Risk and Resilience and the Transition to Cohabitation, Parenting, and Marriage During the Emerging Adulthood Stage of Development

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Abstract

Making family transitions to cohabitation, parenthood, and marriage between the ages of 18 and 25 (emerging adulthood) are thought to lead to detrimental outcomes later in life. We argue that familial transitions during this period may be beneficial, or at least benign, over the short haul and perhaps in later life as well. Analysis of data from the National Longitudinal Study of Adolescent Health indicated that although individuals who made familial transitions were more vulnerable and had fewer protective factors going for them prior to the transition, they differed little from those who did not form families with respect to stability (depression high and remained high, low and remained low) and change in depressive symptoms (high in wave 1 and decreased by wave 3, low in wave 1 and increased by wave 3). The only exceptions were females who became involved in unstable cohabiting unions and, to a lesser extent, females who became parents. Despite the fact that many of those making a family transition were disadvantaged with respect to parents' income and education, the quality of mother-child relationship quality and school attachment, they were no more likely to experience depressive symptoms than those who did not make familial transitions. To stay even with those who did not make transitions, given the difference in vulnerability and protective factors, is a gain in psychological well being.

Risk and Resilience and the Transition to Cohabitation, Parenting, and Marriage During the Emerging Adulthood Stage of Development

Developmental psychologists label the period from 18 and 25 years of age as "emerging adulthood" and argue that this time is critical to individual development in post-industrial societies. Arnett (2000) proposes that postponement of family formation until the mid- twenties and the extension of education promotes identity exploration and serves as a foundation for making positive choices and creating a stable, satisfying life structure. In accord with this point of view is the idea that those forming families early are more likely to make poor choices and experience poor life chances. Sociologists suggest this period is best described as demographically dense, diverse, and disordered (Hogan & Astone 1986; Rindfuss 1991). Indeed, research suggests early marriage and parenting are detrimental to later life socioeconomic achievement and marital instability (e.g., Teti & Lamb 1989; Astone & Upchurch 1994). Little is known about the problems associated with *early* cohabitation, but similar trajectories are expected.

Although research points to negative long-term outcomes, we assume that individuals who make early family transitions envision benefits will soon follow. Otherwise, they are unlikely to make such transitions. Marrying or cohabiting may result in gaining social capital (Coleman 1988) that buffers individuals from stressful life circumstances, promotes healthy life styles, adds a sense of "mattering to others," provides an alternative to living with abusive or non-caring parents, and adds human resources such a problem solving and income (e.g., Taylor & Turner 2001; Umberson 1987). Becoming a parent may be seen as an opportunity to achieve adult status, gain

support from parents or other relatives, increase income from welfare or relatives, and fulfill parenting objectives (Pears, Pierce, et al. 2005). Of course these transitions may foreclose other opportunities (e.g., education, employment) or fail to bring about the expected benefits. Although learning more about the factors that are linked to making family transitions during emerging adulthood, our main objective is to assess the consequences of these acts and the variables that contribute to their success and failure.

We draw on the risk and resilience perspective (Cowan, Cowan & Schultz 1996; Luthar, Cicchetti & Becker 2000) focusing on individual and social factors that account for individuals who are at risk to do better than expected--an outcome variable we regard as an indicator of gains and loses in a wide range of life's domains. Specifically, we examine the extent to which vulnerability and protective factors are associated with whether or not those in the emerging adulthood phase of development cohabit, become a parent, or marry. Next, we examine whether those who make a transition, compared to those who do not, experience a decrease in depression, no change, or an increase in depression. We conclude by identifying factors that explain (1) why some depressed individuals experience a decrease in depression following a family transition while others remain depressed and (2) why other individuals with little or no depression remain stable following a transition while others experience an increase in depression. The analysis will explore the extent to which vulnerabilities and protective factors, as well as events that may accompany transitions (employment, education, leaving parents' home), are beneficial or detrimental to the wellbeing of those in the emerging adulthood phase who make familial transitions.

Developmental psychologists and others have conducted extensive research on risky sexual behavior such as early intercourse, unprotected sex, multiple partners, and pregnancy as well as related behavioral problems among adolescents (Steinberg, Lamborn et al. 1994; Kurdek and Fine 1994; Miller 1998) that is helpful in the design of our own study. These studies incorporated the presence or absence of vulnerabilities and protective factors into the research to account for why some individuals do well in spite being at risk of problematic sexual behavior. For example, they have shown that those with good problem solving skills may consistently use protection even though they engage in frequent sex. These studies have identified a range of factors that are associated with resilience (see Masten, Best & Garmezy 1990 for overview).

By far the most important factor is having parents or other adults who are loving and supportive and concurrently enforced a clear set of expectations (Maccoby & Martin 1983). These early relationships provide the foundation for impulse control and social competence (Parke and Buriel 1998). Another factor is a sense of efficacy (the feeling that one can manage environmental challenges) because it motivates adaptation (Werner 1990). Efficacy appears to have at least part of its origins in early attachment to a caretaker which results in offspring feeling confident, assertive, and effective in their relationships with others and secure and competent enough to explore new situations (Bowlby 1969). Intelligence and problem solving ability have also been identified as factors helpful in coping with adversity (Mastin et al. 1990). Social skills also facilitate problem solving by enabling the individual to effectively solicit the help of others. One indicator of social skills is school attachment which is linked to the extent to which adolescents perceive their teachers as fair, friendly, and interested in their school progress

and well-being. Those with a sense of attachment are more likely to exhibit pro-social behavior, interest in academics, academic efficacy, and high grades more than are other adolescents (Wentzel 2002). Externalizing behavior (e.g., delinquency and antisocial behavior), on the other hand, reflects low emotion regulation and lowers the individual's social competence and acceptance in ways that exacerbates risk taking (although modest amounts may enhance resilience in certain circumstances [e.g. Baumrind 1987]). Finally, socioeconomic status of the family of origin is regarded as a central protective factor. It structures the aspirations, activities, and opportunities of individuals in emerging adulthood. Highly educated and affluent parents invest more in their children's education and other aspects of their life than less advantaged parents; they also are better able to provide children with the skills and work habits necessary for success (Farkas 2003).

