The Association between Mental Health and Relationship Progression

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Author Note

Kamp Dush is grateful for support for this research from the National Institute of Child Health and Human Development (NICHD) (1K01HD056238). This paper and its contents are solely the responsibility of the authors and do not necessarily represent the official views of NICHD. This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (http://www.cpc.unc.edu/addhealth). No direct support was received from grant P01-HD31921 for this analysis.

Abstract

Individuals with increased mental health symptoms may face greater obstacles to entering a long-term romantic relationship. Because of the health benefits of entering long-term, committed romantic relationships and progressing towards more committed states, it is important to examine obstacles faced by those with mental health problems. Depressive symptoms, substance use, and suicidal ideation were all used to indicate mental health problems. Poisson regression results indicated that mental health symptoms do not predict entrance into multiple unions; only suicidal ideation and substance use predict union entrance. Cox proportional hazard regression results find that any of the three indicators of mental health problems were predictive of entering a cohabiting union earlier in the life course. Results also indicated that individuals with mental health symptoms were more likely to transition into cohabiting unions; individuals using substances in adolescence were less likely to have married over the next ten years.

The Association between Mental Health and Relationship Processes

Romantic relationships provide many benefits for individual well-being, such as decreasing the likelihood that the individual will engage in risky behavior (Braithwaite, Delevi, & Fincham, 2010) and increasing the amount of social (e.g. Coombs, 1991) and emotional support (Frech & Williams, 2007). However, for those with increased mental health symptoms, there may be greater obstacles to entering into a long-term romantic relationship, maintaining that relationship, and eventually transitioning into more committed relationship states. Manning, Trella, Lyons, and du Toit (2010) suggested that women with mental health symptoms experienced increased obstacles within the marriage market and, once in a relationship, these symptoms challenged relationship stability. In this instance, mental health symptoms were seen as detrimental for the "marriageability" of these women; that is, women with mental health problems had a more difficult time entering into and sustaining intimate relationships. While Manning et al. (2010) alluded to the idea that mental health symptoms served as obstacles to entering into a long-term romantic relationship that may eventually transition into cohabitation or marriage, researchers have yet to test this association.

The social support hypothesis (Cohen & Wills, 1985) states that intimate relationships may act as a buffer against life stressors. Although those with mental health symptoms may face difficulties remaining in a current relationship and progressing toward more committed relationship states, they may also benefit the most from being in an intimate relationship. Indeed, Frech and Williams (2007) found that individuals with depressive symptoms experienced more psychological benefits after transitioning to marriage in comparison to those that were not depressed or those that remained unmarried. We examined the association between relationship progression and mental health symptoms during emerging adulthood. Understanding these

associations during emerging adulthood is critical because the formation and perpetuation of romantic relationships is a central task of this period of the life course (Furman & Shaffer, 2003).

Mental Health and Romantic Relationships

The Coyne (1967) interaction model states that the behavior and affect of individuals experiencing depressive symptoms negatively affects their intimate relationships and increases the probability of rejection. Experiencing rejection may then increase depressive symptoms, further creating a cycle in which an individual will have difficulty escaping. This cycle may lead to a decreased likelihood that an individual will remain in a long-term committed romantic relationship and an increased likelihood of relationship churning.

Mental Health and Romantic Relationship Quantity

When desiring a long-term relationship that may lead to marriage, as opposed to a short-term relationship, individuals have different expectations for their future partner (Stewart, Stinnett, & Rosenfeld, 2000). These expectations can pose a challenge to those with mental health symptoms because their mental health may be seen as a negative attribute (Manning et al., 2010). If an individual with mental health symptoms is able to enter a relationship, their relationship may be less successful, as research has shown that individuals with negative affect are more vulnerable to stress in their relationships (Beach & O'Leary, 1993; Tolpin, Cohen, Gunthert, & Farrehi, 2006) and experience decreased relationship quality (Frech & Williams, 2007; Remen & Chambless, 2001), which could lead to relationship dissolution. Therefore, individuals with mental health symptoms may cycle quickly through romantic relationships and engage in few long-term committed relationships.

Mental Health and Relationship Progression to More Committed States

Those with mental health symptoms may experience difficulty progressing towards more committed relationship states. Increased relationship commitment has been shown to lead to greater subjective well-being, even when controlling for the possibility that those high in subjective well-being select into more committed relationships (Kamp Dush & Amato, 2005), and transitioning specifically into marriage has been shown to improve mental health (Williams, 2003). The social exchange perspective (Nye, 1979) proposes that individual weigh the rewards and costs of prospective partners prior to progressing toward more committed relationship states. Even if an individual with mental health symptoms is able to successfully enter into a romantic relationship, the "cost" of their mental health status for their partner may prevent relationship progression.

