The Influence of Relationship Stability Patterns in Emerging Adulthood on Chronic Illness and Health Behaviors

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THEINFLUENCEOFRELATIONSHIPSTABILITYPATTERNSINEMERGINGADULTHOODONCHRONICILLNESSANDHEALTHBEHAVIORS

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Patricia N. E. Roberson [α], Jerika Norona [σ], Jennifer Bishop [ρ] & Deborah Welsh [ω]

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Method: Using mixed-method, participants' romantic relationship status was coded across five waves into types of relationship stability patterns. Then, using quantitative methods, we determined if relationship stability pattersn differed on self-reported measures of mental health (i.e., psychological distress), physical health (e.g., chronic illness, self-reported health), and health behaviors (e.g., sleep, binge drinking, smoking) using appropriate regression models (i.e., linear, Poisson, logistic).

Results: Participants (N = 694) were five relationship stability patterns were determined: *Stable Single* (42.6%), *Stable Committed* (2.5%), *Moving into Commitment* (34.2%), *Moving Out of Commitment* (3.9%), and *In and Out of Commitment* (16.9%). Linear regression analyses revealed that these relationship stability patterns differed on health outcomes, including mental health, self-reported physical health, and problematic health behaviors such as alcohol use.

Conclusions: Emerging adults in the *Moving Out of Commitment* group seemed to fair the worst compared to those in the *Stable Single* group across various mental and physical health problems, while those in the *Moving In And Out of Commitment* group only fared worse on problematic health behaviors.

I. Introduction

Emerging adulthood (ages 18 to 29; Arnett, 2015) is a developmental period during which young people transition from adolescence into adulthood. Arnett (2000, 2015) proposed that the primary goal of emerging adults is to establish their roles and responsibilities in the domains of love and work. Emerging adults thus strive to gain independence from their families of origin and behave autonomously, as well as create a coherent identity (Arnett, 2015). To add to this journey toward independence, emerging adults are also expected to establish long-term, committed romantic relationships. These tasks are not easy and can often be daunting for young people; indeed, novel experiences such as pursuing higher education, joining the military, joining the workforce, establishing a career, and forming intimate relationships are not small feats. Given the inherent stress of being in transition, it is important for researchers to better understand the factors that contribute to optimal health and well-being for emerging adults as they establish their roles in love and work. Relationship status (e.g., married, single) is linked to mental and physical health both among emerging adults and older adults with those in committed relationship experiencing improved health outcomes (e.g., Ditzen, Hoppmann, & Klumb, 2008; Kumar, Mohan, Ranjith, & Chandrasekaran, 2006). However, beyond this static, binary measure of relationship stability it is not known how different patterns of moving in and out of these static statuses effect outcomes. Specifically, for Emerging Adults, it appears that timing of transitioning into a committed may be liked to health outcomes (Roberson, Norona, Zorotovitch, & Dirnberger, in press) Therefore, using a nationally representative sample of emerging adults, the present longitudinal study examined patterns of relationship stability among emerging adults people between the ages of 17 and 27 and their links with mental and physical health outcomes.

II. Romantic Relationships in Emerging Adulthood

Much empirical attention has been given to romantic relationships in emerging adulthood because they contribute greatly to physical and mental health across the life course (Davila, 2004). Unlike in other developmental stages, emerging adults can take various trajectories toward adulthood in terms of their romantic relationships (Roberson et al., in press); although getting married during this life stage is somewhat uncommon (especially compared to decades ago), emerging adults might choose to cohabitate with their committed romantic partners (Stanley, Whitton, & Markman, 2004). Emerging adults also engage in romantic experiences outside the context of romantic

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relationships, which can include casual sex (Claxton &van Dulmen, 2013). Although romantic experiences can take different forms in emerging adulthood, forming a long-term, committed romantic relationship is reportedly a common goal for emerging adults by the time they turn 30 years old (Arnett, 2015). What is unknown is how relationship stability or instability might impact later health.

a) Relationship Stability

In investigating the factors that contribute to emerging adults' physical and mental health, it is important to consider the role of relationship stability. Previous research has established the link between quality of interpersonal relationships and health status which include psychological symptoms (e.g., depression, anxiety) and physical health conditions (e.g., number of chronic diseases, prescription medication, healthcare utilization) during adulthood (Priest & Woods, 2015; Wood, Miller, & Lehman, 2015; Woods, Priest, & Roush, 2014; Roberson et al., under review). Additionally, research with adult samples has consistently found a link between being involved in a romantic relationship, particularly being married, and subsequent positive physical and mental health outcomes (Ditzen et al., 2008; Kumar et al., 2006). However, for emerging adults, consistent associations are less clear.

