life (Lamanna & Stewart, 2014, p: 332). A new family member, new marital status and change of economic status could be defined as family stress. In these activities, family members have to invest social resources and financial resources to react to the changes. Facing to family stress, family members have different reactions. For example, many old parents meet psychological and financial problems when they retire. They choose to move to their adult children's family and get support from adult children. Adult children are also stressful and take use of their social resources to support their parents and get support from their parents. Different kinds of family stress and reaction leads to different influence on family relationships.

The family stress comes from family crisis. It occurs "when the system encounters disruption to its everyday routines and experiences a state of disequilibrium or instability" (Turner, 2008, p. 8). In this study, I focus on how financial support influences the emerging crises and everyday problems. Facing financial stress, parents and adult children have to change their status in family structure to react to crisis. If the crisis is not handled well, many new conflicts and difficulties surface (Turner, 2008, p.51).

Based on related family crisis theories, McCubbin and Patterson (1983) developed the ABCX model of family stress and crisis to analyze the family relationship. This model focuses on pile-up demands, family adaptive resource, perception and coherence and family adaptation. In the following part, the study introduces every component of the model: The first component is the pile-up demands (the aA Factor). It refers to the cumulative effect of

different stressors and strains (Lavee et al., 1985). In a family, psychological and social factors make every family member become a part of social system. Facing the crisis, all family members demand changes and sources. In this study, parents and their adult children have invested much financial resource to get opportunities in the society and this is the source of demands and crisis.

The second component is the family adaptive resources (the bB Factor). It refers to existing and expanded resources that developed for the pile-up demands (Lavee et al., 1985). There are three kinds of resources in crisis: personal support, family system resource and social support. Personal resource includes ability and financial resources. Family system resource includes the internal attributes of family units. Social resource refers to social support from other institutions (McCubbin & Sussman, 2014). In the study, I focus on personal resource and family system resource. Many social factors, like gender, race and income, also influence family members' ability to get resources.

In this model, financial stress (financial support and unemployment) influence adult children's depressive symptoms and the influence is mediated by social relationship and socioeconomic factors. I use unemployment as the independent variable to test the model. There three kinds of related concepts should be identified. People with jobs are employed. People who are jobless, looking for jobs, and available for work are unemployed. People who are neither employed nor unemployed are not in the labor force (U.S. Department of Labor, 2006). Different from other social groups, unemployed people face many financial stress. In this crisis, adult children need financial support from other family members. If they cannot adapt to the unemployment, adult children may have high rates of depressive symptoms.

Parent-child communication and depressive symptoms

Previous studies have pointed out that family relationship influences the depressive symptoms of adult children (Lin & Brown, 2012; Goodman, 1999). Among family relationships, the financial relationship is important, as family members need financial support to overcome the troubles in their everyday life. This study tests how this financial stress between family members influences the depressive symptoms of adult children.

Communication between parents and adult children has changed during the past decades. It is widely accepted that empty nest problems have a negative influence on parent-children relationship (Brown & Lin, 2012). With this change, adult children meet many stressful events and their depressive symptoms increase. The Communication reduces the family conflict between parents and adult children because they have less communication. However, in contemporary US families, half of adult children (aged between 18 and 24) live with their parents. In 2007, researchers showed that 55 percent of men and 47.5 percent of women, aged from 18 to 24, lived with their parents (Kreider & Elliott, 2009). This situation would lead adult children to be more involved in communication with their parents. Disagreements and conflicts increase between parents and adult children. For adult children, there are more opportunities for family crisis and family stress because adult children have to invest a lot of social resources to meet parents' demands (Ward & Spitze, 2007).

Socioeconomic factors and depressive symptoms

Socioeconomic and demographic factors, including age, race, gender, religion and income, influence the depressive symptoms of family members. In 2011, researchers compared the effect sizes from studies that sample low-income families with those samples

with middle-to-high or mixed incomes. They found that family income has strong influence on the maternal depression on children's mental health outcomes (Goodman, 2011). Economic resources influence the adults' depressive symptoms in two ways. Among low-income families, children are more likely to provide financial support for their parents. However, they just get limited financial resources from their families.

Another important factor is gender. Mothers are more involved in the depressive symptoms of adult children than fathers (Rohde, Lewinsohn, Klein, & Seeley, 2005). For example, researchers show that adult children are likely to reduce social and financial association with their fathers (Lin, 2008; Shapiro, 2003). Other researchers showed that mothers' depressive symptoms have significant influence on children's depressive symptoms (Goodman, 1999). Specifically, mothers' depressive symptoms are associated with high levels of depressive symptoms of adult children (Goodman, 1999).

Race and ethnicity also influence mental illness across generations. Some researchers have pointed out that there are more family conflicts among African-Americans. This may be the case because they have fewer social and financial resources to solve their financial stress in family life, and this financial stress increases mental illness (Aikens et al., 2008).

Caregiving and depressive symptoms

Caregiving researchers focus on time and other practical support between family members. Individuals who need care often also need financial resources to overcome the difficulties. This section introduces some factors from the caregiving research that is useful for this study.

Depressive symptoms are not just influenced by family environment. Family caregiving also plays an important role in the field. Adult children need to invest time and social resources to take care of their parents. In this process, they have to delay or sacrifice their educational or occupational goals. This change influences the depressive symptoms of children. In addition, adult children invest financial contributions and perceive financial strains when their parents need assistance with personal care (Thompson, 2007). These factors lead to stress among adult children (Thompson, 2007).

In the family caregiving process, previous researchers have pointed out that some social groups are more likely to be influenced by the family caregiving. For example, Lutzky and Knight (1994) showed that women invest more social and financial resources than men in the caregiving. For adult daughters, they have to sacrifice more time and social resources than their male siblings. As a result, they have to delay or sacrifice their educational or occupational goals.

Hypotheses

This study focuses on how the parent-child relationship influences the depressive symptoms of adult children. In the model, unemployment (family crisis) is analyzed as financial stress. Other related factors (family social relationships and socioeconomic factors) could provide resources to overcome the family crisis. Finally, depressive symptoms are analyzed as dependent variable, the outcome of adaption to family crisis. On the basis of the literature reviewed above and the model, I posit five hypotheses.