Success in the application of the risk/resilience framework to understanding adolescent risky sexual behavior suggests the same concepts will be useful in understanding familial transitions during emerging adulthood. We add the adult level protective factors of leaving home, post high school education, and employment.

Demographic studies pertinent to the study of emerging adulthood period have focused on early marriage (e.g., Michael & Tuma 1985). Early marriage has been shown to be problematic because it increases fertility that forecloses other socioeconomic opportunities (e.g., Teachman, Polonko, & Leigh 1987), decreases educational (e.g., Marini 1985) and occupational achievement (e.g., Otto 1979), and is associated with marital instability (e.g., Glick 1967). The early marriage pattern and its consequences have been fully documented in the demographic literature (e.g., Landale 1994).

What has not been explored either in the developmental or demographic studies is the possibility that some individuals in emerging adulthood phase of development may benefit from early family transitions while others may not. Although Arnett (2000) suggests that those who do not use the years from ages of 18 and 25 to explore alternatives will be at a disadvantage for the remainder of their lives, we argue that although for some this may be true, for others family transitions may be beneficial. There are two reasons we think this is an issue worthy of exploration. Application of the risk/resilience perspective gives us the conceptual framework that has been effective in identifying factors that may account for success or failure among children. Second, a limited amount of prior research suggests the framework is useful in understanding resilience among those in emerging adulthood and older populations.

A study of young adults at risk who benefited from marriage through personal efficacy is particularly instructive with respect to the population of concern in this study (Rutter and Quinton 1984). The study focuses on a group of young women who were raised in institutions and a control group who resided in the same area as the institutional home. The psychological development for the women raised in institutions was considerably worse than the comparison group. However, there were a significant number of institutional women who were as successful as the community group. They were women who had positive educational experiences that were linked to a sense of efficacy that resulted in marriage to a supportive and non-deviant spouse. Thorough careful analysis, Rutter and Quinton were able to rule out alternative explanations such as assortative mating, genetic factors (as assessed from behavioral profiles of the women's parents), positive behavior on the part of the husbands rather than the wives, and that the

marriage was a result of chance rather than positive planning on the part of the wives. That is, efficacy derived from positive experiences at school moderated the influence of institutional living on achieving a successful marriage.

A second study of unmarried men and women using the first two waves of data from the National Survey of Families and Households evaluated the extent to which the transition to marriage was associated with changes in depression (xxxxx). The author discovered that the psychological benefits of marriage depended on the respondent's premarital depression. Men and women who were depressed prior to marriage reported much larger psychological gains from marriage than those who were not depressed. The study suggests that those at risk may have a much greater opportunity to gain from family transitions than those less at risk.

Joyner and Udry's (2000) study of adolescents could be considered as contrary evidence. They found that adolescents who became romantically involved also reported an increase in depression. Those most depressed were involved in multiple relationships, experienced the conclusion of a relationship, and reported deterioration in the parent-adolescent relationships. The subjects of their study had not yet reached the phase of development we are studying and the depression they observed may have been the result of inexperience at initiating and managing intimate relationships rather than foregone opportunities.

We propose that, prior to familial transitions, those in emerging adulthood who do form a family will be more vulnerable and have fewer protective factors than those who do not form a union or become a parent. We suggest being vulnerable and having few protective factors are incentives to form a family relationship because it has the potential

to ameliorate the problems they face. Successful family transitions are likely to be linked to the benefits described above and result in a drop in depression. On the other hand, depression may remain high or increase when family formation fails to produce the desired objectives. People's depression that was low or modest prior to a transition may worsen if the family formation creates more stress than anticipated or it doesn't solve the problems that motivated the individual to form a new relationship.

We use depressive symptoms as the dependent variable because high levels are associated with many types of adversity such poor health, unemployment, as well as harsh family relationships (Amato and Booth 1997). Although, we would prefer direct information on the quality of newly formed family relationships and the consequences of those transitions for human, financial, and social capital, the data set does not include that information.

Race Differences

Research on racial and economic differences in family formation is fairly consistent in its findings. African Americans and Hispanics are less likely than whites to complete high school or obtain post-high school training because they do not have the financial resources needed to do so (Hogan and Astone 1986) and because they have experienced limited success in school. Because college delays marriage and child bearing, African Americans and Hispanics are more likely to begin family formation at an earlier age. However, African Americans and Hispanics have different trajectories. African Americans are much less likely to marry than Mexican Americans even though their fertility rates at younger ages are similar. Their values are consistent with their behavior. African Americans are less likely than Mexican Americans to believe that it is

better to get married than stay single and that marriage is a life-time commitment (Oropesa and Gorman 2000). In addition African Americans are more likely than Hispanics to believe that the value of marriage has declined and that non-marital child bearing is socially acceptable (Forste and Tienda 1996). On the basis of these trends, transitions to parenthood and cohabitation are expected to be greater among African Americans than other racial categories and transitions to marriage less.

Gender Differences

Females have different orientation to family relationships than do men (e.g., Taylor et al. 2000). Although fathers' involvement with children has increased in recent years, mothers continue to do the majority of childcare (Pleck & Masciadrelli 2004). Mothers tend to be more temporally and emotionally involved with their children than fathers (Collins & Russell, 1991; Crouter, Helms-Erikson, Updegraff, & Mchale, 1999; Russell & Saebel, 1997). Thus, female orientations to becoming a parent and the consequences of that transition for depression will differ for women and men.

The commitment to bearing and raising children is reflected in the formation of cohabitation and marriage relationships as well. Females, more than males, are seeking partners who will provide resources and in other ways help with rearing viable offspring. Females are more selective in their involvement in romantic relationships. Females are less likely to become involved in casual sex than males and, when they do become sexually involved, it is more likely to be in the context of ongoing romantic relationships (Katchadourian 1990). These differences in the meaning of cohabitation, parenthood, and marriage suggest that female orientations to becoming a parent and the consequences of those transitions for depression will differ for women and men. Women are less likely to

experience a decrease and more likely to experience an increase in depression following cohabitation and the dissolution of cohabitation than men. Marriage, on the other hand, is more likely to be followed by a decrease in depression and less likely to be followed by an increase. These gender differences led us to analyze females and males separately.

