

Changes in best friendship quality between adolescence and emerging adulthood: Considering the role of romantic involvement

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Abstract

Changes in best friendship quality during adolescence coincide with the emergence of romantic relationships. This study aimed to examine the extent to which changes in friendship quality (intimacy, conflict, emotional support) between the ages of 16 and 22 varied according to four romantic involvement patterns (Late, Sporadic, Long-Term, Frequent) followed during this period. Gender was also included as a moderator. Participants ($n = 281$; 61% girls) identified their romantic partners and reported on the quality of their relationship with their best friend each year. A series of multilevel growth curve models revealed that participants in the Late involvement group reported an increase in conflict with their best friend during this period; those in the Sporadic involvement and Frequent involvement groups reported increases in intimacy; and youths in the Long-Term involvement group reported no changes in friendship intimacy, conflict, or emotional support over time. Thus, among youths who reported changes in best friendship quality between adolescence and emerging adulthood, the observed changes appeared to vary according to the romantic involvement patterns followed during this period.

Keywords

Romantic involvement, friendship quality, adolescence, emerging adulthood, social and affective development

Friendship plays a central role in youth social development (Bagwell & Schmidt, 2011). During adolescence, friendship undergoes many changes, particularly in terms of its quality (Furman & Buhrmester, 1992; Way & Greene, 2006). These changes coincide with the emergence of romantic relationships, which gradually replace close friendships as the main source of intimacy and support (Furman & Buhrmester, 1992). However, recent studies have revealed that romantic involvement does not develop homogeneously between adolescence and early adulthood and that young people follow distinct romantic patterns, characterized by diverse social antecedents and outcomes (Boisvert & Poulin, 2016; Rauer, Pettit, Lansford, Bates, & Dodge, 2013). It is reasonable to assume that these patterns may be linked to changes in their best friendship during this period. Thus, this longitudinal study aims to evaluate whether observed changes in best friendship quality between adolescence and emerging adulthood vary according to the type of romantic patterns followed during this period.

Changes in Best Friendship Quality from Adolescence to Emerging Adulthood

Friendship is defined as a voluntary, committed and normally egalitarian relationship (Bagwell & Schmidt, 2011), characterized by reciprocity (Rubin, Bukowski, & Parker, 2006). Friends are also an important source of intimacy, support, affection and affiliation (Furman & Rose, 2015; Markiewicz, Lawford, Doyle, & Haggart, 2006).

One aspect of best friendships that is likely to change between adolescence and emerging adulthood is their quality. Friendship quality is usually defined through positive dimensions, such as

perceived intimacy and support, and negative dimensions, such as conflict (Furman & Buhrmester, 1985, 1992). As teens grow older, most report an increase in intimacy and support in their friendships, as well as a decline in conflict (Furman & Buhrmester, 1992; Way & Greene, 2006). It is reasonable to assume that these observed changes in friendship quality during adolescence are, at least in part, related to the emergence of romantic relationships (Chow, Roelse, Buhrmester, & Underwood, 2012).

Continuity Between Best Friendships and Romantic Relationships

Friendships show many similarities to romantic relationships. Both are based on equality between the parties and a voluntary commitment to the relationship (Laursen & Bukowski, 1997), in addition to fulfilling attachment needs based on affiliation and support seeking (Rosenthal & Kobak, 2010). From a developmental standpoint, romantic relationships are in continuity with close friendships. In adolescence, best friends predominantly respond to the need for intimacy and support (Furman & Buhrmester, 1992). However, during the transition to adulthood, for most young people, romantic

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partners gradually replace best friends in fulfilling this role (Chow et al., 2012). Thus, the study of changes in best friendships during this period must consider the effects of romantic involvement. For example, young people who are involved in a romantic relationship, which would become their main source of intimacy and support, might not need the same level of commitment in their relationship with their best friend as young people who do not have a romantic partner fulfilling these needs. The few studies on this topic present divergent conclusions. Some have shown that single emerging adults do tend to turn more often to their best friend for support and attachment, compared to young adults who are romantically involved (Carbery & Buhrmester, 1998; Markiewicz et al., 2006). However, other studies have not detected a difference in the role of friendship among single and partnered youths (Connolly & Johnson, 1996; Reis, Lin, Bennett, & Nezlak, 1993).