The first four hypotheses focus on direct relationships between key concepts in the study (unemployment, financial exchange, and social support) and depressive symptoms

(CES-D). The fifth hypothesis focuses specifically on how financial support mediate the relationship between unemployment and depressive symptoms (CES-D).

Hypothesis 1. For adult children, depressive symptoms will be higher among those who are unemployed. I expect this to be true because fewer financial resources to solve problems in everyday life likely create financial stress, leading to high levels of depressive symptoms (Hurd, 2010). In the family crisis model, unemployment represents family crisis.

Hypothesis 2. Depressive symptoms will be lower among those who receive financial support from their parents. I expect this to be the case because the support parents provide helps to alleviate stress and contribute to less depressive symptoms. In the model, financial support from parents help adult children get resources.

Hypothesis 3. Adult children who provide more financial support to parents will have higher depressive symptoms (CES-D) than those who provide less. Previous research showed that adult children also provide financial support to their families and this support is more common in low-income families than high-income families (Napolitano, 2015). In the model, financial support to parents is a kind of family crisis.

Hypothesis 4. For adult children, depressive symptoms will be lower among those who have a better parent-child social relationship. In crisis theory, major events (unemployment in this research) have influence on depressive symptoms and parent-children social relationship could help stressor to adapt to the crisis (Turner & Avison, 1992).

The hypothesis predicts how financial support mediates the relationship between unemployment and depressive symptoms (CES-D):

Hypothesis 5. For adult children, financial support from parents will mediate the relationship between depressive symptoms and unemployment. Specifically, controlling for the level of parents' financial support will result in a weaker relationship between depressive symptoms and unemployment. I expect this to be the case because the financial support that parents provide will help ease some of the stress associated with unemployment.

CHAPTER 3. METHODLOGY

Sample

The current study uses data from Wave Four of the National Longitudinal Study of Adolescent to Adult Health (Add Health). Add Health is a nationally representative longitudinal dataset with four waves. Below I describe the sampling methodology for Add Health, the data collection, the measures used in the current study, and the analysis plan used to address my hypotheses.

The first wave of the Add Health study began in 1994 and its sampling method influenced other waves (Chantala, 2001). With respect to region, urbanity, size, type, and ethnicity, researchers stratified and systematically selected 80 high schools from the Quality Education Database (Harris et al., 2006). The qualified high schools had to include an 11th grade and enroll more than 30 students. Based on the steps above, researchers also identified the schools (feeder schools) that sent at least five graduates to the high schools. According to probability proportional to the number of graduates, researchers selected students from feeder schools.

Among these selected schools, 79 percent of them agreed to participate in the investigation and researchers choose replacement schools from stratum (Harris et al., 2006). With this sampling method, researchers collected data from 20,745 adolescent respondents in Wave One (Harris, 2013).

Researchers chose students from the school rosters and these students were eligible into the core sample (Harris, 2013). Stratified by grade and race, these students represent all US students in grades 7 through 12 in 1997-95 school year. In the core sample, about 17 students

were from each stratum and a total of 200 adolescents from each of selected schools. At Wave One, 12, 105 students participated in the in-home interviews.

At the next waves, some respondents were deceased or not in the United States and these cases were ineligible. One year later, the second wave surveyed 15,000 of the same students. From 2001 to 2002, the researchers interviewed with 15,170 of the same students at Wave Three. At Wave Four from 2008 to 2009, the dataset contains interview from 15,701 Wave One respondents. The current study uses data from public-use data set. In this study, the public-use dataset for Wave Four consists of one half of the core sample, and one half of the oversample of African-American adolescents with a parent who has a college degree, chosen at random. The public-use data is available under minimal-use restrictions (5114 respondents). Some special oversamples are not available in the public use data (Harris, 2013).

The analytic sample for this research is based on the Wave Four public-use data gathered in 2008. Participants were 24 to 35 years old in the sample. The final sample included 5114 people, including all those whose parents were alive and had information on all the relevant variables. In the final sample, 46 percent of respondents were male. The percent of white respondents are 71.8 and other respondents are black or African American (24.3 percent), American Indian (0.8 percent) and Asian/ Pacific Islander (3.1 percent). In addition, their annual household income ranges from zero to $150,000 with a mean between $50,000 and $70,000.

Data Collection

The National Longitudinal Study of Adolescent Health (Add Health) is an longitudinal study of a nation- ally representative sample of more than 20,000 individuals that began with in-school questionnaires administered to adolescents in grades 7 to 12 in the United States in 1994 and 1995 (Harris et al., 2006). At Wave Four, researchers collected public use data from 5114 respondents.

To evaluate the effectiveness of the survey, researchers conducted the Wave Four pretest in three states during 2007. Based on the information from 300 interviews of original respondents, researchers modified questions for Wave Four (Chantala, 2006).

Under sub-contract, RTI international lead the Wave Four data collection (Harris, 2013). At the fourth wave, the original respondents in Wave One lived in all 50 states. The majority of respondents chose to conduct the interviews at homes. Some respondents also choose to conduct interviews work locations or other places. In early February 2009, researchers finished Wave Four data collection and the data collection also includes data from 193 respondents from the pretest.

The total interview time took between 90 and120 minutes (Johnson & Galambos, 2014). Interviewers helped the respondents to finish the less sensitive section. Other sensitive questionnaire sections were self-administered with computer assisted interviewing software. The interview contains the majority of longitudinal variables from three previous waves and the fourth in-home interview also added some modification related to lives of adult children. In the current study, the researcher focuses on social, economic, psychological and physical well-being with contextual data on the family and other social environment. After the

interview, researchers use 30 minutes to collect physical measurements and biological specimens. Current study does not include this physical and biological data.

Researchers located over 90 percent of the original respondents and collect data from 15,701 respondents (Kalsbeek et al., 2001). Compared with response rate (77.4 percent) at Wave Three, the response rate (80.3 percent) at Wave Four improved. The response rate is also higher than other regional and national longitudinal survey. For example, 2009-10 round of the annual NLSY97, a national longitudinal with longer research interval, had an 84 percent retention rate, and LA FANS 2006-2008 had a 62.5 percent response rate (Chantala, 2006).