Relationship Satisfaction as a Mediator

Once in a relationship, relationship satisfaction may act as a way through which those with mental health symptoms do not enter into more committed relationships. Indeed, Williams (2003) found that poor relationship quality negatively influences an individual's mental health among married couples, suggesting that it may be better to remain unmarried than in a poor-quality marriage. Actor-effects, or when an individual's mental health status directly affects their own level of relationship satisfaction, impact relationship satisfaction more strongly than partner effects, or when an individual's mental health status affects their partner's level of relationship satisfaction (Whisman, Uebelacker, & Weinstock, 2004). Increased levels of negative affect have been shown to predict relationship dissatisfaction (Remen & Chambless, 2001) and lower relationship quality for both partners (Frech & Williams, 2007).

Substance Use and Suicidal Ideation as Additional Indicators

While the current study utilizes self-reported depressive symptoms as indicators of poor mental health, men may exhibit reckless behavior when dealing with depression, thus substance use may be a more common indicator of mental health symptoms among men (Cochran & Rabinowitz, 2000). As depression in adolescence puts one at-risk for suicidal ideation (e.g. Kandel, Raveis, & Davies, 1991), we would expect that suicidal ideation may be an additional indicator of those with the most several mental health symptoms, and may act as a fundamental pathway through which those with mental health symptoms increase the frequency of romantic relationships. Therefore, we use both substance use and suicidal ideation as additional indicators in testing the association between mental health and the frequency of romantic relationships.

The following hypotheses were posited:

H1: Individuals with more mental health symptoms, that is higher depressed affect, suicidal ideation, and substance abuse, will have a greater number of romantic relationships than those with fewer mental health symptoms.

H2: Individuals with mental health symptoms will progress more slowly into unions, and will be more likely to transition into cohabiting unions, as compared to those with fewer mental health symptoms.

H3: The unions of individuals with fewer mental health symptoms will be less likely to dissolve as a union dissolution.

H4: Relationship satisfaction will mediate the association between mental health problems and union dissolution.

Method

Sample

The current study used the National Longitudinal Study of Adolescent Health (Add Health) data designed to examine the influences of the environment and individual characteristics on health (Harris et al., 2009). We use data from Waves 1, 3, and 4. Data was collected from adolescents nationwide during the 1994 to 1995 school year in 80 high schools and 52 middle schools; the schools were chosen using stratified, random sampling from all high schools in the United States. Subsequent waves were conducted in 1996, when the adolescents were in grades 8 through 12 (Wave 2); in 2001-2002, when the participants were 18 to 26 years old (Wave 3); and in 2008, when the participants were 24 to 32 years old (Wave 4; Harris et al., 2009). Out of the initial sample of 20,745 adolescents who completed in-home interviews in which mental health issues were assessed, the sample size was restricted to those that had completed Wave 3 (n=15, 197), those that had valid depressive symptoms at Waves 1 (15,193), and those who were not missing control data or weight variables (n=11,148).

Variables

Romantic Relationships. Add Health collected a variety of variables assessing relationship characteristics at Wave 3. Adolescents self-identified their relationships as romantic; the actual interpretation of what constituted a romantic relationship was left up to the individual. A count variable of the number of romantic relationships reported in the past 5 years was created from data at Wave 3 and was used as the outcome in Table 2.

Union entrance. In months, the timing from age 16 to first union was created. A cohabiting union was defined as neither the respondent nor the partner had a separate residence during the time they lived together. Month and year dates were recorded for all cohabiting and marital unions reported at Wave 3 and 4; using this data, we coded month and year of the first union, as well as the type.

Mental Health Symptoms. Mental health symptoms, defined as depressive symptoms, were measured at Waves 1. An abridged version of Radloff's (1977) Center for Epidemiological Studies Depression Scale (CES-D) was used. Participants were asked to indicate how often they had experienced emotions within the past seven days. The frequency of emotions experienced within the past seven days was coded 0 (*never*) to 4 (*every day*). Questions measuring instances of positive affect (i.e. In the past 7 days, I enjoyed life) were reverse scored, so that a higher score on the abridged CES-D scale was indicative of increased mental health symptoms.