Most of the studies reviewed have the limitations of being cross-sectional and of having reduced the concept of romantic involvement solely to relationship status at a specific moment. Yet, the development of romantic involvement is a heterogeneous phenomenon (Bouchey & Furman, 2006). Indeed, some youths become romantically involved in early adolescence, while others enter the romantic landscape later on, or never during this developmental period. Moreover, some youths engage in many short-term romantic relationships, while others choose to stay with the same partner for an extended period (Bouchey & Furman, 2006). In this regard, studies have suggested that romantic involvement may vary in terms of the degree of exploration or commitment (Furman & Winkles, 2010). Thus, youths who remain single during the transition to adulthood may have a different experience of friendship than youths who have several romantic partners during this period.

The heterogeneity of romantic involvement throughout adolescence has been highlighted by a series of recent longitudinal studies (Boisvert & Poulin, 2016; Orpinas, Horne, Song, Reeves, & Hsieh, 2013; Rauer et al., 2013). Two studies examined youths from adolescence to early adulthood and included an annual measure of romantic involvement and the identification of romantic partners (Boisvert & Poulin, 2016; Rauer et al., 2013). The use of person-oriented analyses brought out five romantic involvement patterns in each of these studies, four being common to both studies and sharing similar features. The antecedents of these patterns and their correlates in adulthood were further documented (Boisvert & Poulin, 2017; Rauer et al., 2016), contributing to their validity.

The first of these four patterns, referred to as the "Late Involvement" group, includes young people who delay involvement in a romantic relationship, or who remain single in emerging adulthood. The second pattern, "Sporadic Involvement," includes young people who alternate between short-term romantic relationships and periods of being single, scattered across the years. The third pattern, "Long-Term Involvement," includes young people who remain in one, or at most two, committed long-term relationships. Lastly, young people in the "Frequent Involvement" pattern are almost continuously engaged in short-term relationships and frequently change partners.

Thus, the development of romantic involvement between adolescence and early adulthood is a heterogeneous phenomenon. Given the similarities between the social functions of close friendships and romantic relationships during this period, it is plausible that the quality of best friendships between young people may vary according to the romantic involvement pattern they follow, a question that was not addressed in the studies by Boisvert and Poulin (2016) or Rauer, Pettit, Lansford, Bates, and Dodge (2013) referred

to above. Since romantic exploration and commitment are considered developmental tasks in emerging adulthood (Arnett, 2015; Furman & Rose, 2015), it is plausible that young people whose romantic involvement is characterized by greater romantic exploration or commitment tend to turn to their romantic partner as their primary source of intimacy and support, whereas young people whose romantic involvement pattern is characterized by less exploration or commitment tend to turn to their best friend to fulfill this role. During the transition to adulthood, when the roles played by friendships and romantic relationships are subject to change, it is relevant to examine this question, bringing out the diversity of experiences in best friendships and their links to different romantic involvement patterns.

The Current Study

The current study aimed to examine changes in best friendship quality (e.g., intimacy, emotional support and conflict) from adolescence to emerging adulthood, while considering the diversity of youths' romantic involvement patterns during this period. Based on the work of Boisvert and Poulin (2016) and Rauer et al. (2013), four groups of youths were considered: (1) Late involvement, (2) Sporadic involvement, (3) Long-Term involvement and (4) Frequent involvement. Moreover, in light of the distinctions observed between boys and girls with regard to the quality of their friendships and the development of their romantic involvement during this period (Boisvert & Poulin, 2016; Way & Greene, 2006), the moderating role of gender was also considered in the analyses.

