

Effects of Romantic & Sexual Involvement on Well Being during Emerging Adulthood

M. Kate Sullivan

R. Kelly Raley

University of Texas at Austin

Abstract

This study uses the National Study of Adolescent Health to examine how romantic and sexual involvement during adolescence influences mental health and identity formation during young adulthood. We explore how both the intensity of the relationships and the age the individual initiates romantic and sexual involvement impact well being later in life. Individuals who report romantic and/or sexual involvement during adolescence also report better self image scores during young adulthood compared to individuals a history of no romantic or sexual involvement. However, this is only true for romantic relationships; individuals who reported nonromantic sexual relationships did not have better self image scores than those with no involvement. We also found no evidence of a link between depression in young adulthood and adolescent involvement or effects of gender or age. This research suggests that adolescent romantic and sexual involvement influences aspects of adulthood extending beyond the realm of romantic relationships.

Effects of Romantic & Sexual Involvement on Wellbeing during Emerging Adulthood

The successful transition into adulthood is largely predicated by experiences earlier in the life course. Specifically, achieving developmental milestones such as forming an independent identity (Erikson, 1968) and avoiding or postponing others such as pregnancy, are key tasks for the adolescent years. Prior research suggests that romantic and sexual involvement in adolescence is an important aspect of this developmental process, impacting individuals' romantic relationships into adulthood.

While a growing literature suggests that adolescent romantic experiences may be an important foundation for adult relationships, whether and how these early romantic and sexual relationships influence other domains of development has received less attention. Specifically, it is unclear what consequences adolescent romantic and sexual experiences have for mental health and positive identity formation during the transition to adulthood. This study uses data from Wave I, II, and III of the National Longitudinal Study of Adolescent Health to prospectively investigate the consequences of adolescent romantic and sexual involvement for well being during young adulthood. Employing data collected several times over an eight year period provides the opportunity to prospectively analyze the consequences of early romantic experiences on individuals' development over time. The first part of the analysis explores the characteristics of individuals' romantic and sexual involvement during adolescence. This analysis describes the patterns in emotional and physical intensity in adolescents' relationships. The second part of the analysis examines how the characteristics of adolescent romantic and sexual involvement are associated with indicators of well being during young adulthood.

The role of romance and sex during adolescence

Life course theory suggests that development is a cumulative process whereby adult experiences are shaped by events earlier in the life course (Elder, 1998; Shanahan, 2000; Heinz & Kruger, 2001). Mastering developmental tasks during early phases of life is essential for later adjustment, thus making early romantic experiences influential for romantic involvement during later developmental periods. Experiences with the opposite sex during late childhood and adolescence provide a foundation for romantic relationships (Sullivan, 1953) and serve as a training ground for the romantic and sexual relationships that are characteristic of adulthood (Dunphy, 1963; Feinstein & Ardon, 1973; Brown, 1999). Those who do not acquire experience by late adolescence, when most others are romantically and sexually involved, may be less comfortable and may have more difficulty initiating and maintaining relationships as adults.

This perspective is supported by an emerging body of literature that suggests that positive experience during adolescence are associated with positive romantic involvement during young adulthood (Seiffge-Krenke, 2003; Conger, Cui, Bryant, & Elder, 2000). These positive effects of romantic experiences in adolescence may spill over into other domains in the life course, impacting mental health and development of a positive self image.

Yet, the effects of adolescent romantic and sexual involvement may not be all positive. Romantic and sexual involvement during adolescence is also associated with elevated risks of depression and poorer self esteem (Welsh, Grello, & Harper, 2003; Joyner & Udry, 2000; Davila, Steinberg, Kachadourian, Cobb, & Fincham, 2004; Brendgen, Vitaro, Doyle, Markiewicz, & Bukowski, 2002). Dissolving romantic relationships is particularly hazardous for adolescents' well being. Hallfors and her colleagues (2004, 2005) likewise found that sexual involvement during adolescence is linked to poorer mental health. One of the best predictors of sexual activity is romantic involvement and thus there may be at least an indirect effect of

romantic involvement on mental health. Romantic and sexual involvement can take a toll on individuals' well being.