Substance Use. Substance use was cumulative measure of smoking, drinking, and marijuana usage at Wave 1. Smoking was measured as reporting smoking at least one cigarette in the past 30 days; Cigarettes not consumed in their entirety were not included in smoking use. Drinking was measured as consuming five or more alcoholic beverage in a row in the past 12 months. Marijuana use was measured as using marijuana in the past 30 days. Substance use was then created by summing these variables and ranged from 0 (*no usage*) to 3 (*used all substances*).

Suicidal ideation. Suicidal ideation was measured at Wave 1 as During the past 12 months, did you ever seriously think about committing suicide, coded 0 (*no*) or 1 (*yes*).

Relationship Satisfaction. Questions relating to relationship satisfaction were measured at Wave 3 as How satisfied are you with your relationship, coded 0 (*very satisfied*) to 5 (*very dissatisfied*).

Control Variables. Race was measured at all Waves as White, Black, Hispanic, and other (Asian, American Indian). Nationality was measured as foreign born or not foreign born. Gender was measured as female or male. Family structure was measured as single-mother household, step-family household, nuclear family household, and other (e.g. Grandparent household).

Mother's education was measured as less than a high school degree, high school degree, some college, and college degree. Use of public assistance was measured as a dichotomous variable (whether or not an individual received any assistance).

Analysis Plan

We used both poisson regression models and a competing-risks Cox proportional hazards model to answer our research questions. For hypothesis 1, a poisson regression model predicted the number of romantic relationships in the past 5 years, reported at Wave 3, from mental health symptoms, substance use, suicidal ideation, and controls at Wave 1. Hypothesis 2 was tested with a competing-risks Cox proportional hazards model predicting entrance into either a (1) marital union or a (2) cohabiting union from mental health symptoms, substance use, suicidal ideation, and controls at Wave 1. Hypotheses 3 and 4 will be tested with Cox proportional hazards models prior to PAA 2012.

For Hypothesis 1, we used a poisson model because our dependent variable in this analysis is a count variable of the number of romantic relationships in the five years preceding Wave 3 data collection. For Hypothesis 2, we used a competing-risks Cox proportional hazard model. Individuals were censored at the Wave 4 interview date if they had never cohabited or married by Wave 4; for those missing at Wave 4, censoring occurred at the Wave 3 interview date if they had not reported marriage or cohabitation prior to that point.

Results

Due to the clustered nature of the Add Health sample, all statistics were run in Stata using the survey suite of commands which are able to adjust for the three levels of weights (individual, school, and region) in the Add Health sample.

Sample characteristics. The sample was predominately White, native born, and was living with their married, biological parents at the first wave (see Table 1). Men and women were represented equally within the sample. Most of the sample did not receive public assistance and the largest majority of the mothers received a high school degree.

Poisson regression model. Poisson regression models were run to examine whether mental health symptoms predicted more short-term romantic relationships. Mental health symptoms were not significantly related to the number of romantic relationships reported by Wave 3. However, substance use and suicidal ideation were both statistically significant. That is, for every 1 unit increase in substance use, the incidence rate of romantic relationships increased by 13%. Those adolescents who reported suicidal ideation had a 9% increase in the incidence of romantic relationships. Several control variables were also significant. Age, mother's education of less than a high school degree, public assistance, being from a single-parent household, being Hispanic or being foreign born all negatively predicted number of relationships. Having a mother with some college education, having a mother with completed college education, having a step-family household all significantly positively predicted number of relationships.

Competing-Risks Cox Regression Model. A competing-risks Cox proportional hazard regression model examined whether mental health symptoms were associated with the hazard of cohabitation and marriage (Table 3). Mediating variables and control variables were also included in the model. With all variables in the model, mental health symptoms were significantly associated with the hazard of cohabitating. Every one unit increase in mental health symptoms was associated with 1% increase in the hazard of entering into cohabitation. Suicidal ideation was also significantly associated with entering into cohabitation; for every one unit increase in suicidal ideation, the hazard of entering a cohabiting union increased by 15%. For

substance use, every one unit increase was associated with a 14% increase in the hazard of entering a cohabiting union. Mental health symptoms and suicidal ideation were not statistically significantly associated with the hazard of entering into a marriage. However, for every one unit increase in substance use, the hazard of entering marriage decreased by 28%.