Plan of Analysis

We use offspring interview data from waves 1 and 3 of the Add Health study. At the time of the first interview they were adolescents and by the time of the third wave they were in the emerging adult phase of development. The mean age at first cohabitation for the study population is 20.6 for males and 20.1 for females. National Survey of Family Growth data suggests the average age at first cohabitation nationally for males is 22.9. Add Health mean age for first becoming a mother is 20.5 and nationally the figure is 24.9 (Mathews and Hamilton 2002). We don't have a comparable figure for males because of serious under reporting problems. The Add Health mean age for first marriage is 21 for females and 22 for males but nationally the ages are 25 and 27 respectively (Bianchi and Casper 2000). Clearly the mean age for these transitions in the Add Health study is in the emerging adulthood stage of development.

The risk and vulnerability variables are measured at wave 1 and the family transition, employment, post high school education, and leaving home are measured at wave 3. Depression was measured at time 1 and 3 so that we have the opportunity to classify respondents into four categories; depression was high and remained high, depression was high and decreased, depression was low and remained low, and depression was low and increased.

Analysis commences with an evaluation of the extent to which the vulnerabilities and protective factors differ for those in emerging adulthood who experience a family transition compared to those who do not. We expect those in emerging adulthood who make familial transitions to be more vulnerable and less protected than those who do not based on the idea that transitions are viewed as a way to improve life when other ways to do so are untenable.

We then compare those who cohabited, became a parent, or married with those who did not with respect to stability (those whose depression remained high over the five year period and those whose depression remained low) and change (those whose depression was high at wave 1 and decreased by wave 3 and those whose depression was low at wave 1 and increased by wave 3). We compare the proportions in each category as well as the mean levels of depression to obtain a sense of the overall trends.

This is followed by an analysis of whether or not making each type of familial transition predicts stability and changes in depression. The analysis tests whether early familial transitions worsen, improve, or have no effect on depression during emerging adulthood.

We conclude with an analysis of those vulnerability and protective factors that account for stability and change in depression among people who made each type of transition. That is, among those who cohabited (became a parent, married) we attempt to account for (1) why some depressed individuals experience a decrease in depression in connection with a family transition while others remain depressed and (2) why other individuals with little or no depression remain stable following a transition while others experience an increase in depression.

Methods

Data

The National Longitudinal Study of Adolescent Health is a longitudinal nationally representative sample of 14,738 people interviewed at three points in time. Waves 1 and 3 are used in this study. The study, originally designed to study various factors that affect adolescent health, covers a broad range of topics such as attitudes, sexual and family formation behavior, and school performance. Wave 1 of Add Health was collected in 1995-6 and consists of a face-to face interviews with a stratified random sample of 20,745 middle and high school respondents. At this time, interviews were also conducted with a parent or parental figure (usually the resident mother). In this wave, questions addressing attitudes, parental relationships, and demographic characteristics were asked. Wave 3 was collected in 2000-1 and followed up on 14,738 of the original respondents. Questions addressing family formation behavior and depression were collected in this wave of the data. Response rates for Wave 1 and 3 were 78.9% and 77.4% respectively.

The dataset over-sampled a number of groups. Appropriate weighting provided by Add Health was used in order to make our sample nationally representative. The number of respondents who had a weight value and participated in both Wave 1 and 3 is 14,086. A more detailed description of the data can be found in Bearman, Jones and Udry (1997) and Harris et al. (2003).

Variable Construction

Scales using multiple items (including depression) were checked for unidimensionality (using factor analysis) and reliability. All scales represent unidimensional constructs. The mean of all items was taken to construct the final scales. Fewer than 5% of the values

were missing for all variables except parental education and income per capita. For these two variables, approximately 25% of the data was missing because it was obtained from the parental questionnaire, which was not administered to all household. Missing cases were replaced with imputed values using the expectation maximization (EM) algorithm (Allison, 2001) in SPSS.

Dependent Variables

Depression*:* At Waves 1 and 3, respondents were asked if in the last week they "were bothered by things that usually don't bother you", "felt that you could not shake off the blues, even with help from your family and your friends", "felt depressed", "felt that you were too tired to do things", "felt sad", "felt that people disliked you", and "were happy". Responses ranged from 0=never or rarely to 3=most of the time or all of the time. The last item (were happy) was reverse coded in order for high depression to correspond with larger values. The mean across all items was used to calculate a depression scale that had an alpha of .81 for Wave 1 and .82 for Wave 3.

Depression Stability and Change: We divided people into four categories: those who (1) scored high on depression at wave 1 and 3, (2) scored high at wave 1 and low at wave 3, (3) scored low at wave 1 and 3, (4) scored low at wave 1 and high at wave 3. The depression scale at wave 1 and 3 were divided into quartiles. The two four category scales were cross-tabulated. Those who were on the diagonal (in the same quartile for both waves) were designated as continuously high or low. Those on either side of the diagonal were designated as having increased or decreased between wave 1 and 3. From these categories two variables were created. In one respondents were coded 0 if they were high continuously and 1 if depression decreased between wave 1 and 3. In the other they

were coded 0 if they scored low continuously and 1 if depression increased between the two waves.

In the first part of the study family transitions are dependent variables but in later parts they are independent variables. For purposes of continuity we describe them here.

Ever had a Birth*:* At Wave 3 respondents were asked how many times they or their partner had a pregnancy. Then respondents were asked "Next, please indicate the outcome of this pregnancy by selecting the appropriate response". We restricted our sample of births to those who had resulted in a live birth. In addition, we only consider first births. Thus, this is a dichotomous variable where 0=never had a live birth, 1=had at least 1 live birth. In separate analysis (not shown) we differentiated births that occurred within a relationship (marriage or cohabitation) from those that did not. Results indicated that there was no difference in any of the analyses.

