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Family Structure and Family Instability: Evaluating Their Influence on Adult Outcomes

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ABSTRACT

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Family structure is a widely used independent variable. However, in recent years researchers have questioned its predicting power. They also strive to improve its use. This study drew on Holman's (2001) theoretical model and examined the association between the family structure independent variables (Family Structure, Family Instability, and Parental Romantic Partners) and the outcome variables (Coming to Terms, Self-esteem, Maturity, and Depression). The analysis was conducted with a sample of 3,705 individuals (2,316 females and 1,389 males) randomly selected from the entire population that completed the Relationship Evaluation Questionnaire (RELATE). Results showed that Family Instability was a stronger predictor than Family Structure and Parental Romantic Partners. Among all of the outcome variables, Coming to Terms had the strongest association with each of the independent variables. Implications of the results are discussed.

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Introduction

Family Structure is a common variable in social science research and has been used as an independent variable for over a century (Rodgers & Thompson, 1985). Family Structure is defined as the parental union status in a household (Crossnoe & Cavanaugh, 2010). Researchers use family structure extensively in their research to depict family of origin characteristics and how those characteristics are related to individual well-being (Demo, Aquilino, & Fine, 2005). As family structure is widely used in research, in recent years its usage and how it can be improved has been reviewed several times (e.g., Crosnoe & Cavanagh, 2010; Demo & Cox, 2000; Demo et al., 2005), and scholars have questioned the predictive power of family structure as an independent variable (e.g. Demo et al., 2005). Due to less than desired predictive power and other challenges with typical structure measures, many researchers have focused on the use of family instability measure (also referred to as family transition measure, meaning the number of transition of family structures experienced by an individual). They hope that through the family instability/transition measure, they can better capture what is going on in the family of origin and how that is related to certain child outcomes (Crossnoe & Cavanaugh, 2010).

Family structure and instability measures are often used in research today. However, many problems with the use of these measures remain unresolved. For one, family structure measures are considered to be oversimplifying the complexity existing in today's family systems. As a result, the common approach of categorizing families into few categories could be masking the variation within family units (e.g. Crosnoe and Cavanagh, 2010; Demo et al., 2005). Meanwhile, the use of family instability measures appears to have limitations because of how parental union transition is defined. This may likewise underestimate the influence of structural

change on child outcomes (Demo et al., 2005). These issues are crucial in family of origin research and require researchers' attention.

The purpose of this thesis is to study and evaluate the use of family structure and instability measures. In this article we draw on the theoretical model of Holman and associates (2001) in understanding how family of origin (specifically family structure) influences adult children's psychological wellbeing. Based on this theoretical model, we evaluate three measures of family structure concepts and explore whether or how we can improve their utility in research on the family of origin.

Literature Review

The Use of Family Structure Measures

Crosnoe and Cavanagh (2010) recently discussed the use of family structure and defined it to be "the parental relationship context in which children are born and raised" (p.597). This definition reflects many researchers' intent to compare different developmental outcomes among children that come from different types of parental unions. For example, Amato (2005) investigated how children from households with both biological parents perform differently from children with single parents. Sandefur, McLanahan, and Wojtkiewicz (1992) compared school dropout rates between children born outside of marriage and children who lived with continuously married parents. In both of these studies and many others, researchers tested the idea that certain types of family structure are associated with certain aspects of the well-being of children.

Among the various studies using family structure as predictors, it is common to use family structure as a categorical variable, with some or all of the following categories: intact family (with both biological parents), divorced single parent family, other single parent family

(such as single parent that is never married), adoptive family, step family, and other relatives (e.g., Bartoszuk & Pittman, 2010; Brown & Rinelli, 2010). Depending on the research question, some researchers have had several focus categories and then they group the rest of the participants into a category indicated as "other" type of family (e.g., Cavanaugh, Crissey, & Raley, 2008).

With these categories, the family structure variable is then commonly used in analysis such as mean comparison in an analysis of variance (e.g., Heifetz, Connolly, Pepler, & Craig, 2010), or it can be dummy coded and used in analyses such as ordinary least square or logistic regression, path analysis, structural equation modeling, and so on (e.g., Brown & Rinelli, 2010; Wagner, Ritt-Olson, Chou, Pokhrel, Duan, Baezconde-Garbanati, Soto, & Unger, 2010; Walton & Takeuchi, 2010).

Following the analyses, researchers then draw conclusions from the analyses and indicate that a certain type of family structure is associated with a more positive or more negative child developmental outcomes. For instance, Samm, Tooding, Sisask, Kõlves, Aasvee, and Värnik (2010) studied the occurrence of suicidal thoughts and depressive feelings among school-age children and compared children in intact families (with both biological parents who were married), single parent families, and families with stepparents. Their research findings indicated that children from families with stepparents had more depressed feelings and/or suicidal thoughts.

The need to improve family structure measures. When discussing family composition, Demo et al. (2005) indicated that families are defined primarily by long-term committed relationships, responsibilities, and ongoing support, rather than exclusively by marriage, law, or biological ties. They also stated that "comparative studies of different family structures have also typically relied on oversimplified classifications of family structure, such as single-parent

families versus two-parent families, first marriage versus remarriage" (p.128). This implies that perhaps family structures shouldn't be limited to certain types of structures bound by law, neither should they be limited to a small number of categories.

For this study, we reviewed 20 articles published in 2010 using family structures as an independent variable. While there were a few studies done in which more detailed categories were included (e.g., Cavanagh & Huston, 2008), still we noticed that there were usually limited numbers of family structure categories for the variable, ranging from 2 to 5 categories (e.g., Bartoszuk & Pittman, 2010; Brown & Rinelli, 2010; Samm et al., 2010; Wagner et al., 2010). However, with the current complexity of family dynamics in America and the rest of the world, we can easily divide family structures into at least 6 categories, if not more: intact families, single families (including single mother and single father due to divorce, separation, or never married), adoptive families, step families (biological father or mother with remarried spouses), cohabiting families (biological father or mother with cohabiting partners), families with a relative other than biological parents, and so on. Each of these structures is very unique in nature, and could lead to completely different developmental outcomes. When researchers intentionally select and compare only 3 to 5 categories, the rest of the groups are not studied and their influence on child outcomes are possibly neglected. While the selection of certain family structure categories could be due to specific research interest and/or practical reasons (such as not being able to find enough participants in certain groups and thus having to combine them with other groups), we wondered whether family structure would have a stronger influence in research findings if more categories were used rather than less. In attempting to improve the use of family structure measures, in this study we adopted as many categories as possible to find whether having more categories could uncover more information.

The Use of Instability (Transition) Measures

While the family structure measure is widely used, in a discussion about family composition, Demo et al. (2005) pointed out that there was a need to develop research designs that evaluated the *process* of family structure transitions rather than simply using the family structure measure. According to them, only looking at the cross-sectional comparisons of different structures would mask the process in which children responded to the changes occurring in families. Thus, they suggested studying the number of transitions occurring in families.