For emerging adults, some studies show that being in a romantic relationships is related to an increase in symptoms of depression (Davila, Steinberg, Kachadourian, Cobb, &Fincham, 2004); in contrast, married and cohabiting emerging adults tend to exhibit fewer depressive symptoms compared to their single counterparts (Brainthwaite, Delevi, &Fincham, 2010; Galambos, Barker, &Krahn, 2006). *When* these relationships are formed during emerging adulthood is apparently important as those who experience romantic commitment early on during this life stage tend to show decreases in depressive symptoms as they age (Roberson et al., in press). These negative mental health outcomes can potentially affect other areas of life, including work and school (Mayseless & Keren, 2014). Because of the inconsistent findings on the association between romantic relationship status and mental and physical health outcomes in emerging adulthood, further research is needed to deepen our understanding of the factors that contribute to adaptive and maladaptive outcomes.

Emerging adults have been described as shifting in and out of romantic relationships (Shulman & Connolly, 2013) and a handful of studies have found different patterns of relationship instability during late adolescents and early emerging adulthood (Bajoghli et al., 2017; Boisvert & Poulin, 2016; Rauer, Pettit, Lansford, Bates, & Dodge, 2013). While these studies confirm that different patterns of relationship stability

exist they only examine precursors to these patterns. However, research has yet to examine how these shifts specifically affect physical and mental health outcomes for emerging adults. Because emerging adulthood is a stage during which young people are expected to explore and develop many types of romantic connections, relationship stability might not impact health in the same ways as it does among older adults. Further, because emerging adults are generally healthier due to their age, we might not see differences in the quality of their physical health. Rather, their health *behaviors* might be more accurate gauges of their health during this life stage and might predict health quality in middle and later life.

III. THE CURRENT STUDY

Using a recent sample of emerging adults, the present longitudinal study examined the link between relationship stability and emerging adults' mental health and physical health behaviors. This study extends previous research in a number of ways. The present study begins to fill the current gap in the literature regarding relationship instability and how it is related to health outcomes in emerging adulthood. Specifically, this study can shed light on either the utility or the detriment of relationship transitions over time and whether they contribute to mental health (aim 1) and physical health (aim 2).

Further, emerging adults are younger than most samples for which relationship status has been linked to health outcomes (mental and physical) and health behaviors established in young adulthood tend to extend into later years. Therefore, we also examine health behaviors that may *prevent* future health problems (e.g., exercise, doctor visits; aim 3), or be *problematic* for future health quality (e.g., binge drinking, drug use, poor sleep pattern; aim 4). Importantly, this study is the first step in understanding the relationship among relationship stability and mental and physical health outcomes.

IV. METHOD

a) Participants

Participants (N = 694) ranged in age from 17 to 19 in 2005 with an average age of 18 (*SD* = 0.79). 50% of the sample reported as men and 50% as women. Participants mostly identified as White (49%) or African-American (42%), and ≤1% identified as American Indian, Asian, Pacific Islander, or Other. When considering self-reported relationship status, in 2005, the majority reported being *Never Married, Not Cohabitating* (90%), followed by *Never Married, Cohabiting* (5%), *Married* (3%), and then *Separated*< 1%. In contrast, the majority of relationship statuses at follow-up in 2013 were still *Never Married, Not Cohabitating,* although a substantially smaller proportion

(53%), followed by *Married* (24%), *Never Married, Cohabiting* (18%), *Separated* (2%), *Divorced, Not Cohabiting* (2%), and then *Divorced, Cohabiting* (1%).

b) Procedures

Data in the present study were part of the Transition to Adulthood project, which is part of the larger ongoing Panel Study of Income Dynamics (Dynamics, 2016); this secondary data study is exempt from IRB approval. The PSID is a nationally representative sample of Americans and the longest running household study survey in the world. The Transition to Adulthood project (the present sample) participants are the grandchildren of the original PSID participants and were contacted once they turned 18 for biannual phone interviews. For the Transition to Adulthood data set, participants were eligible if their parents were part of the larger study, but only one sibling from each family was selected to participate in the next generation of the ongoing study.