Romantic relationships carry some risk during adolescence but are also associated with better relationships during young adulthood; thus it is unclear what consequences adolescent romantic and sexual involvement will have for individuals' mental health and identity development in young adulthood. Importantly, whether adolescent romantic and sexual involvement has positive or negative consequences on well being throughout the life course may depend on the characteristics of the relationships. Specifically, the long term consequences of romantic and sexual involvement may depend on the intensity of the relationships and the age the individual initiates romantic and sexual involvement.

Characteristics of involvement

Relationships include both emotional and physical dimensions of intensity. Adolescent romances entail a high degree of emotional engagement (Giordano, Longmore, & Manning, 2006). Though emotion is deemed necessary for close relationships, emotionally charged romances can have negative consequences on mental health during adolescence (Larson, Clore, & Wood, 1999). Dimensions of physical intensity also have consequences for well being. Initiating sexual intercourse during adolescence is associated poorer psychosocial health and adjustment (Bingham & Crockett, 1996) and health risks (AGI 1994; O'Donnell, O'Donnell, & Stueve, 2001).

There is little information that covers the intersection between emotional and physical dimensions of relationships. Both the physical and emotional intensity are rarely simultaneously considered. For example, research has increasingly documented adolescent involvement in nonromantic sexual relationships (e.g., Paul, McManus, & Hayes, 2000; Lambert, Kahn, &

Apple, 2003). These relationships are physically intense yet little is known about the emotional climate that accompanies these relationships as they are often formed with ex-partners and friends (Giordano, Manning, & Longmore, 2006). A more comprehensive understanding of the consequences of romantic and sexual involvement may be achieved by considering both emotional and physical intensity.

Adolescents' reaction to emotional and physical dimensions of relationships is likely to change with age. Younger adolescents may respond more negatively to emotionally and physically intense relationships. They have less experience and skill in negotiating all types of relationships and this may leave them more vulnerable to the heartache and regret, particularly when relationships become stressful or dissolve. Older adolescents may be better able to cope with emotionally and/or physically intense relationships (Csikszentmihalyi & Larson, 1984; Furman & Wehner, 1994). Adolescents who initiate sexual activity earlier than their peers are more likely to report delinquency (Armour & Haynie, 2007). Intense romantic relationships initiated at a young age may yield long term negative consequences perhaps because they are difficult to handle given the development and maturity of a young adolescent. High levels of physical and emotional intensity during early adolescence may be associated with poorer well being during adulthood. However, older adolescents may react differently to intense relationships. For example, statistics from national data sets suggest that physically and emotionally intense relationships are normative during later adolescence with the vast majority of older adolescents reporting involvement in a romantic relationship (Carver, Joyner, & Udry, 2003). For older adolescents, not having a romantic relationship may be associated with substantially poorer well being, perhaps because both the social stigma as well as the lack of experiences in romantic settings may have long term consequences for well being.

In this paper, we expect that romantic experience during adolescence will generally be linked with better well being during young adulthood. Through forming relationships during adolescence, individuals are able to gain romantic experience that provide an opportunity to develop important skills and have appropriate experiences that may contribute to a more stable and healthy identity during young adulthood compared to adolescents with no romantic experience. This may be particularly true for older adolescents. We expect that reporting no romantic or sexual involvement will be linked to poorer outcomes for older adolescents compared to younger adolescents.

We also expect that emotional and physical dimensions of romantic and sexual involvement will be associated with well being during young adulthood. We expect strong negative consequences for emotionally and physically intense relationships among younger adolescents on later well being. The degree of intensity will matter less for older adolescents as they may have more experience and skills in handling a broader range of relationships. We also consider the consequences of nonromantic sexual relationships during adolescence. As it is uncertain if these nonromantic sexual relationships are a significant departure from romantic relationships, we do not have specific hypotheses regarding the association between nonromantic sexual relationships and well being during young adulthood.

Although in the analyses we consider the possibility of gender differences in the effects of romantic involvement, we do not have a strong reason to expect to find substantial gender differences. While boys and girls are different and may approach relationships differently, both take romantic relationships seriously (Giordano, Longmore, & Manning, 2006), and both may depend on adolescent relationships to develop skills and a romantic identity that will serve them into adulthood. That is, although Joyner and Udry (2000) found gender differences in the

consequences of romantic involvement on mental health in adolescence, we believe that boys and girls may be more similar than different.