Likewise, Cavanagh, Crissey, and Raley (2008) stated that in order to understand children's complex living arrangements, it is necessary to move beyond observing family structure only at one time point and incorporate children's full experiences in family history, including the instability and transitions that children go through. Crosnoe and Cavanaugh (2010) further explained that the research focus of family instability is to understand "how multiple parental relationships affect young people over time" (p.597). Incorporating stress theory, Cavanagh and Huston (2008) pointed out that changes in children's residential units (such as parents' divorce, remarriage, cohabitation or separation) can lead to negative effects and creates stress in both parents' and children's lives. The accumulating effects of family instability may have a major influence on child outcomes. Therefore, it may not be simply the type of structure, but rather the accumulated stress that children go through during the transitions of structures that influences their developmental outcomes.

There is another reason to look beyond simple structures. With high divorce rates, cohabitation, and other types of non-traditional family structures in the United States, more American children are experiencing changes of family structures when they're growing up

(Amato, 2005). As a result, simply comparing one structure with another may not be sufficient or precise, since a substantial number of participants have likely gone through at least two different types of family structures and therefore cannot represent only one of those structures. This also leads to the need to look at transitions.

With the need to look beyond family structures, more and more researchers are now focusing their studies on the transitions and/or instability of family structures with the use of transition measures. These measures are often called "family transitions" or "family instability", though these two often refer to the same concept (see Cavanagh et al., 2008; Fomby & Cherlin, 2007). For example, in 2007, Fomby and Cherlin referred to the instability hypothesis and proposed that family instability (characterized by multiple transitions in family structure that children experience) might affect children as much as (or more than) the type of family structure they are in. They tested this hypothesis and found support for it among White children, though the effects were not significant among Black children. While multiple transitions in family structure was the definition of family instability in Fomby and Cherlin's research, Crosnoe and Cavanaugh (2010) summarized the studies done by Teachman (2003) as well as Wu and Thomson (2001) and presented the concept of family transition to be how young people go through multiple family structures over time. With these two definitions, there really is no clear boundary that separates the term transition from instability. Due to the definition provided by Fomby and Cherlin, for the rest of this article, we will use family instability to refer to both transitions and instability, since transition is a kind of instability according to these definitions.

In the discussion of Demo et al. (2005) on improving family structure measures, they suggested the evaluation of the frequency of family composition transitions. This has been a common method used when measuring family instability, and it is accomplished by measuring

the number of transitions each participant went through while growing up. For example, if participants lived in an intact family with both biological parents when younger and later they lived with just one parent due to the parents' divorce, they would be given a score of 2. This variable is thus a continuous variable, and is commonly used in regression analysis (e.g., Cavanagh et al., 2008; Fomby & Cherlin, 2007; Krohn, Hall, & Lizotte, 2009; Ryan, Franzetta, Schelar, & Manlove, 2009). Researchers then draw conclusions and indicate the association between the number of family structure transitions and outcomes. For example, Krohn et al. (2009) studied the relationship between the number of family transitions experienced by adolescents and their likelihood of engaging in delinquency. Their research findings indicated that adolescent boys who went through more family transitions appeared to engage in more delinquency.

The need for further evaluation of family instability measures. As mentioned before, the number of transitions a participant goes through appears to be a common and effective way to evaluate family instability. However, Cavanagh et al. (2008) pointed out the limitation of this measure. Since there hasn't been a dogmatic rule about which type of parental union status is qualified to be a family structure, when measuring the influence of the number of transitions a participant goes through, it is hard to evaluate the actual impact of instability, because going from cohabitation to marriage may or may not be considered a transition. This echoes the call from Demo et al. (2005) to find more refined ways to measure within-group differences.

In this study we likewise used the number of transitions as a family instability measure. However, the transition measure in this study went beyond simply the formation and dissolution of legal parental unions, and included transitions in between parents' marriage, cohabitation,

separation (because of death), divorce, and remarriage. The definition of transitions further included non-parental unions, such as adoptive parent(s), and relative(s) other than parents.

In addition to the number of transitions measure, we also used the number of parent's romantic partners as another family instability measure to see if this measure could respond to the call of Demo et al. (2005) in improving the family instability measure by capturing more within-group differences.

The Use of Multiple Measures

Other than each of the measures we discussed previously, in response to the call to better conceptualize the diversity and transitions that are going on in families (Demo et al., 2005), it is necessary for us to develop ways of adopting more than just one single measure in our analysis of the family of origin. While many researchers mainly use family structure measures in understanding child outcomes, some researchers are striving to adopt multiple measures at the same time to understand the influence of the family of origin on children. For example, Ryan et al. (2009) used family structure and family instability measures in several analyses in the same study. Thus, part of the research design of this paper is to test the possibility of using multiple measures in the same study in order to potentially uncovering the variation hidden within structure and instability.

Meanwhile, concerning the statistical power of family structure and instability measures, it is rare in the literature to see the influence of family structure accounting for more than 10% of the variance in analyses such as regression and structural equation modeling (e.g., Holman & Busby, 2011). One way of explaining this common finding might be that family structure is only slightly important. However, there is another possibility that this measure simply needs to be improved so that we can better capture family structure. Research findings about the statistical

significance of these measures vary from study to study. According to Wu and Martinson (1993), the use of family instability is revealing more connections between parental union status and child outcomes, while Fomby and Cherlin (2007) presented outcomes that showed both family structure and family instability influenced the dependent variables. In this study we will try using family structure and family instability measures in the same analyses and see if doing so could result in a raise of the statistical power of these measures.

The Role of Theories

While the use and the development of these family structure measures continues to receive attention, how they fit in theories is another issue under ongoing discussion. Demo and Cox (2000) pointed out that much work done with the use of family structure is "atheoretical" (p. 105). Instead of widely adopting a certain dogmatic conceptual or theoretical framework to demonstrate the effects of family structure as an independent variable, researchers constantly use diverse theories associated with empirical findings about the outcome variables to discuss or explain the relationships between certain (family) structures and the interested outcomes. For example, upon reviewing research done in the 1990s on family structure and child outcomes, Demo and Cox (2000) summarized two major empirically-supported viewpoints widely used as the theoretical framework in the family structure studies. The *socialization* viewpoint adopted by many researchers suggests that children benefit from social, emotional and economic resources from their parents. Thus, when family structure shifts or when children no longer live in intact families, they tend to have a less beneficial environment to help them develop more positive outcomes. The *family stress* explanation, on the other hand, was often used to suggest that as changes occur in children's lives, it brings disruption into children's development. The stress

piled up in children's lives could also weaken parent-child bonds, which leads to less ideal child outcomes.

In this study, we sought to adopt appropriate theory in explaining how family structure as a variable influences child outcomes.

Focus of the Study

Upon reviewing the development, usage, limitation, and theoretical background of family structure and instability measures, we recognize a need to reevaluate these measures. We base our use of these measures, as well as the individual adult outcome variables, upon a theoretical model developed by Holman and associates (2001), which demonstrates how family structure as a variable influences adult child outcomes.

