What Happens Here Stays Here? Associations Between Choices During the Twenties and Flourishing or Floundering During the Thirties

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What Happens Here Stays Here? Associations Between Choices

During the Twenties and Flourishing or

Floundering During the Thirties

Melanie Lynn Lott

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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ABSTRACT

What Happens Here Stays Here? Associations Between Choices During the Twenties and Flourishing or Floundering During the Thirties

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Life course theory suggests that an individual’s development is influenced by many factors such as one’s past choices and environment. The twenties are a period of great autonomy for many young people with opportunities to engage in choices with lasting consequences, both positive (e.g., furthering education, volunteering) and negative (e.g., crime, risky sexual behavior, heavy video game use). The current study explored the relationship between behaviors during one’s twenties and indices of adjustment (i.e., life satisfaction, relationship satisfaction, and hope) and maladjustment (i.e., poor emotional health and regret) in one’s thirties. Additionally, as factors such as income and biological sex may limit or impact the choices one has available to them or chooses to engage in during this time period, income and biological sex were both tested as moderators. Participants included 4,969 (59% female, 41% male) individuals between the ages of 30 and 35. Employing structural equation modeling, results revealed that choices from emerging adulthood were associated with outcomes during one’s thirties. Specifically, education and volunteering were associated with positive outcomes (i.e., higher life satisfaction, better emotional health, and lower levels of regret); volunteering was also significantly associated with hope and relationship satisfaction. Criminal activity, on the other hand, was associated with negative outcomes (i.e., lower life satisfaction and higher levels of regret). Number of non-committed sexual partners was significantly associated with lower relationship satisfaction and emotional health. This study contributes significantly to the literature on emerging and early adulthood by suggesting that choices made during emerging adulthood impact adjustment or maladjustment during early adulthood.

Keywords: emerging adulthood, choices, adjustment, maladjustment, life course
I would like to express gratitude to those who have made my academic journey possible. To my chair, Dr. Larry Nelson, thank you for encouraging me to pursue this dream all those years ago, for supporting me through difficult decisions, and always believing in me. Your support has been so valuable, and I am incredibly grateful for your help, sacrifices, and example. You have taught me much about education and a great deal more about life.

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“Life is about choices. Some we regret, some we’re proud of. Some will haunt us forever. The message – we are what we chose to be” (Graham Brown). Emerging adulthood, or the years from 18-29, is a time of life characterized by choices (Eccles, Templeton, Barber, & Stone, 2003). This period provides new autonomy for young people (Arnett, 2000) and often brings with it peak levels of risky choices such as excessive drinking, criminal activity and risky sexual behaviors (Caswell, Pledger, & Pratap, 2002). However, it is also often an age of great possibilities bringing opportunities for positive choices (Nelson & Padilla-Walker, 2013) such as education attainment and volunteering. Because of the potential for great good as well as great harm, this period is viewed by some with ambivalence (Syed, 2016). It is likely that the choices made during one’s twenties will have consequences with the potential to impact later well-being (i.e., life satisfaction, relationship satisfaction, and emotional health) and life outlook (i.e., regret and hope). Using a life course perspective, this study seeks to understand if retrospective emerging adult choices are associated with outcomes during one’s thirties.

Although there is a growing body of literature focused on short-term outcomes associated with emerging adults’ behaviors (see Hill & Bosick, 2017; Leftkowitz & Gillen, 2006), little is known about how choices made during the third decade of life influence one’s adjustment and well-being during the thirties. Therefore, the primary purpose of this study was to explore the relationships between choices made during emerging adulthood (i.e., education, volunteering, criminal activity, video game use, and non-committed sexual partners) and indices of adjustment
(i.e., life satisfaction, relationship satisfaction, hope) or maladjustment (i.e., poor emotional health, regret).

**Life Course Theory**

Life course theory provides a broad framework for studying development throughout the entire lifespan. This perspective posits that development is a complex, lifelong process (Lapsley, 2014; Wood et al., 2017) that is shaped by many factors such as the historical period, an individual’s agency and choices, and situational constraints or opportunities (Fuller-Iglesias, Smith, & Antonucci, 2010). A key concept of this perspective is that past opportunities and choices affect current outcomes as well as future opportunities and trajectories. Thus, understanding one’s past is critical when discussing present and attempting to predict future development. Although emerging adulthood is now viewed by many as a distinct developmental period, very little work has explored the lasting impact of choices made during this time. This is a significant gap in the literature as we do not currently know enough to speak to the long-term benefits or risks of this new developmental period. Hence, the aim of this study was to better understand how choices made during emerging adulthood are associated with adjustment or maladjustment during one’s thirties.

**Emerging Adulthood**

Emerging adulthood is a relatively new term used to describe the developmental period between 18 and 29 years of age. This third decade of life is characterized by exploration, possibilities, feeling in-between, self-focus, and instability (Arnett, 2000). Although past generations often required a quick transition from adolescence to adulthood, many of today’s young people are able to postpone adult roles for up to a decade and experience a period full of change and development before assuming those roles. During this time, emerging adults
experience a greater degree of autonomy than they did during adolescence (e.g., move away from home, start working) making the twenties a decade of choices.