Ever Cohabited*:* In Wave 3 respondents are asked "Have you ever lived with someone in a marriage-like relationship for one month or more?". Responses were coded 0=no/never and 1= yes/at least once.

Ever Married*:* At the third data Wave respondents were asked "How many times have you been married?", with responses ranging from 0 to 3. The number of people who had been married more than once was less than 100, so we recoded this variable to 0=never been married and 1=been married at least once.

Independent Variables

Mother-Child Relationship Quality (Alpha=.84): In Wave 1 of Add Health respondents were asked to rank how much they agreed with the following statements on a 5 item

scale ranging from 1=strongly agree to 5=strongly disagree: 1) Most of the time, your mother is warm and loving toward you, 2) When you do something wrong that is important, your mother talks about it with you and helps you understand why it is wrong, 3) You are satisfied with the way your mother and you communicate with each other, and 4) Overall, you are satisfied with your relationship with your mother. The scale is coded so that high values equal good mother-child relationship.

Vocabulary Skill is measured the "Add Health Picture Vocabulary Test standardized score" which was administered in Wave 1.

Problem Solving Skills (Alpha = .75): In the first wave respondents were asked whether they agreed with four statements on a five item scale ranging from 1-strongly agree to 5-strongly disagree: 1) When you have a problem to solve, one of the first things you do is get as many facts about the problem as possible, 2)When you are attempting to find a solution to a problem, you usually try to think of as many different ways to approach the problem as possible, 3)When making decisions, you generally use a systematic method for judging and comparing alternatives, and 4)After carrying out a solution to a problem, you usually try to analyze what went right and what went wrong. The scale is coded so that larger values equal higher problem solving abilities.

Efficacy (Alpha = .87): In wave 1 respondents were asked whether they agreed with the following nine statements on a range of 1=strongly agree to 5=strongly disagree: 1) You have a lot of energy, 2) You are well coordinated, 3) You have a lot of good qualities, 4) You are physically fit, 5) You have a lot to be proud of, 6) You like yourself just the way you are, 7) You feel like you are doing everything just about right, 8) You feel socially

accepted, and 9) You feel loved and wanted. The scale is coded so that larger values indicate higher efficacy.

School Attachment (Alpha = .79): In Wave 1 respondents were asked to what extent they strongly agreed, agreed, neither agreed nor disagreed, disagreed, or strongly disagreed with the following three statements: 1) You feel close to people at your school., 2)You feel like you are part of your school, and 3) You are happy to be at your school. Items were coded so that larger values indicate higher levels of school attachment.

Delinquency (Alpha = .85): This scales is measured by fourteen items in Wave 1 where the respondents were asked how often they engaged in various activities on a range of 0=never or rarely to 3=5 or more times. The items in this scale are: 1)In the past 12 months, how often did you paint graffiti or signs on someone else's property or in a public place?, 2) In the past 12 months, how often did you deliberately damage property that didn't belong to you?, 3) In the past 12 months, how often did you lie to your parents or guardians about where you had been or whom you were with?, 4)How often did you take something from a store without paying for it?, 5)How often did you get into a serious physical fight?, 6)How often did you hurt someone badly enough to need bandages or care from a doctor or nurse?, 7)How often did you drive a car without its owner's permission?, 8)In the past 12 months, how often did you steal something worth more than $50?, 9)How often did you go into a house or building to steal something?, 10)How often did you use or threaten to use a weapon to get something from someone?, 11)How often did you sell marijuana or other drugs?, 12)How often did you steal something worth less than $50?, 13)In the past 12 months, how often did you take part in a fight where a group of your friends was against another group?, and 14)How often were

you loud, rowdy, or unruly in a public place?. Items are coded so that larger values indicate higher delinquency.

Income per capita is obtained from the parental questionnaire by taking the total income per household and dividing by the number of household members. Parental education is measured by a single item "How far did you go in school?" from the parental questionnaire that ranges from 0=never went to school to 9=professional training beyond a 4-year college or university. Family structure is obtained from a household roster. Analysis was conducted comparing four family types: two biological parents, step-parents, single parents, and other family types. Families that did not have two biological parents acted in similar ways. Consequently, for all other analysis family structure is coded as a dichotomous variable where 0=two biological parents and 1=other family types.

Three post adolescent transitions to adult roles were created because of their potential for explaining changes in depression. These variables were measured at Wave 3: 1) Whether or not respondents still lived with their parents (0=live alone or with someone other than the parents, 1=still live with parents), 2) respondent's educational achievement (0=less than high school, 1=more than high school), and 3) respondent's employment achievement (0=working less than 10 hours a week, 1=working more than 10 hours a week).

Controls

Age is a continuous variable measured at Wave 1 ranging from 12 to 18. Race is measured by three categorical variables (Black, Hispanic, and Other Race), where Whites are the reference category. Primary caregiver education and family income per capita act

as controls when assessing depression change and stability. They were also treated as protective factors in the analysis.

Methods of Analysis

Event history analysis was used to assess the factors that predict family transitions. Logistic regression analysis was used to assess factors associated with change in depression.

Results

Demographic, Vulnerability, and Protective Factors and Family Transitions

Both males and females who made transitions were older (See Table 1). Compared to whites, male and female African Americans were less likely to marry, and Black females were less likely to cohabit. Compared to whites, female Hispanics were less likely to cohabit. Female Asians and others in the residual category were less likely than whites to make any transition and Asian males were less likely to cohabit. Many of these patterns are similar to those revealed in other studies.

With the exception of males making the transition to cohabitation, both males and females making any transition tended to come from low income families. Everyone who made a transition was more likely to have parents with limited educational achievement. Also, all but cohabiting males were more likely to living in a household with less than two biological parents prior to the transition.

With respect to individual level indicators of vulnerability and protection, females who cohabited and became a parent were less likely to have a close relationship with their mother and those who married were likely to have a lower sense of efficacy. In addition, males and females with low school attachment were more likely to cohabit and

females who became a parent also reported low levels of school attachment. Finally, males and females who reported high levels of delinquency were also more likely to make the transition to cohabitation and parenthood.