Based on the inconsistencies in the literature regarding links between friendship quality and romantic involvement, and given that romantic involvement patterns are characterized by diverse social antecedents and outcomes (Boisvert & Poulin, 2016, 2017; Rauer et al., 2013, 2016), it was expected that changes in best friendship quality over time would vary according to the romantic pattern followed. Moreover, since romantic partners tend to replace best friends as a primary source of intimacy and support during the transition to adulthood, it was expected that youths following a romantic pattern marked by little romantic exploration or commitment (Late and Sporadic groups) would seek to compensate for the lack of a romantic partner in their lives by turning, to a significantly greater degree, to their best friend as a source of intimacy and support. Thus, these youths were expected to report an increase in intimacy and perceived support from their best friend, as well as a decline in conflict, as they grew into adulthood. An inverse relation was expected among young people following a pattern marked by higher levels of exploration or commitment (Long-Term and Frequent groups).

Method

Participants

The data used in this research came from a longitudinal study involving 390 adolescents (58% girls; mean age = 12.38, SD = 0.42) recruited in eight schools in Quebec (Canada). Of all the students initially approached, 75% agreed to participate, with parental consent. The participants were mainly Caucasian (90%). Only a minority were of Black (3%), Hispanic (3%), Arabic (3%) or Asian (1%) descent. In 2001, most of the youths lived with both biological parents (72%) and the average family income ranged from \$45,000 to \$55,000. The data were collected every year

between the ages of 16 and 24, with an annual retention rate ranging from 76% to 82%. The romantic involvement groups were identified only among participants who took part in at least seven annual assessments during this period (see Boisvert & Poulin, 2016). A subgroup of 281 participants (61.3% girls) met this criterion and thus made up the sample selected for this study. Compared to the participants who were not selected ($n = 109$), those selected ($n = 281$) included a greater proportion of girls ($p < 0.05$) and were more likely to come from intact families ($p < 0.001$).

Research Design and Procedure

Between the ages of 16 and 22, data were collected using a paper-and-pencil questionnaire. At ages 16 and 17, participants filled out this questionnaire at their school under the supervision of research assistants. From ages 18 to 22, the questionnaire was mostly completed at the participants' homes, where a research assistant went to distribute and retrieve them. In rare cases (less than 5%), the questionnaire was sent out and returned by mail. At ages 23 and 24, the data used for the identification of the romantic involvement groups were collected through a brief (15 to 20 minutes), structured telephone interview administered by a research assistant. The parents' written consent was obtained until the participants reached the age of 18. After age 18, the participants gave their own consent. They received financial compensation (from \$10 to \$25 as the study progressed) to thank them for their participation.

Measures

Best friendship quality between the ages of 16 and 22. Each year, participants were asked to identify the person they considered to be their best friend at the time of data collection. Between the ages of 16 and 22, they identified, on average, 3.54 different people as their best friend ($SD = 1.39$; range between 1 and 7). In addition, the vast majority of participants named a same-gender best friend (86.80% of the total nominations).

Participants were then asked to complete a series of items assessing their relationship with their best friend. Best friendship quality was operationalized through two positive dimensions (intimacy and emotional support) and one negative dimension (conflict), as recommended in the literature (Bagwell et al., 2005; Furman & Buhrmester, 1992). These items were taken from the *Network of Relationships Inventory* (Furman & Buhrmester, 1985). Participants were asked how often their relationship was consistent with each item, using a five-point Likert scale, ranging from 1, *Very little or none of the time*, to 5, *Most of the time*. A shortened version of the original scales was used in this study. From ages 16 to 22, best friendship quality was measured through the dimensions of intimacy (3 items, e.g. "How often do you share secrets and private feelings with this person?") and conflict (3 items, e.g. "How often do you and this person argue with each other?"). From age 19 onward, emotional support was also measured (3 items, e.g. "When you are feeling down or upset, how often do you depend on this person to cheer things up?"). Scores for each of the dimensions corresponded to the mean of their items. Internal consistency indices (Cronbach alphas) varied from .75 to .84 for intimacy, .58 to .83 for conflict and .88 to .91 for emotional support.

Preliminary analyses showed that the number of different best friends nominated between the ages of 16 and 22 and their gender were not related to any dimensions of friendship quality over time.

Thus, these two variables were not considered in the main analyses.