This extended period of freedom with increased autonomy brings opportunities for positive growth as well as risks. For example, some choose to spend the third decade of life continuing education or engaging in volunteer experiences (Barry, Padilla-Walker, Madsen, & Nelson, 2008; Padilla-Walker & Nelson, 2017). These choices have consistently been associated with positive short-term or concurrent outcomes in the existing literature. For example, research suggests that volunteering during adolescence is associated with indices of adjustment, such as higher self-esteem (Fu, Padilla-Walker, & Brown, 2017), during adolescence and emerging adulthood. Additionally, volunteering during emerging adulthood has been linked to physical, emotional, cognitive, and social benefits (Synder & Omoto, 2000; Weinstein & Ryan, 2010). Hence, it is likely that these behaviors during emerging adulthood will be associated with indices of adjustment during early adulthood.

However, for others, emerging adulthood is characterized by risky choices. Research suggests that emerging adulthood is a peak time for potentially problematic choices such as risky sexual behaviors (see Leftkowitz & Gillen, 2006) and play behaviors such as heavy video game use, and that many young people choose to participate in these “fun” activities during their twenties because they feel they will be unable to do those things in later adulthood (Ravert, 2009) but not realize that behaviors such as video game use (particularly violent video game use) (Fraser, Padilla-Walker, Coyne, Nelson, & Stockdale, 2012; Padilla-Walker, Nelson, Carroll, & Jensen, 2010) and risky sexual behaviors (e.g., high numbers of sexual partners) (Fielder & Carey, 2010) have been correlated to a variety of negative outcomes in emerging adulthood (Nelson & Padilla-Walker, 2013). Even more seriously, current statistics report a sizeable
minority of young people have a criminal record by the end of their emerging adulthood (Brame, Turner, Paternoster, & Bushway, 2012; Craig & Piquero, 2016). Faced with increased opportunities and greater autonomy, emerging adults must make choices about how to spend this time period and it appears that many are choosing behaviors that might have long-term negative implications. However, in order to understand how emerging adulthood influences later development, we need to better understand the effects of the choices made during this dynamic period (Wood et al., 2017).

**Consequences.** As emerging adulthood is a new development period, the lasting impact of choices made during this time is not yet fully understood. However, a growing body of research suggests that the choices made during emerging adulthood may be linked to concurrent indices of flourishing and floundering (Nelson & Padilla-Walker, 2013). For example, research suggests that heavy video games use during emerging adulthood is associated with indices of maladjustment (Nelson, Coyne, Howard, & Clifford, 2016; Nelson & Padilla-Walker, 2013) such as higher levels of depressive symptoms and loneliness (Pezzeca, 2009), greater drug and alcohol use, lower self-worth (Padilla-Walker et al., 2010) and lower relationship satisfaction (Forrest, 2018). Similarly, although sexual exploration is often deemed to be a normative part of exploration during emerging adulthood, there are aspects of sexual behavior that have been deemed risky such as unprotected sex and a high number of sexual partners (see Leftkowitz & Gillen, 2006). For example, a high number of casual sexual relations has been associated with psychological distress, especially among females (Fielder & Carey, 2010). Taken together, these findings suggest that some choices are potentially problematic and may lead to a host of negative outcomes while others lead to well-being during one’s emerging adult years. Thus, choices made during this period do appear to matter and influence indices of flourishing or floundering.
However, little work has looked beyond concurrent consequences associated with these behaviors. This is a critical gap in the literature as a life course perspective (Lapsley, 2014) argues that past choices heavily influence one’s later trajectories, well-being, and life outlook. For example, some choices, such as continuing education or volunteering may be extremely beneficial and set these young people on positive trajectories once they transition into adulthood (Padilla-Walker & Nelson, 2017). Possibly, receiving an education may allow individuals to secure a job in a desired field, leading to increased financial independence and overall life-satisfaction. Additionally, working to complete a difficult goal, such as acquiring a college education, may boost one’s self-esteem and efficacy. Volunteering may help young people form social ties and emotional capital or feel a sense of generativity and lead to a sense of hope about the future. In sum, positive choices may enhance the likelihood of well-being in the thirties.

Conversely, potentially problematic behaviors, such as extensive video game use, criminal activity, or risky sexual behaviors, may negatively impact one later on. A criminal record may preclude career opportunities leading to lower satisfaction and regret. Given that risky sexual behaviors have been linked concurrently with negative outcomes such as negative affect (Vasilenko & Lefkowitz, 2018) and distress (Vasilenko, 2014), it is possible that the associations with internalizing (e.g., emotional health) may be magnified over time. Thus, negative choices may enhance the likelihood of negative outcomes in the thirties. However, these associations were only theoretical and not supported by empirical data. Therefore, the primary aim of this study was to begin to fill this crucial gap using retrospective data to examine relations between remembered past choices (i.e., education, volunteering, video game use, number of non-committed sexual partner, and criminal activity) made in emerging adulthood and adjustment or
maladjustment (i.e., life satisfaction, relationship satisfaction, emotional health, regret, and hope) in early adulthood (ages 30-35).