In summary, those who made family transitions were at risk in many ways. Their families were low income, poorly educated, African American, and their own experience often involved living with only one biological parent, low school attachment, and delinquent behavior. In a few cases a low quality mother-child relationship predicted making a family transition as did low levels of efficacy. Regardless of the type of transition females were more at risk than males.

Family Transitions and Change and Stability in Depression

The amount of stability and change in depression between wave 1 and wave 3 was approximately the same for each transition and those not making a transition (See Table 2). Nearly half reported a decline in depression and slightly less among those who didn't make a family transition. Among all those who were high at wave 1, 74% showed a decline in depression (not shown). Approximate one sixth of males and one fifth of females indicated that depression remained high over the five year period. The proportion appears to be slightly less among those who did not make a transition. The same the same proportion of males (one sixth) and slightly fewer females (slightly more than one tenth) reported that levels of depression remained low over the five year period. It tended to be slightly higher among those not making a transition. Finally, one fifth of males and females making a transition reported an increase in depression and slightly more (one quarter) of those not making a transition reported an increase in depression. Among those who started low approximately 50% reported an increase in depression (not shown).

Despite being disadvantaged prior to making a family transition it appears that many of those who did were no more or less depressed years later than those who did not. The fact they were no worse off suggests that family transitions over the short haul may not be as risky as prior research would suggest.

Examination of mean levels of depression for each category (Table 3) provides additional information about the trends and gives some face validity to the findings to the findings so far. A number of things are apparent. The means are very similar across all types of transitions and between whether or not a transition was made, which suggests that change from adolescence to emerging adulthood follow a similar pattern regardless of transition status. The size of the change among those who decreased and increased levels of depression was very large. The levels of those who decreased were slightly higher than those whose depression remained low throughout the five year period and the levels of those whose depression increased was slightly lower than those whose depression remained high between waves 1 and 3. Perhaps those who changed did not reach the levels of those who remained constant because modifications among the "changers" were not yet complete.

As a further test of whether or not making a familial transition predicts stability and change in depression, logistic regression was used to test whether or not early familial transitions worsen, improve, or have no effect on depression during emerging adulthood. Coefficients expressing the association between making a transition and change and stability in depression are shown with and without controls for males and females whose depression decreases, and males and females whose depression increases. After controlling for respondent's age, race, parental income, and education, and family

structure, making the transition to cohabitation, parenthood, and marriage had no influence on declines in depression among males (Table 4). Among females depression was less likely to decline for those who began cohabiting and gave birth. After controls were added to the equation the coefficient for becoming a parent became non-significant (Table 5). The transition to marriage had no effect on declines in depression among females. Given female's high level of involvement in child rearing, often requiring a committed partner, it stands to reason that cohabitation may reduce the likelihood of a reduction in depression. Whether or not the transition is to a stable or unstable union may make a difference in the probably of a decrease in depression. To test this idea, the regression was done separately for those who were still in the cohabiting relationship at wave 3 and for those for whom the union had dissolved by wave 3 (Table 6). The association between the transition and the probability of a decline in depression was no longer statistically significant for unions still intact by wave 3 but continued to be significant for those whose unions had dissolved. Approximately 55% of cohabitations amongst males and 52% amongst females had dissolved at wave 3.

With respect to increases in depression, regression analysis indicated none of the transitions had an influence on males (Table 7) whereas cohabiting and becoming a parent increased the probability of an increase in depression among females (Table 8). Again, it was appropriate to test the link separately for those whose cohabiting unions had remained intact and those which had dissolved by wave 3. The associated between cohabitation and increases in depression was no longer statistically for those whose union had remained intact (Table 9).

Overall, familial transitions were not associated with a reduced probability of experiencing a decline in depression or an increase in depression with the exception of females whose cohabitation was unstable and females who had become a parent. In the case of females becoming a parent the association obtained only for a greater probability of increasing depression and not for a decreasing chance of a decline in depression.

What Accounts for Those Who Made Family Transitions to be Less Depressed?

The analysis so far indicates that, with few exceptions, familial transitions do not put the individual at risk of becoming more depressed. In the following analysis, we explore the vulnerability and protective factors that explain why those who make such transitions experience the same declines (and increases) in depression as their peers who did not.

For <u>males</u> in a cohabiting relationship, having a positive relationship with their mother and high school attachment prior to the transition as well as a strong sense of personal efficacy are associated with a decline in depression (Table 10). Low levels of delinquency at wave 1 and being employed at wave 3 also reduces depression. When all of the vulnerability and protective factors are in the equation at the same time, only delinquency and being employed remain statistically significant. Given the size of the correlations, it is unlikely the finding is due to multicollinearity. Perhaps, the profound levels of delinquency (e.g. serious fights resulting in injury requiring professional care, grand larceny, use of a weapon) may reflect personality disorders that overshadow all other factors.

Reduction in depression among males who are parents is associated with low delinquency at time one. Because information on males becoming parents is so

unreliable, these results must be regarded as tentative. Only a strong sense of efficacy is associated with decrease in depression among males who are married.

In summary, males who formed families and experienced declines in depression between waves 1 and 3 have pre-family formation low level of delinquency and a high sense of efficacy. In addition, they are employed at 3. Because the parenting information is unreliable and marriage being infrequent, caution must be exercised in interpreting the findings.

Females, on the other hand, experience a decrease in depression linked to cohabitation if they had pre-formation strong ties with their mother, a high level of efficacy, and a sense of school attachment. Also, they obtained post high school training between waves 1 and 3 (Table 11). Once all of the variables were in the same equation only efficacy and post high school achievement remained statistically significant.

Females who became parents experienced a drop in depression if they had pre-transition high problem solving skills, a strong sense of efficacy, and a high level of school attachment. They also benefited from post high school training between waves 1 and 3. Only efficacy and post high school training remained statistically significant after all of the variables were in the equation.