Weights are provided to account for the sampling technique in the dataset. Add Health data documentation indicates the correct weight to use with cross-sectional data. For these analyses, descriptive statistics are done with unweighted data and inferential statistics use weighted data.

Measurement

In this section, I describe each variable used in the analysis. The variables include the dependent variable that indicates depressive symptoms, the key independent variables, which include employment status, financial exchange with parents, and social support, as well as control variables, which include demographic information.

Dependent variable:

Depressive symptoms

Depressive symptoms, the dependent variable, were measured with an eight-item scale from the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). Scores on the CES-D scale ranged from 1 to 22, with a mean score of 6.08 and a standard deviation of 2.9. In this scale, participants indicated how often they had experienced the following symptoms in the last seven days: " were bothered by things that normally do not bother you"; "could not shake off the blues, even with help from family and friends"; "never felt that you were just as good as other people"; "had trouble keeping your mind on what you were doing"; "were depressed"; " never enjoy life"; "were sad"; "felt that people disliked you." Responses ranged from 0 (never) to 3 (most or all of the time). Higher scores mean more depressive symptoms except question six. As a result, this study reverses question six. Then I combine these questions together and calculate the total sum of these responses. Cronbach's alpha reliability was 0.6.

Independent variables:

Financial support from parents

The participants were asked questions about how often they get financial support from their parents with the question: "How many times have your mother/father figure paid your living expenses or given you more than $50 to pay living expenses during the past 12 months?" Responses ranged from 0 "never" to 3 "three or 4 times."

Financial support to parents

The participants were asked questions about how often they provide financial support for their parents with the question: "How many times have you paid your (mother/father figure) living expenses or given them more than $50 to pay living expenses during the past 12 months?" Responses ranged from 0 "never" to 3 "three or 4 times."

Employment

There are three employment statuses: employed, unemployed, and not in the labor market. Regression tests in the study use two dummy variables, one for "unemployed" and one for "not in the labor market."

Living with parents

The participants were asked question about how far they live from their parents. Among the respondents, 15.5 percent of respondents lived with their mother and 9.7 percent of respondents lived with their father. In the analysis, this is a dummy variable equal to 1 if the respondent lived with either of their parents at the time of survey.

Parent-children social relationship

The participants were asked two questions about how often they communicate with their parents and what kind of ways they communicate with their parents: (a) "How often do you and your (mother figure) see each other?" (b) "How often do you and your (mother/father figure) talk on the telephone, exchange letters, or exchange email?" The variables used in the analysis as coded to show how frequency of social interaction influences depressive symptoms.

Control variables

Demographic variables

Control variables include the sex category, race, education and annual family income. In the study, I also include family annual income from the respondents. Their family annual income ranges from zero to $150,000 or higher. Sex category is a binary measure (1= female). At wave four, 71.2 percent of the respondents are white and other respondents are African American and other minorities (28.2 percent). In the current study, respondents are divided into two categories: white and other minorities. In addition, interviewers asked the respondents' the highest level of education they received. Responses range from 1 (eighth grade or less) to 5 (completed a master's degree or higher).

Relationship with other family members

I control for two other factors related to other family members, including partners and children. Dummy variables capture whether someone is single (1= single) and whether someone has a child (1 = no child). Participants were asked question about their relationship with other family members. Answers to "How happy are you in your relationship with your partner?" capture the quality of their partner relationship. This variable is coded 0 if the person is single. Answers to "Do you agree that your child is the major source of stress?" capture how stress from having a child ranks related to other stressors. Responses ranges from 1 "very happy" to 3 "not too happy" and 1"strongly agree" to 5 "strongly disagree." Those without children are coded 0 on this variable.

Analytic Approach

H1. To test Hypothesis 1, which predicts that unemployment will be related to greater depressive symptoms (CES-D) among young adults, I regress CES-D on unemployment. If unemployment status (compared to being employed or being not in the labor force) is related to higher CES-D scores, then the findings will support H1. The independent variable, unemployment, represents family crisis.

H2. To test Hypothesis 2, which predicts that greater financial support from parents will be related to lower CES-D among adult, I regress CES-D on financial support from parents. If greater financial support is related to lower CES-D scores, then the findings will support H2. In the model, financial support from parents help adult children get resources and reduce depressive symptoms.

H3. To test Hypothesis 3, which predicts that adult providing more financial support to parents will have higher depressive symptoms (CES-D), I regress CES-D on financial support to parents. If greater financial support to parents is related to higher CES-D scores, then the findings will support H3. In the model, financial support to parents is a kind of family crisis.

H4. To test Hypothesis 4, which predicts that better parent-children social relationship will be associated with lower depressive symptoms, I regress CES-D on parent-children social relationship. If better relationship is related to lower CES-D scores, then the findings will support H4. In crisis theory, major events (unemployment in this research) have influence on depressive symptoms and parent-children social relationship could help stressor to adapt to the crisis (Turner & Avison, 1992).

H5. Hypothesis 5 predicted that financial support from parents will mediate the relationship between depressive symptoms and unemployment. Specifically, controlling for the level of parents' financial support will result in a weaker relationship between depressive symptoms and unemployment. To test Hypothesis 5, I regress CES-D on unemployment and use financial support from parents (mothers and fathers) as control variables. If financial support from parents influences the effects of unemployment on CES-D, then the findings will support H5. The financial support from parents helps children to get resource to adapt to family crisis.

CHAPTER 4. FIDINGS

Adult Children and Their Families

Table 4.1 (in Appendix B) shows the descriptive statistics for the adult children in the sample. These results show useful information for the analysis of family relationships. The average CES-D score is 6 (on a scale ranging from 0 to 22). The standard deviation (2.9) indicates that there are some differences among respondents. The majority of the adult children are employed (65.7 percent). Unemployed respondents are 4.5 percent and 29.7 percent of respondents are not in the labor force. On average, respondents have 10.97 years of education. Most respondents do not live with their parents.

