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Romantic Relationship Quality as a Protective Factor Against Suicidal Ideation in Young Adulthood

Darla Marie Still

ROMANTIC RELATIONSHIP QUALITY AS A PROTECTIVE FACTOR AGAINST SUICIDAL IDEATION IN YOUNG ADULTHOOD

by

Darla Marie Still

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DEDICATION

For my grandmother, Nancy,
my source of stability and support since day one.

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ABSTRACT

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Sociological research on suicide often emphasizes Durkheim's notion that social integration provides protection against self-harm; however, research in medical sociology demonstrates that social relationships are not always beneficial to mental health. With this study, I use the National Longitudinal Study of Adolescent to Adult Health to examine how social integration via romantic relationships shapes suicidality in young adulthood. Interestingly, the mere presence of a romantic relationship is not protective against suicidal thoughts; for example, married or cohabiting individuals are no less likely to report suicide ideation than single individuals. However, men and women in high quality romantic relationships are less likely to report suicidal thoughts. Further, men and women are more likely to report having suicidal thoughts if they are unhappy with or less committed to their relationships. My findings suggest that social ties may protect or harm individuals' mental health depending on the qualities of the relationship.

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INTRODUCTION

The argument that strong social relationships, such as marriage, protect individuals against suicide has endured since Durkheim's (1897 [1951]) seminal monograph on suicide over a century ago (Gibbs 1969, 1982, 2000; Gibbs and Martin 1964). More recently, scholars have begun to question the idea that marriage is always beneficial to mental health (Kim and McKenry 2002; Ross 1995; Umberson, Thomeer, and Williams 2013; Williams 2003; Williams and Umberson 2004). Though some research has shown that people who are married have lower risks of suicidality (Cutright, Stack, and Fernquist 2007; Kposowa 2000), other research has shown that poor quality marriages can harm a person's health, mental health, and well-being (Umberson et al. 2006). Most research examining whether being married protects individuals from suicidal thoughts, attempts or even suicide death fails to consider whether the marriage was high quality or low quality. This is an important omission, as a poor quality marriage could actually do more harm than having no marriage at all.

With this study, I use longitudinal data from the National Longitudinal Study of Adolescent to Adult Health to elaborate our sociological understanding of how social integration via romantic relationships shapes suicide ideation in young adulthood. To do this, I address several important gaps in the literature. The first gap I address with this study concerns a common criticism of research on the effect of romantic relationships on mental health and suicidality: individuals who have better mental health prior to the formation of their romantic attachment may be more likely to form romantic relationships than individuals with poorer mental health. Thus, any observed lower risk of suicide ideation among individuals in romantic relationships may simply be a product of these individuals' better mental health prior to the relationship. To assess this potential, I

evaluate the effect of mental health in adolescence on romantic relationship formation in young adulthood. Specifically, I examine whether individuals who were suicidal in adolescence were also less likely to be in a romantic relationship in young adulthood. I also examine whether there are any disparities in the type of relationship they may form in young adulthood (e.g., marriage versus dating versus single). My second contribution to knowledge examines whether different relationship types are more protective than others. Prior literature has emphasized marriages versus all other relationship categories (see Ross 1995). With the rising incidence of cohabitation among young adults (Horwitz and White 1998), this is a problematic comparison. Having a romantic partner, whether that person is a spouse, girl/boyfriend or cohabiting partner, may be more important than whether the partnership is defined by legal marriage. The third major gap in the literature that this study addresses is that research on the protective effects of romantic relationships on suicide fails to consider whether the quality of the relationship conditions its ability to be protective against suicide. With this study I ask whether simply the existence of a relationship, such as marriage, is adequate to protect an individual against suicide ideation, or must the quality of the relationship be positive for protection to ensue? Finally, because research has consistently shown that men benefit more than women from the protective effects of a marriage (Rendall et al. 2011; Umberson 1992; Umberson et al. 2013; Waite 1995; Waite and Gallagher 2000), I consider whether gender differences exist in the effect of romantic relationships on suicidality.

THE SOCIOLOGY OF SUICIDE

Durkheim

The study of how social relationships influence suicide has received considerable attention since the founding of sociology because of Durkheim's early and seminal

sociological study *Suicide* (1897 [1951]). Durkheim found that the social integration and moral regulation provided by membership in social groups (like religious groups or families) are protective against suicide. Social integration refers to the social relations gained from membership in a social group that bind members to the group and to each other. These relationships provide social support, including emotional support (Bearman 1991; Pescosolido and Georgianna 1989). Group membership also includes exposure to a shared belief system that places consistent normative constraints and moral demands on members, thereby providing cultural directives and monitoring the behaviors of members. This moral regulation guides the actions and behaviors of group members, even as individuals interact in situations outside of their group. Having a community (social integration) with clear belief systems (moral regulation) provides individuals with comfort and security that in turn protects them from suicide.

According to Durkheim (1897 [1951]), integration includes the institution of marriage. He concluded that rates of suicide vary inversely with the degree of marital integration in the society. The basic notion is that a marriage provides an individual with a sense of support not available to nonmarried individuals (Kposowa 2000; Ross, Mirowsky, and Goldsteen 1990). Moreover, an individual who is married is likely to be more integrated into society as a marriage acts as a link or a tie to other groups through the partner. The assumption of the Durkheimian model is that an individual who is married is likely to have more support than a nonmarried individual. This notion has guided much research examining the association between marital status and suicide rates. For instance, research on suicide consistently finds that marital status is a protective factor (Corcoran and Nagar 2010; Cutright et al. 2007; Gibbs 1969, 1982, 2000; Gibbs

and Martin 1964; Stack 2000; Stack and Wasserman 1993; Yeh et al. 2008), but also that it is more protective for men. Cutright and Fernquist (2007) further complicate the role of marriage in protecting against suicide with their study that finds that a marriage is more protective against suicide when marriage is normative for that population. For example, individuals who marry young, when the majority of their age group is unmarried, receive less protective benefits than they would if they were part of an age group where the majority are married. This suggests that marriage must be normative to be protective.

In a recent elaboration of Durkheim's theory, Abrutyn and Mueller (2014) argue that an individual's risk of suicidal behavior is increased when a strong social tie exhibits suicidal behaviors. This argument suggests that not all social ties are beneficial and protective. This is important and implies that the quality of a social tie is essential in protecting an individual against suicide. In the next section, I turn to research on relationships, relationship quality and physical and mental health in order to elaborate how relationships may both protect or place individuals at risk of suicidality in young adulthood.

RELATIONSHIPS AND PHYSICAL AND MENTAL HEALTH

Though Durkheim clearly argued that marriage should protect against suicide, a larger literature has examined how romantic relationships protect mental and physical health more broadly. In this section, I first review existing research on relationship status and health. Then, I review the existing research on relationship quality and health.

Relationship Status and Physical and Mental Health

Researchers have identified profound differences in health status and behaviors by marital status. For example, mortality rates are lower for married individuals (Rendall et al. 2011; Umberson 1987, 1992; Waite 1995; Waite and Gallagher 2000). Research has

offered several explanations for this mortality difference. One explanation is that married individuals are less likely to engage in risky health behaviors (Koball et al. 2010; Umberson 1987; Wood, Goesling, and Avellar 2007), such as drinking excessively or abusing substances (Umberson 1987). Another explanation for the mortality difference is that some spouses may monitor their spouse's health (Umberson 1992). For example, Umberson argues that unmarried individuals are more likely to engage in negative health behaviors because they do not have a spouse who controls and monitors their health. Additionally, others argue that the protective benefits of marriage are derived from the social support one receives from the relationship (Durkheim 1897 [1951]; Gove, Hughes, and Style 1983; Koball et al. 2010; Waite 1995; Waite and Gallagher 2000), which ultimately promotes health and wellbeing. Some argue that the societal implications of what it means to be married provides a sense of purpose and meaning in an individual's life, in turn strengthening an individual's sense of self (Durkheim 1897 [1951]; Marks 1996), thus promoting health. One limitation to much of this research is that it often compares married individuals to unmarried individuals, generally lumping widowed, divorced, separated, cohabiting, dating, and single in one heterogeneous reference category. Thus, it is possible that married individuals do not have an advantage over individuals who are dating or cohabiting. With this study, I examine whether this is true for the case of suicide ideation in early adulthood.