Methods

Data

The data for these analyses come from the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative school-based sample of adolescents in grades seven to 12 (Harris, et. al, 2003). The original sample was collected using a stratified sample of junior, middle, and high schools. 90,118 students completed a 45 minute survey of general demographic information. One year later in 1994-1995, a core sample of 20,745 participants was randomly selected to participate at Wave I using school rosters from twelve student-level strata based on participants' grade and sex. Participants completed an in-home interview that took one to two hours and covered topics such as health, peer networks, and romantic relationships. The core sample was reinterviewed in 1996 for Wave II. 13,570 of the participants who participated at Wave I completed Wave II. Adolescents who were high school seniors at Wave I were not included in the Wave II follow up.

Six years later, a third wave of data collection was completed when the participants were young adults aged 18 to 26 years. The format of the Wave III in-home survey was similar to Wave I but the content was updated to gather information that was developmentally appropriate for emerging adults. These questions focused on topics like family formation and educational history. 10,828 participants completed in-home interviews at all three data collection waves and had valid sampling weights. The sample was restricted to individuals who participated in all three waves of data collection and had valid sampling weights. Additionally, the sample was

restricted to individuals who were aged 14 through 18 years in grades 9 through 12 at Wave II. The final sample size was 8,792 individuals.

Over half of the individuals were female (53%). The majority of participants were non-Hispanic White (55%; non-Hispanic Black, 21%; Hispanic, 15%; Other 9%). The average age of the individuals at Wave II was 16 years ($SD = 1.31$). Most individuals were from intact families and indicated that their parents received some college education.

Measures

Independent Variables

The independent variable for romantic involvement was constructed from the Wave II in-home survey. Individuals provided detailed information about their romantic relationships during the past 18 months. Some individuals reported no history of romantic involvement though the majority reported some romantic involvement and a combination of emotional and physical intensity. Individuals also reported on sexual encounters that did not occur within a romantic relationship. These relationships are informally referred to as "hook-ups" and are referred to in this paper as nonromantic sexual relationships.

Based on their romantic history, I created six dichotomous variables that described the emotional and physical intensity of respondents' adolescent relationships. If individuals reported no romantic involvement, they were classified as having no romantic relationships. Otherwise romantic involvement was classified into relationships with 1) no expression of love or sex, 2) expressions of love but no sex, 3) expressions of love and sex, 4) no expressions of love but included sex, and 5) nonromantic sex. The variables are not mutually exclusive as individuals could and often did report having more than one relationship during the past 18 months. Each relationship was classified into one of the five dichotomous variables.

Outcomes

Two well being outcomes were created from the Wave III in home interview. The first outcome was constructed from nine items measuring symptoms of depression and was adapted from the CES-D (Radloff, 1977). Individuals responded to items such as "You couldn't shake the blues" and "You had trouble keeping your mind on what you were doing" to describe their mood during the past seven days. Responses were measured on a four point scale ranging from never or rarely to most or all of the time. The Cronbach alpha for the nine items was .80. On average, females reported a higher score ($M = 4.95$, $SD = 4.18$) higher than males ($M = 4.05$, $SD = 3.77$).

The second indicator of well being during young adulthood was self image. Self image was computed from nine items measuring intelligence, popularity, immaturity. Item responses were on a four point scale from not at all to very. Responses for the nine items were averaged for a single score that indicated individual's self image. The Cronbach alpha for the nine items was .67. Females average self image score was 3.26 ($SD = .41$) while males was 3.25 ($SD = .40$)

Controls

Control variables were derived from Wave I data and included age, racial/ethnic category, parent education, and family structure. Adolescents' racial/ethnic categories were constructed from their report of whether they were white, black or African American, American Indian or Native American, Asian or Pacific Islander, or other. Adolescents were given the option of choosing multiple racial categories. If they chose more than one racial category, they selected a single racial category they felt best described them. Adolescents were also given the option of selecting Hispanic or Latino origin. Adolescents are classified as non-Hispanic White, non-Hispanic Black, Hispanic, or Other. Parents' education was constructed from the parent with the highest educational attainment yielding four categories: less than high school graduation,

high school graduation or GED, some college, or graduated from college. Adolescents' family structures were classified as living with two-biological or adoptive parents, step-parents, single-parents, or other.