Descriptive Statistics of Respondents: 78.7 percent do not live with mothers and 72.8 percent do not live with fathers. Still a substantial percentage of respondents live with their parents: 15.5 percent of respondents live with their mothers and 9.7 percent of respondents live with their fathers.

Financial exchange variables (range from 0 "never" to 3 "three or four times a year") show some details about family relationships. On average, adult children provided 0.56 times of financial support to mothers and 0.27 times of support to fathers. Compared with financial support to parents, adult children get more financial support from their parents: adult children get 0.76 times of support from their mothers and 0.59 times of support from their fathers. Thus, these descriptive statistics also show that there is more financial exchange between adult children and mothers than between adult children and fathers.

The descriptive table also shows that social support and interaction influence the family relationships. Mothers have more social contact and interaction with their adult children than

fathers do. Compared with father-child relationship, mothers have more visits (3.3, more than once or twice a month) and communication (4.25, more than once or twice a week). However, adult children are more satisfied with their communication with fathers. The majority of respondents (80 percent) agrees or strongly agrees that they are satisfied with communication with fathers. In addition, other family members influence the depressive symptoms of adult children. This study collects data about relationships with partners. The majority of respondents are satisfied with their children and partners. Specifically, on a scale ranging from 1 to 3 (where three is greater dissatisfaction with a partner) scores were very near 1(1.36). On a scale ranging from 1 to 5 (where five is greater satisfaction with a child) scores were very near 4 (3.82).

How Family Relationship Influence Depressive Symptoms

Table 4.2 shows the results of the regression to test the relationship between financial exchange, family relationship and depressive symptoms. Results provide more details to show the effects of family relationship on depressive symptoms.

In the study, I use three kinds of models to test the hypotheses. Model 1 just includes independent variables and the dependent variables. I test how independent variables influence depressive symptoms. Model 2 includes some demographic factors as control variables. Model 2 tests how control variables influence the effects of independent variables. Model 3 includes relationships with other family members. The study uses Model 3 to test if other social support influences the effects of parent-child relationship on depressive symptoms. I use Model 1 and Model 2 to test first four hypotheses and use Model 3 to test the fourth hypothesis.

Results support Hypothesis 1 that unemployment is associated with higher depressive symptoms. The coefficient for unemployment is 2.203, indicating that the CES-D score for those who are unemployed is more than two points higher than it is for those who are employed. Support for H1 shows that when adult children face unemployment (a proxy for financial stress), they will have high rates of depressive symptoms (CES-D). When the model controls for demographic factors, the coefficient for unemployed is smaller (1.539; it decreases by 30.1 percent). This shows demographic differences in who is unemployed account for some of the effect of unemployment on CES-D. Thus if a person's gender, race, income, and education provide financial resources, unemployment will have fewer effects on depressive symptoms. I also note that the effect for "Not in the Labor Force" is not statistically significant. This means that the results support the hypothesis because control variables do not eliminate the influence of unemployment. Unemployment, as a family crisis, increases depressive symptoms of adult children.

Hypothesis 2 predicted that financial support from parents is associated with lower depressive symptoms. Model 2 tests Hypothesis 2 by regressing "Money from Mothers" and "Money from Fathers" on CES-D (with demographic controls). Data analysis shows that predictions of Hypothesis 2 were not supported. The statistically significant coefficients (.364 and .159) show that financial support from parents is associated with higher depressive symptoms. The data indicates that more financial support is associated with higher depressive symptoms for the adult children. After controlling demographic variables, the findings show that mothers' assistance is associated with higher depressive symptoms (.173 with p<0.01). Thus, the findings do not support Hypothesis 2. The limited financial assistance does not change adult children's financial situation. In family crisis model, adult

children could not get enough resources from their parents to overcome the family crisis (financial stress). In their social network, adult children are more likely to get resources from others, but not their parents. As a result, financial support from parents does not reduce depressive symptoms.

Hypothesis 3 predicted that financial support to parents is associated with higher depressive symptoms. Model 2 tests Hypothesis 3 by regressing "Money to Mothers" and "Money to Fathers" on CES-D (with demographic controls). Data analysis shows that predictions of Hypothesis 3 were supported. In Model 1, the coefficient (.368 with $p<0.001$) show that financial support to mothers is associated with higher depressive symptoms. The data indicate that financial support is associated with higher depressive symptoms for the adult children. After controlling for demographic variables, the findings show that financial support for parents is associated with higher depressive symptoms. The coefficient of financial support to mothers is .157 and the coefficient for fathers is .222, and both are statistically significant effects. Thus, the findings support Hypothesis 3. In the family crisis model, the financial supports to parents become a financial stress for adult children. This financial crisis increases depressive symptoms of adult children.

Different from the Hypothesis 2 and Hypothesis 3, both financial support to parents and financial support from parents increase depressive symptoms (in this research, adult children are between 24 and 32). Schoeni and Ross showed that children between 18 and 24 have more financial supports from parents (Schoeni & Ross, 2005). Adult children have limited financial exchange with their parents. Different from adolescence, too much financial exchange for adult children increases conflicts between parents and children.

There are two groups of control variables in the fourth regression: relationships with other family members and demographic factors. The coefficients for social support and interaction shows family relationships have multiple influences on the depressive symptoms of adult children. The frequency of communication with mother has no significance influence on depressive symptoms of adult children. The Quality of mother-children is associated with higher depressive symptoms (.557 with $p<0.001$). After controlling demographic factors, the coefficient of quality of mother-child communication is .575 with $p<0.001$. The father-child relationship has contrary influence. More talking with fathers (-.320 with $p<0.001$) is associated with lower depressive symptoms and more meeting with fathers (.249 with $p<0.001$) increase depressive symptoms. When controlling demographic factors, the coefficients decrease. Higher household income status is related to lower depressive symptoms.

Another group of control variables play important roles in the regression. The coefficients for relationships with children (-.493 with $p<0.001$) and partner (1.243 with $p<0.001$) are larger than other coefficients. Less stress from children is associated with lower depressive symptoms. Lower happiness with partners is associated with higher depressive symptoms. These factors' effects show that other family social relationship play important roles in adult children's depressive symptoms. And coefficients for parent-child relationship decrease after controlling these variables. This change shows that marital status and child play important roles in adult children's life.