After reviewing research done in over 50 years in premarital predictors of adult children's marital quality, Wamboldt and Reiss proposed in 1989 that the influence of family of origin carries through children's adult lives. Holman and associates (2001) also summarized the research findings and stated that the quality of parents' marriages (including parental divorce and/or amount of conflict) is one of the important family of origin factors which impact individual development. In an effort to further understand these family of origin factors and how they specifically influence adult children's marital outcomes, Holman and associates published a theoretical framework in 2001 that conceptualized these factors. According to this framework, three major categories of components contribute to marital quality: family of origin factors (including family structure and family process), individual characteristics, and social connections. The authors explained that each of these three categories influences adult children's marital outcomes. In addition, these categories influence each other. For instance, they summarized Amato (1994) and pointed out that family of origin influences adult psychological wellbeing.

Drawing on Holman and Associates' framework (2001), in this paper we study how family of origin factors (specifically family structures) influence individual outcomes through testing different ways of using family of origin variables. Our outcome variables focus on adult well-being and attitudes about family process, since those are two major outcomes fostered by family structure in Holman and Associates' theoretical framework. Other researchers have also shown the family of origin factors (such as family structure) being most influential on overall attitudes about relationships (sometimes called coming to terms) which in turn influence individual characteristics such as self-esteem (Busby, Gardner, & Taniguchi, 2005). For example, Amato and Ochiltree's research (1987) revealed that children in step-families (compared with children in single-parent families) had lower self-esteem. Samm, Tooding, Sisask, Kõlves, Aasvee, and Värnik (2010) studied the Estonian schoolchildren and reported that adolescents who lived with both parents had fewer depressive feelings and suicidal thoughts. Cavanaugh and Huston (2008) conducted research on children's responses to peers, including their ability to control their temper in conflict situations and respond appropriately to teasing. Their findings suggested that the accumulated instability in family structures was related to children's maturity in peer competence. Also, as shown in empirical findings, family structures not only influence children's self-esteem but also happiness/depression, and maturity. It also fosters attitudes about family process, such as adult children's capability in coming to terms with negative family experiences. Finally, in Holman and Busby's research (2011) on how family of origin was associated with adult children's romantic relationship quality, a mild but positive relationship was found between family structure and adult children's capability in coming to terms.

Based on the findings on family of origin factors, specifically family structure, the purpose of this study is to examine and evaluate the use of family structure and family instability

variables, and how they influence certain outcome variables. While these measures could be adopted into different theories of social science research, this current study draws on the theoretical framework of Holman and associates (2001) to explain how family structure as a variable predicts adult children's psychological wellbeing and how they come to terms with family challenges. We seek to improve the use of these measures, so that we could better understand how the family of origin contributes to individuals' wellbeing.

Research Questions

We attempt to answer the following questions in this study:

Question 1: Concerning family structure measures, would more than 3-5 categories lead to more information in understanding the outcomes of the adult children's self-esteem, depression, maturity, and the ability to come to terms with negative family experiences than having less categories?

Question 2: Concerning the number of family transitions, if we account for transitions beyond simply legal parental unions and include more types of transitions, would that increase the strength of the associations between the number of transitions and outcomes and raise the variance explained?

Question 3: Concerning family instability, will the number of parental romantic partners be predictive in understanding its impact on outcomes?

Question 4: Concerning the use of multiple measures, could we use multiple measures and use them in the same analysis? If so, would that increase the explanatory power?

In order to answer these questions, data will be analyzed from the RELATE survey dataset, which includes measures that are designed to capture both family structure and family instability in most of the common ways researchers have used in recent studies.

Methods

Sample and Procedure

The sample for this current study was drawn from the entire population of respondents who completed the Relationship Evaluation Questionnaire (RELATE, Busby, Holman, & Taniguchi, 2001). RELATE is a questionnaire designed to evaluate multiple dimensions of the couple relationship quality of dating, engaged or married couples. Respondents completed RELATE online after being introduced to the instrument through a variety of settings, including university classes, workshops for couples, and web advertisement. Numerous previous studies have used the unique data gathered through this relationship evaluation survey (see www.relate-institute.org for a review of those studies).

Only participants who answered questions about family structures were selected into the sample for this study. After participants were grouped into different structures according to the length of time they stayed in each structure, they were further randomly selected so that the numbers of individuals in each structure were close to the ratio reported in U.S. Census Bureau's 2010 report on America's families and living arrangements (U.S. Census Bureau, 2010). This resulted in a final sample of 3,705 individuals, including 2,316 females and 1,389 males. A detailed list of number of participants in each family structure can be found in Table 1. The age of respondents ranged from 18 to 68 with a mean age of 29.9. Eighty percent of the sample was Caucasian, 6% was African, 4% was Asian, 4% was Latino, and 6% were other races. Forty-eight percent of the respondents received a bachelor's degree or higher education, 47% received some college education, and 5% received a high school diploma or some high school education.

Measures and Variables

      Family Structure. Several of our variables came from the Family Structure construct. Participants were asked the following question: "For how many years while you were growing up (to age 18) did you live in each of the following types of families: both biological parents, single parent (because of divorce), single parent (because of death), single parent (never married), biological parent and step parent, biological parent and partner (not married), adoptive parents, and a relative other than a parent". Participants provided information about how many years they spent in each type of the families by rating each category on a 8 point scale: (1) "0 years"; (2) "1 to 3 years"; (3) "4 to 6 years"; (4) "7 to 9 years"; (5) "10 to 12 years"; (6) "13 to 15 years"; (7) "16 to 17 years"; and (8) "18 years". For example, if a participant grew up in a family with both biological parents for 7 years until the parents divorced, and then stayed with the mother for 11 years, the individual would provide a rating of 4 for "both biological parents" and then a rating of 5 for "single parent (because of divorce)".

      Two of our variables were then created from this family structure construct.

      Family Structure (categorical). The first type of Family Structure variable was a categorical variable with each participant categorized into one of the groups as described above.

      It is important to note that for this variable our participants were selected into the group which they stayed in for the longest time in their first 18 years of life. We noticed from our review of studies that it is oftentimes not clear how family structures were measured in a study. There were several different designs that can be found in current literature when categorizing participants in structures. One is through demographic questions (e.g., Brown & Rinelli, 2010; Heifetz et al., 2010; Shriner, Mullis, & Shriner, 2010). The second way is by asking the participants what type of structure they were in at the time the data were collected

(e.g.,Bartoszuk & Pittman, 2010; Wagner et al., 2010). Sometimes researchers designate a specific time point and ask questions such as which type of family structure were the participants in when they were 14 (e.g., Leung, Curtis, & Mapp, 2010). This type of question does not provide family structure information from a longitudinal perspective, but rather provides segmented information, which may not fully depict the actual structure that was experienced by participants during most of their youth. The third way of measuring family structure which we noticed is to categorize structures according to the length of time participants spent in each structure. For example, participants may be asked which type of family they stayed in for the longest period of time when they were growing up (e.g., Samm et al., 2010). This measure allows researchers to select participants who were influenced by that type of structure for the longest time.