**Choice constraints.** It is important to note that access to choices is not equal for all emerging adults. Indeed, there is debate among scholars about whether emerging adulthood is a universal period of development (Hendry & Kloep, 2007), with some describing emerging adulthood as a luxury available only to those with the resources (e.g., financial, familial) to afford an extended period of exploration (Smith et al., 2015). From a life course perspective, the degree of autonomy and the range of choices one experiences is likely determined by one’s family situation. Young people who grow up in less financially secure situations are often required to transition into adult roles more quickly than their affluent peers (Kendig, Mattingly, & Bianchi, 2014). These young people may find their choices limited (e.g., unable to afford college, feel the need to find a job quickly). Indeed, current research suggests that low family income is associated with lower educational achievement (Gibb, Fergusson, & Horwood, 2012). Much of the research focused on emerging adulthood comes from research with samples of college students. Thus, those from low income backgrounds who likely experience limited choices during their twenties are often not included. As the current study employed a nationally representative sample, a second aim of this study was to provide a more nuanced look at how income specifically influences this time period. Specifically, a second purpose of this study was to explore if relationships between emerging adult choices and outcomes varied as a function of family income at age 16 (just prior to emerging adulthood).

Similarly, gender role expectations may influence what choices young people engage in (Eryilmaz & Atak, 2011; Lee, 2017) by suggesting that certain behaviors are more appropriate or acceptable for males or females (Pearlson, 2017). Culturally prescribed gender roles often
influence the choices one makes and how one feels about engaging in stereotypically unconventional behavior. Consistently, males report more video game use than women (Padilla-Walker et al., 2010), and research suggests that males consistently commit more crimes proportionally and that this sex difference is likely due to gender role socialization (Miller, 2014). Additionally, current research suggests that a given behavior may lead to different outcomes for males than for females. For example, a number of studies have found that young males are more likely to regret passing up casual sexual opportunities (Oswalt, Cameron, & Koob, 2005; Roese et al., 2006) while females are more likely to regret having engaged in casual sexual actions (Bendixen, Asao, Wyckoff, Buss, & Kennair, 2017; Sawyer & Smith, 1996).

Taken together, it is likely that engagement in and the consequences of choices made during emerging adulthood differ as a function of biological sex. Thus, the third purpose of this study was to explore biological sex as a possible moderator in the association between emerging adult choices and indices of well-being in early adulthood.

**Current Study**

Thus, although there is a growing body of work devoted to understanding the links between emerging adult choices and indices of adjustment or maladjustment, there are several limitations and gaps in the existing research. First, much of the previous work has examined concurrent outcomes associated with emerging adult behaviors (e.g., Nelson & Padilla-Walker, 2013). This work has laid an important foundation suggesting that choices made during this period are tied to indices of flourishing and floundering. However, it is difficult to understand if these relations impact later development or are only influential during one’s twenties. Drawing upon the life course perspective, there is strong theoretical reason to believe that the emerging adult years impact adulthood and that choices made during the twenties will continue to be
influential during the thirties; currently, there is little empirical evidence to support this. Therefore, the primary aim of this study was to explore links between retrospective reports of choices made during emerging adulthood and outcomes during one’s thirties. Specifically, the first purpose of this study was to examine if five choices during emerging adulthood (i.e., education, volunteering, criminal activity, video game use, and number of non-committed sexual partners) were associated with outcomes during the thirties (i.e., life satisfaction, relationship satisfaction, emotional health, hope and regret).

Based on existing research suggesting that education and volunteering are associated with positive outcomes (Fu et al., 2017), I hypothesized that education and volunteering would be positively associated with life satisfaction and hope and negatively associated with poor emotional health and regret. On the other hand, as previously discussed, existing work suggests that potentially problematic choices (i.e., criminal activity, extensive video game use, and risky sexual behaviors) are associated concurrently with negative outcomes (see Fielder & Carey, 2010; Pezzeca, 2009; Roese et al., 2006). I, therefore, hypothesized that video game use, a criminal history, and the number of non-committed sexual partners during emerging adulthood would be associated with lower levels of life satisfaction, relationship satisfaction, and emotional health and positively associated with regret.

A second important gap in the existing literature is that most emerging adult studies employ samples of college students. These samples are likely not representative of those who come from families with a low socioeconomic status who do not have the luxury of pursuing secondary education. Thus, the second aim of this study was to explore family income as a moderator in the association between emerging adult choices and indices of well-being in early adulthood. Although those from a lower socioeconomic status may wish they could have had the
opportunity to pursue education, they likely also realize that the choice was not up to them. Thus, I hypothesized that the associations between education and indices of adjustment would be stronger for those from a high socioeconomic status for whom education was more likely a choice.

Finally, as gender norms may impact the relations between choices and outcomes, the final purpose of this study was to explore if associations between emerging adult choices and indices of well-being in early adulthood vary as a function of biological sex. It was hypothesized that the associations between video games and crime and indices of adjustment or maladjustment would be stronger for males than for females and that the relationship between number of non-committed sexual partners and relationship satisfaction and regret would be stronger for females than for males.