Hypothesis 5 predicted that financial support from parents would mediate the effect of unemployment on depressive symptoms. Model 2 in Table 6 tests Hypothesis 5 by including the variables that indicate financial support ("Money from Mothers" and "Money from

Fathers") in addition to unemployment to predict CES-D (with demographic controls). After controlling for parent support, the coefficient for unemployed (2.130 with p<0.001) decreases to 1.829 (a 14.11 percent drop). Thus, the difference between Model 1 and Model 2 is small and this suggests that financial support from parents does not mediate the relationship. Data shows that financial supports from fathers does not have significant influence on depressive symptoms. On the other hand, demographic factors (included in Model 3) appear to partly mediating the relationship between unemployment and depressive symptoms. Gender, income and education have stronger effects on unemployment than parents' financial support. In sum, data analysis does not support Hypothesis 5.

CHAPTER 5. DISCUSSION AND CONCLUSION

Conclusion

In this study, the researcher tests how family relationships and financial exchange influence depressive symptoms of adult children. The research addresses the following three points: a) How unemployment influences depressive symptoms of adult children. b) How financial exchange between parents and adult children influence depressive symptoms of adult children. c) How parent-child relationship influences depressive symptoms of adult children.

Previous studies mainly focus on how the parent-child relationships influence young adults and adolescents' depressive symptoms (Johnson & Galambos, 2004). This study includes parent-child financial exchange and other factors to consider how parent-child relationships influence adult children's depressive symptoms. This study use data from Add Health to test the research questions. These interviews include data from 5,114 respondents and their families. These respondents are 24 to 33 years old and identified as adult children. Based on these interviews, I start analysis on employment, family financial exchange and parent-child relationship.

Previous studies only introduced the features of financial exchange between parents and adult children. For example, researchers showed race and ethnicity influence the frequency of financial exchange between parents and adult children (Napolitano, 2015). Different from previous studies, the current study analyzes effects of parent-child financial exchange on depressive symptoms. The financial exchange provides a new perspective to understand how family relationship influence depressive symptoms.

In this study, unemployment is associated with higher depressive symptoms. Unemployment and the financial stress likely create depressive symptoms for adult children. In the research, demographic factors also influence the effects of unemployment. On the one hand, some demographic characteristics (being male, white, and having higher income) provide financial resources to overcome difficulties. On the other hand, these factors also help adult children get social resources from their social network (Muntaner, 2004). Female, ethnic minorities and low-income adult children are more likely to be influenced by unemployment.

Different from the Hypothesis 2 and Hypothesis 3, both financial support to parents and financial support from parents increase depressive symptoms. In low-income families, there are high levels of financial exchanges and family conflicts (Bierman, 1999). The financial stress (low-income) increases depressive symptoms for adult children. This phenomenon is more common among mother-child relationship. Mothers have more financial exchange with their children and they have disagreements and conflicts with their children (Bierman, 1999).

Parent-child relationships (social support and interaction) also play important roles in the study. Although mothers have more communication (talking and meeting with adult children) than fathers, the frequency of mother-child communication has no significant effects on the mental health of adult children. Different from frequency of communication, better quality of parent-child communication is associated with lower depressive symptoms. Specifically, the more satisfied adult children are with the way they communicate with their mother, the lower their depressive symptoms. This indicates that good communication is

Different from mother-child relationship, father-child communication increases depressive symptoms of adult children. Less financial and social relationship with father explains some part of this phenomenon (Lin, 2008). Another important finding is the role of marital status. Marriage could help adult children get rid of depressive symptoms. Assistance from partner is an important resource for adult children to overcome the family crisis.

Limitation and Implication

There are some limitations of dataset in this study. Firstly, Add Health only provides financial exchange over $50. Previous researchers show that adult children are likely to provide small sums of support to their parents (Napolitano, 2015). In Add Health, surveys only ask about large sums of support and miss this kind of frequently support. Researchers show that low-income families are willing to provide small sums of financial support to their family members. Another limitation is the absence of measures of caregiving. Caregiving has multiple influences on parent-child relationship and financial support. However, Add Health does not provide enough detail about caregiving.

In addition, R-squared and reliability of the dependent variables used in the thesis are low. This means that suggestions for policy should be considered with caution. In sociological studies related to depressive symptoms, Cronbach's alpha is the measure to examine the reliability of different depressive symptoms. If the Cronbach's alpha is larger than 0.7, the internal consistency is acceptable (Johnson, 2014). If Cronbach's alpha is between 0.6 and 0.7, the internal consistency is questionable. In the model, this thesis needs to include other factors and discussion in the future research.

In the field of parent-child financial exchange, further research should pay attention to two perspectives: relationship with other family members and small sums of financial support to parents (Napolitano, 2015). Another important perspective is the marital status of adult children. Further researchers should focus on how marital status influence parent-child financial exchange. This study shows that marital status and relationships have multiple influences on depressive symptoms and family structure.

Based on the above analysis and findings, the current study provides the following advice for policy makers. Financial exchange is associated with higher depressive symptoms. As a result, adult children need other ways to get financial assistance. Federal and local government needs to provide related public service for adult children. In addition, mother-child relationship and mother-child financial exchange are associated with higher depressive symptoms of adult children. Community and other social institutions should pay attention to the problem and help mothers and their children to overcome difficulties in their relationships.
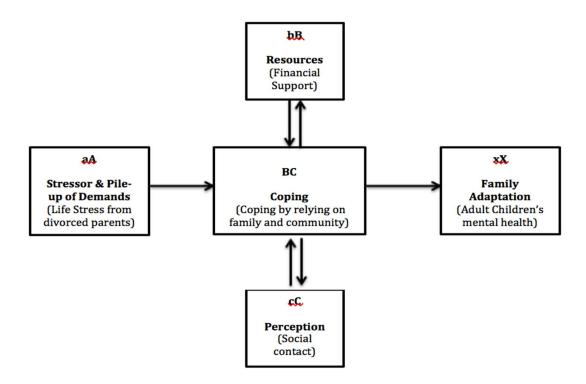
APPENDIX A. LIST OF FIGURES