To our knowledge, there is no existing literature that discusses which type of sampling strategy is a more precise way to group participants into different family structures. However, as Demo et al. (2005) pointed out that families are defined primarily by long-term committed relationships, we chose to adopt the third way of measuring family structure, since it was more likely to depict the influence coming from the structure under consideration.

Family Structure (dummy variables). The second way we used this measure to create Family Structure variables was to recode the 8-category variable into 8 separate variables, each coded as 0 and 1, as follows. X1: both biological parents = 1, other = 0; X2: single parent (because of divorce) = 1, other = 0; X3: single parent (because of death) = 1, other =0; X4: single parent (never married) = 1, other = 0; X5: biological parent and step parent = 1, other = 0; X6: biological parent and partner (not married) = 1, other = 0; X7: adoptive parents = 1, other = 0; and X8: a relative other than a parent = 1, other = 0. This coding strategy allowed us to transform

the categorical variable, so that we could use the Family Structure variables as predictors in regression models.

Family Instability. The family instability variable was also computed from the Family Structure construct. From the information provided in that construct, we calculated how many transitions each participant went through. In our previous example, the participant would receive a score of 1, since the individual went from intact family to single parent family, and thus went through one transition. The design of this variable was identical to how other researchers have used the family instability measure in previous research (e.g. Cavanaugh et al., 2008; Cavanagh & Huston, 2008; Fomby & Cherlin, 2007; Fomby, Mollborn, & Sennott, 2010; Krohn et al., 2009; Osborne & McLanahan, 2007; Ryan et al., 2009; Teachman, 2003).

Number of Parental Partners. We asked participants the following questions to capture the instability within parental unions: (1) "How many romantic partners did your mother have between your date of birth and your eighteenth birthday?" (2) "How many romantic partners did your father have between your date of birth and your eighteenth birthday?" From these items we generated two variables: Number of Father's Partners and Number of Mother's Partners.

Outcome Measures. In order to test the use of these structure and instability variables, we included four developmental outcome variables as dependent variables. As shown previously, research on family structure had demonstrated relationships between family structure (and/or family instability) and these outcome variables.

Coming to Terms measured how well respondents had come to terms with negative experiences they had in the family of origin while growing up. Items included," From what I experienced in my family, I think family relationships are safe, secure, rewarding, worth being in, and a source of comfort." "From what I experienced in my family, I think family relationships

are confusing, unfair, anxiety provoking, inconsistent, and unpredictable." "There are matters from my family experience that I'm still having trouble dealing with or coming to terms with." "There are matters from my family experience that negatively affect my ability to form close relationships." "I feel at peace about anything negative that happened to me in the family in which I grew up." Participants rated their responses on a 5 point scale: 1 = strongly disagree, 2 = disagree, 3 = it depends, 4= agree, and 5 = strongly agree. The second, third, and forth items were reverse coded so that a higher number indicated that participants received more positive influence from family process. These items were tested for reliability and the alpha value was .80.

Self-esteem. The self-esteem scale evaluated the participants' self-esteem. Items included "I take a positive attitude toward myself." "I think I am no good at all." "I feel I am a person of worth." "I am inclined to think I am a failure." Participants rated these items on a 5 point scale: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. The second and forth items were reverse coded so that higher numbers indicated that participants had higher level of self-esteem. The alpha value for this measure was .85.

Maturity. The Maturity scale measured how well the participants could act immature and control their temper or irritated feelings. Participants were asked to rate how the following words/phrases describe them: "fight with others/lose temper", "act immature", and "easily irritated or mad". These items were rated on a 5 point scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = very often). All items were reverse-coded so that higher scores reflect more maturity of the participants. The alpha value for this measure was .61.

Depression. The Depression scale measured how depressed the participants were. Participants were asked to rate how the following words/phrases described them: "sad and blue", "feel hopeless", and "depressed". These items were rated on a 5 point scale (1 = never, 2 = rarely,

3 = sometimes, 4 = often, 5 = very often). Higher scores indicated more depressed feelings. The alpha value for this measure was .85.

Analysis and Results

All of the following analyses were conducted in IBM SPSS Statistics 19.0.

Correlations

Correlations were conducted to help us understand our data. We tested the correlations among all of the variables. A list of the correlation coefficients was provided in Table 2. All of the correlation coefficients were smaller than .70, indicating that there were not problems with multicollinerarity.

One thing that stood out from the correlation analysis was that the three continuous predictors (family instability, mother's and father's romantic partners) appeared to have a much stronger association with coming to terms, but it did not present strong correlations with self-esteem, maturity, and depression.

Answering Research Question 1

In order to answer research question 1, which was whether more family structure categories lead to more information, we used the categorical Family Structure variable and divided participants into 8 groups (both biological parents, single parent because of divorce, single parent because of death, single parent - never married, biological parent and step parent, biological parent and partner - not married, adoptive parents, and a relative other than a parent).

The Analysis of Variance was conducted with the 8-category Family Structure variable as independent variable and Coming to Terms, Self-Esteem, Depression, and Maturity as dependent variables. All 4 of these dependent variables had a range of 1 to 5. The ANOVA was significant for Coming to Terms, Maturity and Depression, but not for Self-Esteem. For Coming to Terms,

F (7, 3695) = 29.382, *p* < .01. For Self-Esteem, F (7, 3694) = .501, *p* = .835. For Maturity, F (7,

3697) = 2.849, *p* < .01. Finally, for Depression, F (7, 3697) = 2.376, *p* = .02. Follow-up tests

were conducted to evaluate the differences among the means of each structure. There were not

many significant differences among most of the structures. The only segment that stood out was

the mean differences between intact family and the rest of the structures (see Table 3). As shown

in Table 3, there were significant mean differences between intact family and most of the other

family structures for the outcome variable Coming to Terms. However, this was not the same

case for the Self-Esteem, Maturity, and Depression. In fact, there were no significant differences

found between intact family and other structures for these outcome variables.

For the variable Coming to Terms, participants from intact families had significantly

higher means than participants from any other structures. The biggest difference was found

between intact family and relatives (.63), biological parent and partner (.57), biological parent

and step parent (.52), single parent due to divorce (.48), and single parent who was never

married (.42), with p-values for the mean differences being less than .05.

From this analysis it is clear that whether more categories lead to more information

actually depended on the outcome variable. For Self-Esteem, Maturity, and Depression, more

categories did not reveal more information. As far as Coming to Terms, 5 out of 7 structures

were indeed found to be significantly different from intact family, but there were barely any

significant mean differences among those categories other than intact family. Thus, in answering

this research question, having more categories did not necessarily provide us with more

information.