Methods

Participants

Participants for this study included a nationally representative sample of 4,969 individuals between the ages of 32 and 35 (mean age = 32.5, SD = 1.70). Females composed 59% of the sample and males composed 41%. The majority of the individuals were White (69.2%), followed by Black (11.6%), and Hispanic (10.1%). In terms of highest level of education, 3.3% reported no high school, 20.8% reported high school, 25.5% reported some college, 12.5% a two-year degree, 24.5% a four-year degree, and 13.4% reported at least some graduate school. Thirty percent reported a personal yearly gross income of under $20,000, 26% between $20,000-39,999, 18.4% between $40,000-59,999, 11.3% between $60,000-79,999, 7.1% between $80,000-99,999, and 7.7% reported a personal income of $100,000 or more. All fifty states were represented in the dataset.
Procedure

YouGov, an online marketing research firm, was employed to administer an online survey to individuals between the ages of 30 and 35. Participants for the study were recruited using a simple random sampling approach and were weighted by biological sex, racial, and ethnic distributions, and other demographic characteristics. As part of the survey, participants gave retrospective reports about their twenties. These items included questions about frequency and timing of behaviors in a number of domains (e.g., drug and alcohol use, sexual behaviors, and education). Additionally, participants were asked to report on a number of aspects of their current life including their current relationships, mental health, behaviors, as well as their current feelings of regret, hope, and life satisfaction. Participants self-selected to take this survey and were given reward points (which can be redeemed for rewards via YouGov) for their participation.

Measures

Emerging adults’ behaviors. Five behaviors (i.e., education, volunteer experience, criminal record, number of non-committed sexual partner, and video game use) during the twenties were measured retrospectively. Education was measured with one item (“How much education have you completed”) ranging from 1 (Less than high school) to 6 (Graduate or professional degree). In order to measure number of non-committed sexual partner, participants were asked to report, for each year from 18 to 29, the number of sexual partners outside a committed relationship that they had; an average was then calculated by adding up the number of partners reported for each year and dividing by 12. Volunteer experience, criminal record, and video game use (playing 10+ hours per week on average) were each measured by asking
participants to indicated for each year (18-29) whether they had engaged in the behavior during that year. The number of years indicated were then summed to create continuous variables.

**Life satisfaction.** Life satisfaction was measured with a latent variable consisting of six items that were created for this study asking participants to rank how satisfied they were with their life overall, family life, social life, personal financial situation, quality of life in one’s community, and current job or career (“Please rate how satisfied you are in each of the areas of your life”). Possible responses ranged from 1 (*Very Dissatisfied*) to 4 (*Very Satisfied*).

**Relationship satisfaction.** Relationship satisfaction was measured with a latent variable consisting of five items (Busby, Holman, & Taniguchi, 2001) asking participants to indicate how satisfied they were with various aspects of their romantic relationship. Possible responses ranged from 1 (*Very Dissatisfied*) to 5 (*Very Satisfied*). Sample aspects included “How conflicts are resolved”, “The quality of your communication”, and “The physical intimacy you experience.”

**Emotional health.** Emotional health was measured with a latent variable consisting of twelve items adapted from the Rosenberg self-esteem scale (Rosenberg, 1965). Items were answered on a 5-point scale ranging from 1 (*Never*) to 5 (*Very Often*). Sample items included “I feel I am a person of worth”, “I think I am no good at all” (reverse coded so a lower score indicated a higher level of emotional health), and “I feel depressed” (reverse coded).

**Hope.** General hope was measured with one item created for this survey (“How often do you experience the following emotion: I have hope for my future”). This item was measured on a 4-point scale from 1 (*None of the time*) to 4 (*All of the time*).

**Regret.** Overall regret was measured with three factors answered on a 5-point scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). These items were adapted from the Regret Rating Measure (Roese et al., 2006) and included “When I reflect on the past, I feel
sadness and regret”, “I regret the way I’ve lived my life so far”, and “I feel okay with the way I’ve handled my life so far” (reverse coded so a higher score reflected more regret). These items were used to create a latent variable.

**Moderators.** *Family income at age 17* (just prior to participants entering emerging adulthood) was measured retrospectively with a single item. This variable was used to create two groups: lower and working class, and middle and upper class. *Biological sex* was measured with a single, dichotomous item (male or female).

**Controls.** In order to better understand the associations between variables, a number of controls were included in each model. Age, current household income, and race (White, Black, Hispanic, Other) were included in the final model. As the effects of choices made during one’s twenties may be more or less salient as time goes one, age was included. Additionally, one’s current economic situation (measured by household income) might play a role in the relationship between choices and outcomes. For example, one who did not pursue secondary education but has a healthy income may feel differently than one without secondary education who is struggling to make ends meet. Each control variable was measured with a single item as part of the demographic information collected in the survey.