Figure 1. Double ABCx Model

APPENDIX B. LIST OF TABLES

Table 1. Descriptive Statistics

	Score	SE
Depressive Symptoms		
CES-D	6.08	2.90
Characteristics		
Age (in years)	28.96	1.81
Gender (1=male)	1.49	0.5
Education (in years)	10.97	2.35
Household Income ($ 1000)	56.54	2.67
Employment		
Employed	65.7%	
Unemployed	4.5%	
Not in Labor Market	29.7%	
Social Support and Social Interaction		
How often see mothers (0= never)	3.3	1.22
How often see fathers (0= never)	3.01	1.29
How often communicate with mothers (0= never)	4.25	0.93
How often communicate with fathers (0= never)	3.52	1.29
You are satisfied: communicate with mom (1= strongly agree)	1.59	0.92
You are satisfied: communicate with dad (1= strongly agree)	1.9	1.13
Live with Parents		
Live with Mom	15.5%	
Not live with Mom	78.7%	
Live with Dad	9.7%	
Not live with Dad	72.8%	
Financial Exchange		
Financial Help from Mom (1= one or two times)	0.72	1.06
Financial Help to Mom (1= one or two times)	0.56	0.98
Financial Help from Dad (1= one or two times)	0.59	0.99
Financial Help to Dad (1= one or two times)	0.27	0.72
Other Social Support		
Stress from Children (1= Very Stressful)	3.82	1.15
Happiness with Partner (1= Very Happy)	1.36	0.59

Table 2. Unemployment and Depressive Symptoms

Independent Variable	Model 1 B (SE)	Model 2 B (SE)
Financial Stress		
Unemployed	2.203***	1.539***
	(.28)	(.274)
Not in Labor Market	.151	-.056
	(.114)	(.111)
Demographics		
Age		.052
		(.028)
White		-.319**
		(.131)
Male		-.853***
		(.104)
Income		-.219***
		(.021)
Education		-.352***
		(.048)
Living with Mothers		.578**
		(.195)
Living with Fathers		.049
		(.241)
Single		.172
		(.136)
Having Children		-.049
		(.108)
Constant	4.212***	6.354***
	.064	(.838)
R Square	.013	.082

Table 3. Financial Support from Parents and Depressive Symptoms

Independent Variable	Model 1 B (SE)	Model 2 B (SE)
Financial Support from Parents		
Financial Support from Mother	.364***	.173*
	(.075)	(.077)
Financial Support from Father	.159*	.121
	(.080)	(.080)
Demographics		
Age		.088*
		(.031)
White		-.256
		(.152)
Male		-.786***
		(.114)
Income		-.185***
		(.023)
Education		-.362***
		(.053)
Living with Mothers		.384
		(.265)
Living with Fathers		.074
		(.298)
Single		.277
		(.150)
Having Children		-.137
		(.119)
Constant	3.820***	4.793***
	(.068)	(.932)
R Square	.020	.073

Table 4. Financial Support to Parents and Depressive Symptoms

Independent Variable	Model 1 B (SE)	Model 2 B (SE)
Financial Support to Parents		
Financial Support to Mother	.368***	.157*
	(.076)	(.079)
Financial Support to Father	.161	.222*
	(.100)	(.100)
Demographics		
Age		.079*
		(.031)
White		-.219
		(.155)
Male		-.809***
		(.114)
Income		-.208***
		(.023)
Education		-.341***
		(.054)
Live with Mothers		.350
		(.265)
Live with Fathers		.071
		(.297)
Single		.321*
		(.150)
Having Children		-.146
		(.119)
Constant	3.939***	5.202***
	(.064)	(.924)
R Square	.014	.073

Table 5. Social Support and Depressive Symptoms

Independent Variable	Model 1 B (SE)	Model 2 B (SE)	Model 3 B (SE)
Parent-child Relationship			
Seeing Mother	-.147	-.013	-.013
	(.096)	(.073)	(.073)
Talking to Mother	.291*	.028	.028
	(.114)	(.019)	(.79)
Quality of Communicating Mother	.577***	.521***	.521***
	(.065)	(.064)	(.064)
Seeing Father	.249***	.184***	.184***
	(.069)	(.071)	(.071)
Talking to Father	-.320***	-.178**	-.178**
	(.058)	(.060)	(.060)
Quality of Communicating Father	.166**	.197**	.197**
	(.049)	(.058)	(.058)
Demographics			
Age		.053	.053
		(.031)	(.031)
White		-.202	-.202
		(.148)	(.148)
Male		-.745***	-.745***
		(.113)	(.113)
Income		-.180***	-.180***
		(.022)	(.022)
Education		-.319*	-.319*
		(.052)	(.052)
Live with Mothers		645	.490
		(.417)	(.409)
Live with Fathers		.622	.483
		(.401)	(.394)
Single		.295*	.759*
		(.148)	(.150)
Having Children		-.177	-.169
		(.119)	(.117)
Other Family Relationships			
Stress from Children			-.493***
			(.069)
Happiness with Partner			1.243***
			(.104)
Constant	3.664***	4.273***	2.869***
	(.186)	(.995)	(.984)
R Square	.049	.106	.139

Table 6. Financial exchange and unemployment

Independent Variable	Model 1 B (SE)	Model 2 B (SE)	Model 3 B (SE)
Financial Stress			
Unemployed	2.130***	1.829***	1.349***
	(.069)	(.077)	(.325)
NLF	.192	.144	.010
	(.123)	(.123)	(.120)
Financial Support from Parents			
Financial Support from Mothers		.335***	.164*
		(.075)	(.077)
Financial Support from Fathers		.150	.115
		(.079)	(.080)
Demographics			
Age			.087*
			(.031)
White			-.225
			(.152)
Male			-.799***
			(.114)
Income			-.176***
			(.023)
Education			-.358***
			(.053)
Live with Mothers			.347
			(.409)
Live with Fathers			.042
			(.297)
Single			.287
			(.150)
Having Children			-.128
			(.119)
Constant	4.030***	3.745***	4.667***
	(.069)	(.077)	(.932)
R Square	.049	.106	.139