Some exceptions to this general limitation of combining all unmarried individuals into one category are worth reviewing. Not only do married individuals live longer than others, they report better overall health than nonmarried individuals (Koball et al. 2010; Lee, Seccombe, and Shehan 1991; Soons and Liefbroer 2008; Williams and Umberson

2004). Soons and Liefbroer (2008) find that in comparison to single, dating, and cohabiting young adults, married individuals report the highest levels of well-being. They argue this difference may be explained in part by the personal, material, economic or social resources married individuals are assumed to have. Their study points out that it is important to measure the differences within the legally "unmarried" and "never married" categories (see also Kamp Dush and Amato 2005), especially among young adults because other romantic relationship statuses may be normative or common (steady dating or unmarried cohabiting). They posit that in some cases cohabiting or steady dating individuals have just as much social support via their relationship as married individuals. With this study, I follow this suggestion by comparing a variety of romantic relationships to marriages to capture this dynamic among young adults.

Not only has marriage been shown to promote physical health, marriage also has a significant impact on mental health. Prior research examines how marriage promotes the mental health of individuals by comparing differences across marital statuses (Brown 2000; Gove 1972; Gove et al. 1983; Gove and Tudor 1973; Simon and Barrett 2010). Gove et al. (1983) find that marital status is a stronger determinant of mental health in comparison to education, age, race, and childhood background. This means that an individual's mental health is more likely to be determined by their relationship with another person, instead of by their individual characteristics. Other research finds that nonmarital romantic relationships are more important for mental health in early adulthood (Simon and Barrett 2010). Thus, marriage may not be beneficial across different stages of the life course (e.g., Uecker 2012). Simon and Barrett (2010) find that romantic involvement during early adulthood is associated with fewer depressive

symptoms. Conversely, Brown (2000) finds that cohabitors report higher levels of depression than their married counterparts. This study will contribute to this ongoing debate by examining whether romantic relationship status is protective against suicide in early adulthood, a stage when marriage is perhaps not as normative as later in the life course but romantic relationships, even semi-permanent ones, are common.

Relationship Quality and Physical and Mental Health

Although research consistently finds that marriage promotes physical and mental health, research also finds that the qualities of a marriage are a factor in the promotion of physical health and mental health. Research finds that increases in reported marital quality affect an increase in self-rated health (Miller et al. 2013; Proulx and Snyder-Rivas 2013; Ren 1997). Using longitudinal data following married individuals over 20 years, Miller et al. (2013) find that those who consistently report higher levels of marital satisfaction, also report better health. They also find that as marital quality increases over time, physical health improves. Yet, their overall results suggest that positive and negative aspects of marital quality affect health. High quality marital relationships also lead to better health through reducing diseases associated with inflamed biomarkers such as C-reactive protein and interleukin-6, common indicators of heart disease, cancer, and other diseases (Donoho, Crimmins, and Seeman 2013).

Though good marriages can have a positive effect on health, other research finds that poor marital quality is detrimental to health across the life course (Hawkins and Booth 2005; Miller et al. 2013; Umberson et al. 2005, 2006). For example, Umberson et al. (2006) find that although self-rated health tends to decline over the life course for the population as a whole, marital strain often accelerates that process. Poor quality

marriages or poor quality romantic relationships have serious effects on an individual's health trajectory. Williams and Umberson (2004) argue that marriage is a complex system involving rewards and strains. Their research suggests marriages may not be beneficial for all persons at all times across the life course (see also Frech and Williams 2007).

The quality of a romantic relationship also affects an individual's mental health. For example, research shows that marital quality not only affects overall well-being (Proulx, Helms, and Buehler 2007), it also serves as protective barrier from engaging in risky health behaviors, such as substance abuse (Fleming, White, and Catalano 2010). High quality marriages also promote the mental health of an individual by providing emotional support, which in turn reduces depression and anxiety (Mirowsky and Ross 2003). This research often assumes that other romantic relationships do not offer the same level of emotional support as marriages. Although high quality romantic relationships may promote the individual's mental health, research finds that low quality relationships, signified by intimate partner violence, increase depressive symptoms in young adulthood (Johnson et al. 2014). Other research finds that these low quality relationships interact with depressive symptoms over time, thus creating a relationship between relationship quality and depression (Gustavson et al. 2012). This means that as relationship quality decreases, depressive symptoms increase. Marital distress is also associated with a wide range of psychiatric disorders including depression, anxiety, and substance use disorders (Kessler et al. 2005; Whisman 2007). Research that has examined the effects of relationship quality on mental health has not yet investigated its effects on suicidality. With this study I plan to address that gap in the literature.

Gender Differences in Relationships and Physical and Mental Health

Men and women experience social relationships through a gendered lens. This is particularly evident in research concerning the gender differences of romantic relationships and health. The idea that a marital union encompasses two separate marriages, his and hers (Bernard 1982), has gained much attention (and criticism) from scholars in the field of marriage and family. Bernard's main argument was that for men, marriage brought better health, power, and satisfaction; meanwhile for women, marriage brought stress, dissatisfaction, and loss of self. Research does in fact identify gender differences in the benefits of heterosexual marriage. Research finds that in comparison to single men, married men are less likely to engage in risky behaviors (Umberson 1987; Waite 1995). Because single men as a group are more likely to lead unhealthy lives, the health benefit of marriage is stronger for men than women (Waite and Gallagher 2000). Umberson (1992) argues that when men enter a marriage, their health behaviors are likely to be controlled by their wives. She finds that compared to single men, married men are more likely to report having someone who monitors their health. In contrast, she finds that married women report similarly to single women. Others argue that gender is what ultimately shapes the social experience of marriage, in turn shaping health (Ferree 2010; Moen 2001; Waite and Gallagher 2000). These suggest that a marriage, or romantic relationship, may provide accountability and support in the form of health monitoring by a spouse/partner.

Why does early research suggest that women are harmed by a marriage? Bernard's (1982) initial study focused solely on depression, and she argues that women are warped by entering a marriage. This meant that for women, a marriage was

emotionally taxing. For example, the labor women perform in the home, including house care and childcare responsibilities (in addition to work outside of the home), often called the "second shift" (Hochschild 1989), tends to not only affect couples and cause marital tension, but it may create additional emotional stress for the woman. Gove (1972) attributes the gender differences in mental health outcomes to sex roles, i.e. the gender stereotyped roles men and women enact during a marriage as compared to being single. Of course, understanding how relationship quality affects the link between gender and the benefits of marriage may improve our understanding of these issues. Bernard's research assumes that for women, marriages are low quality and provide little benefits. While research finds that women are more likely to report depression than men (Kessler et al. 2005; Waite and Gallagher 2000), recent research suggests that women tend to conceal their depression from their husbands (Thomeer, Umberson, and Pudrovska 2013). To examine whether the roles of romantic relationships and the qualities of romantic relationships differ for men and women, I will stratify all models by gender.

To summarize, with this study I contribute to existing research by examining how romantic relationships affect suicidality among young adults. Specifically, I add to existing research on suicidal behaviors by first examining the role adolescent suicidality may play on romantic relationship formation in young adulthood. Second, I consider how relationship status affects the risk of suicidal thoughts. I also examine how low quality relationships may increase the risk of suicidal ideation. Last, I investigate how gender plays a role in these processes.

METHODS

Data

This study employs data collected in the National Longitudinal Study of Adolescent to Adult Health (Add Health). Add Health is a longitudinal study consisting of a nationally-representative sample of adolescents from 132 different middle and high schools in 80 different communities, which have been followed from the 7th through 12th grade and into young adulthood. Researchers selected a nationally-representative sample of high schools, all of which contained an eleventh grade, utilizing a school-based cluster sampling design. The sample was randomly selected and stratified by region, urbanicity, school type, ethnic composition, and size. For each Add Health high school, a feeder school (a school containing a 7th grade and sending graduates to the selected high school) was also selected.