**Analysis Plan**

Prior to the main analyses, preliminary tests were run using Stata(15.1) to explore the distribution of the main variables and obtain descriptive statistics and correlations. In order to avoid Type I errors while running correlations, a Bonferonni correction was employed. The primary analyses were conducted using structural equation modeling in Stata(15.1). A measurement model was run first to confirm factor loadings and check for model fit. Modification indices were used to produce good fit. Next, a structural equation model was
created to test for associations between emerging adults’ behaviors (i.e., education, number of sexual partners, video game use, crime, and volunteering) and indices of flourishing or floundering (i.e., life satisfaction, relationship satisfaction, emotional health, hope, and regret) (see Figure 1). Finally, a series of multi-group models were estimated and compared using $X^2$ difference tests to test for possible moderation as a function of family income at age 16 and biological sex. This was done by first testing for measurement invariance in order to see if constructs were similar across groups. Then, structural invariance was tested to examine moderation. Due to the large sample size employed, a significance level of .01 was used.

Results

Preliminary Analyses

For this sample, the average education level was 3.74 ($SD = 1.45$). On average, participants engaged in volunteering 1.42 years ($SD = 2.77$), criminal activity 0.28 years ($SD = 0.83$), and video games 2.32 years ($SD = 3.77$). The average number of non-committed sexual partners was 0.80 ($SD = 2.57$). Regarding outcomes during the thirties, the mean level of life satisfaction was 2.75 ($SD = 0.65$; scale of 1 to 4), the mean level of relationship satisfaction was 3.75 ($SD = 0.97$; scale of 1 to 5), the mean level of emotional health was 3.33 ($SD = 0.69$; scale of 1 to 5), the mean level of hope was 3.03 ($SD = 0.88$; scale of 1 to 4), and the mean level of regret was 2.52 ($SD = 1.15$; scale of 1 to 5). See Table 1 as a reference.

In order to assess preliminary relationships between all the study variables, bivariate correlations were run using Bonferonni correction to avoid Type I errors. Results suggested a number of significant correlations. Specifically, education ($r = .23, p < .001$), volunteer experience ($r = .12, p < .001$), and crime conviction ($r = -.13, p < .001$) were all significantly associated with life satisfaction. Education ($r = .14, p < .001$), volunteering ($r = .06, p < .001$),
and crime ($r = -0.09, p < .001$) were also significantly associated with one’s emotional health. Education ($r = -0.25, p < .001$), volunteering ($r = -0.15, p < .001$), and crime ($r = 0.15, p < .001$), were significantly associated with levels of regret, and education ($r = 0.10, p < .001$), volunteering ($r = 0.09, p < .001$), and crime ($r = -0.05, p < .05$) were significantly associated with hope.

Many significant correlations were also found among outcomes during the thirties. Relationship satisfaction was significantly associated with life satisfaction ($r = 0.46, p < .001$), emotional health ($r = 0.24, p < .001$), hope ($r = 0.35, p < .001$), and regret ($r = -0.38, p < .001$). Regret was significantly associated with life satisfaction ($r = -0.57, p < .001$), emotional health ($r = -0.48, p < .001$), and hope ($r = -0.48, p < .001$). Hope was significantly associated with life satisfaction ($r = 0.54, p < .001$) and emotional health ($r = 0.39, p < .001$). Life satisfaction was significantly associated with emotional health ($r = 0.44, p < .001$). See Table 2 as a reference.

**Main Analyses**

**Measurement model.** Next, a measurement model was conducted using structural equation modeling with Stata software (StataSE 15). Latent variables were created for life satisfaction, emotional health, relationship satisfaction and regret. All factor loadings were .50 or higher and thus included in the final model. Modification indices were run and fifteen covariances between error terms were added to increase model fit. After modification indices, model fit suggested that the model fit the data well, $X^2 (520) = 1,782.54, p < .001$, TLI = .94, CFI = .95, RMSEA = .043.

**Structural model.** Next, a structural model was estimated with behaviors in the twenties (education, volunteering, crime, video game use, and number of non-committed sexual partners) predicting outcomes in early adulthood including life satisfaction, relationship satisfaction, emotional health, regret, and hope (see Figure 1). Age, race, and household income were
included as control variables. The model fit the data adequately ($X^2 (524) = 2177.065, p < .001$, \text{CFI} = .93, \text{RMSEA} = .05, \text{TLI} = .92).

Analyses suggested that education ($\beta = .069, p = .038$), volunteering ($\beta = .145, p = .000$), and crime ($\beta = -.071, p = .013$) were significantly associated with life satisfaction. Volunteering ($\beta = .085, p = .003$) and number of non-committed sexual partners ($\beta = -.063, p = .027$) were significantly associated with relationship satisfaction. Education ($\beta = .116, p = .000$), volunteering ($\beta = .067, p = .017$), and number of non-committed sexual partners ($\beta = -.056, p = .039$) were significantly associated with emotional health. Education ($\beta = -.181, p = .000$), volunteering ($\beta = -.095, p = .002$), and crime ($\beta = .131, p = .000$) were significantly associated with regret. Additionally, volunteering ($\beta = .082, p = .003$) was significantly associated with hope.