Married females experienced a drop in depression if they had a pre-formation positive relationship with their mother and a strong sense of efficacy, and had obtained post high school training between waves 1 and 3. Efficacy and training remained statistically significant when all of the variables were in the equation together.

In summary, declines in depression among females were associated with a pre-formation sense of efficacy and post high school training between waves 1 and 3.

Comparing males and females we see that high pre-formation levels of efficacy were important to both in reducing depression. Low levels of delinquency prior to the transition and later employment were unique to males and post high-school training was unique to females as factors associated with declines in depression.

Control variables had limited influence on declines in depression. African American females who cohabited or became a parent were less likely to report a decrease in depression. Younger females and who cohabited were also less likely to experience a decrease as were African American males who married.

What Accounts for Those Who Made Family Transitions to Become More Depressed?

Males who cohabited and experienced a rise in depression had pre-formation low school attachment and a history of delinquency, and were unemployed at wave 3 (Table 11). When all of the variables were in the equation at the same time, high delinquency and unemployment remained statistically significant.

None of the vulnerability and protective variables were associated with an increase in depression among parents. Only a low sense of efficacy was associated with an increase in depression among those who were married. Again, the lack of reliability in the parenting data and the low incidence of marriage make these findings inconclusive.

In summary, males who cohabited and experienced a rise in depression tended to delinquent and unemployed. Low efficacy was observed among those who had married.

Cohabiting females experienced an increase in depression if they had pre-formation poor problem solving skills, a low sense of efficacy, and limited school attachment, and lived with her parents between waves 1 and 3 (Table 12). Problem

solving skills and co-residing with parents were no longer statistically significant when the variables were in the equation together.

Being a parent was associated with an increase in depression for some of the same reasons; low efficacy and school attachment, and living with parents. A poor mother-daughter relationship was also implicated in depression increases but dropped out when all of the variables were in the equation together.

The increase in depression associated with marriage was linked to pre-formation poor mother-offspring relationship, low efficacy, and not obtaining post high school training between waves 1 and 3. Only low efficacy remained significant when all of the variables were in the equation together.

In summary, family formation by females was linked to increases in depression when pre-transition efficacy and school attachment was low. Living with parents while cohabiting and the absence of post high school training were also associated with increases in depression.

For both males and females low efficacy was associated with increases in depression following familial transitions. Delinquency and unemployment were unique to male increases in depression while living with parents and not furthering their education was linked to female increases in depression.

Control variables had limited influence on increases in depression among those who made family transitions. Being African American increases the chance of an increase in depression for all three family transitions for males, but not for any female transitions. Being younger at the time males become a parent also increases the chances of depression. For females low parent education is related to increase in depression

among those who cohabited or became a parent. Being Hispanic decreases the chances of an increase in depression among females who give birth.

Conclusion and Discussion

Making family transitions to cohabitation, parenthood, and marriage between the ages of 18 and 25 (emerging adulthood) are thought to lead to detrimental outcomes later in life. We argue that familial transitions during this period may be beneficial, or at least benign, over the short haul and perhaps in later life as well. Analysis of data from the National Longitudinal Study of Adolescent Health indicated that although individuals who made familial transitions were more vulnerable and had fewer protective factors going for them prior to the transition, they differed little from those who did not form families with respect to stability (high and remained high, low and remained low) and change in depressive symptoms (high in wave 1 and decreased by wave 3, low in wave 1 and increased by wave 3). The only exceptions were females who became involved in unstable cohabiting unions and, to a lesser extent, females who became parents. Despite the fact that many of those making family transition were disadvantaged with respect to parents' income and education, the quality of mother-child relationship quality and school attachment, they were no more likely to experience depressive symptoms than those who did not make familial transitions. To stay even with those who did not make transitions, given the difference in vulnerability and protective factors, is a gain in psychological well being. This is consistent with research focused on low income females showing that parenthood is often beneficial (Edin and xxxxx). It is also consistent with research showing that disadvantaged individuals often make significant gains in psychological wellbeing by marrying (xxxx).

We also examined vulnerability and protective factors that led to decreases and increases among those who made family transitions. Factors expected and found to be instrumental in explaining changes in depression over the five year period were pre-formation mother-child relationship quality, problem solving skills, efficacy, school attachment, and delinquency along with the concurrent variables of leaving home, employment, and post-high school education. Being African American, and having parents with low income and limited education were also linked to less decline and more increase in depressive symptoms among those who made family transitions.

Although there were similarities in the factors that were linked to changes in depression for males and females (e.g., efficacy, school attachment) there were differences as well. Delinquency and unemployment were important in predicting depressive symptoms among males. Leaving home and post-high school education were more important in predicting depression in females.

Limitations. Too few over-time measures of dependent variables.

Insert a paragraph regarding father-offspring relationship quality.

Remaining to be explored is the influence of short term gains during emerging adulthood on long term outcomes in subsequent stages of the life course.

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Table 1. Summary of Significant Associations Between Demographic, Vulnerability, and Protective Variables and Making a Family Transition (+ indicates positive significant coefficient, - indicates negative significant coefficient)

	Cohabitation		Birth		Marriage	
	M	F	M	F	M	F
Constant	-	-	-	-	-	-
Age	+	+	+	+	+	+
Black	ns	-	ns	ns	-	-
Hispanic	ns	-	ns	ns	ns	ns
Other	-	-	ns	-	ns	-
Income	ns	-	-	-	-	-
Education	-	-	-	-	-	-
Fam. Struc (0=2 bio parents, 1 other)	+	+	+	+	ns	+
Mother-Child Relationship	ns	-	ns	-	ns	ns
Vocabulary Skill	ns	ns	ns	ns	ns	ns
Problem Solving	ns	ns	ns	ns	ns	ns
Efficacy	ns	ns	ns	ns	ns	-
School Attachment	-	-	ns	-	ns	ns
Delinquency	+	+	+	+	ns	ns

Table 2. Change and Stability in Respondent's Depression.