Given previous research focusing on the relationship between depression and romantic involvement, controlling for depression prior to relationship formation was important. I created a categorical variable based on symptoms of clinical depression at Wave 1. Symptomatology of depression was computed from the 19 items of the CES-D Questionnaire administered at Wave 1. The cutoff for clinical symptomatology was set at 22 for males and 24 for females (Roberts, Lewinsohn, & Seeley, 1991; Goodman, Slap, & Huang, 2003). 192 males and 329 females reported symptoms associated with clinical depression. All analyses include this control for symptoms of clinical depression at Wave I.

Analytic plan

There are two major analytic steps in this paper. The first step attempts to classify individuals into groups based on their history of romantic relationships. I use latent class analysis (LCA; Goodman, 1974; Lazarsfeld & Henry, 1968; McCutcheon, 1987) to find common patterns in the six dichotomous variables measuring emotional and physical intensity in individuals' relationships. LCA models the relationship between manifest variables and a categorical latent variable to classify individuals into mutually exclusive and exhaustive latent classes (Hagenaars & McCutcheon, 2002; Muthén & Muthén, 2005; Lanza, Flaherty, & Collins, 2003). Rather than study all of the observed patterns, LCA returns the smallest number of latent classes that best describes the observed response patterns of emotional and physical intensity in romantic relationships (Muthén & Muthén, 2000).

Two considerations are made to choose the best model: fit and usefulness (Muthén & Muthén, 2000). To establish model fit, the fit indices provide statistical evidence for best fit with the observed data. Using the likelihood ratio statistic (G^2) and the Bayesian Information Criterion (BIC, Schwartz, 1978), additional classes are included in the model in a step-wise fashion until statistical fit is achieved. Model usefulness ensures that there are substantive and meaningful differences between the classes (Nylund, 2004). These steps ensure that the model ultimately selected is both statistically and substantively meaningful. Individuals are assigned to the latent class to which they are most likely to belong. The second analytic step regresses well being outcomes on control variables as well as latent class assignment. OLS regression is used to model both depression and self image during young adulthood.

Results

A six class model describing individuals' romantic involvement was chosen as the best statistical and substantive fit. The six class model provided similar statistical fit to the five class model but the additional class was a substantive improvement. A graphical representation of these classes can be found in Figure 1. The majority of individuals reported some type of romantic involvement during the previous 18 months. 34.1% of the sample report no romantic involvement and are classified into the same latent class. This class serves as the reference class. Eighteen percent of the individuals are classified as reporting romantic involvement that did not include expressions of love or sexual intercourse. Members of this class were more likely to be older, from step families, and report symptoms of clinical depression than individuals with no romantic involvement.

Nearly one fifth of the sample is classified into a group predominantly characterized by expressions of love but no sex. Members of this class are more likely to be non-Hispanic White,

older, and from step families. Another one fifth of the sample was grouped into a class where members reported both expressions of love and sexual intercourse in relationships. These individuals are more likely to be female, older, show symptoms of clinical depression, and from step and single parent families.

The final two classes have the smallest membership. 3.4% of individuals are most likely to report romantic relationships that included sexual intercourse but no expressions of love. Members of this class also have a small chance of also reporting an additional romantic relationship. They are more likely to be older and from step or single parent families.

The final class is characterized by nonromantic sexual relationships and included 4.2% of the sample. However, members of this class also had a 66% chance of also reporting a romantic relationship that included both expressions of love and sexual intercourse. Though these individuals report a nonromantic sexual intercourse, they also have a good chance of having a romantic sexual relationship. Individuals in this class were more likely to be male, older, non-Hispanic Black, and from step or single parent families.

The results of the OLS regression analyses for self image can be found in Table 1. Individuals' history of romantic involvement during adolescence defined by latent class membership is presented in Model 1. In general, individuals who were romantically involved during adolescence are more likely to report higher scores on self image during young adulthood than individuals with no romantic involvement. Any romantic involvement is associated with better self image.

Model 2 also included control variables. Older individuals reported significantly higher scores on self image. Non-Hispanic Black individuals are more likely to score better than non-Hispanic Whites while Hispanics are more likely to report poorer scores of self image.

Individuals with parents who graduated from high school or college are more likely to have better self image scores than individuals with parents who did not graduate from high school. Individuals who reported symptoms of clinical depression at Wave I are more likely to have lower on self image scores.