The participants in the Transition to Adulthood project were assessed in 2005, 2007, 2009, 2011, and 2013. We limited the present sample to those ages 17-19 in 2005 in order to capture the approximate beginning of emerging adulthood and an approximate end of emerging adulthood in 2013 when participants' ages were 25-27.

c) Measures

i. Romantic Relationship Status

Romantic relationship stability types were coded from the marital/cohabitation status variable in 2005, 2007, 2009, 2011, and 2013. At each time point participants were coded by the PSID as (1) Never married, cohabiting; (2) Never married, not cohabiting; (3) Married, spouse present; (4) Married, spouse not present; (5) Separated; (6) Divorced, cohabiting; (7) Divorced, not cohabiting; (8) Widowed; (9) Not applicable, don't know.

ii. Mental Health

The mental health measure was developed by the PSID. This composite measure consisted of six items that assess psychological symptoms (e.g., *"How often did you feel nervous in the past month?"*), with responses ranging from 1 = all of the time to 5 = none of the time. Items were combined so that higher scores indicate more psychological distress ($M_{2005} = 5.33$, $SD_{2005} = 3.58$; $M_{2013} = 4.87$; $SD_{2013} = 3.74$).

iii. Physical Health Status

Number of chronic illness was assessed by, "Has a doctor or other health professional ever told you that you have or had…" (a) asthma, (b) diabetes or high blood sugar, (c) cancer, (d) high blood pressure, (e) other chronic disease. Response options included (0) no, (1) yes, (8) don't know, or (9) not applicable. Response were summed into the used variable ranging from 0 to 5; don't know and not applicable were coded

as missing. In 2005, 50% of participants reported having 0 chronic illnesses, followed by having 1 chronic illness (47%), 2 chronic illnesses (3%), and then 3 chronic illnesses (< 1%). In 2013, 54% of participants reported having 1 chronic illness, followed by having 0 chronic illnesses (42%), 2 chronic illnesses (4%), and then 3 chronic illnesses (1%).

Self-reported physical health was assessed by, *"Would you say your health in general is excellent, very good, good, fair, or poor?"* with response options of 1 = excellent to 5 = poor ($M_{2005} = 1.17$, $SD_{2005} = .92$; $M_{2013} = 1.20$, $SD_{2013} = .95$).

Body mass index (BMI) was calculated by the PSID. Participants were organized into 4 BMI groups (0) < 18.5, underweight; (1) 18.5 - 24.9, Normal; (2) 25.0 – 29.9, Overweight; (3) ≥ 30.0, Obese. In 2005, most participants were coded as having a normal BMI (57%), followed by overweight (26%), obese (13%), and then underweight (4%). In 2013, a smaller proportion were coded as having a normal BMI (42%), followed by overweight (30%), obese (25%), then underweight (2%).

iv. Health Behaviors

Average sleep was assessed by, "How many hours do you usually sleep in a 24-hour period?". Responses ranged from 1-18 hours ($M_{2005} = 7.54$, $SD_{2005} = 1.77$; $M_{2013} = 7.01$, $SD_{2013} = 1.38$).

Cigarette smoking was assessed by, "Do you smoke cigarettes"? with respondents reporting (0) no or (1) yes. Respondents reports of 'don't know' or 'refuse' were coded as missing. In 2005, 76.9% reported as non-smokers and in 2013, 78.5% reported as non-smokers. *Binge drinking* was assessed by, "In the last year, on how many days have you had (if male then 'five' / if female then 'four') or more drinks on one occasion?" Responses ranged from 0 to 365 days ($M_{2005} = 9.90$, $SD_{2005} = 33.64$, $Median_{2005} = 0$; $M_{2013} = 8.03$, $SD_{2013} = 25.41$, $Median_{2013} = 1$).