From the chosen high schools, Add Health selected a nationally representative sample of adolescents. The preliminary in-school surveys were administered to all students of Add Health schools between September 1994 and April 1995 (N=90,118). Of those students, a nationally representative subsample was selected to participate in in-home interviews (Wave I, N=20,745) that took place between April 1994 and December 1995. After the first wave of data were collected, a second wave occurred in 1996 following up with adolescents of the first wave through in-home interviews (Wave II, N=14,738). From July 2001 to April 2002, a third wave of in-home interviews took place (Wave III, N=15,197). The fourth wave of in-home interviews with the original sample of adolescents occurred fourteen years after the original interviews conducted in 1994 and 1995. At the time of Wave IV, 2007-2008, respondents (Wave IV, N=15,701) ranged in age from 24 to 32. For all waves, data were collected by interviewers and self-

administered audio through computer-assisted self-interviewing (CASI) technology. CASI was used for the collection of information that was deemed sensitive such as suicide ideation. Add Health provides particularly rich information to examine the relationship quality in early adulthood with regards to various aspects.

This study uses public-use data from Waves I and IV of Add Health (N=6,885). These data are a smaller, random and representative sample of respondents from the in-home interviews; however, this subset contains all of the same variables as the restricted use. The public-use data are de-identified, lacking the ID numbers of friends, siblings, and partners, so that the data cannot be linked. Additional information about Add Health can be found at http://www.cpc.unc.edu/projects/addhealth and in Harris et al. (2009).

Sample

To obtain my final analytic sample size, I use list-wise deletion. Due to the complex sampling frame of Add Health, I use normalized sample weights in each model. To normalize the sample weights, I computed a new weight variable by dividing the sample weight by its mean (GSWGT4_2/4304.66). Respondents who did not have valid values on the sample weight GSWGT4_2 and primary sampling unit CLUSTER2 were eliminated from my analytic sample. Additionally, because I am using information from Wave I to address selection effects in Wave IV, I also confine my analyses to respondents who participated in both Wave I and Wave IV. All models only include individuals who have a valid response on all independent and dependent variables. Finally, to address my specific analytic goals (which I discuss in detail below), I impose several plan-specific sample restrictions. My first analytic sample, which I use to examine whether adolescent suicidality shapes romantic relationship formation in young adulthood, involves all

individuals with valid responses on my variables (N=4,248). My second analytic sample is similar to my first in that it includes all individuals with valid responses on my variables (N=4,307). Finally, my third analytic sample, which I use to examine the protective effects of romantic relationships and relationship qualities, is restricted to individuals currently in a romantic relationship (N=3,391). Table 1 presents the unweighted frequencies and weighted proportions or means of all variables used in the analyses. The sample size in Table 1 includes individuals are not currently in romantic relationships (N=4,307).

Analytic Strategy

With this study I have four specific research goals. The first goal of my research is to determine whether prior adolescent suicidality shapes romantic relationship formation in early adulthood to assess whether the protective (or harmful) effects of marriage on suicide ideation are caused by selection into romantic relationships. My second goal is to examine differences between different relationship statuses (married, cohabiting, dating, and single) in their ability to protect individuals from suicide ideation. My final and third goal is to assess the role of relationship quality in protecting individuals from suicide ideation. As such, I have three separate analytic plans and analytic samples that allow me to address my three research goals. In the next sections, I discuss these plans in detail. My fourth research goal is to identify any gender differences in my first three research goals; as such, I estimate all models separately by gender.

Analytic Plan 1

To analyze the role that adolescent suicidal ideation plays in sorting individuals into romantic relationships, I first analyze how prior suicidality is associated with adult

relationship formation, which addresses my first research goal. I begin by analyzing the effect of suicidality in adolescence at Wave I on relationship status in young adulthood at Wave IV. As previously mentioned, I estimate all models separately by gender to address my fourth research goal. I use binary logistic regression to estimate the first model predicting whether or not an individual is in a romantic relationship at Wave IV. I estimate the second model by using multinomial logistic regression to determine if Wave I suicidality affects what type of romantic relationship is formed at Wave IV. Due to limitations in the procedure for multinomial logistic regression in SAS, the complex sampling frame of Add Health cannot be accounted for; however, these models are weighted by the normalized grand sample weight (GSWGT4_2).

Measures for Analytic Plan 1

Dependent variable: relationship formation.

The first dependent variable for my first analytic plan captures how individual characteristics and Wave I suicidality shape relationship formation at Wave IV. Respondents were asked to select the type of relationship they currently have with their partner which I used to code their current relationship status (H4TR13). Responses include, "marriage," "cohabitation," "pregnancy," "current dating," and "most recent." Because it is not clear whether a pregnancy relationship is specifically romantic, I do not include respondents who are in a pregnancy relationship in my analytic sample. From the responses, I include respondents who are currently married, cohabiting, dating, or currently single (most recent). I created a dichotomous measure of whether or not the respondent is in a current romantic relationship (married, cohabiting, or dating=1 versus single=0) at Wave IV. Those who report "most recent," which indicates they are

currently single/not in a current relationship, are included and coded as 0 for "does not have a relationship."

Dependent variable: relationship type.

The second dependent variable for my first analytic plan is a categorical measure indicating whether individuals are married, cohabiting, dating, or single. This is coded 1 for "married," 2 for "cohabiting," 3 for "dating," and 4 for "currently single." For these analyses, "currently single" is the reference group.

Independent variable: adolescent suicidal ideation.

During the in-home interview of Wave I, respondents were asked by CASI technology, "During the past 12 months, have you ever seriously thought about committing suicide?" This is coded 1 for "yes" and 0 for "no." Respondents recorded their answers on a laptop so that the interviewer could not see their answer. The use of this technology should increase accuracy in responses. This variable was also asked at Wave IV and I use the Wave IV version (coded identically) as a dependent variable in my next analytic plan.

Demographic variables.

All models across all analytic plans include control variables for the respondent's sex, race, age, education, children, and employment status. Sex is measured from the interviewer's observation of the respondent's biological sex. Race categories include Non-Hispanic White (reference group), Non-Hispanic Black, Hispanic, and Non-Hispanic Other Race. Age is computed from the reported birth month and birth year. Categories for the respondent's education level are no college, some college, Bachelor's degree (reference group), and greater than a Bachelor's degree. A dichotomous measure

of whether or not the respondent has children is included. Employment status is a dichotomous measure coded from whether or not the respondent works 10 or more hours a week or if the respondent is in the military.

Analytic Plan 2

Once I determine the role adolescent suicidality plays in adult relationship formation, I move to address my second research goal which is to examine the differences between different relationship statuses in their ability to protect individuals from suicide ideation. To do this, I analyze the effect of romantic relationship status on suicidality at Wave IV using binary logistic regression. In an attempt to limit the effect of selection into a romantic relationship, the sample controls for three additional measures: suicidal ideation at Wave I, suicide attempt at Wave I, and diagnosed depression at Wave IV. I estimate this model by gender which also addresses my fourth research goal. For this model, I hypothesize that marriage will be protective against suicidal ideation in comparison to other relationship statuses (H1). I also hypothesize that these results will differ by gender (H5).

Measures for Analytic Plan 2

Dependent variable: suicidal ideation.

Suicidal ideation at Wave IV was measured in the exact same way as Wave I.

Independent variable: relationship status.

Using the same variable I use for relationship formation in the first analytic plan (H4TR13), I create dichotomous measures for each relationship status (married, cohabiting, dating, and currently single) and exclude pregnancy relationships. For these analyses, currently single is the reference group.

Control variables.

In an attempt to address the effect of selection into a romantic relationship, Analytic Plans 2 and 3 include additional control variables. These models include reported suicidal ideation and suicide attempt at Wave I. Wave I suicide attempts are asked in the same manner through CASI technology, "During the past 12 months, how many times have you actually attempted suicide?" Finally, all models include diagnosed depression at Wave IV. At Wave IV, respondents are asked, "Has a doctor, nurse or other health care provider ever told you that you have or had depression?" Respondents who answered "yes" are coded "1" on a dichotomous indicator of diagnosed depression.