Age ($\beta = -.078, p = .003$), household income ($\beta = .194, p = .000$), and race (compared to the reference group (White); \text{Black} $\beta = .119, p = .000$, \text{Hispanic} $\beta = .083, p = .002$) were significantly associated with hope. Household income ($\beta = .304, p = .000$) was significantly associated with life satisfaction. Household income ($\beta = .230, p = .000$) and race (compared to the reference group (White); \text{Black} $\beta = .142, p = .000$, \text{Hispanic} $\beta = .070, p = .010$) were significantly associated with emotional health. Additionally, household income was significantly associated with regret ($\beta = -.25-, p = .000$) and relationship satisfaction ($\beta = .098, p = .002$).

**Moderation**

To test for group differences as a function of biological sex and family income level at age 16, measurement and structural invariance were tested by estimating and comparing a series of multi-group models using $X^2$ difference tests. For both biological sex and family income, measurement invariance tested suggested weak invariance. Therefore, factor loadings were
constrained while testing for structural invariance. Structural paths were examined by comparing a model where paths were unconstrained across groups to a model where all paths were constrained. For both family income and biological sex, constraining all paths did not result in significantly worse model fit at the .01 level (income: $X^2$ difference (40) = 48.25, $p < .01$; $X^2$ difference (40) = 58.90, $p < .01$) suggesting no moderation.

**Discussion**

Emerging adulthood is characterized by increased autonomy making the twenties a decade of choices. However, little is known about how choices made during this developmental period are impacting adjustment or maladjustment during early adulthood. Much of the research on emerging adult behaviors has explored concurrent effects, leaving a need to examine how choices made during emerging adulthood are associated with indices of well-being in early adulthood. Hence, in order to understand the effects of one’s choices during the third decade of life, the first purpose of this study was to examine associations between choices made during emerging adulthood (i.e., education, volunteering, crime, video game use, and number of non-committed sexual partners) and subsequent indices of adjustment or maladjustment (i.e., life satisfaction, relationship satisfaction, emotional health, hope and regret) during one’s thirties. Results of structural equation modeling revealed a number of relations between retrospective reports of behaviors during emerging adulthood and outcomes in early adulthood suggesting that some choices made during emerging adulthood may have long-lasting impact. Specifically, results revealed that education in the twenties was positively associated with life satisfaction and emotional health in the thirties, and negatively associated with regret in early adulthood. Volunteering in the twenties was positively associated with life satisfaction, relationship satisfaction, emotional health, and hope in early adulthood and negatively associated with regret.
in the thirties. Crime in emerging adulthood was negatively associated with life satisfaction and positively associated with regret in the thirties. Finally, risky sexual behavior (i.e., number of non-committed sexual partners) in the twenties was negatively associated with relationship satisfaction and emotional health in the thirties.

A second purpose of this study was to explore if these relations between emerging adult behaviors and subsequent outcomes may vary as a function of biological sex and family income. In other words, I sought to understand if similar patterns existed for both males and females and for those from low versus middle to high income backgrounds. Group analyses to test for moderation, however, were non-significant, suggesting that, for this sample, the relations between choices and outcomes did not differ as a function of either biological sex or income level. Findings are discussed in more detail below.

**Education**

Many young people pursue secondary education during emerging adulthood. As current research suggests that education may be an important predictor of future success (Ladhani, Cullen, Dawes, & Dimitropoulos, 2019) and life satisfaction (Ilies, Yao, Curseu, & Liang, 2018), it was hypothesized that higher levels of education during the twenties would be associated with indices of adjustment during early adulthood. Results of the current study revealed that education was associated with a number of later positive outcomes such as increased life satisfaction, better emotional health, and lower levels of regret. These results suggest that, consistent with a life course perspective, choosing to pursue education during emerging adulthood is associated not only with concurrent positive outcomes but with flourishing during early adulthood as well. Pursuing education during emerging adulthood appears to set young people on a positive trajectory leading to a number of positive outcomes. There are many possible reasons for these
associations. For example, it is possible that education during the complex developmental period of emerging adulthood helps individuals to develop a strong sense of identity (Kaplan & Flum, 2012), obtain a career that is satisfying (Ng, Eby, Sorensen, & Feldman, 2005), or increase income. Although future research is needed to explore the mechanisms through which education during emerging adulthood may influence adjustment during the thirties, the current study adds empirical support to suggest that education is a positive choice during emerging adulthood.

**Volunteering**

For this sample, participation in volunteer experiences during emerging adulthood was also linked with indices of adjustment in one’s thirties (i.e., higher levels of life satisfaction, relationship satisfaction, emotional health, and hope, and lower levels of regret). Although many view the twenties as a self-focused period (Arnett, 2000), it seems that reaching outside of oneself during this time may have lasting benefits. Previous work suggests that engagement in prosocial behavior during emerging adulthood is linked with indices of concurrent positive adjustment (Nelson & Padilla-Walker, 2013) as well as physical, emotional, cognitive and social benefits (Synder & Omoto, 2000; Weinstein & Ryan, 2010). The results of the current study build upon this work suggesting that benefits associated with volunteering may be lasting. Indeed, the results for volunteering are significant because they suggest that flourishing in adulthood may not simply be a result of avoiding bad choices (e.g., crime) in emerging adulthood but may be tied to making choices to be involved in positive activities. For example, it is interesting to note that this behavior was the only choice that was linked with one’s level of hope during early adulthood. Although merely speculative, perhaps those who volunteer during this period feel a sense of generativity and view themselves as being a part of something larger than themselves leading to a sense of hope. Regardless of the mechanism by which it happens, it
appears that benefits of engaging in positive, prosocial behaviors extend beyond emerging adulthood (e.g., Nelson & Padilla-Walker, 2013) into early adulthood as well.