Generally, the associations between romantic involvement and well being were the same in both models. However, individuals who reported nonromantic sexual involvement did not fare better than individuals with no romantic involvement. The results suggest that any degree of emotional and physical intensity is linked with better outcomes as long as it exists within a romantic relationship. Any form of socially recognized or sanctioned romantic relationship is associated with better self image scores yet individuals with nonromantic sexual relationships fare no better or worse than those individuals without relationships.

Analyses not included here also tested for differences in the effects by age and gender. Interaction terms between individuals' age and class membership were not statistically significant. Likewise, gender interactions were statistically insignificant suggesting that the impact of emotional and physical intensity in relationships on self image does not differ for boys and girls. Additionally, regression models yielded no evidence that latent class membership based on romantic involvement was predictive of depression during young adulthood. There were no differences in levels of depression during young adulthood across latent classes after including control variables and symptoms of clinical depression at Wave I.

Discussion

A comprehensive understanding of the transition to adulthood requires a consideration of the central developmental processes during adolescence. One of the major developmental tasks of adolescence is the formation of romantic and sexual relationships. Previous work suggests that

adolescent romantic and sexual experiences are meaningful for romantic unions across the life course (e.g., Crouter & Booth, 2006; Seiffge-Krenke, 2003; Sullivan, under review), yet less is known about how adolescent experiences more generally impact well being during adulthood. The aim of this paper was to explore the intersection between adolescent romantic and sexual involvement and well being during young adulthood. We focused on the timing and intensity of romantic involvement as predictors of well being during young adulthood.

The first step of the analysis described the characteristics of romantic and sexual involvement during adolescence. This entailed classifying romantic and sexual relationships by emotional and physical intensity. Approximately one third of the adolescents reported no romantic or sexual involvement during the previous 18 months. Individuals in this category were most likely younger adolescents. The tendency for younger adolescents to report no romantic or sexual involvement is consistent with national estimates of romantic and sexual involvement (Carver, et al., 2003).

The remaining two thirds of the sample reported romantic and/or sexual involvement during the previous 18 months and are classified into one of five groups. Eighteen percent of the total sample tended to report romantic relationships that were not emotionally or physically intense. These relationships may have been casual and could be considered token relationships. These relationships may also have been formed relatively recently and had yet to include emotional and physical intensity.

One fifth of the total sample was classified based on reports of emotionally intense relationships that lacked a physical dimension. Individuals in this class are likely share expressions of love with their romantic partners. However, they had little chance of sexual activity. An additional one fifth of the sample reported relationships that are both emotionally

and physically intense. Individuals in this class express love to their romantic partner and participate in sexual activity.

The remaining two classes are substantially smaller. Less than ten percent of the sample is classified into one of the two categories. However, individuals in these classes reported similar relationship histories. In one class, individuals reported romantic relationships with low levels of emotional intensity and high levels of physical intensity. These relationships include sexual activity but do not include any expressions of love. In the other class, individuals reported nonromantic sexual relationships. Though they involvement in nonromantic sexual relationships, they also had a high chance of reporting additional relationships. They often reported additional sexual relationships that included expressions of love. Although these adolescents were involved in nonromantic sexual relationships, they were also likely to have sexual experience that took place within a romantic relationship. These results also seem to be consistent with previous work that describes most nonromantic sexual partners as friends or ex-romantic partners (Giordano, Manning, & Longmore, 2006). It is possible that there is overlap between romantic and nonromantic sexual relationships by involving the same romantic partner.

The second part of the analysis investigated associations between romantic and sexual involvement during adolescence and well being during young adulthood. Our expectation that a history of romantic involvement would generally be associated with better well being was partially supported. Individuals who reported any involvement in a romantic relationship, regardless of emotional or physical intensity, had higher self image scores. The results suggest positive consequences of romantic and sexual involvement as long as involvement is limited to romantic relationships.

The only exception to this was for individuals who reported nonromantic sexual relationships. These individuals did not report higher self image scores than individuals who reported no romantic or sexual history. There is no protective effect for nonromantic relationships on self image. These results are interesting given that romantic sexual relationships were linked to higher scores on self image. Though romantic sexual relationships do not include expressions of love, it seems there may be some emotional or social component to these relationships that make them differ from nonromantic sexual relationships. Individuals in these two classes report similar physical intensity but may have different social or emotional meaning. Further work that analyzes differences between these types of relationships is warranted.