Table 7. Variables and Coding (Depressive Symptoms and Financial Relationship)

Variable Name	Dataset Information	Coding for Analysis	Missing values/ Legitimate Skip
Dependent Variable: Depressive Symptoms	Eight-items symptoms in the last 7 days: " were bothered by things"; "shake off the blues, even with help from family and friends"; "as good as other people"; "keeping your mind on what you were doing"; "depressed"; " enjoy life"; "were sad"; "felt that disliked you."	Responses range from 0 (never) to 22 (Yes, three or four times)	5
Independent Variable: Employment	Which categories: employed or unemployed, or not in labor market?	Responses: employed (1), not in labor market (2), unemployed (3)	None
Independent Variable: Financial Support from Mother	How much time have your mother paid your living expenses or given you more than $50 to pay living expenses during the past 12 months?	Responses range from 0(never) to 2 (Yes, one or two times)	297 (died /not raised by mother/don't know)
Independent Variable: Financial Support from Father	How many time have your father paid your living expenses or given you more than $50 to pay living expenses during the past 12 months	Responses range from 0 (never) to 3 (Yes, three or four times)	886(died /not raised by father/don't know)
Independent Variable: Financial Support For Mother	How many times have you paid your mother living expenses or given them more than $50 to pay living expenses during the past 12 months?	Responses range from 0 (never) to 3 (Yes, three or four times)	295(died /not raised by mother/don't know)
Independent Variable: Financial Support For Father	How many times have you paid your father living expenses or given them more than $50 to pay living expenses during the past 12 months?	Responses range from 0 (never) to 3 (Yes, three or four times)	885(died /not raised by father/don't know)
Independent Variable: Live with Mother	How far do you and your mother live from one another?	Responses range from 1(live together) to 7(more than 200 miles)	294 (not alive)
Independent Variable: Live with Father	How far do you and your father live from one another?	Responses range from 1(live together) to 7(more than	886(not alive)
Independent variable: Seeing Mother	How often do you and mother see each other?	Responses from 0 (never) to 5 (almost every day)	1089 (not include live together)
Independent variable: Talking with Mother	How often do you and your mother talk on the telephone, exchange letters, or exchange email?	Responses from 0 (never) to 5 (almost every day)	1087(not include live together)
Independent Variable: Quality of Mother-children Relationship	Agree that you are satisfied with the way your mother and you communicate with each other?	Responses from 1 (strongly agree) to 5 (strongly disagree)	294(died /not raised by mother/don't know)

Table 7 continued

Independent Variable: Seeing Father	How often do you and father see each other?	Responses from 0 (never) to 10 (almost every day)	1378(not include live together)
Independent Variable: Talking with Father	How often do you and your father talk on the telephone, exchange letters, or exchange email?	Responses from 0 (never) to 5 (almost every day)	1376(not include live together)
Independent Variable: Quality of Father-children Relationship	Agree that you are satisfied with the way your father and you communicate with each other?	Responses from 1 (strongly agree) to 5 (strongly disagree)	885(died /not raised by father/don't know)
Control Variable: Age	What is the birth year of respondents?	From 1974 to 1983	none
Control Variable: Race	What is the race of respondents?	Responses: 1(white) 2(black or African American) 3(American Indian or Alaska Native) 4(Asian or Pacific Islander)	5
Control Variable: Gender	What is the biological sex of the respondents?	1(male) 2(female)	none
Control Variable: Household Income	What is your annual household income?	From 0 (0-$5,000) to ($150,000 or higher)	353 (don't know 302)
Control Variable: Education	What is you're the highest education degree you have achieved?	Range from 1 (eighth grade or less) to 5 (beyond bachelor's degree)	1
Control Variable: Relationship with Current Partner	In general, how happy are you in your relationship with your current partner?	Range from 1 (very happy) to 3 (not too happy)	1070(no current partner)
Control Variable: Relationship with Children	The major source of stress in my life is my children?	Range from 1 (strongly agree) to 5 (strongly disagree)	2526(no children)

REFERENCES

Aikens, N. L., Coleman, C. P., & Barbarin, O. A. (2008). Ethnic differences in the effects of parental depression on preschool children's socioemotional functioning. Social Development, 17(1), 137-160.

Aud, S., Hussar, W., Planty, M., Snyder, T., Bianco, K., Fox, M. A., ... & Drake, L. (2010). The Condition of Education 2010. NCES 2010-028.National Center for Education Statistics.

Bierman, A. (1999). Handbook of the sociology of mental health (pp. 3-18). C. S. Aneshensel, & J. C. Phelan (Eds.). New York:: Kluwer Academic/Plenum Publishers.

Brown, S. L., & Lin, I. F. (2012). The gray divorce revolution: Rising divorce among middle-aged and older adults, 1990–2010. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 67(6), 731-741.

Bumpass, L., & Lu, H. H. (2000). Trends in cohabitation and implications for children s family contexts in the United States. Population studies, 54(1), 29-41.

Compas, B. E., Ey, S., & Grant, K. E. (1993). Taxonomy, assessment, and diagnosis of depression during adolescence. *Psychological bulletin*, *114*(2), 323.

Carmen, D. W., Proctor, B. D., & Smith, J. C. (2008). Current Population Reports, P60-235, Income, Poverty, and Health Insurance Coverage in the United States: 2007.

Chantala, K. (2001). Constructing weights to use in analyzing pairs of individuals from Add Health data. Carolina Population Center, Univeristy of North Carolina, Chapel Hill. Accessed on June, 24, 2007.

Edin, K., & Tach, L. (2011). Early Adulthood in the Family Context.

Fingerman, K. L., VanderDrift, L. E., Dotterer, A. M., Birditt, K. S., & Zarit, S. H. (2011). Support to aging parents and grown children in Black and White families. The Gerontologist, 51(4), 441-452.

Furlong, A. (Ed.). (2009). Handbook of youth and young adulthood: new perspectives and agendas. routledge.

Furstenberg Jr, F. F. (2010). On a new schedule: Transitions to adulthood and family change. The future of children, 20(1), 67-87.