Answering Research Question 2

After the evaluation of the use of family structure categories, we moved on to studying the use of family instability. The second research question was in close connection with research question 1, for if we had more family structure categories to look at, we would see more family transitions accounted for in an individual's life, which means a higher score for the instability variable for those who had structure changes. We thus conducted the following analysis to assess whether having more family structure categories would lead to higher instability scores, and make a difference in predicting the outcome variables.

For this analysis, we calculated the number of transitions in two different ways. First, we calculated the number of transitions based on all 8 categories (both biological parents, single parent because of divorce, single parent because of death, single parent - never married, biological parent and step parent, biological parent and partner - not married, adoptive parents, and a relative other than a parent).

We then recategorized all of the participants into 3 categories: both biological parents, single parent, and others. The reason why we selected these three groups was because they were three most commonly used family structure groups in the literature (e.g., Bartoszuk & Pittman, 2010; Cavanagh et al., 2008; Habib, Santoro, Kremer, Toumbourou, Leslie, & Williams, 2010; Leung et al., 2010; Wagner et al., 2010). Also, when all single parent structures are categorized into the same group without distinguishing whether it was a legal union situation (such as single parent due to divorce versus single parent with a romantic partner but not married), it may or may not mask more variability within the group.

The 8-category categorization produced a transition score ranging from 0 to 5 (meaning that the transitions participants went through ranged from no transition at all to 5 transitions),

with a mean score of 0.73 and standard deviation of 1.01. The 3-category categorization

produced a transition score ranging from 0 to 2, with a mean of .56 and standard deviation of .76.

We then conducted linear regression using number of transitions as the independent

variable to see whether the 8-category transition variable and 3-category transition variable made

a difference in predicting Coming to Terms, Self-Esteem, Maturity, and Depression. The results

were shown in Table 4. We did see a decrease of both the R-square and the beta on Coming to

Terms when we used the 3-category transition variable, but the decrease was very mild. As for

the other outcome variables, all of the R-squares of Self-Esteem, Maturity, and Depression were

smaller than .01, whether the predicting variable was 8-category or 3-category. There was not

much difference between the betas.

Thus, there did not seem to be a major difference between the use of these two transition

variables. In answering research question 2, accounting for transitions beyond legal parental

unions and including more types of transitions would not necessarily increase the strength of the

association between number of transitions and the outcome variables since doing so did not

significantly raise the amount of variance or change the betas by much.

Answering Research Question 3

The purpose of research question 3 was to find out whether the number of parental

romantic partners could be a useful predictor in helping to understand how parental union status

influences adult child outcomes. The descriptive statistic showed that the mean score for

mother's romantic partners was 2.15, with a standard deviation of 3.91, while the mean for

father's romantic partners was 2.46, with a standard deviation of 5.40. We used Number of

Parental Partners as the independent variable, and Coming to Terms, Self-Esteem, Maturity, and

Depression as dependent variables. Linear regression was conducted to test the relationship between these variables.

As shown in Table 5, parental romantic partners did not account for much variance in the outcome variables, with all R-squares equal to or smaller than .03. The standardized regression coefficients showed that the association between parental romantic partners and the dependent variables were not very strong, although most of the associations were statistically significant. In general, the number of parents' romantic partners had a negative influence on the outcome variables, with number of mother's partners having a slightly higher predictive power than father's partners. Among all of the variables, parental romantic partners had the highest influence on Coming to Terms, with mother's partners having a standardized coefficient of -.14 on Coming to Terms and father's partners having a coefficient of -.08, both significant at the level of $p < .05$.

In answering research question 3, number of parental romantic partners did reveal some information, although not much. We learned that at least for this sample, mother's romantic partners seemed to matter slightly more than father's. Both father's and mother's number of romantic partners influenced the child outcome, but this relationship was mild as the R-square was small.

Answering Research Question 4

In the last research question, we explored the possibility of using multiple measures in the same analysis. We conducted multiple linear regression analyses using Family Structure (the dummy variable), Family Instability, and Number of Parental Partners as independent variables, and we used Coming to Terms, Self-Esteem, Maturity, and Depression as outcome variables in 4 separate analyses. Our independent variables were divided into 3 sets of variables: (1) Family structure dummy variables (with the intact family category as the reference group), (2) the family

instability variable, and (3) parental romantic partner variables. By doing so, we were able to examine which set of variables was stronger in predicting the outcome variables. Also, by conducting these analyses, we were able to see the change of R-square each time another set of variables were added into the model. We could then determine whether the use of multiple measures would contribute to additional variances and raise the statistical power.

The results were presented in Tables 6 through 9. Unfortunately, out of the 4 outcome variables (Self-Esteem, Maturity, and Depression), 3 sets of independent variables did not account for much variance even when they were all added into the model, with the total amount of variance being equal to or less than .01 (see Table 7 to 9).

Once again, when compared to other outcome variables, Coming to Terms appeared to be the variable that had the highest association with the independent variables, although this association by itself was still mild (see Table 6). When there were just family structure variables in the model, they accounted for 5.3 percent of the variance. Adding the instability measure into the model significantly raised the amount of variance by 3.2 percent. Adding the parental romantic partner variables did not further increase the amount of variance by much, with the change of amount of variance being 0.4 percent, mild yet significant. All together, these 3 sets of variables accounted for 8.9 percent of the variance in Coming to Terms. For each of the other three outcome variables, all of the independent variables accounted for less than 1 percent of the variance.

As far as the predictive power of each set of the variables on coming to terms, we noted that when there was just family structure variables in the model, almost all of these structures significantly predicted the outcome variable, with the single-parent-due-to-divorce structure being the strongest negative predictor (Beta = -.18, $p < .01$), followed by biological-and-step-

parent structure (Beta = -.12, $p < .01$). However, once the family instability variable was added into the model, it became the strongest predictor (Beta = -.25, $p < .01$), and the effects of the structural variables decreased. It is important, though, to remember that the family instability variable was generated out of the structural measures, and had correlation coefficients with each family structural variable ranged from .04 to .62. This indicated that family instability was highly correlated with some of the structures and as a result, when adding family instability into the model, it would naturally take away some of the predictive power from the structural variables. Still, the Beta value indicated that family instability served as a stronger predictor than the structural variables. Finally, the romantic parental partner measures were added into the model. It mildly predicted coming to terms, with mother's partner generating a Beta of -.06 ($p < .01$) and father's partner having a Beta of -.03 ($p = .10$). After these measures were added into the model, family instability still appeared to be the strongest predictor among all of the variables (Beta = -.23, p < .01).

Therefore, in answering research question 4, we concluded that there are ways to use multiple measures in the same analysis. When doing so, the amount of variance was indeed raised, though not by much.

Discussion

Researchers to this day continue to use family structure and family instability variables to understand how parental unions influence individual outcomes. The purpose of this study was to examine the common use of family structure and family instability variables based on Holman's (2001) theoretical model, and evaluate the use of these variables to see if we could improve them for future research. We also tested a new set of variables, the number of parental romantic partners. Results were provided as future reference for researchers who wish to use family

structure or family instability as independent variable in various settings. In the following discussion section, we review our findings and provide recommendations for the use of these measures.