Analytic Plan 3

To analyze the effects of romantic relationship quality of suicidality at Wave IV effectively, it is important to use multiple measures which capture several aspects of the relationship. To address my third research goal, I estimate four binary logistic regression models. I also estimate all models by gender which addresses my fourth research goal. In the first model, I use the romantic relationship quality index as a primary factor predicting suicidality at Wave IV. I hypothesize that the overall quality of a relationship will be more of a protective factor than the relationship itself (H2). In the next two models, I assess relationship happiness and relationship commitment level separately. In these models, I hypothesize that relationship happiness will outweigh the protective effects of relationship status and be more of a protective factor than the relationship commitment level (H3). Finally, in my last model, I assess the relationship quality index individually with relationship happiness and relationship commitment level. For this model, I hypothesize that relationship quality will be the most protective factor against

suicidality in comparison to relationship status, relationship happiness, and relationship commitment level, as it a robust and exhaustive measure (H4). For all models listed, I hypothesize that the results will differ by gender (H5).

Measures for Analytic Plan 3

Dependent variable: suicidal ideation.

This analytic plan uses the same dependent variable as the second analytic plan – reported suicidal ideation at Wave IV, which is measured the same way as in Wave I (described in the first analytic plan).

Independent variable: relationship status.

The measure is the same as variable used and described in my second analytic plan.

Independent variable: relationship quality.

Respondents were asked questions to describe their relationship in detail. For respondents who report having two or more partners in the same category, the longer relationship is selected. If two relationships are equal in duration, the respondent selects which partner they care about more. A series of questions from this section were used to create an index of relationship quality (Johnson and Galambos 2014). Respondents answered from "Strongly Agree" to "Strongly Disagree" on a five point Likert scale to the following statements: "We (enjoy/enjoyed) doing even ordinary day-to-day things together." "I (am/was) satisfied with the way we handle our problems and disagreements." "I (am/was) satisfied with the way we handle family finances." "My partner (listens/listened) to me when I need someone to talk to." "My partner (expresses/expressed) love and affection to me." "I (am/was) satisfied with our sex life."

"I (trust/trusted) my partner to be faithful to me." Only respondents who have valid responses on all items of the index are included in the sample. The relationship quality index ranges from 7 to 35, where a higher value indicates a higher quality relationship. The index has a Cronbach's Alpha of 0.89.

Independent variable: relationship happiness.

For happiness in the relationship, respondents were asked, "In general, how happy are you in your relationship with { initials }?" Possible responses included "Not too happy," "Fairly happy," and "Very happy." For the purposes of analysis, each response was recoded to create a dichotomous measure. For these analyses, the highest category "very happy," is the reference group because it is the largest category.

Independent variable: relationship commitment level.

For level of commitment to their relationship, respondents were asked, "How committed are you to your relationship with { initials }?' Possible responses included "Not at all committed," "Somewhat committed," "Very committed," and "Completely committed." In this analysis, "Somewhat committed" was combined with "Not at all committed," to create a measure of "Not committed." For the purposes of analysis, each response was recoded to create a dichotomous measure. For these analyses, the highest category, "completely committed," is the reference group because it is the largest category.

To assess the effects relationship quality has on suicidal thoughts in early adulthood via my three analytic plans, I estimate all models using the SAS 9.0 Survey Logistic Procedure (An 2002). This procedure takes into account the complex sampling frame of Add Health. All models using this procedure are weighted by the primary

sampling unit (CLUSTER2) and the normalized sample weight (GSWGT4_2) to account for sample design (oversampled populations) and attrition. In my analyses, I use nested logistic regression models stratified by gender to assess the effects of relationship quality on suicide ideation in early adulthood. Each model includes appropriate demographic and control variables.

Table 1: Descriptive Statistics for Variables Used in Analyses

Table 1. Descriptive Statistics for Variables Used in Analyses

Variable	Unweighted N		Weighted Proportion/ Mean	
	Men	Women	Men	Women
N	1968	2339	0.505	0.495
Dependent Variable				
Reported Suicidal Ideation at Wave IV				
Yes	118	170	0.062	0.075
No	1850	2169	0.938	0.925
Independent Variables				
Relationship Status				
Currently Married	740	1090	0.386	0.478
Currently Cohabiting	401	465	0.198	0.200
Currently Dating	370	299	0.179	0.122
Currently Single, not in a Relationship	432	434	0.227	0.179
Elements of Relationship Quality				
Happiness				
Not Too Happy	84	140	0.045	0.056
Fairly Happy	414	442	0.199	0.185
Very Happy	1030	1312	0.527	0.575
Level of Commitment				
Not Committed	276	240	0.131	0.094
Very Committed	311	282	0.150	0.122
Completely Committed	940	1374	0.489	0.600
Relationship Quality Index	---	---	28.544	28.495
			(5.689)	(5.677)
Demographic Variables				
Race				
White, Non-Hispanic	1189	1389	0.671	0.677
Black, Non-Hispanic	456	588	0.160	0.163
Hispanic	204	232	0.111	0.108
Other Race, Non-Hispanic	119	130	0.058	0.052
Education				
No College	792	693	0.423	0.310
Some College	659	822	0.321	0.365
Bachelor's Degree	323	480	0.161	0.197
> Bachelor's Degree	194	344	0.094	0.128
Age at Wave IV				
Range: 24 to 33	---	---	28.441	28.252
			(1.950)	(1.705)
Has Children				
Yes	863	1364	0.443	0.596
No	1105	975	0.557	0.404
Employment Status				
Yes	1656	1658	0.842	0.702
No	312	681	0.158	0.298
Diagnosed Depression				
Yes	208	530	0.115	0.240
No	1760	1809	0.885	0.760
Reported Suicidal Ideation at Wave I				
Yes	207	386	0.108	0.168
No	1761	1953	0.892	0.832
Reported Suicide Attempt at Wave I				
Yes	47	118	0.024	0.053
No	1921	2221	0.976	0.947

Note: Standard deviations are in parentheses.
Source: The National Longitudinal Study of Adolescent to Adult Health

RESULTS

Relationship Formation at Wave IV

To begin my investigation of the effects romantic relationship quality has on suicidality in Wave IV, I first examine the role adolescent suicidality plays on adult romantic relationship formation. These analyses address the potential that young adults with better mental health may be sorting into romantic attachments.

Wave I suicidality predicting the presence of a romantic relationship.

First, I ran a binary logistic regression model predicting the presence of a romantic relationship at Wave IV. This model includes control variables and suicidality at Wave I. Table 2 presents the odds ratios from this analysis. For men, suicidal ideation at Wave I does not predict the presence of a romantic relationship Wave IV. For women, suicidality at Wave I also does not predict the presence of a romantic relationship Wave IV. Suicidality at Wave I does not predict the presence of a romantic relationship at Wave IV for neither men nor women. Next, I turn to examining whether suicidality at Wave I predicts the type of romantic relationship at Wave IV.

Table 2: Odds Ratios from Logistic Regression Models Predicting the Presence of a Romantic Relationship at Wave IV

	Men				Women			
Independent Variable	O.R.	95 % CI		Sig.	O.R.	95 % CI		Sig.
Suicidal Ideation at Wave I	1.026	0.697	1.509		1.153	0.776	1.714	
Race								
White, Non-Hispanic	---	---	---		---	---	---	
Black, Non-Hispanic	0.703	0.479	1.031	*	0.536	0.408	0.703	***
Hispanic	1.070	0.660	1.734		0.980	0.695	1.383	
Other Race, Non-Hispanic	0.706	0.438	1.137		1.838	0.962	3.512	
Education								
No College	0.588	0.389	0.890	*	0.472	0.330	0.675	***
Some College	0.693	0.442	1.086		0.457	0.318	0.657	***
Bachelor's Degree	---	---	---		---	---	---	
> Bachelor's Degree	0.996	0.625	1.588		0.723	0.495	1.055	
Age at Wave IV	1.004	0.933	1.080		1.026	0.949	1.110	
Has Children	3.476	2.633	4.589	***	3.615	2.709	4.823	***
Employed	2.043	1.506	2.772	***	1.254	0.965	1.631	
-2 Log Likelihood	2167.031				1861.833			
Response Profile (n=1/n=0)	1514/439				1857/438			
N	1953				2295			

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

Wave I suicidality predicting the type of romantic relationship.

To address whether adolescent suicidality sorts individuals into a romantic relationships in adulthood further, I ran a multinomial logistic regression. These models examine whether or not having reported suicidal ideation at Wave I predicts the type of romantic relationship at Wave IV. Tables 3 and 4 present the results of this analysis.

Looking at odds ratios from the multinomial regressions presented in Table 3, no significant associations between suicidality at Wave I and any relationship status (versus being single) appear for men.