Total drug use was assessed by, "On how many occasions (if any) have you used _____ in the past 12 months": diet pills, amphetamines, marijuana, cocaine, barbiturates, tranquilizers, and steroids. We coded each as 0 (never used) or 1 (used at least once) then summed for a total number of drugs used which ranged from 0 to 3 ($M_{2005} = 1.25$, $SD_{2005} = 1.32$, $Median_{2005} = 1$; $M_{2013} = 1.29$, $SD_{2013} = 1.40$, $Median_{2013} = 1$).

d) Analytic Strategy

i. Relationship Stability Coding

For the first research question, we wanted to determine relationship stability patterns for emerging adults. Individual relationship stability patterns were coded based on participants' responses to the marital/cohabitation status variable across all time points. The relationship stability patterns were coded into pre-determined based on the research team's discussion and review of the literature (i.e., Bajoghli et

al., 2017; Boisverut & Poulin, 2015; Rauer et al., 2013): Stable, into relationship, out of relationship, in and out of relationship. Each participant's response across all time points was examined, and only those who responded to the question about relationship status at least three out of the five possible times received a code. In other words, some participants did not provide an answer about their relationship status at all five time points, but if they provided at least three answers, a pattern could be established and was coded.

ii. Health Outcomes

For the second research question, we sought to understand the effects of the relationship stability patterns on a number of outcomes relating to mental health, physical health, and health behaviors in 2013. For each of the outcome variables, we first examined bivariate association in SPSS. Depending on the type of variable (e.g., continuous, dichotomous, or count) we used different statistical tests. Namely, we used cross tabulations for the dichotomous outcomes and analysis of variance (ANOVA) for continuous or count outcomes. Next, we examined the same outcome variable in predictive regression models controlling for baseline levels of each variable, gender (male and female), age in 2005 (17, 18, and 19), and minority status (White and other). In the predictive models, the relationship stability patters were dummy coded so that the largest category was used as the reference group. For continuous outcomes variables, we use linear regression, for count outcome variables we used Poisson regression, and for dichotomous variables we used logistic regression. All predictive models were run in Mplus so that we could handle missing data using full information maximum likelihood. We examined the 95% confidence interval of each parameter and variance explained (R^2) of the predictive model, in addition to significance level, when evaluating the effect of the determined relationship stability patterns on health outcomes.

V. Results

a) Relationship stability patterns

The patterns of relationships stability for each participant was coded according to the pre-determined patterns. However, during the coding process, we determined that stable had two sub-categories, stable committed and stable single. Coding resulted in five relationship stability patterns: *Stable Single* (*n* = 260, 42.6%), *Stable Committed* (*n* = 15, 2.5%), *Moving into Commitment* (*n* = 209, 34.2%), *Moving Out of Commitment* (*n* = 24, 3.9%), and *Moving In and Out of Commitment* (*n* = 103, 14.8%). *Stable Single* and *Stable Committed* referred to participants who had the same relationship status across all time points. *Moving into Commitment* referred to one or more changes toward more commitment followed by stability. *Moving Out of*

Commitment referred to one or more changes out of commitment followed by stability. Finally, *In and Out of Commitment* referred to multiple changes in either direction of increasing or decreasing commitment. All participants included in the coding fit into one of the relationship stability patters. To establish reliability of the coding, a research assistant was trained to code responses based on the above descriptions. The second author and research assistant double-coded a random sample of 20% of the data (127 responses) and had excellent reliability (Cohen's kappa = .99).

b) Mental Health

Mental Health – Psychological Distress (MHPD). First, the ANOVA indicated the MHPD means were different across relationship stability patterns, $F(4, 419)$ = 2.69, $p < .05$. The post-hoc analysis (Bonferroni) indicated that only the *Moving into Commitment* pattern (*M* = 4.29, *SD* = 3.36) and the *Moving Out of Commitment* pattern (*M* = 7.21, *SD* = 3.56) were statistically different (see Table 1 for all means and standard deviations). To confirm these differences, we ran a predictive regression model which indicated that those in the *Moving Out of Commitment* pattern reported significantly more psychological distress (*B* = 2.34, *SE* = 1.05, $p < .05$) compared to the reference pattern, *Stable Single*.