Family Structure

In response to the call of Demo et al. (2005) on avoiding over-simplifying the family structure categories, we tested the use of the Family Structure variable with 8 categories in ANOVA analysis. We used this variable to see if more structural categories would contribute more information. Our findings indicated that more structure categories did not necessarily make a difference. For example, for Coming to Terms, we only saw significant differences between intact family and non-intact families, but couldn't find significant differences among other structures. As far as Self-Esteem, Maturity, and Depression, we did not see differences among the structures at all. While some findings in the literature pointed out that significant differences were found among a few structures for self-esteem, maturity, and depression (see Amato & Ochiltree, 1987; Cavanagh & Huston, 2008; Samm et al., 2010), we couldn't find evidence that suggested there were significant differences among the 8 structures in our study.

One explanation for our findings could be that, while some outcome variables would be influenced by family structure, the outcome variables assessed in our study were not influenced significantly by family structures. The other possibility is that these outcome variables were either influenced by family structures but through the mediation of family processes, or they were influenced mostly through family process. After all, as Crosnoe and Cavanagh (2010) pointed out, family structure and family process cannot be separated in real life, and without one we cannot fully understand the other. Also, in Holman's (2001) model, family of origin factors included family structure and family process. If family structure is not revealing much strength

in the analyses, there is a possibility that family process may be accounting for more influence on the outcome variables. The third explanation is that, as mentioned previously, researchers have shown the family of origin factors being most influential on overall attitudes about relationships (Busby et al., 2005). As a result, the variable Coming to Terms, being the attitude about relationships in family of origin, reflected the strongest relationship with family structure variables. Finally, we measured adult outcomes which are more distal from the family structures that were experienced, whereas some of the other studies that have shown relationships between family structure and self-esteem, for example (Amato and Ochiltree, 1987)), were measuring children or adolescents and not adults.

We conclude from research question 1 and its results that, in our sample, detailed categorization of family structure were not useful in revealing more information beyond the difference between intact family and non-intact family. As a result, we do not recommend that researchers divide their participants into overly detailed family structure groups, unless their research theory drives them to select specific groups beyond simply intact family and non-intact families.

Family Instability

We then move onto the evaluation of the Family Instability variable. We intended to respond to the discussion of Cavanagh et al. (2008) about the definition of structural transitions. In order to do so, we created two sets of Family Instability variables, one calculated from all of the 8 structures and the other calculated from 3 structures (both biological parents, single parent, and others). The idea behind the variable design was to compare between more detailed structures/transitions with less detailed structures/transitions. We conducted ordinary least square regression for research question 2 to test if these two types of transition variables would bring

out different outcomes. The results showed that there was not an obvious difference between the use of these two variables, as the R-square of these analyses did not differ much no matter which outcome variable we were looking at. Therefore, we concluded that at least in this study, counting transitions in more detail did not do a better job predicting the outcomes. Thus, we do not have enough evidence in this study to recommend researchers include more detailed categories in their transition variable.

In order to further understand the influence of parental unions, we also created parental romantic partner variables to capture the fluidity in the parental union status, and to see whether these variables could be effective tools in predicting adult children's outcomes. From the regression analysis we conducted for research question 3, we learned that this set of variables had mild yet significant predicting power. We also learned from the outcome that the number of mother's romantic partners tended to be more predictive than the number of father's romantic partners. We believe that these variables are worth further development, and we recommend researchers to continue testing the use of these measures. These variables are more precise than many existing measures of structure and instability as they allow for the participants to note how many romantic partners each parent had even though one or more of the parents may not have been the custodial parent. Children often visit noncustodial parents and the number of different partners of this parent may negatively influence the parent-child relationship and thereby adult outcomes.

Using Multiple Measures

Our final attempt in evaluating and improving the use of family structure and family instability measures was to use multiple measures in the same analysis, in order to capture more variability. We conducted regression analyses, inserting Family Structure, Family Instability, and

Parental Romantic Partner variables into the model for one set after another. By doing so, we saw a slight but significant increase of R-square for Coming to Terms, but not much for the other three outcome variables. We also noticed that when the Family Instability variable was added the explanatory power of Family structure variables decreased. These results suggested that when we included more types of variables, we also slightly raised the predictive power. We also were able to see which independent variable had the strongest predictive power. However, these effects did not happen to all of the outcome variables, and including multiple measures did not appreciably improve prediction above the family instability measure.

The Role of Theory

Part of the purpose of this paper is to emphasize the importance of embedding the variables into a working theory. As pointed out by Demo and Cox (2001), much of the family structure research done is still atheoretical. In this current study, we seek to encourage the use of theory in research on family structures by applying Holman's (2001) theoretical model which demonstrates how family structure leads to adult outcomes. Our analysis was embedded in the theory, and part of our results supported the theory that family structure does have effects on one of the outcomes, Coming to Terms.

We encourage future researchers to continue the effort of building their studies on theories that examine the interaction between family structure/instability and human developmental outcomes. Doing so will lay a theoretical foundation for the variables involved, so that there is a basis for family structure/instability researchers to start with and continue building upon.

Conclusion

Many people still argue about the necessity of conducting family structure studies, and we propose that family structure is necessary and cannot be neglected. Structures set a stage for process. For example, we cannot look at father-child relationship (the "process") if there is not even a father in the family (the "structure"). As a result, the investigation on family structures needs to be continued. Still, we need to polish and improve the way we measure the impact of family structures and instability, so that we could more fully understand their impact.

After evaluating the use of Family Structure, Family Instability, and Parental Romantic Partner measures, we provide the following recommendation for the use of family structure and instability in future research: (1) We encourage researchers to continue the development of theories in response to the challenge of Demo and Cox (2000), so that we can provide a firm theoretical framework in which we could see how family structure as a variable (as well as the variables deriving from it, such as family instability and parental romantic partners) works in predicting child outcomes; (2) when using family structure categories to compare mean differences in the outcome variables, having intact and non-intact groups would be sufficient, unless the design of the research required more categories, and children and adolescent outcomes are being measured rather than adult outcomes; (3) family structure, family instability, and parental partner variables could be used in the same analyses such as regression, though if researchers have limited space the family instability variable would capture most of the variance explained by the variables in this study; (4) we encourage researchers to evaluate the use of Parental Romantic Partner measures in their own studies to further develop this measure; (5) we suggest that researchers continue to take Demo's (2005) challenge to refine the instability measures by examining the definition of family structural transitions as mentioned by Cavanagh

et al. (2008), and consider whether it is necessary to provide definitions for transitions. For example, are transitions only counted when there is a change in legal parental unions (such as marriage and divorce)? Or would parental unions not recognized by law (such as cohabitation and break-up) also count as transition?