**Crime**

Emerging adulthood brings, for many, peak levels of risky behaviors (Caswell et al., 2002; Leftkowitz & Gillen, 2006). Current statistics suggest that a sizable minority (between 25 and 40%) of young people have a criminal record (Brame et al., 2012; Craig & Piquero, 2016). Indeed, previous research suggests that some young people have a risk-taking view of life during emerging adulthood (Nelson, Willoughby, Rogers & Padilla-Walker, 2015); focused on the here-and-now, some may engage in illegal activity without giving much thought to the future. The results of the current study suggest that this type of behavior in emerging adulthood is associated with maladjustment during early adulthood (i.e., lower life satisfaction and higher levels of regret). Young adults may be haunted by past behaviors as the consequences continue to impact them years after the choice was made. Possibly, those with a criminal record may feel they do not fit into society and cannot erase their past, causing them to regret their past choices. Though some young people in their twenties may be inclined to view some criminal activity during emerging adulthood as merely exploratory or a folly of youth, what they may not see are the long-term consequences of those choices. Indeed, many young people view the twenties as a time to engage in risky, now-or-never behaviors (Ravert, 2009). However, the current results suggest that criminal behaviors in emerging adulthood likely have long-lasting negative relationships with well-being as young people transition into early adulthood, suggesting that the period of emerging adulthood may actually be a negative phenomenon for those who choose to engage in risky behaviors such as criminal activity, underscoring the need to use a life-span
perspective in order to truly understand the benefits or risks of this new period of emerging adulthood.

**Risky Sexual Behavior**

As noted previously, sexual behavior has become a normative part of exploration for many emerging adults today but within the range of sexual behaviors that young people participate are behaviors that scholars have deemed as risky including unprotected sex and a high frequency of casual sexual encounters with different partners (Leftkowitz & Gillen, 2006). Given the risky nature of the behavior and its link concurrently with negative correlates (e.g., psychological distress; Fielder & Carey, 2010), it was expected that there might be lasting effects of the choice to engage in this behavior in the twenties. Indeed, results of the present study found that the number of non-committed sexual partners one had during emerging adulthood was linked with indices of maladjustment in one’s thirties (i.e., lower levels of relationship satisfaction and emotional health). These findings suggest that negative effects associated with risky sexual behavior (as measured by non-committed sexual partners) are not limited to emerging adulthood but rather extend into early adulthood with the potential to impact not only the individual oneself, but another (i.e., spouse, committed partner, etc.) indirectly via the influence if may have on relationship satisfaction.

**Video Games**

Although significant associations were found among many choices in emerging adulthood and adjustment or maladjustment during early adulthood, video game use was not significantly associated with any outcomes. Indeed, it was somewhat surprising that no links were found between video game use in emerging adulthood and indices of well-being in early adulthood given that past research has repeatedly found that higher levels of video game use in
emerging adulthood is linked to negative outcomes such as externalizing problems (e.g., greater drug use) and lower self-worth (Padilla-Walker et al., 2010). Hence, it was expected that the negative effects of spending large quantities of time on video games in the twenties would be associated with indices of maladjustment in the thirties. It is possible that playing video games is merely a hobby or emotional release for emerging adults and that this behavior does not directly impact later adult trajectories. It is also possible though that, given the link found in other studies between video game use and negative outcomes (e.g., Padilla-Walker et al., 2010), the lack of significant associations was due to measurement issues. It is also possible that the use of retrospective data led to issues of under-reporting as individuals do not recall spending as much time playing video games as they actually did. It should be noted though that not only were there no associations between video game use and negative outcomes, there were also no associations with positive outcomes. This is important because results of the current study suggest that well-being in the thirties in not only linked to the absence of bad choices but the presence of choices to engage in productive pursuits (e.g., volunteering). Hence, there may not be direct effects of video game use in emerging adulthood on indices of well-being in the thirties, but there may be indirect effects as extensive time spent playing video games may come at the expense of positive activities. In sum, future research should explore direct and indirect associations between video game use and indices of adjustment or maladjustment in the thirties using a more nuanced longitudinal measure.

**Biological Sex and Income**

It was also surprising that associations did not differ as a function of either biological sex or family income. As previous work suggests that those from a high socioeconomic background may have more choices available to them during emerging adulthood (Smith et al., 2015), it was
hypothesized that associations between behaviors and indices of adjustment or maladjustment would be stronger for this group. Additionally, current literature indicates that video games and risky sexual behavior influence males and females differently (Kennair, Wyckoff, Asao, Buss, & Bendixen, 2018; Padilla-Walker et al., 2010; Bendixen et al., 2017). Thus, it was hypothesized that associations would vary as a function of sex. However, analyses did not reveal any group differences. The lack of significant findings may indicate that, although the choices available to one may vary, positive and negative choices during emerging matter regardless of biological sex or socioeconomic status.