Table 3: Odds Ratios from Multinomial Logistic Regression Models Predicting the type of Romantic Relationship at Wave IV for Men

	Men					
	Married vs. Single		Cohabiting vs. Single		Dating vs. Single	
	O.R.	Sig.	O.R.	Sig.	O.R.	Sig.
Independent Variable						
Suicidal Ideation at Wave I	1.117		1.103		0.823	
Race						
White, Non-Hispanic	---		---		---	
Black, Non-Hispanic	0.380	***	0.890		1.220	
Hispanic	0.843		0.978		1.551	*
Other Race, Non-Hispanic	0.589		0.848		0.776	
Education						
No College	0.527	***	0.782		0.511	***
Some College	0.580	**	0.841		0.717	
Bachelor's Degree	---		---		---	
> Bachelor's Degree	1.224		0.901		0.797	
Age at Wave IV	1.112	**	0.896	**	0.972	
Has Children	7.703	***	2.290	***	0.767	
Employed	2.696	***	1.517	*	1.991	***
N	1953					

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

Turning to the odds ratios for women from my multinomial logistic regressions presented in Table 4, similar to men, women who were suicidal in adolescence are not significantly different from women who were not suicidal in adolescence in terms of their likelihood of forming a romantic relationship (compared to being single) in young adulthood. Thus, having serious suicidal thoughts in adolescence at Wave I does not predict whether an individual is married, cohabiting, dating, or single, for men or for women.

Table 4: Odds Ratios from Multinomial Logistic Regression Models Predicting the type of Romantic Relationship at Wave IV for Women

	Women					
	Married vs. Single		Cohabiting vs. Single		Dating vs. Single	
	O.R.	Sig.	O.R.	Sig.	O.R.	Sig.
Independent Variable						
Suicidal Ideation at Wave I	1.171		1.163		1.088	
Race						
White, Non-Hispanic	---		---		---	
Black, Non-Hispanic	0.260	***	0.848		1.281	
Hispanic	0.820		1.243		1.207	
Other Race, Non-Hispanic	1.441		2.188	*	2.583	*
Education						
No College	0.301	***	0.901		0.508	**
Some College	0.296	***	0.863		0.473	**
Bachelor's Degree	---		---		---	
> Bachelor's Degree	0.785		0.440	**	0.870	
Age at Wave IV	1.123	**	0.945		0.916	
Has Children	8.063	***	1.998	***	1.053	
Employed	1.088		1.539	**	1.496	*
N	2295					

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

Summary of analyses.

For all models analyzing the issue of selection into stable romantic relationships based suicidality at Wave I, the results rendered no significant associations between Wave I suicidality and either the presence of a romantic relationship or the type of romantic relationship. That is, having serious suicidal thoughts in adolescence at Wave I does not predict whether an individual is in a romantic relationship nor whether they are married, cohabiting or dating for men or for women in young adulthood. This suggests that any positive or negative associations I may find between relationship status and quality and mental health are likely not spurious. However, to ensure that I have done all

possible to control for selection into romantic relationships, I control for Wave I suicidality, Wave I suicide attempts, and diagnosed depression at Wave IV in my subsequent analyses examining the effects of relationship status, romantic relationship quality, relationship happiness, and relationship commitment level on suicidality at Wave IV in young adulthood. This allows me to in part account for a potential spurious association between the presence of a romantic relationship and better mental health, due to sorting into romantic relationships in young adulthood.

Suicidal Ideation at Wave IV

In the following analyses, I first examine the effects relationship status has suicidal ideation at Wave IV for young adults to assess my second research goal. This model (Table 5) includes individuals who are not currently in a romantic relationship (N=4,307). Then I examine the effects of romantic relationship quality net of relationship status on suicidality in models (Tables 6 through 9) that only include young adults currently in a romantic relationship (N=3,391) (my third research goal).

Relationship status.

Table 5 presents the odds ratios from binary logistic regressions predicting suicidal ideation for men and women at Wave IV. Recall that the sample in Table 5 includes individuals who are currently single in addition to those currently in a romantic relationship for the purposes of examining the effect of relationship status on Wave IV suicidality (N=4,307). Looking at the odds ratios for men in Table 5, men who are currently in a romantic relationship of any type are not significantly more protected from suicidal ideation at Wave IV than men who are single. This finding does not confirm my first hypothesis (H1) and is counter to previous research which suggests that marriage is

protective against suicidality. It could be that in young adulthood marriage is not protective because it is not as normative as in later stages of the life course.

Looking at the odds ratios for women in Table 5, women who are currently in any type of romantic relationship are no more protected from suicidal ideation at Wave IV than women who are single. Again, this finding is does not confirm my first hypothesis (H1) and is counter to previous research which suggests that marriage is protective against suicidality. The results of this analysis suggest that relationship status is not protective against suicidal ideation in Wave IV among a sample of young adults who did not report suicidality at Wave I. Also, none of these results differed by gender, which does not confirm my last hypothesis (H5) or previous research suggesting that marriage is not only protective, but more so for men.

Table 5: Odds Ratios from Logistic Regression Models Predicting Suicide Ideation at Wave IV in Early Adulthood

	Men				Women			
Independent Variable	O.R.	95 % CI		Sig.	O.R.	95 % CI		Sig.
Relationship Status								
Currently Married	0.664	0.349	1.261		0.711	0.445	1.135	
Currently Cohabiting	0.740	0.371	1.475		0.840	0.501	1.410	
Currently Dating	0.666	0.344	1.290		0.860	0.461	1.605	
Currently Single	---	---	---		---	---	---	
Race								
White, Non-Hispanic	---	---	---		---	---	---	
Black, Non-Hispanic	0.484	0.225	1.040		1.594	1.020	2.490	*
Hispanic	0.720	0.362	1.432		1.003	0.540	1.863	
Other Race, Non-Hispanic	1.472	0.566	3.832		1.619	0.755	3.471	
Education								
No College	1.413	0.590	3.383		0.943	0.510	1.744	
Some College	1.199	0.498	2.887		0.888	0.479	1.645	
Bachelor's Degree	---	---	---		---	---	---	
> Bachelor's Degree	1.138	0.309	4.195		0.565	0.251	1.274	
Age at Wave IV	0.959	0.847	1.087		0.989	0.888	1.101	
Has Children	1.348	0.784	2.318		0.660	0.423	1.030	
Employed	0.579	0.317	1.055		0.935	0.645	1.356	
Suicidal Ideation at Wave I	2.997	1.784	5.036	***	3.317	2.140	5.142	***
Suicide Attempt at Wave I	1.381	0.497	3.838		1.126	0.565	2.244	
Diagnosed Depression	4.599	2.763	7.655	***	3.844	2.474	5.973	***
-2 Log Likelihood	872.906				993.491			
Response Profile (n=1/n=0)	118/1850				170/2169			
N	1968				2339			

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

Relationship quality index.

Next I turn to my analysis of relationship quality. In the following analyses, my sample is restricted to individuals involved in a romantic relationship (N=3,391). Table 6 presents the logistic coefficients and odds ratios from binary logistic regressions predicting suicidality for young adult men and women currently in a romantic relationship at Wave IV. Men with higher quality relationships are significantly less

likely to report suicide ideation, net of other variables (Table 6, $p < .001$). This finding is consistent with my second hypothesis (H2), which suggests that the quality of the social tie matters when it comes to protecting against suicidal ideation. Because relationship quality is measured as an index, this means that as the reported overall quality of a romantic relationship for men increases, the likelihood for men to report suicidal thoughts at Wave IV decreases. From this model in Table 6, I calculated the predicted probabilities for suicidal ideation at the 25th, 50th, and 75th percentile values of the relationship quality index for men. The index of romantic relationship quality ranges in possible values from 7 to 35. The reported percentile values for men are 26, 30, and 33 respectively. All predicted probabilities in this paper are calculated using the following formula:

$$\pi(x) = \exp(\alpha + \beta x)/[1+ \exp(\alpha + \beta x)]$$

The predicted probabilities are plotted in Figure 1 at each percentile value of relationship quality for men. As relationship quality increases, the probability for suicidal ideation decreases for men. Specifically, on the one hand, a man who has a relationship quality value of 33 at the 75^{th} percentile has a 0.014 probability to report suicidal ideation at Wave IV. On the other hand, a man who has a relationship quality value of 26 at the 25^{th} percentile has a 0.030 probability of reporting suicidality at Wave IV. Though these predicted probabilities are low – suicide ideation is a rare event after all – there is a significant effect of relationship quality on suicidal ideation ($p < .001$).