MALES	No Fam Form	Birth	Cohabitation	Marriage	Any Transition
Decrease	42% (1531)	48% (421)	46% (1105)	49% (501)	47% (1412)
Constantly High	13% (480)	17% (149)	16% (380)	14% (141)	15% (449)
Constantly Low	19% (697)	16% (141)	16% (393)	19% (189)	17% (500)
Increase	26% (951)	19% (167)	22% (537)	18% (185)	21% (642)
Total N	3659	878	2415	1016	3003

FEMALES	No Fam Form	Birth	Cohabitation	Marriage	Any Transition
Decrease	42% (1357)	46% (844)	44% (1350)	46% (745)	44% (1854)
Constantly High	15% (478)	24% (443)	23% (700)	21% (340)	22% (924)
Constantly Low	17% (561)	10% (177)	11% (335)	13% (221)	12% (482)
Increase	26% (825)	20% (376)	22% (701)	20% (337)	22% (919)
Total N	3221	1840	3086	1643	4179

Table 3. Levels of Depression by Category of Stability and Change

MALES	No Fam Form	Birth	Cohabitation	Marriage	Any Transition
Decrease	0.206	0.222	0.232	0.213	0.232
Constantly High	0.865	1.034	0.937	0.923	0.936
Constantly Low	0.154	0.169	0.166	0.147	0.165
Increase	0.724	0.796	0.754	0.67	0.735

FEMALES	No Fam Form	Birth	Cohabitation	Marriage	Any Transition
Decrease	0.243	0.28	0.268	0.261	0.266
Constantly High	0.941	1.096	1.086	1.024	1.055
Constantly Low	0.157	0.197	0.201	0.173	0.186
Increase	0.79	0.84	0.86	0.781	0.837

Table 4. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability and Making a Family Transition on Decreasing Depression in Males (0=high depression, 1=depression decreased)

	Cohabitation		Birth		Marriage	
	1	2	3	4	5	6
Alone	-0.131		-0.153		0.092	
With Controls		-0.103		0.115		0.129
Constant		.628		.403		.451
Age		.123		.017		.013
Black		-.086		-.077		-.05
Hispanic		.04		.074		.141
Other		.114		-.117		-.155
Income		.000007		-.000004		-.000001
Education		.039		.078*		.083*
Fam. Struc (0=2 bio parents, 1 other)		.034		.137		.151

*p < .05. **p < .01. ***p < .001

Table 5. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability and Making a Family Transition on Decreasing Depression in Females (0=high depression, 1=depression decreased)

	Cohabitation		Birth		Marriage	
	1	2	3	4	5	6
Alone	-.26**		-.242*		-.213	
With Controls		-.271**		-.206		-.184
Constant		-.129		-.101		0.015
Age		.07*		.059		.057
Black		-.048		-.037		.114
Hispanic		-.378*		-.465*		-.411*
Other		-.303*		-.14		-.181
Income		-.000002		-.000003		.0000006
Education		.032		.057*		.032
Fam. Struc (0=2 bio parents, 1 other)		-.148		-.143		-.243*

*p < .05. **p < .01. ***p < .001

Table 6. Unstandardized Coefficients Showing Regression Analysis of Effects of Controls and the Transition to a Stable and Unstable Cohabiting Relationship on Decreasing Depression in Females (0=high depression, 1=depression decreased)

	All Cohabitations		Stable Cohabitation		Unstable Cohabitation	
	1	2	3	4	5	6
Alone	-.26**		-.053		-.441**	
With Controls		-.271**		-.056		-.426**
Constant		-.129		-.314		.099
Age		.07*		.077*		.052
Black		-.048		-.031		.163
Hispanic		-.378*		-.563**		-.266
Other		-.303*		-.226		-.331
Income		-.000002		-.000004		.0000006
Education		.032		.046		.031
Fam. Struc (0=2 bio parents, 1 other)		-.148		-.076		-.228*

*p < .05. **p < .01. ***p < .001

Table 7. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability and Making a Family Transition on Increasing Depression in Males (0=low depression, 1=depression increased)

	Cohabitation		Birth		Marriage	
	1	2	3	4	5	6
Alone	-0.036		-0.036		-0.328	
With controls		0.036		0.016		-0.26
Constant		1.305**		1.326*		1.202*
Age		-.059*		-.062		-.042
Black		.458**		.336*		.265
Hispanic		.214		.083		.11
Other		.299		.393*		.361
Income		.00004		.000002		.0000009
Education		-.045		-.036		-.061
Fam. Struc (0=2 bio parents, 1 other)		-.175		-.114		-.114

*p < .05. **p < .01. ***p < .001

Table 8. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability and Making a Family Transition on Increasing Depression in Females (0=low depression, 1=depression increased)

	Cohabitation		Birth		Marriage	
	1	2	3	4	5	6
Alone	.452**		.392**		0.081	
With controls		.488**		.44**		0.263
Constant		1.857**		1.655**		-.104**
Age		-.089**		-.086*		.248
Black		.131		.221		.124
Hispanic		-.162		-.286		.222
Other		.311		.244		-.0000002
Income		-.000002		.0000005		.013
Education		-.038		-.018		.18
Fam. Struc (0=2 bio parents, 1 other)		.173		.141		.263

*p < .05. **p < .01. ***p < .001

Table 9. Unstandardized Coefficients Showing Regression Analysis of Effects of Controls and the Transition to a Stable and Unstable Cohabiting Relationship on Increasing Depression in Females 0=low depression, 1=depression increased)

	All Cohabitations		Stable Cohabitation		Unstable Cohabitation	
	1	2	3	4	5	6
Alone	.452**		0.201		.693**	
W/controls		.488**		0.027		.073**
Constant		1.857**		1.724**		1.874**
Age		-.089**		-.091**		-.099**
Black		.131		.085		.222
Hispanic		-.162		-.165		.067
Other		.311		.327		.338
Income		-.000002		-.000002		-.000001
Education		-.038		-.011		-.023
Fam. Struc (0=2 bio parents, 1 other)		.173		.192		.196