On top of the recommendations listed above, we also suggest that researchers consider conducting qualitative studies to unveil the details of family dynamics and the impact of each family structure. Quantifying participants' answers may provide a way for us to easily compare the effects of different structures; however, qualitative studies will allow us to see through participants' eyes the various family life experiences and influences which could be neglected in quantitative studies.

It is important to note several limitations of this study. First, the sample in this study was not a random sample. Although we utilized statistical software to randomly select the samples so that they matched with the national ratio of family structures, this current sample might still produce bias. Secondly, although family structure has been associated with child outcomes, oftentimes its effects are accounted for or mediated by family process (Crossnoe & Cavanaugh, 2010). As we focused only on the direct effect of family structure on outcome variables in this study, we might neglect the indirect effects that also came from family structure and yet were mediated by family process. Third, family structure has been used in various studies that looked into different outcome variables. The four outcome variables in this current study clearly could not fully represent the possible effects of family structure variables on all adults. As a result, we encourage these aspects to be taken into consideration in the future. It will be important to look at the influence of family structure and instability measures on the outcome variables through the mediation of family process measures. There is also a need to look at more outcome variables to

understand if or how family structure and instability have more significant direct influences on other variables.

Other than discussing the limitations of this study, we also want to point out the strength of RELATE instrument. RELATE survey is a comprehensive online questionnaire. It includes variables in various aspects of adult relationship dynamics and family background information. It is therefore capable of testing the use of family structure/instability measurements even beyond traditional instruments. The large sample extracted from the RELATE dataset also provided us with an opportunity to look into structures that may not be as commonly seen, such as the "relatives other than biological parents" structure.

While the focus of this study was to examine the use of measures, it also has practical implications. Studies on family structures will open a door for us to further our investigation on child and adult development. As pointed out by Crossnoe and Cavanagh (2010), a large body of literature provides suggestions about linking the research of family structures with national policy. In this current study, it was found that children from intact families with both biological parents had significantly higher capabilities in overcoming negative events and coming to terms. This is evidence supporting the provision of more financial support for the increase of stable, two-parent families (Crossnoe & Cavanagh, 2010). As our family structures continue to become more complex, diverse, and fluid, more research in this domain is needed in generating reports that could provide insights for policy making.

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Appendices

Tables

Table 1:
Number of Participants in Each Family Structure for the Majority of Time

Family Structure	N	%
Relative other than a Parent	108	2.9%
Biological Parent and Partner (Not Married)	105	2.8%
Single Parent (Because of Death)	75	2.0%
Single Parent (Never Married)	112	3.0%
Adoptive Parents	177	4.8%
Biological Parent and Step Parent	216	5.8%
Single Parent (Because of Divorce)	680	18.4%
Both Biological Parents	2,232	60.3%

Note: N = 3,705.

Table 2:
Descriptive Statistics and Correlations among Study Variables in the Sub Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Relative															
2. Parent and partner	-.03														
3. Single parent (death)	-.03	-.03													
4. Single parent (never married)	-.03	-.03	-.03												
5. Adoptive parents	-.04*	-.04*	-.03	-.04*											
6. Biological and step parent	-.04*	-.04*	-.04*	-.04*	-.06*										
7. Single parent (divorce)	-.08*	-.08*	-.07*	-.08*	-.11*	-.12*									
8. Intact family	-.21*	-.21*	-.18*	-.22*	-.28*	-.31*	-.58*								
9. Family instability	.28*	.17*	.12*	.04*	-.07*	.31*	.38*	-.62*							
10. Mother's partners	.14*	.13*	.03	.08*	-.06*	.11*	.18*	-.30*	.40*						
11. Father's partners	.10*	.06*	-.02	.15*	-.05*	.05*	.16*	-.23*	.23*	.22*					
12. Coming to terms	-.08*	-.07*	-.01	-.04*	.02	-.08*	-.14*	.21*	-.29*	-.16*	-.11*				
13. Self esteem	-.02	-.02	-.01	.01	-.01	-.01	.01	.01	-.03	-.04*	-.01	.35*			
14. Maturity	-.03*	-.03*	-.02	.01	.01	-.03*	-.03	.06*	-.07*	-.04*	-.02	.22*	.36*		
15. Depression	.03	.01	.04*	.00	-.03	.01	.03	-.04*	.05*	.06*	.02	-.37*	-.64*	-.38*	
M	.03	.03	.02	.03	.05	.06	.18	.60	.73	2.15	2.46	3.51	4.22	3.54	2.31
SD	.17	.17	.14	.17	.21	.23	.39	.49	1.01	3.91	5.40	1.02	0.66	0.60	0.73
Range	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	100.00	100.00	4.00	4.00	4.00	4.00

Note: $N = 3,705$. *$p < .05$.

Table 3:

One-Way Analysis of Variance for Coming to Terms, Self-Esteem, Maturity, and Depression

	Mean Difference between Intact Family and Other Structures on Outcome Variables:							
	Coming to Terms		Self-Esteem		Maturity		Depression	
Family Structures	Mean Difference	SE	Mean Difference	SE	Mean Difference	SE	Mean Difference	SE
Relative	.63*	.09	.07	.06	.14	.06	-.14	.07
Parent and Partner	.57*	.10	.06	.07	.13	.06	-.08	.07
Single Parent (Death)	.25	.11	.04	.08	.11	.07	-.23	.09
Single Parent (Never Married)	.42*	.10	-.04	.06	.02	.06	-.02	.07
Adoptive Parents	.08	.09	.03	.05	.01	.05	.06	.06
Biological and Step Parent	.52*	.07	.01	.05	.11	.04	-.04	.05
Single Parent (Because of Divorce)	.48*	.04	-.01	.03	.06	.03	-.07	.03

Note: $N = 3,705$. *$p < .05$.

Tests of between-subject effects were conducted for the above dependent variables; p-values were significant for Coming to Terms, Maturity and Depression.

Table 4:
OLS Regression in Testing the Use of Family Instability on Outcome Variables

Family Instability in Different Models	Coming to Terms		Self-Esteem		Maturity		Depression	
	R^2	β	R^2	β	R^2	β	R^2	β
Model 1 (8 family structures)	.08	-.285**	.001	-.031*	.005	-.072**	.003	.053**
Model 2 (3 family structures)	.07	-.272**	.001	-.028**	.006	-.074**	.004	.064**

Note: $N = 3,705$. *$p < .05$. **$p < .01$.

Table 5:
OLS Regression in Testing the Use of Parents' Romantic Partners on Outcome Variables

	Coming to Terms			Self-Esteem			Maturity			Depression		
	R^2	b (SE)	β	R^2	b (SE)	β	R^2	b (SE)	β	R^2	b (SE)	β
	.03			.002			.002			.004		
Mother's partners		-.04(.004)*	-.14		-.007(.003)*	-.04		-.006(.003)*	-.04		.010(.003)*	.06
Father's partners		-.01(.003)*	-.08		.000(.002)	-.002		-.001(.002)	-.01		.002(.002)	.01
constant		3.63(.020)*			4.24 (.013)*			3.56 (.012)*			2.28 (.014)*	

Note: $N = 3,705$. *$p < .05$.