Table 1: Regression parameters, 95% confidence interval, Means (Standard Deviations), and R2 of participants' (N= 694) for the mental health variables in 2013: Psychological Distress and Risky Behavior

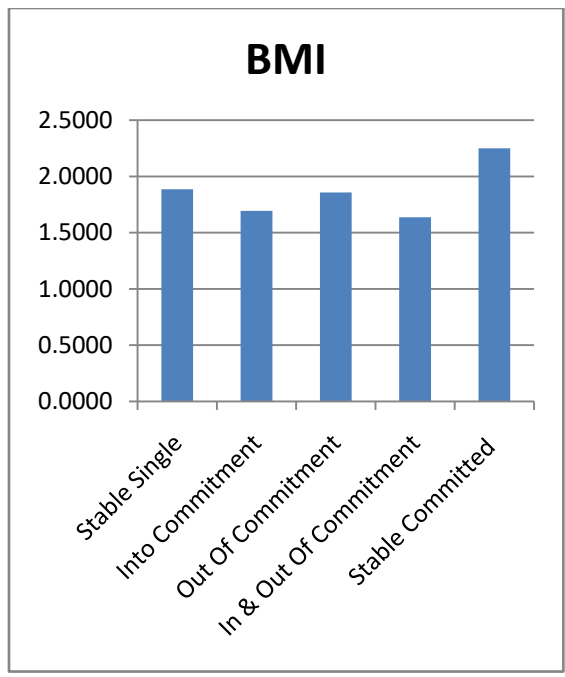|	M(SD)	B(SE)	β	95% CI	R^2	Test Statistic [a]
Model 1: Mental Health – Psychological Distress 2013 [a]						
Stable Single	4.95(3.74)	--	--	--		
Into Commitment	4.29(3.36)	-.72(.41)	-.09	-.18, .01		
Out Of Commitment	7.21(3.56)	2.34(1.05)*	.12	.02, .22	23.6%	☐(8) = 40.29, $p < .001$
In & Out Of Commitment	5.08(3.68)	-.10(.50)	-.01	-.10, .08		
Stable Committed	3.88(3.14)	-.98(1.52)	-.04	-.16, .08		
Mental Health – Psychological Distress 2005	--	.31(.35)**	.44	.30, .58		
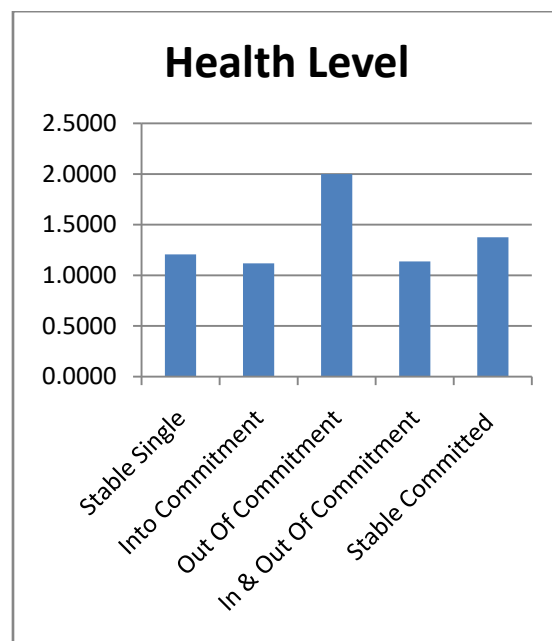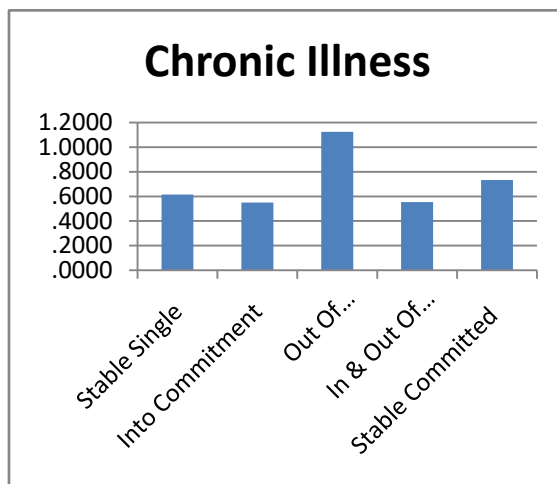
Figure 1: ANOVA for variables associated with current physical health condition in 2013