As expected, we did not find any differences by gender. The consequences of involvement on mental health were not different for males and females. However, there was no association between romantic and sexual involvement during adolescence and depression during young adulthood. We also expected that the consequences of emotional and physical intensity may be moderated by age. None of the interaction effects for age and involvement were significant for depression or self image.

Though this study provides evidence that well being during the transition to adulthood is linked to adolescent experiences, there are some limitations to the study. First, there is no comparable measure of emotional intensity for nonromantic relationships. There is no information about emotion in relationships that are not classified as romantic. Therefore, there is no way of teasing out the qualitative differences between romantic and nonromantic sexual relationships with this data set. Additional qualitative analyses of the characteristics of sexual relationships are required.

Additionally, we were unable to find connections between depression and romantic and sexual involvement. We chose the conservative approach of controlling for symptoms of clinical depression given the literature on depression and relationship formation (e.g., Welsh, Grello, & Harper, 2003). However, it is possible that we over controlled for levels of depression by including a variable for symptoms of clinical depression at Wave 1.

This research suggests that romantic and sexual involvement during adolescence influences aspects of adulthood extending beyond the realm of romantic relationships. Individuals who participated in romantic and sexual relationships reported better self image than individuals without romantic involvement. However, this association was only true if romantic and sexual involvement was defined as a romantic relationship. Nonromantic sexual relationships conferred no benefits for well being. Experience in forming and maintaining romantic and sexual relationships during adolescence may provide valuable experiences for individuals yielding better mental health during young adulthood.

References

- The Alan Guttmacher Institute (AGI) (1994). *Sex and America's Teenagers*. New York: AGI.
- Armour, S., & Haynie, D. L. (2007). Adolescent sexual debut and later delinquency. *Journal of Youth and Adolescence*, 36, 141-152.
- Bingham, C.R., & Crockett, L. J. (1996). Longitudinal adjustment patterns of boys and girls experiencing early, middle, and late sexual intercourse. *Developmental Psychology*, 32, 647– 658
- Brendgen, M., Vitaro, F., Doyle, A. B., Markiewicz, D., & Bukowski, W. M. (2002). Same-sex peer relationships and romantic relationships during early adolescence: Interactive links to emotional, behavioral, and academic adjustment. *Merrill-Palmer Quarterly*, 48, 77-103.
- Brown, B. B. (1999). "You're going out with *who?*": Peer group influences on adolescent romantic relationships. In W. Furman, B. Brown, & C. Feiring (Eds.), *The Development of Romantic Relationships in Adolescence* (pp. 291-329), New York: Cambridge University Press.
- Carver, K., Joyner, K., & Udry, J. R. (2003). National estimates of adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications* (pp. 23-56), Mahwah, NJ: Erlbaum.
- Conger, R. D., Cui, M., Bryant, C. M., & Elder, G. H. (2000). Competence in early adult romantic relationships: A developmental perspective on family influences. *Journal of Personality and Social Psychology*, 79, 224-257.
- Csikszentmihalyi, M., & Larson, R. W. (1984). *Being adolescent*. New York: Basic Books

- Davila, J., Steinberg, S. J., Kachadourian, L., Cobb, R., & Fincham, F. (2004). Romantic involvement and depressive symptoms in early and late adolescence: The role of a preoccupied relational style. *Personal Relationships*, 11, 161-178.
- Dunphy, D. C. (1963). The social structure of urban adolescent peer groups. *Sociometry*, 26, 1230-246.
- Elder, G. H. (1998). The life course as a developmental theory. *Child Development*, 69, 1-12.
- Erikson, E. H. (1968). *Identity: Youth and Crisis*. New York: WW Norton & Company.
- Feinstein, S. C., & Ardon, M. S. (1973). Trends in dating patterns and adolescent development. *Journal of Youth and Adolescence*, 2, 157-166.
- Furman, W., & Wehner, E. A. (1994). Romantic views: Toward a theory of adolescent romantic relationships. In R. Montemayor, G. R Adams, & G. P. Gullota (Eds.), *Advances in adolescent development: Volume 6. Relationships during adolescence* (pp. 168-195). Thousand Oaks, CA: Sage.
- Giordano, P. C., Longmore, M. A., & Manning, W. D. (2006). Gender and the meaning of adolescent romantic relationships: A focus on boys. *American Sociological Review*, 71, 260-287.
- Goodman, L. A. (1974). Exploratory latent structure analysis using both identifiable and unidentifiable models. *Biometrika*, 61, 215-231.
- Goodman, E., Slap, G. B., & Huang, B. (2003). The public health impact of socioeconomic status on adolescent depression and obesity. *American Journal of Public Health*, 93, 1844-1850.
- Hagenaars, J. A., & McCutcheon, A. L. (2002). *Applied Latent Class Analysis*. Cambridge: Cambridge University Press.