Looking at the logistic coefficient for relationship quality for women in Table 6, women with higher quality relationships are significantly less likely to report suicide

ideation, net of other variables ($p < .001$). Like men, this finding is consistent with my second hypothesis (H2), which suggests that the quality of the social tie outweighs the presence of the tie itself when it comes to protecting against suicidal ideation. Because relationship quality is measured as an index, this means that as the reported overall quality of a romantic relationship for women increases, the likelihood for women to report suicidal thoughts at Wave IV decreases.

From this model in Table 6, I calculated the predicted probabilities for suicidal ideation at the 25th, 50th, and 75th percentile values of the relationship quality index for women. The index of romantic relationship quality ranges in possible values from 7 to 35. The reported percentile values for women are 26, 30, and 33 respectively. The predicted probabilities are plotted in Figure 1 at each percentile value of relationship quality for women. As relationship quality increases, the probability for suicidal ideation decreases for women. Specifically, a woman who has a relationship quality value of 33 at the 75^{th} percentile has a 0.014 probability to report suicidal ideation at Wave IV. Conversely, a woman who has a relationship quality value of 26 at the 25^{th} percentile has a 0.026 probability of reporting suicidality at Wave IV. Again, though these predicted probabilities are low, there remains a significant effect of relationship quality on suicidal ideation ($p < .001$). Counter to my last hypothesis (H5), there are no gender differences in the analyses examining the effect of relationship quality on reported suicidal ideation at Wave IV between men and women. It is also worth noting that in Table 6, what type of relationship one has – marriage, cohabiting, or dating – does not seem to matter for either men or women. No group is significantly different in terms of their likelihood of

reporting suicide ideation than the reference group. This provides some evidence that the quality of social ties may matter more than the presence of the social relationship.

In the next series of models, I examine the effects of other elements of relationship quality, namely happiness and commitment, on suicidality at Wave IV.

Table 6: Logistic Coefficients and Odds Ratios from Logistic Regression Models Predicting Suicide Ideation among Adults Currently in Romantic Relationships at Wave IV

	Men						Women					
Independent Variable	O.R.	95 % CI		Coeff.	S.E.	Sig.	O.R.	95 % CI		Coeff.	S.E.	Sig.
Relationship Status												
Currently Married	1.029	0.500	2.116	0.028	0.368		0.962	0.546	1.696	-0.039	0.289	
Currently Cohabiting	1.069	0.483	2.363	0.066	0.405		1.093	0.618	1.934	0.089	0.291	
Currently Dating	---	---	---	---	---		---	---	---	---	---	
Relationship Quality Index	0.895	0.856	0.936	-0.111	0.023	***	0.914	0.883	0.946	-0.090	0.018	***
Race												
White, Non-Hispanic	---	---	---	---	---		---	---	---	---	---	
Black, Non-Hispanic	0.308	0.105	0.900	-1.179	0.548	*	1.915	1.085	3.378	0.650	0.290	*
Hispanic	0.529	0.234	1.194	-0.637	0.415		1.095	0.584	2.053	0.091	0.321	
Other Race, Non-Hispanic	1.367	0.404	4.622	0.312	0.622		1.635	0.590	4.533	0.492	0.520	
Education												
No College	1.606	0.621	4.151	0.474	0.485		1.033	0.475	2.246	0.032	0.397	
Some College	1.099	0.392	3.080	0.094	0.526		0.847	0.359	1.996	-0.166	0.437	
Bachelor's Degree	---	---	---	---	---		---	---	---	---	---	
> Bachelor's Degree	0.622	0.167	2.319	-0.475	0.672		0.810	0.324	2.026	-0.210	0.467	
Age at Wave IV	0.979	0.841	1.139	-0.022	0.077		1.020	0.905	1.150	0.020	0.061	
Has Children	1.057	0.581	1.922	0.055	0.305		0.547	0.299	1.000	-0.604	0.308	*
Employed	0.399	0.171	0.929	-0.919	0.432	*	0.838	0.530	1.323	-0.177	0.233	
Suicidal Ideation at Wave I	2.126	1.031	4.383	0.754	0.369	*	3.126	1.924	5.076	1.140	0.247	***
Suicide Attempt at Wave I	1.077	0.263	4.418	0.074	0.720		1.080	0.459	2.542	0.077	0.437	
Diagnosed Depression	6.545	3.446	12.429	1.879	0.327	***	4.217	2.609	6.816	1.439	0.245	***
-2 Log Likelihood	558.982						707.891					
Response Profile (n=1/n=0)	81/1430						120/1760					
N	1511						1880					

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

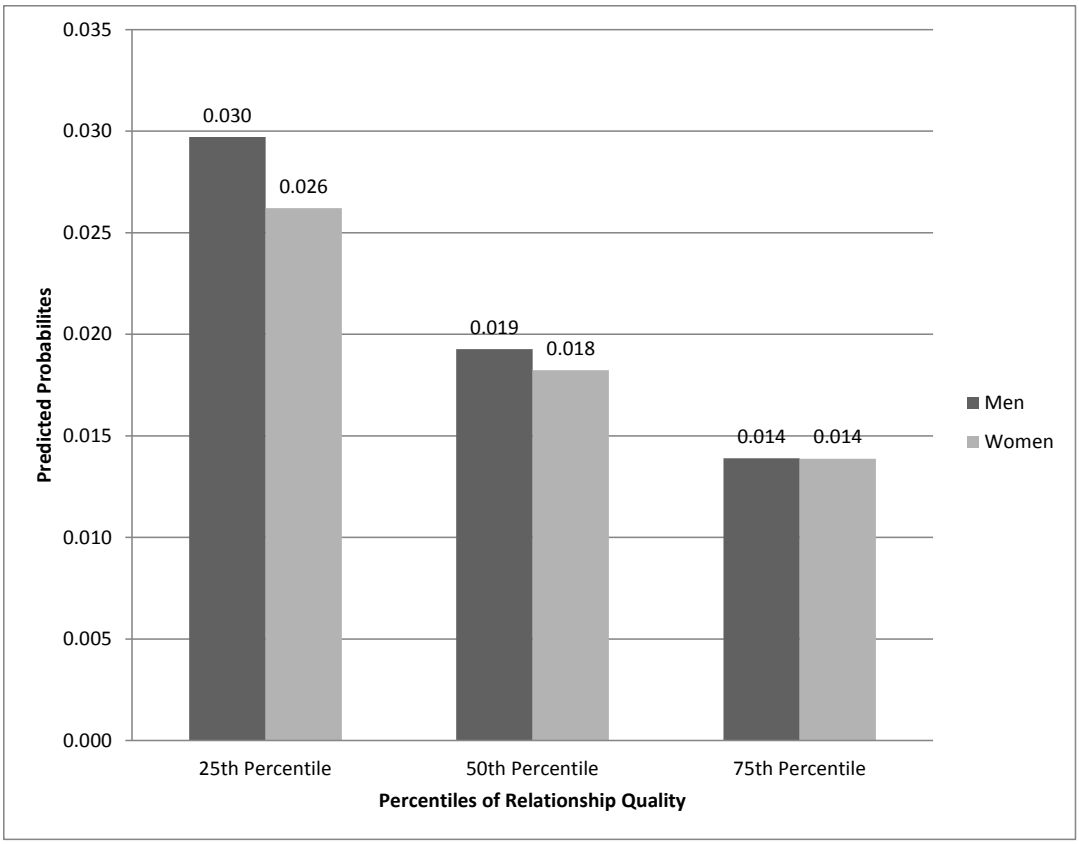

Figure 1: Predicted Probabilities Calculating the Effect of Relationship Quality on Suicide Ideation by Gender

Relationship happiness and relationship commitment level.