c) *Physical Health Status*

Number of chronic illnesses. The bivariate association (ANOVA) indicated differences among the relationship stability patterns, $F(4,606) = 5.04$, $p< .05$. Post-hoc analysis (Bonferroni) indicated that the *Stable Single* pattern ($M = .62$, $SD = .60$) was significantly different from the *Moving Out of Commitment* pattern ($M = .55$, $SD = .62$); the *Moving into Commitment* pattern ($M = .55$, $SD = .62$) was significantly different from *Moving Out of Commitment* pattern ($M = 1.12$, $SD = .80$); and the *Moving In and Out of Commitment* pattern ($M = .55$, $SD = .60$) was significantly different from *Moving Out of Commitment* pattern ($M = 1.12$, $SD = .80$). The predictive model (Poisson regression; Table 2) indicated that only emerging adults who *Move Out Of Commitment* have 60% more chronic illnesses compared to *Stable Single*.

d) *Self-reported physical health*

The ANOVA indicated mean differences among the relationship stability pattern, $F(4,419) = 3.04$, $p< .05$. When examining the Bonferroni post-hoc analysis, the *Moving Out of Commitment* pattern ($M = 2.00$, $SD = 1.36$) was statistically different from the *Stable Single* pattern ($M = 1.21$, $SD = .92$), the *Moving into Commitment* pattern ($M = 1.12$, $SD = .87$), and the *Moving In and Out of Commitment* pattern ($M = 1.14$, $SD = .92$). The predictive model (Table 2) indicated that that those *Moving Out of Commitment* report worse self-reported physical health ($B = .67$, $p< .05$) compared to the *Stable Single* pattern.

BMI. The bivariate association (ANOVA) indicated no mean differences among the patterns, $F(4,413) = 2.27$, $p = .06$. The predictive model (Table 2) confirmed these results.

Table 2: Means (standard deviations), Poisson/regression parameters, 95% confidence interval, and R2 (for linear regression) of participants' (N = 694) current health condition variables in 2013

	M(SD)	B(SE)	B^e	β(SE)	95% CI	R^2	Test Statistic
Model 1: Number of Chronic Illnesses 2013 [a]							
Stable Single	.62(.60)	--	--	--	--		
Into Commitment	.55(.62)	-.10(.08)	.91	--	.84, .98		
Out Of Commitment	1.12(.80)	.47(.17)**	1.60	--	1.50, 1.69	--	Logliklihood -3178.60
In & Out Of Commitment	.55(.60)	-.10(.10)	.90	--	.83, .97		
Stable Committed	.73(.56)	-.03(.20)	.97	--	.90, 1.04		
Number of Chronic Illnesses 2005	--	.42(.06)	1.52	--	1.43, 1.61		
Model 2: Self-reported health quality 2013 [b]							
Stable Single	1.21(.92)	--	--	--	--		
Into Commitment	1.12(.87)	-.07(.10)	--	-.04	-.14, .06		
Out Of Commitment	2.00(1.36)	.67(.26)*	--	.14	.03, .24	11.4%	$\chi^2 (8) = 40.66, p < .001$
In & Out Of Commitment	1.14(.92)	-.11(.13)	--	-.04	-.14, .05		
Stable Committed	1.38(1.30)	.09(.35)	--	.01	-.10, .13		
Self-report health quality 2005	--	.28(.06)**	--	.28	.17, .38		
Model 3: BMI 2013 [b]							
Stable Single	1.88(.89)	--	--	--	--		
Into Commitment	1.68(.79)	-.01(.08)	--	-.005(.04)	-.08, .07		
Out Of Commitment	1.86(1.03)	.16(.20)	--	.04(.05)	-.06, .14	47.4%	$\chi^2(8) = 173.06, p < .001$
In & Out Of Commitment	1.64(.80)	-.06(.09)	--	-.02(.04)	-.10, .06		
Stable Committed	2.25(.70)	.22(.34)	--	.04(.06)	-.08, .16		
BMI 2005		.74(.05)**	--	.66(.03)	.60, .72		

e)   Health Behaviors

Sleep: First the ANOVA indicated that there were no significant mean differences among the relationship stability patterns, $F(4,419) = .55, p = .70$. The predictive model (Table 3) confirmed this.