Discussion

Individuals with mental health symptoms likely have a more difficult time maintaining romantic relationships (Manning et al., 2010); indeed, in support of our first hypothesis, we found that individuals who were suicidal and using substances "churned" through more romantic relationships than those without these mental health problems. Contrary to part of our second hypothesis that individuals with mental health problems would progress more slowly into unions, we found that individuals with any of the three indicators of mental health problems were more likely to enter a cohabiting union earlier in the life course. Consistent with part of our second hypothesis, we did find that individuals with mental health symptoms appeared to be more likely to transition into cohabiting unions, as compared to those with fewer mental health problems. Indeed, individuals using substances in adolescence were less likely to have married over the next ten years. Scholars (e.g. Sassler, 2004) have argued that the threshold to enter cohabitation is lower than that to enter marriage, so mental health problems may not be a barrier to entering cohabitating union as it appears to be for entering a marriage. Cohabitation may not even be perceived as an increase in commitment, but rather a step forward in the dating process (Stanley, Rhoades, & Markman, 2006).

For PAA, we also plan to examine the association between mental health problems and union duration, as well as the mediating role of relationship quality.

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Table 1. *Descriptive Statistics (N= 11,148)*

Variables	μ	SD	Range
Mental Health Symptoms	5.84	3.03	0-27
Suicidal Ideation	0.14	-	0-1
Substance Use	0.66	0.35	0-3
Control Variables			
Age	21.9	1.75	18-28
Female	0.54	-	0-1
Mother's Education			
Less than High School	0.17	-	0-1
High School		(omitted)	
Some college	0.21	-	0-1
College	0.29	-	0-1
Public Assistance	0.09	-	0-1
Household Structure		-	0-1
Two-Parent		(omitted)	
Single Parent	0.25	-	0-1
Step Family	0.14	-	0-1
Race			
White		(omitted)	
Black	0.18	-	0-1
Hispanic	0.16	-	0-1
Other	0.04	-	0-1
Foreign Born	0.08	-	0-1

Table 2. *Poisson Regression Analyses Predicting Amount of Romantic Relationships (N=11,148)*

Variables	*b*	*SE B*	*IRR*
Mental Health Symptoms	-0.00	0.00	1.00
Suicidal Ideation	0.13	0.02	1.14***
Substance Use	0.09	0.01	1.09***
Age	-0.03	0.00	0.97***
Female	-0.00	0.01	1.00
Mother's Education			
Less than High School	-0.06	0.02	0.94***
High School		(omitted)	
Some college	0.07	0.01	1.07***
College	0.10	0.01	1.11***
Public Assistance	-0.11	0.02	0.90***
Household Structure			
Two-Parent		(omitted)	
Single Parent	-0.03	0.01	1.03*
Step Family	0.06	0.01	1.06***
Race			
White		(omitted)	
Black	-0.02	0.01	0.98
Hispanic	-0.10	0.02	0.91***
Other	0.09	0.02	1.09***
Foreign Born	-0.14	0.02	0.87***
Constant	1.83	0.07	6.22***
χ^2	868.72		

* p<0.05, ** p<0.01, ***p<0.001

Table 3. *Competing-Risks Cox Regression Model of the Relationship Between Affect and the Hazard of Cohabiting and Marriage (N=10,525)*

	Cohabiting			Marriage		
Variables	*b*	*SE B*	exp[b]	*b*	*SE B*	exp[b]
Mental Health Symptoms	0.01	0.00	1.01***	0.01	0.01	1.01
Suicidal Ideation	0.15	0.03	1.16***	-0.03	0.09	0.97
Substance Use	0.14	0.01	1.15***	-0.28	0.03	0.76***
Female	0.19	0.02	1.21***	0.45	0.05	1.56***
Mother's Education						
Less than High School	0.15	0.03	1.16***	0.34	0.07	1.40***
High School		Omitted			Omitted	
Some college	-0.11	0.03	0.89***	0.01	0.07	1.01
College	-0.27	0.03	0.76***	-0.19	0.06	0.83**
Public Assistance	0.23	0.04	1.26***	0.30	0.09	1.35**
Household Structure						
Two-Parent		Omitted			Omitted	
Single Parent	0.32	0.03	1.37***	-0.28	0.07	0.75***
Step Family	0.33	0.03	1.39***	-0.09	0.08	0.92
Race						
White		Omitted			Omitted	
Black	-0.10	0.03	0.91***	-0.54	0.08	0.58***
Hispanic	-0.27	0.03	0.77***	0.05	0.07	1.05
Other	0.07	0.05	1.07	-0.33	0.14	0.72*
Foreign Born	-0.35	0.05	0.71***	0.07	0.08	1.07
χ^2	1024.63***			255.68***		

* p<0.05, ** p<0.01, *** p<0.001