In the next three models, I examine the effects of relationship happiness and relationship commitment on suicidal ideation among young adults at Wave IV. Table 7 presents the odds ratios from binary logistic regressions predicting suicidality for young adult men and women currently in a romantic relationship at Wave IV with relationship happiness as a predictor. Men who are fairly happy with their relationships are on average 2.637 times more likely to report suicidal ideation at Wave IV than men who are very happy with their relationships ($p < .01$). Additionally, men who are not happy with their relationships are on average 4.04 times more likely to report having serious suicidal

thoughts at Wave IV than men who are very happy with their relationships ($p < .001$). Again, it is interesting to note, that relationship type is not significantly associated with suicide ideation. These results provide support for my third hypothesis (H3) in that relationship happiness is more of a protective element than relationship status. For women, like men, both measures of happiness are significantly associated with reported suicidal ideations at Wave IV net of all other variables. Women who report they are not happy with their relationships are 5.282 times more likely to report contemplating suicide at Wave IV than women who report they are very happy with their relationships ($p < .001$); whereas women who report they are fairly happy with their relationships are 2.296 times more likely to report suicidal ideation than women who report they are very happy at Wave IV ($p < .01$). These findings do not indicate any differences between men and women, thus I find no support for my last hypothesis (H5). These results suggest that relationship happiness is protective for both men and women.

Table 7: Odds Ratios from Logistic Regression Models Predicting Suicide Ideation among Adults Currently in Romantic Relationships at Wave IV

	Men				Women			
Independent Variable	O.R.	95 % CI		Sig.	O.R.	95 % CI		Sig.
Relationship Status								
Currently Married	1.311	0.605	2.840		1.133	0.595	2.157	
Currently Cohabiting	1.226	0.556	2.703		1.206	0.670	2.168	
Currently Dating	---	---	---		---	---	---	
Elements of Relationship Quality								
Happiness								
Not Happy	4.040	1.794	9.099	***	5.282	2.744	10.164	***
Fairly Happy	2.637	1.450	4.796	**	2.296	1.265	4.166	**
Very Happy	---	---	---		---	---	---	
Race								
White, Non-Hispanic	---	---	---		---	---	---	
Black, Non-Hispanic	0.309	0.105	0.904	*	1.829	1.028	3.255	*
Hispanic	0.589	0.249	1.393		1.258	0.667	2.373	
Other Race, Non-Hispanic	1.390	0.429	4.510		1.713	0.622	4.717	
Education								
No College	1.717	0.661	4.460		1.091	0.510	2.333	
Some College	1.174	0.417	3.304		0.873	0.378	2.014	
Bachelor's Degree	---	---	---		---	---	---	
> Bachelor's Degree	0.651	0.182	2.328		0.820	0.334	2.012	
Age at Wave IV	0.985	0.838	1.157		1.014	0.900	1.143	
Has Children	1.062	0.573	1.969		0.530	0.300	0.938	*
Employed	0.475	0.208	1.081		0.808	0.512	1.276	
Suicidal Ideation at Wave I	2.033	0.960	4.303		3.058	1.874	4.992	***
Suicide Attempt at Wave I	1.167	0.301	4.527		1.191	0.511	2.777	
Diagnosed Depression	6.158	3.224	11.765	***	4.281	2.610	7.021	***
-2 Log Likelihood	569.179				708.815			
Response Profile (n=1/n=0)	81/1430				120/1760			
N	1511				1880			

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

Table 8 presents the odds ratios from binary logistic regressions predicting suicidality for young adult men and women currently in a romantic relationship at Wave IV with relationship commitment level as a predictor. Men who report they are not committed in their relationship are on average 2.77 times more likely to report suicidal

ideation at Wave IV compared to men who reported they are completely committed in their relationship net of all other variables ($p < .01$). For women, unlike men, an additional measure of commitment is a significant predictor of reported suicidality at Wave IV net of all other variables. Women who report they are very committed to their relationship are on average 2.4 times more likely to report having serious suicidal thoughts than women who report they are completely committed to their relationships at Wave IV ($p < .05$). This may suggest that women conceptualize commitment to a relationship differently than men. These results presented in Table 8 also confirm my last hypothesis (H5) indicating different results by gender.

Table 8: Odds Ratios from Logistic Regression Models Predicting Suicide Ideation among Adults Currently in Romantic Relationships at Wave IV

	Men				Women			
Independent Variable	O.R.	95 % CI		Sig.	O.R.	95 % CI		Sig.
Relationship Status								
Currently Married	1.579	0.753	3.314		1.389	0.749	2.578	
Currently Cohabiting	1.515	0.704	3.262		1.481	0.810	2.708	
Currently Dating	---	---	---		---	---	---	
Elements of Relationship Quality								
Level of Commitment								
Not Committed	2.770	1.450	5.293	**	3.198	1.801	5.680	***
Very Committed	1.518	0.779	2.957		2.400	1.225	4.701	*
Completely Committed	---	---	---		---	---	---	
Race								
White, Non-Hispanic	---	---	---		---	---	---	
Black, Non-Hispanic	0.308	0.103	0.921	*	1.833	1.031	3.257	*
Hispanic	0.584	0.248	1.377		1.101	0.593	2.044	
Other Race, Non-Hispanic	1.652	0.510	5.344		1.665	0.608	4.558	
Education								
No College	1.683	0.644	4.395		1.069	0.497	2.299	
Some College	1.201	0.437	3.297		0.899	0.391	2.068	
Bachelor's Degree	---	---	---		---	---	---	
> Bachelor's Degree	0.624	0.160	2.436		0.775	0.311	1.933	
Age at Wave IV	0.978	0.838	1.140		1.030	0.918	1.156	
Has Children	1.057	0.581	1.920		0.599	0.337	1.064	
Employed	0.476	0.207	1.097		0.805	0.519	1.247	
Suicidal Ideation at Wave I	2.148	1.035	4.456	*	3.136	1.920	5.121	***
Suicide Attempt at Wave I	1.168	0.325	4.197		1.111	0.503	2.454	
Diagnosed Depression	6.437	3.357	12.344	***	4.091	2.514	6.656	***
-2 Log Likelihood	579.503				718.172			
Response Profile (n=1/n=0)	81/1430				120/1760			
N	1511				1880			

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

My final model, in Table 9 presents the logistic coefficients and odds ratios from binary logistic regressions predicting suicidality for young adult men and women currently in a romantic relationship at Wave IV with relationship quality, relationship happiness, and relationship commitment level as predictors. Similar to earlier models, men who are in high quality relationships are less likely to report suicidal ideation at

Wave IV, net of other variables in the model ($p < .01$). In Table 9 for women, there is a completely different story. In this model which takes into consideration all aspects of relationship quality measured in this study, there are no significant associations with reported suicidality at Wave IV for women. These findings do not confirm my fourth hypothesis (H4) suggesting that relationship quality would be more of a protective factor than other elements against suicidality at Wave IV. These results suggest that diagnosed depression or adolescent suicidality may mediate the protective effects of relationship quality for women. However, this model does confirm my last hypothesis (H5) by presenting gendered results. Interestingly, men's suicidality seems more responsive to their relationship qualities than women's.

Table 9: Logistic Coefficients and Odds Ratios from Logistic Regression Models Predicting Suicide Ideation among Adults Currently in Romantic Relationships at Wave IV