Smoking Status: The bivariate association (Chi-squared) indicated that there was a difference across relationship stability patterns. Post-hoc analysis of the adjusted residuals indicates that a significantly smaller proportion of those Moving into Commitment smoked (14.4%; $Z = -2.2$), while those Moving Out of Commitment smoked more (42.9%; $Z = 2.2$). The predictive model (logistic regression; Table 3) indicated that emerging adults Moving In and Out of Commitment were 35% more likely to smoke compared to those who were Stable Single (trending toward significance). Additionally, those Moving out of Commitment were 114% more likely to smoke compared to those who were Stable Single.

Binge Drinking: The bivariate association (ANOVA) indicated that there were no bivariate associations, $F(4,412) = .86, p = .49$. The predictive model (Poisson regression; Table 3) indicated that those Movinginto Commitment (80%) or Moving Out of Commitment (51%) were less likely to drink, but those Moving In and Out of Commitment (122%) were more likely to drink compared to emerging adults who were Stable Single.

Number of drugs used: The ANOVA indicated that there were no bivariate associations, $F(4,606) = 1.72, p = .14$. Results of the predictive model (Poisson regression; Table 3) indicated that those Moving into Commitment

(20%) and those Moving In and Out of Commitment used fewer drugs (19%; trending toward significant) compared to Stable Single.

Table 3: Logistic, Poisson, and linear regression parameters, 95% confidence interval, and R2 of participants' (N = 694) problematic health behavior variables in 2013: Total sleep, currently smoking, number of days binge drinking, number of drugs used

	M (SD)/ %	B(SE)	Bᵉ	β(SE)	95% CI	R²	Test Statistic
Model 1: Sleep 2013 [a]							
Stable Single	7.07(1.32)	--	--				
Into Commitment	6.96(7.29)	-.12(.15)	--	-.04	-.41,.17		
Out Of Commitment	7.36(1.90)	.26(.50)	--	-.04	-.72,1.24	2.7%	χ^2 (7) = 5.69, P = .58
In & Out Of Commitment	6.91(1.42)	-.15(.19)	--	-.04	.59,1.25		
Stable Committed	6.75(1.16)	-.29(.40)	--	-.03	-1.07,.49		
Sleep 2005	--	.10(.05)*	--	.13	.002,.20		
Model 2: Smoking 2013[b]							
Stable Single	40.0%	--	--	--			
Into Commitment	25.9%	-.25(.72)	.78	--	.19, 3.19		
Out Of Commitment	7.1%	.76(.35)*	2.14	--	1.08, 4.25	37.6%	χ^2 (8) = 122.86, $p<.001$
In & Out Of Commitment	24.7%	.30(.17)†	1.35	--	.97, 1.88		
Stable Committed	2.4%	.26(.49)	1.30	--	.50, 3.39		
Smoking 2005	--	1.39(.14)**	4.00	--	3.05, 5.28		
Model 3: Binge Drinking[c]							
Stable Single	1.21(1.40)	--	--	--			
Into Commitment	.97(1.30)	-.69(.32)*	.20	--	.27, .94		
Out Of Commitment	1.46(1.44)	-.71(.29)*	.49	--	.28, .87	--	Loglikelihood= -7785.30
In & Out Of Commitment	1.02(1.28)	.20(.36)	1.22	--	.60, 2.47		
Stable Committed	1.47(1.50)	-1.80(.60)*	.16	--	.05, .54		
Binge Drinking 2005	--	.02(.002)**	1.02	--	1.02, 1.02		
Model 4: Number of drugs used[c] (N = 611)							
Stable Single	10.34(34.32)	--	--	--			
Into Commitment	5.68(13.25)	-.22(.10)*	.80	--	.66, .98		
Out Of Commitment	6.23(12.40)	.13(.16)	1.14	--	.83, 1.56	--	Loglikelihood = -1874.79
In & Out Of Commitment	9.38(25.84)	-.21(.12)†	.81	--	.64, 1.02		
Stable Committed	1.25(2.76)	-.06(.25)	.94	--	.58, 1.54		
Number of drugs used 2005	--	.11(.04)**	1.11	--	1.03, 1.21		

VI. DISCUSSION

In this study, we sought to investigate different types of relationship stability patterns among emerging adults in the United States ages 17-29 [1] and how those stability patterns differed on health outcomes near the end of this period. After examining these results, four patterns emerged.