- Hallifors, D. D., Waller, M. W., Bauer, D., Ford, C. A., & Halpern, C. T. (2005). Which comes first in adolescence – sex and drugs or depression? *American Journal of Preventive Medicine*, *29*, 163-170.
- Hallifors, D. D., Waller, M. W., Ford, C. A., Halpern, C. T., Brodish, P. H., & Iritani, B. (2004). Adolescent depression and suicide risk: Association with sex and drug behavior. *American Journal of Preventive Medicine*, *27*, 224-230.
- Harris, K. M., Florey, F., Tabor, J., Bearman, P. S., Jones, J., & Udry, J. R. (2003). The National Longitudinal Study of Adolescent Health: Research Design [WWW document]. URL: <http://www.cpc.unc.edu/projects/addhealth/design>.
- Heinz, W. R., & Kruger, H. (2001). Life course: Innovations and challenges for social research. *Current Sociology*, *49*, 29-45.
- Joyner, K., & Udry, J. R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior*, *41*, 369-391
- Lambert, T. A., Kahn, A. S., & Apple, K. J., (2003). Pluralistic ignorance and hooking up. *The Journal of Sex Research*, *40*, 129-133.
- Lanza, S. T., Flaherty, B. P., Collins, L. M. (2003). Latent class and latent transition analysis. In J. A. Schinka & W. F. Velicer (Eds.), *Handbook of Psychology: Research methods in Psychology (Volume 2)* (pp. 663-685). New York: John Wiley & Sons, Inc.
- Larson, R. W., Clore, G. L., & Wood, G. A. (1999). The emotions of romantic relationships: Do they wreak havoc on adolescents? In W. Furman, B. Brown, & C. Feiring (Eds.), *The Development of Romantic Relationships in Adolescence* (pp. 19-49), New York: Cambridge University Press.
- Lazarsfeld, P. F., & Henry, N. W. (1968). *Latent structure analysis*. Boston: Houghton Mifflin.

- McCutcheon, A. L. (1987). *Latent class analysis*. Newbury Park: Sage Publications, Inc.
- Muthén, B. O., & Muthén, L. K. (2000). Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes. *Alcoholism: Clinical and Experimental Research, 24*, 882-891.
- Muthén, L. K., & Muthén, B. O. (2005). *Mplus: Statistical analysis with latent variables: user's guide*. Los Angeles, CA: Muthén & Muthén.
- Nylund, K. (2004). Latent class analysis. Retrieved January 15, 2006 from <http://www.ats.ucla.edu/stat/mplus/seminars/lca/default.htm>.
- O'Donnell, L., O'Donnell, C. R., & Stueve A. (2001). Early sexual initiation and subsequent sex-related risks among urban minority youth: The Reach for Health study. *Family Planning Perspectives, 33*, 268-275.
- Paul, E. L., McManus, B., & Hayes, A. (2000). "Hookups": Characteristics and correlates of college students' spontaneous and anonymous sexual experiences. *The Journal of Sex Research, 37*, 76-88.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychol. Measure. 1*: 385-401.
- Roberts R. E., Lewinsohn P. M., & Seeley, J. R. (1991). Screening for adolescent depression: A comparison of the CES-D and BDI. *Journal of American Academy of Child and Adolescent Psychiatry, 30*, 58-66.
- Schwartz, G. (1978). Estimating the dimension of a model. *Annals of Statistics, 6*, 461-464.
- Seiffge-Krenke, I. (2003). Testing theories of romantic development from adolescence to young adulthood: Evidence of a developmental sequence. *International Journal of Behavioral Development, 27*, 519-531.