	Men						Women					
Independent Variable	O.R.	95 % CI		Coeff.	S.E.	Sig.	O.R.	95 % CI		Coeff.	S.E.	Sig.
Relationship Status												
Currently Married	1.090	0.504	2.361	0.087	0.394		1.108	0.568	2.165	0.103	0.342	
Currently Cohabiting	1.107	0.459	2.668	0.102	0.449		1.206	0.640	2.275	0.188	0.324	
Currently Dating	---	---	---	---	---		---	---	---	---	---	
Relationship Quality Index	0.900	0.839	0.965	-0.106	0.036	**	0.951	0.901	1.003	-0.051	0.027	
Elements of Relationship Quality												
Happiness												
Not Happy	1.093	0.286	4.181	0.089	0.684		2.103	0.733	6.028	0.743	0.537	
Fairly Happy	1.624	0.742	3.555	0.485	0.400		1.407	0.726	2.730	0.342	0.338	
Very Happy	---	---	---	---	---		---	---	---	---	---	
Level of Commitment												
Not Committed	0.915	0.314	2.663	-0.089	0.545		1.199	0.567	2.538	0.182	0.382	
Very Committed	0.765	0.290	2.023	-0.268	0.496		1.483	0.757	2.903	0.394	0.343	
Completely Committed	---	---	---	---	---		---	---	---	---	---	
Race												
White, Non-Hispanic	---	---	---	---	---		---	---	---	---	---	
Black, Non-Hispanic	0.286	0.100	0.814	-1.254	0.534	*	1.784	1.002	3.176	0.579	0.294	*
Hispanic	0.533	0.228	1.246	-0.628	0.433		1.137	0.601	2.149	0.128	0.325	
Other Race, Non-Hispanic	1.239	0.375	4.093	0.215	0.610		1.624	0.563	4.689	0.485	0.541	
Education												
No College	1.677	0.659	4.268	0.517	0.477		1.049	0.491	2.242	0.048	0.387	
Some College	1.12	0.400	3.141	0.114	0.526		0.858	0.371	1.981	-0.154	0.427	
Bachelor's Degree	---	---	---	---	---		---	---	---	---	---	
> Bachelor's Degree	0.685	0.188	2.500	-0.378	0.660		0.803	0.319	2.017	-0.220	0.470	
Age at Wave IV	0.978	0.839	1.141	-0.022	0.079		1.015	0.899	1.145	0.015	0.062	
Has Children	1.050	0.582	1.894	0.049	0.301		0.536	0.299	0.959	-0.624	0.297	*
Employed	0.414	0.179	0.958	-0.881	0.428	*	0.809	0.515	1.271	-0.212	0.231	
Suicidal Ideation at Wave I	2.139	1.036	4.415	0.760	0.370	*	3.123	1.907	5.116	1.139	0.252	***
Suicide Attempt at Wave I	1.040	0.245	4.406	0.039	0.737		1.081	0.466	2.511	0.078	0.430	
Diagnosed Depression	6.430	3.367	12.279	1.861	0.330	***	4.132	2.516	6.787	1.419	0.253	***
-2 Log Likelihood	556.015						702.595					
Response Profile (n=1/n=0)	81/1430						120/1760					
N	1511						1880					

*p < .05, **p < .01, ***p < .001 (two-tailed tests)
Source: The National Longitudinal Study of Adolescent to Adult Health

DISCUSSION

Sociological research on suicide often emphasizes Durkheim's notion that social integration via social relationships provides protection against self-harm. Under this model, protection against suicide is gained through a social relationship. Though a plethora of research finds that having a strong social tie, such as marriage, is protective against suicide, this research generally ignores the qualities of the relationship. Poor quality romantic relationships may harm more than help an individual's mental health. Moreover, this research primarily emphasizes a marriage versus all other relationship categories. With this study, I examine whether or not having a romantic relationship matters in protecting individuals against suicide. I also investigate how romantic relationship quality may shape suicidality in young adulthood and how this varies by gender.

Counter to previous research, across all models, I find that the mere presence of a romantic relationship is not protective against suicidal thoughts among young adults. This finding remains consistent regardless of whether the comparison group is those without a romantic relationship (single individuals) or individuals with a less theoretically permanent romantic relationship (such as, those who are dating). However, I find that relationship qualities do matter as protective factors for both men and women. I find that overall relationship quality is negatively associated with reporting suicide ideation for both men and women. I also find that men and women who report being unhappy in their relationships are more likely to report having suicidal thoughts. The same is true for men and women who are less committed to their relationships. This suggests that for young adults, the qualities of their romantic relationships are more important to consider, than

whether they are in a romantic relationship (or what kind of relationship), when examining their likelihood of reporting suicide ideation.

My findings represent an important contribution to the sociology of suicide because they add to a growing literature that highlights the potentially negative consequences of some types of relationships (Abrutyn and Mueller 2014; Baller and Richardson 2009) and suggests that social ties may protect or harm individuals' mental health depending on the qualities embedded in the tie. This means that in some cases, having no social tie may be better than having a low quality or negative tie (Umberson et al. 2006), especially with regard to suicide ideation. My findings echo previous research and imply that relationship status should be reconceptualized to consider the qualities in said relationships, not just their presence (Ross 1995; Umberson et al. 2006). Furthermore, these findings appear to confirm a more general body of literature that has identified the effects quality of relationship has on depression (Gustavson et al. 2012; Johnson et al. 2014; Mirowsky and Ross 2003), self-reported health (Proulx et al. 2007; Proulx and Snyder-Rivas 2013; Ren 1997), and overall health across the life-course (Miller et al. 2013; Umberson and Montez 2010; Umberson et al. 2005, 2006).

My second contribution to the literature on romantic relationships comes from my emphasis on gender in the experience of social relationships. Though other research has shown that men and women experience and benefit differently from marriage (Waite and Gallagher 2000), the lack of substantial gender differences in my results indicate otherwise. My findings suggest that both men and women are positively (and negatively) affected by their romantic relationships. For example, both men and women experience a negative association between relationship quality and suicide ideation (both men and

women with higher quality romantic relationships are less likely to report suicide ideation). This may mean that in young adulthood men and women are more similar than different in terms of how romantic relationships shape their mental health. Future research should continue to examine this issue.

I did find some more minor differences that may suggest different aspects of relationship quality may matter more to men versus women. For example, women who were very committed (as compared to completely committed to their relationship) were more likely to report contemplating suicide, in comparison to men who reported very committed. Men who reported "very committed" were no different from men who reported "completely committed" in terms of their suicidality. It is interesting to consider how men and women may have interpreted "very committed" differently. It may be that women who consider themselves "very committed" are more uncertain about their commitment to their relationship than men who report "very committed." This uncertainty could create some undue stress in their relationship. However, these differences should not be overstated as both men and women who reported that they were "not committed" to their relationship were at higher risk of suicide ideation that men or women (respectively) who reported being "completely committed." Thus, the gender difference is a minor one of degree, and not that this aspect of relationships does not matter for one gender but does for the other.

Finally, it is worth nothing that diagnosed depression is a robust and significant predictor of suicide ideation across all models for both women and men. Because significantly more women are diagnosed with depression than men, this variable may be a stronger mediator between relationship qualities and suicide ideation for women than

for men. Supplemental analyses do suggest that diagnosed depression may be mediating the protective effects of happiness, commitment, and overall quality for women. As Thomeer et al. (2013) results suggest, the processes surrounding depression are highly complex, especially in a romantic relationship, and more importantly differ by gender. This could mean that women in my sample are not receiving the benefits of total relationship quality as men do. This may account for why when all three measures of relationship quality are considered in my saturated model that women no longer receive a protective effect from relationship quality. Research should investigate these gender differences further, perhaps by using different measures of mental health and possibly even health behaviors to gauge the full role of romantic relationships in mental health in young adulthood.

Limitations

Although my study shows that the qualities of social relationships may be more important than the presence of a social tie when protecting against suicidality in young adulthood, my study is not without limitations. First, the findings in my study are limited by the sample size available in the public-use Add Health data. Because suicide is a rare event, my analyses were limited given this smaller sample size, thus limiting my statistical power. Although my study only looks at suicidal ideation, future research should take into consideration how relationship qualities affect suicide attempts. Second, because I do not include a measure to account for relationship duration, based on the timing of the in-home interviews, respondents could have reported suicidal thoughts in the past 12 months prior to beginning a romantic relationship. This means that my results cannot account for entering a romantic relationship after having suicidal thoughts. Last,

the results from my study only show part of the story in how relationship quality or gender shapes suicidality. I am limited by the survey items available in Add Health. Future research should consider a qualitative study to investigate how gender and romantic relationship quality interact and both shape suicidality in young adults.

CONCLUSION

The presence or absence of a social relationship (e.g., marriage) is most often the focal point when searching for how it protects against suicidality. Though this Durkheimian mechanism of social integration via a romantic relationship remains relevant, my findings add depth to our understanding of how relationships work. The qualities of strong social relationships must be considered to gain a whole picture in the protection against suicide. Low quality romantic relationships may be more harmful than not having a relationship at all. My findings imply that lower quality relationships increase the probability that suicidal thoughts may occur. Understanding how the quality of a relationship affects certain aspects of health is not only crucial to facilitating a richer understanding of interpersonal relationships, but vital in helping sociologists and social scientists, practitioners, and policy makers find more ways to reduce and prevent suicide.

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