First, emerging adults in the *Moving out of Commitment* pattern seemed to fair the worst compared to those in the *Stable Single* pattern. Namely, that the *Moving Out of Commitment* pattern tended to report higher psychological distress, a higher number of chronic diseases, worse self-reported physical health, and were more likely to smoke (although also less likely to binge drink alcohol) compared to those in the reference relationship stability pattern. All in all, it appears that young people who start emerging adulthood in a committed relationship and end it not in a relationship fair worse in terms of psychological and physical health. However, we do not know the direction of association among these variables as previous research has found a bi-directional association among adults (Torvik, Gustavson, Røysamb, & Tambs, 2015).

Future research is needed to further disentangle the association between relationship quality, relationship stability, and health; however, the findings here make it clear that the patterns that exist in emerging adulthood are similar to those in middle and later adulthood.

The second pattern found that those in the *Moving In and Out of Commitment* pattern did not have any physical or mental health differences compared to the reference group, they were more likely to smoke and binge drink alcohol, but reported using a fewer number of drugs. Therefore, relationship instability during emerging adulthood may be more related to health behaviors than mental and physical health status. However, these health behaviors might be indicative of poorer health in middle and later adulthood (BURNS et al., 2008), but they might also be a function of a lifestyle often reported during this developmental period (e.g., casual sex; (Claxton & van Dulmen, 2013)). If these health behaviors change as individuals move out of this developmental period, their physical health in later adulthood might not be negatively impacted. Future research should examine the long reaching impact of health behaviors during this developmental stage.

The third pattern was that those in the *Moving into Commitment* pattern tended to fair better than the reference group, *Stable Single*. Specifically, this group tended to engage in less binge drink and take a fewer number of drugs. Interestingly, while they were not

significantly different on any physical health measures, they were less likely to engage in problematic health behaviors. Because of the decreased problematic behaviors, it is plausible to assume that those who move into commitment during emerging adulthood may also report improved physical health in middle and later adulthood, provided their health behavior patterns remain similar. We know that relationship distress across the life course causes a steeper decline in physical health (Umberson, Williams, Powers, Liu, & Needham, 2006), indicating that better relationship quality and stability are linked to better health outcomes. The fourth pattern was the disparity in health between those *Moving into Commitment* and those in the *Moving In and Out of Commitment* and those *Moving Out of Commitment*. A substantial body of literature points to the benefits marriage brings to adult physical health (Robles, Slatcher, Trombello, & McGinn, 2014; Schone & Weinick, 1998), particularly for men. The results of this study may point to when and how this disparity begins during the life course. As relationship stability pattern differ on multiple health outcomes, this developmental period may be when this health disparity starts and may be an ideal time to intervene with relationship type interventions, such as Relationship U (Hawkins et al., 2013). As to why this disparity occurs, some argue that the health disparity is partially because of a selection process, those who are healthier select into marriage/relationship commitment and those who are less healthy do not (Waldron, Hughes, & Brooks, 1996). This may be true as is evidenced by those who move out of commitment; however, this is a minority of individuals during emerging adulthood (3.4%). What we believe may explain the marital health disparity for a larger portion of the population is the reduction in problematic health behaviors for those choosing relationship commitment, which should be related to better physical health in middle and later adulthood. Therefore, it might be most effective to improve long-term relational and physical health by implementing brief prevention programs which focus on both characteristics of healthy relationships, as well as improvement of health behaviors during this emerging adulthood.

VII. Limitations/Future Research

This study is not without limitations. First, some of the outcome measures are limited in number of items measuring each construct and the variability of some measures. Therefore, results may not be generalizable to emerging adults with more problematic health and should be replicated with such a population. Second, some scholars point to emerging adulthood as lasting until the late 20s or early 30s. Therefore, the findings here may not be an accurate representation of all of emerging adulthood as they only extend to age 27.

Third, we only include self-report measures of health and do not include biological measures such as all static load which is linked to future health problems. While those measures were not available to us, future research should include these to better predict long term effects of relationship stability.

VIII. Conclusion

The findings of this study suggest that there are multiple patterns of relationship stability (or instability during Emerging Adulthood and that these patterns differentially impact subsequent mental health, physical health, and health behaviors. Namely, "*Moving out of Commitment*" is most problematic for health outcomes while "*Stable Single or Committed*" are less problematic for health. These finding can inform future integrative health programs to *target* types of stability patterns (rather than divorce in general) and potentially reduce health problems from manifesting or becoming exacerbated.

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