- Shanahan, M. J. (2000). Pathways to adulthood in changing societies: variability and mechanisms in life course perspective. *Annual Review of Sociology*, 26, 667-692.
- Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: W. W. Norton.
- Sullivan, M. K. (under review). Adolescence as a Training Ground: Exploring Continuity in Romantic Involvement across Adolescence and Emerging Adulthood
- Welsh, D. P., Grello, C. M., & Harper, M. S. (2003). When love hurts: Depression and adolescent romantic relationships. In P. Florshiem (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 185–212). Mahwah, NJ: Lawrence Erlbaum Associates.

Figure 1.

Emotional and physical intensity of romantic and sexual involvement during adolescence.

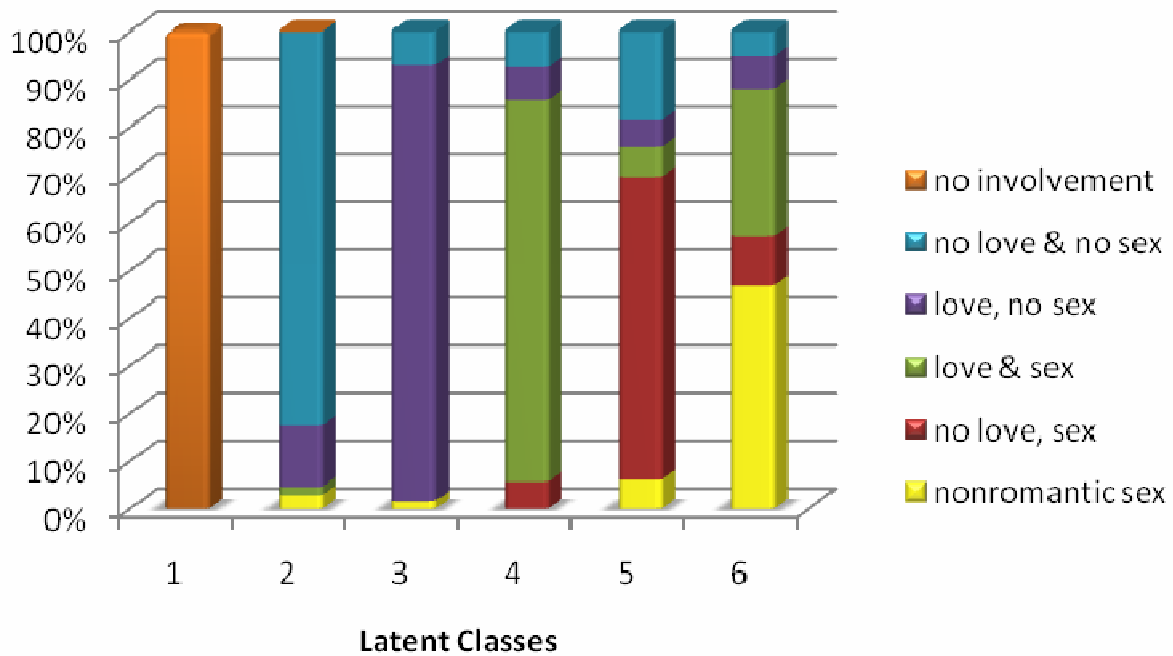


Table 1.

Young adults' well being predicted by romantic and sexual involvement during adolescence.

	Self Image					
	Model 1			Model 2		
	Coef	Std Er		Coef	Std Er	
Romantic & sexual involvement (No involvement)						
no love or sex	0.06	0.01	***	0.05	0.01	***
love, no sex	0.06	0.01	***	0.07	0.01	***
love & sex	0.08	0.01	***	0.07	0.01	***
sex, no love	0.10	0.03	***	0.08	0.03	**
nonromantic sex	0.06	0.02	*	0.04	0.02	
Male				-0.01	0.01	
Age				0.00	0.00	
Race (White)						
African American				0.15	0.01	***
Hispanic				-0.03	0.02	
Other				-0.03	0.02	
Parent Ed (Less HS)						
HS Grad				0.04	0.02	*
Some college				0.02	0.02	
College grad				0.05	0.02	***
Family structure (Bio married)						
Step parents				0.00	0.01	
Single parent				0.01	0.01	
Other				0.02	0.03	
Symptoms of clinical depression				-0.14	0.02	***

* $p < .05$; ** $p < .01$; *** $p < .001$