Table 6:
OLS Regression of Effects of Family Structure, Family Instability, and Parental Romantic Partners on Coming to Terms

	R^2	R^2 change	Model 1 b (SE)	Model 1 β	Model 2 b (SE)	Model 2 β	Model 3 b (SE)	Model 3 β
Structures	.053	.053*						
Relative other than parents			.631 (.098)**	-.104	-.089 (.108)	-.015	-.042 (.108)	-.007
Biological parent and partner			-.569 (.099)**	-.092	-.184 (.103)	-.030	-.136 (.104)	-.022
Single parent (death)			-.254 (.117)*	-.035	.079 (.119)	.011	.086 (.118)	.012
Single parent (never married)			-.417 (.096)**	-.070	-.229 (.096)*	-.038	-.172 (.098)	-.029
Adoptive parents			-.075 (.078)	-.016	-.028 (.077)	-.006	-.032 (.076)	-.007
Biological and step parent			-.518 (.071)**	-.119	-.076 (.080)	-.017	-.053 (.080)	-.012
Single parent (divorce)			-.479 (.044)**	-.181	-.151 (.052)**	-.057	-.120 (.052)*	-.046
Instability	.085	.032*						
Family instability					-.253 (.022)**	-.249	-.237 (.022)**	-.233
Romantic Partners	.089	.004*						
Mother's romantic partners							-.015 (.004)**	-.058
Father's romantic partners							-.005 (.003)	-.027
Constant			3.689 (.021)**		3.747 (.021)**		3.769 (.022)**	

Note: N = 3,705. *p < .05. **p < .01.

Table 7:
OLS Regression of Effects of Family Structure, Family Instability, and Parental Romantic Partners on Self-Esteem

	R^2	R^2 change	Model 1 b (SE)	β	Model 2 b (SE)	β	Model 3 b (SE)	β
Structures	.001	.001						
Relative other than parents			-.072 (.065)	-.018	-.006 (.072)	-.001	.009 (.073)	.002
Biological parent and partner			-.063 (.066)	-.016	-.016 (.070)	-.004	.001 (.070)	.000
Single parent (death)			-.040 (.077)	-.009	.000 (.080)	.000	.004 (.080)	.001
Single parent (never married)			.043 (.064)	.011	.066 (.065)	.017	.079 (.066)	.021
Adoptive parents			-.029 (.052)	-.010	-.024 (.052)	-.008	-.025 (.052)	-.008
Biological and step parent			-.013 (.047)	-.005	.041 (.054)	.015	.049 (.054)	.017
Single parent (divorce)			.011 (.029)	.006	.051 (.035)	.030	.060 (.035)	.035
Instability	.002	.001*						
Family instability					-.031 (.015)*	-.047	-.026 (.015)	-.039
Romantic Partners	.003	.001						
Mother's romantic partners							-.006 (.003)*	-.038
Father's romantic partners							-.001 (.002)	.001
Constant			4.227 (.014)**		4.234 (.014)**		4.241 (.015)**	

Note: N = 3,705. *p < .05. **p < .01.

Table 8:
OLS Regression of Effects of Family Structure, Family Instability, and Parental Romantic Partners on Maturity

	R^2	R^2 change	Model 1 b (SE)	β	Model 2 b (SE)	β	Model 3 b (SE)	β
Structures	.005	.005**						
Relative other than parents			-.144 (.059)*	-.040	-.089 (.066)	-.025	-.084 (.067)	-.023
Biological parent and partner			-.135 (.060)*	-.037	-.096 (.064)	-.026	-.090 (.064)	-.025
Single parent (death)			-.111 (.071)	-.026	-.077 (.073)	-.018	-.075 (.073)	-.018
Single parent (never married)			-.016 (.058)	-.005	.003 (.059)	.001	.007 (.060)	.002
Adoptive parents			-.014 (.047)	-.005	-.009 (.047)	-.003	-.009 (.047)	-.003
Biological and step parent			-.112 (.043)**	-.043	-.067 (.049)	-.026	-.064 (.049)	-.025
Single parent (divorce)			-.065 (.026)*	-.041	-.031 (.032)	-.020	-.028 (.032)	-.018
Instability	.006	.001						
Family instability					-.026 (.014)	-.043	-.024 (.014)	-.040
Romantic Partners	.007	.000						
Mother's romantic partners							-.003 (.003)	-.017
Father's romantic partners							.000 (.002)	.002
Constant			3.573 (.013)**		3.579 (.013)**		3.581 (.014)**	

Note: N = 3,705. *p < .05. **p < .01.

Table 9:
OLS Regression of Effects of Family Structure, Family Instability, and Parental Romantic Partners on Depression

	R^2	R^2 change	Model 1		Model 2		Model 3	
			b (SE)	β	b (SE)	B	b (SE)	β
Structures	.004	.004*						
Relative other than parents			.141 (.071)*	.033	.089 (.080)	.021	.069 (.080)	.016
Biological parent and partner			.077 (.072)	.018	.040 (.077)	.009	.018 (.077)	.004
Single parent (death)			.231 (.085)**	.045	.199 (.088)*	.039	.194 (.088)*	.038
Single parent (never married)			.022 (.070)	.005	.004 (.071)	.001	-.017 (.072)	-.004
Adoptive parents			-.060 (.057)	-.018	-.065 (.057)	-.019	-.063 (.057)	-.019
Biological and step parent			.038 (.052)	.012	-.005 (.059)	-.001	-.015 (.059)	-.005
Single parent (divorce)			.065 (.032)*	.035	.033 (.038)	.018	.021 (.039)	.011
Instability	.005	.001						
Family instability					.024 (.016)	.034	.017 (.017)	.024
Romantic Partners	.007	.002*						
Mother's romantic partners							.008 (.003)*	.044
Father's romantic partners							.001 (.002)	.006
Constant			2.284 (.015)**		2.279 (.016)**		2.270 (.016)**	

Note: N = 3,705. *p < .05. **p < .01.

Appendix

A Detailed List of Measures Used in Current Study

For how many years while you were growing up (to age 18) did you live in each of the following

types of families?

Both Biological Parents

Single Parent (Because of Divorce)

Single Parent (Because of Death)

Biological Parent & Step Parent

Single Parent (Never Married)

Adoptive Parents

A Relative other than a parent

Biological Parent and partner (not married)

1. 0 Years

2. 1 to 3 Years

3. 4 to 6 Years

4. 7 to 9 Years

5. 10 to 12 Years

6. 13 to 15 Years

7. 16 to 17 Years

8. 18 Years

How many romantic partners did your mother have between your date of birth and your

eighteenth birthday?

How many romantic partners did your father have between your date of birth and your

eighteenth birthday?