**Summary**

Taken together, this study contributes significantly to our understanding of the impact of emerging adulthood. Although many now agree that emerging adulthood is a distinct developmental period, little work has explored how this period is influencing later development. In other words, we know that this time is a distinct time in a young person’s life, but whether or not it is a positive period of life may be determined by the choices made by emerging adults. This study provides empirical support suggesting that decisions made during emerging adulthood are associated with adjustment or maladjustment as one begins adulthood and provides insight about the relative merits of specific choices (i.e., education, volunteering, criminal activity, video game use, and risky sexual behavior). Results revealed that education and volunteering are two choices that were linked to indices of adjustment while criminal activity and the number of non-committed sexual partners one had were associated with indices of maladjustment. Taken together, these findings suggest that the way young people use this time period matters and is associated with important outcomes during the next period of life.
Additionally, these findings suggest that it is not enough to simply avoid poor choices. Although avoiding risky behaviors may help young people avoid negative consequences, simply avoiding negative choices does not lead to flourishing. Indeed, engaging in growth-promoting choices, such as gaining secondary education and participating in volunteer experiences seems to be requisite to positive outcomes during early adulthood. Thus, in order to experience the best outcomes during early adulthood, one must realize not all choices are created equal during this decade of choices and that choices made during emerging adulthood are not temporally inconsequential.

**Limitations and Future Directions**

Although this study had a number of notable strengths such as a large, nationally representative sample, there were important limitations. First, measures of behaviors in emerging adulthood relied on retrospective reports and the accuracy of the data may, therefore, potentially be limited by recall errors. For example, something as salient as being arrested may be easily remembered, but attempting to recall just how many hours a week were spent playing video games may not be as easily, or accurately, remembered. Additionally, data may be skewed as individuals report what they would like to remember rather than what may have actually occurred. Longitudinal data is needed to more confidently understand the associations between choices made during emerging adulthood and adjustment during the thirties.

Additionally, although the measures used allowed me to see how many years a participant had engaged in a specific behavior, the measure was not nuanced enough to allow me to examine variance within each year. For example, those who engaged in a single, small-scale, low-cost volunteer experience were treated the same as those who may have spent the entire year in an intensive volunteer experience. Hence, it is particularly noteworthy that despite the use of
such an imprecise measure of volunteering so many positive associations were found between volunteering in the twenties and indices of well-being in early adulthood. Therefore, it would seem important that future work employ a more detailed measure that would allow an even better understanding of the true impact of volunteering. Future work should also include more detailed measures of the other emerging adult behaviors as this study raises intriguing possibilities that invite further, nuanced inquiry.

Finally, although I explored biological sex and income levels as possible moderators, there are a number of other important factors that may influence the relationship between choices during one’s twenties and subsequent adjustment or maladjustment. For example, although some choices may be seen as normal exploration by some (i.e., binge-drinking, non-committed sexual activity), particular cultural groups, including highly religious individuals, may view certain “exploratory” behaviors more negatively due to religious standards or cultural norms. Hence, the role of culture, including religion, should be considered as a possible moderator in future research.

Conclusion

Despite its limitations, this study makes several important contributions to the literature. Building on past work (for example, Hill & Bosick, 2017; Leftkowitz & Gillen, 2006; Nelson & Padilla-Walker, 2013) which examined associations between emerging adult behaviors and concurrent indices of adjustment or maladjustment, this study extended the lens, exploring relationships between choices during the twenties and indices of adjustment or maladjustment during the thirties. Although previous studies provide empirical support suggesting that choices made during this time period do have important consequences (Fielder & Carey, 2010; Pezzeca, 2009), they focused on concurrent outcomes. Hence, little was known about the long-term
impact of these choices. The results of the current study expand this work and contribute to our understanding of the lasting developmental impact of emerging adulthood by revealing that choices made during emerging adulthood are related to outcomes during the next developmental period, early adulthood. Though just a sampling of the plethora of available choices one might make during this third decade, these findings suggest that things individuals choose to engage in during these years may set them on a positive or negative trajectory as they transition into adulthood. Although only a starting point, this study opens the door and encourages future research to take a closer look at the effects of the way emerging adults choose to spend their time during the third decade of life as “what happens here stays here” does not appear to be true of the emerging adulthood years.
References


doi:10.1542/peds.2010-3710


Table 1. *Means, Standard Deviations, and Ranges, for Study Variables*

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<th>Variable</th>
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<th>Range</th>
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<td>0.28</td>
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<td>Regret</td>
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Table 2. *Bivariate Correlations Between Study Variables*

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<td>8. Hope</td>
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<td>9. Regret</td>
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*p < .05, **p < .01, ***p < .001*
**Figure 1.** Emerging Adult Behaviors and Outcomes During One’s Thirties

Note: Only standardized values are shown. Latent variable indicators, factor loadings, and error variances are not shown for parsimony.

Model fit: $X^2 (524) = 2177.065$, $p < .001$, CFI = .93, RMSEA = .05, TLI = .92

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