*p < .05. **p < .01. ***p < .001

Table 10. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability, and Protective Factors on Decreasing Depression in Males in Family Relationships (0=high depression, 1=depression decreased)

	Cohabitation		Birth		Marriage	
	1[a]	2[b]	3[a]	4[c]	5[a]	6[d]
Controls		-1.731		-.597		-3.588
Age		.038		.109		.126
Black		-.415*		-.878**		-1.032**
Hispanic		.069		.355		.51
Other		-.191		-.407		.781
Income		.00001		-.00002		-.00002*
Education		.011		.135		.129
Fam. Struc (0=2 bio parents, 1 other)		-.061		.005		.061
Mother-Child Relationship	.36**	.199	.246		.228	
Vocabulary Skill	.002		-.003		.002	
Problem Solving	.151		.066		.348	
Efficacy	.49**	.239	.414		.626*	.626*
School Attachment	.231*	.066	.162		.235	
Delinquency	-.764**	-.625**	-.733**	-.733**	-.408	
Lives with Parents	-.191		-.503		-.435	
Education	.13		-.186		.378	
Works more than 10 hours	.418*	.387*	.398		.651	

[a] Each variable entered separately, all models include controls for offspring age, gender, parents' income, mother's education, and family structure.
[b] Model includes only those variables significant in Column 1, plus controls
[c] Model includes only those variables significant in Column 3, plus controls
[d] Model includes only those variables significant in Column 5, plus controls
*p < .05. **p < .01. ***p < .001

Table 11. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability, and Protective Factors on Decreasing Depression in Females in Family Relationships (0=high depression, 1=depression decreased)

	Cohabitation		Birth		Marriage	
	1[a]	2[b]	3[a]	4[c]	5[a]	6[d]
Controls		-3.297**		-2.937*		-2.061
Age		.11**		.066		.051
Black		-.407*		-.493*		-.355
Hispanic		-.292		-.422		-.404
Other		-.345*		.03		-.092
Income		-.000004		-.000008		.000006
Education		.08		.043		-.03
Fam. Struc (0=2 bio parents, 1 other)		-.107		-.04		-.231
Mother-Child Relationship	.178*	.013	.165		.227*	.099
Vocabulary Skill	.005		-.0004		.008	
Problem Solving	.13		.281*	.054	.181	
Efficacy	.623**	.593**	.656**	.619**	.521**	.458**
School Attachment	.162*	.041	.166*	.0003	.042	
Delinquency	-.222		-.181		-.155	
Lives with Parents	-.195		.123		-.06	
Education	.381		.477*	.432*	.436*	.434*
Works more than 10 hours	.111		-.15		.266	

[a] Each variable entered separately, all models include controls for offspring age, gender, parents' income, mother's education, and family structure.
[b] Model includes only those variables significant in Column 1, plus controls
[c] Model includes only those variables significant in Column 3, plus controls
[d] Model includes only those variables significant in Column 5, plus controls
*p < .05. **p < .01. ***p < .001

Table 12. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability, and Protective Factors on Increasing Depression in Males in Family Relationships (0=low depression, 1=depression increased)

	Cohabitation		Birth		Marriage	
	1[a]	2[b]	3[a]	4[c]	5[a]	6[d]
Controls		2.395*		3.052*		3.493
Age		-.076		-.188*		-.01
Black		.853**		.791*		.932*
Hispanic		.081		-.439		-.63
Other		.334		.894		.706
Income		.00001		.000006		-.00001
Education		-.054		-.027		-.165
Fam. Struc (0=2 bio parents, 1 other)		-.252		.278		.087
Mother-Child Relationship	-.296		-.355		-.26	
Vocabulary Skill	-.007		-.018		-.002	
Problem Solving	-.112		.209		-.141	
Efficacy	-.345		-.067		-.574*	-.574*
School Attachment	-.224*	-.172	.122		-.015	
Delinquency	.867**	.8**	.433		.307	
Lives with Parents	.058		.237		.378	
Education	-.275		-.259		-.117	
Works more than 10 hours	-.591**	-.561**	-.34		-.052	

[a] Each variable entered separately, all models include controls for offspring age, gender, parents' income, mother's education, and family structure.
[b] Model includes only those variables significant in Column 1, plus controls
[c] Model includes only those variables significant in Column 3, plus controls
[d] Model includes only those variables significant in Column 5, plus controls
*p < .05. **p < .01. ***p < .001

Table 13. Unstandardized Coefficients Showing Regression Analysis of Effects of Control, Vulnerability, and Protective Factors on Increasing Depression in Females in Family Relationships (0=low depression, 1=depression increased)

	Cohabitation		Birth		Marriage	
	1[a]	2[b]	3[a]	4[c]	5[a]	6[d]
Controls		6.677**		7.224**		4.436*
Age		-.068		-.057		-.074
Black		.145		.455		.453
Hispanic		-.626		-1.245**		.202
Other		.156		-.076		-.461
Income		-.000005		.000009		.000004
Education		-.126**		-.144*		.047
Fam. Struc (0=2 bio parents, 1 other)		.018		-.095		-.101
Mother-Child Relationship	-.273		-.484*	-.206	-.368*	-.176
Vocabulary Skill	.0004		-.002		-.002	
Problem Solving	-.337*	-.103	-.214		-.244	
Efficacy	-.87**	-.668**	-.981**	-.636**	-.701**	.498*
School Attachment	-.415**	-.25*	-.612**	-421**	-.25	
Delinquency	.476		.871		1.102	
Lives with Parents	.51*	.379	.886**	.802**	.09	
Education	-.037		-.308		-.582**	-.436
Works more than 10 hours	-.062		-.108		-.092	

[a] Each variable entered separately, all models include controls for offspring age, gender, parents' income, mother's education, and family structure.
[b] Model includes only those variables significant in Column 1, plus controls
[c] Model includes only those variables significant in Column 3, plus controls
[d] Model includes only those variables significant in Column 5, plus controls
*p < .05. **p < .01. ***p < .001