Goodman, S. H., Rouse, M. H., Connell, A. M., Broth, M. R., Hall, C. M., & Heyward, D. (2011). Maternal. depression and child psychopathology: a meta-analytic review. Clinical child and family psychology review, 14(1), 1-27.

Harris, K. M., Halpern, C. T., Smolen, A., & Haberstick, B. C. (2006). The national longitudinal study of adolescent health (Add Health) twin data. Twin Research and Human Genetics, 9(06), 988-997.

Harris, K. M. (2013). The add health study: Design and accomplishments.Chapel Hill, NC.

Hurd, M. D., & Rohwedder, S. (2010). Effects of the financial crisis and great recession on American households (No. w16407). National Bureau of Economic Research.

Johnson, M. D., & Galambos, N. L. (2014). Paths to intimate relationship quality from parent–adolescent relations and mental health. Journal of Marriage and Family, 76(1), 145-160.

Kalsbeek, W. D., Morris, C. B., & Vaughn, B. J. (2001, August). Effects of nonresponse on the mean squared error of estimates from a longitudinal study. In Proceedings of the Section on Survey Research Methods, American Statistical Association.

Keene, J. R., & Batson, C. D. (2010). Under one roof: A review of research on intergenerational coresidence and multigenerational households in the United States. Sociology Compass, 4(8), 642-657.

Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2007). 12-Month prevalence of DSM-IV/WMH-CIDI disorders by sex and cohort.

King, V., & Scott, M. E. (2005). A comparison of cohabiting relationships among older and younger adults. Journal of Marriage and Family, 67(2), 271-285.

Kreider, R. M. (2009). America's families and living arrangements: 2007. US Department of Commerce, Economics and Statistics Administration, US Census Bureau.

Kreider, R. M., & Elliott, D. B. (2009). Americas families and living arrangements: 2007 (Current Population Reports P20–561). Retrieved from U.S. Census Bureau website http://www.census.gov/population/www/socdemo/hh-fam/ p20–561.pdf

Lamanna, M. A., Riedmann, A., & Stewart, S. (2014). Marriages, families, and relationships: Making choices in a diverse society. Cengage Learning.

Lakdawalla, Z., Hankin, B. L., & Mermelstein, R. (2007). Cognitive theories of depression in children and adolescents: A conceptual and quantitative review. *Clinical child and family psychology review, 10*(1), 1-24.

Lavee, Y., McCubbin, H. I., & Patterson, J. M. (1985). The double ABCX model of family stress and adaptation: An empirical test by analysis of structural equations with latent variables. Journal of Marriage and the Family, 811-825.

Lee, M., & Mather, M. (2008). US labor force trends (Vol. 63, No. 2). Population Reference Bureau.

Levinson, D. J. (1986). A conception of adult development. American psychologist, 41(1), 3.

Lin, I. F. (2008). Consequences of parental divorce for adult children's support of their frail parents. Journal of Marriage and Family, 70(1), 113-128.

Lutzky, S. M., & Knight, B. G. (1994). Explaining gender differences in caregiver distress: the roles of emotional attentiveness and coping styles.Psychology and aging, 9(4), 513.

Mc Cubbin, H. I., & Sussman, M. B. (2014). Social Stress and the Family: Advances and Developments in Family Stress Therapy and Research (Vol. 6). Routledge.

McGarry, K., & Schoeni, R. F. (1995). Transfer behavior in the health and retirement study: Measurement and the redistribution of resources within the family. Journal of Human Resources, S184-S226.

Muntaner, C., Eaton, W. W., Miech, R., & O'Campo, P. (2004). Socioeconomic position and major mental disorders. Epidemiologic Reviews, 26, 53–62.

Napolitano, L. (2015). "I'm Not Going to Leave Her High and Dry": Young Adult Support to Parents during the Transition to Adulthood. The Sociological Quarterly.

Nkansah-Amankra, S., & Tettey, G. (2015). Association between depressive symptoms in adolescence and birth outcomes in early adulthood using a population-based sample. *Preventive Medicine Reports, 24*, 371–378.

Radloff, L. S. (1977). The CES-D scale a self-report depression scale for research in the general population. Applied psychological measurement, 1(3), 385-401.

Rohde, P., Lewinsohn, P. M., Klein, D. N., & Seeley, J. R. (2005). Association of parental depression with psychiatric course from adolescence to young adulthood

among formerly depressed individuals. Journal of abnormal psychology, 114(3), 409.

Roksa, J. (2009). Work, marriage, and parenthood: Life course transitions and inequality in higher education.

Schoeni, R. F., & Ross, K. E. (2005). Material Assistance from Families during the Transition to Adulthood. University of Chicago Press.

Shanahan, M. J. (2000). Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. Annual review of sociology, 667-692.

Smits, A., Van Gaalen, R. I., & Mulder, C. H. (2010). Parent–child coresidence: who moves in with whom and for whose needs?. Journal of Marriage and Family, 72(4), 1022-1033.

Thompson, M. S. (2007). Violence and the costs of caring for a family member with severe mental illness. Journal of health and social behavior, 48(3), 318-333.

Turner, R. J., & Avison, W. R. (1992). Sources of attenuation in the stress-distress relationship: An evaluation of modest innovations in the application of event checklists. Research in community and mental health, 7, 269-94.

U. S. Department of Labor, Bureau of Labor Statistics, "Frequently Asked Question,": http://www.bls.gov/dolfaq/blsfaqtoc.htm.

Ward, R. A., & Spitze, G. D. (2007). Nestleaving and Coresidence by Young Adult Children The Role of Family Relations. Research on Aging, 29(3), 257-277.

Weber, J. G. (2010). Individual and family stress and crises. Sage.

ACKNOWLEDGEMENTS

I am heartily thankful to my major professor, Dr. Anastasia Prokos, whose encouragement, guidance and support from the initial to the final level enabled me to develop an understanding of the family research.

In addition, I am grateful to Dr. Sapp and Dr. Stewart, whose guidance and support help me to finish the research and the thesis.

Lastly, I offer my regards and blessings to all of those who supported me in any respect during the completion of the thesis.

Pinding Li