Romantic involvement groups. The romantic involvement groups identified by Boisvert and Poulin (2016) among the same sample were used in this study. Each year, between the ages of 16 and 24, participants were asked to report the full name of every romantic partner they had dated in the previous year, including their current partner (maximum 5 names). Based on this information, two variables were calculated: 1) the number of years in which the participants reported being in a romantic relationship between the ages of 16 and 24, no matter with whom, and 2) the number of different romantic partners named between the ages of 16 and 24. These two variables were then submitted to a latent class analysis. Five classes, corresponding to five distinct romantic involvement groups, emerged from this analysis (see Boisvert & Poulin for a detailed description). The Late involvement group (11.7% of the sample) includes participants who reported the least number of romantic partners ($M = 1.30$) and the least number of years of involvement in a romantic relationship ($M = 1.88$) compared to youths in the other groups. Further analyses also showed that they reported having had their first romantic relationship significantly later in age ($M = 19.88$) than youths in all the other groups. The Sporadic involvement group (21.0%) is composed of participants reporting a moderate number of romantic partners ($M = 2.90$) and a moderate number years of involvement in a romantic relationship ($M = 5.31$), scattered across the years. The Long-Term involvement group (48.4%) is made up of participants who reported a moderate number of romantic partners ($M = 3.21$) and a higher number of years of involvement in a romantic relationship ($M = 8.17$ out of a maximum of 9). The Frequent involvement group (14.6%) includes participants who reported a higher number of romantic partners ($M = 7.08$) and a higher number of years of involvement in a romantic relationship ($M = 8.29$). Lastly, the Intense involvement group (4.3%) is composed of participants who reported the highest number of romantic partners ($M = 11.58$) and a higher number of years of involvement in a romantic relationship ($M = 8.42$). These groups, with the exception of the Intense group, replicate the findings reported by Rauer et al. (2013) using a US sample. In light of this, and since the Intense group represented only 4.3% ($n = 12$) of the sample under study, which is a marginal number of participants, this group was excluded from the analyses.

Data Analysis Plan

The research objectives were examined using a series of multilevel growth curve models (PROC MIXED, SAS), making it possible to consider two parameters for each friendship dimension under study: 1) the initial level (intercept) and 2) changes over time (slope). PROC MIXED analysis uses a Maximum Likelihood (ML) procedure that considers all available observations in the database and is a robust alternative to multiple imputation (Allison, 2012), in addition to being better suited to cases where the proportion of missing data is 5% or less, as in our sample (Cheema, 2014). To evaluate the links between best friendship quality and romantic involvement groups, the dependent variables examined were 1) intimacy, 2) conflict and 3) emotional support, with/from the best friend. The model was tested separately for each dependent variable and examined random effects for both intercept and slope. The independent variables examined were 1) age, 2) romantic involvement and 3) gender. Since romantic involvement was treated as a 4-level

Table 1. Means (and standard deviations) of study variables (unstandardized).

	Age						
	16	17	18	19	20	21	22
Relationship quality							
Intimacy	4.07 (1.02)	4.18 (0.90)	4.28 (0.83)	4.03 (0.88)	4.14 (0.89)	4.10 (0.95)	4.19 (0.87)
Conflict	1.57 (0.72)	1.54 (0.69)	1.34 (0.54)	1.73 (0.59)	1.59 (0.61)	1.53 (0.57)	1.51 (0.56)
Emotional Support	—	—	—	4.20 (0.88)	4.33 (0.81)	4.29 (0.87)	4.31 (0.87)

Note: $n = 281$ (61.3% girls). Range of participants' scores for intimacy, conflict and emotional support varied between 1 and 5 across waves.

Table 2. Multilevel models predicting friendship quality by type of romantic involvement (standardized).

Predictors	Late	Sporadic	Long-Term	Frequent	Cohen's f^2
Intimacy					
Intercept	-0.11 (0.14) [-0.39, 0.17]	-0.14 (0.10) [-0.33, 0.06]	-0.01 (0.07) [-0.14, 0.12]	-0.01 (0.12) [-0.25, 0.22]	0.008
Slope	0.00 _{ab} (0.03) [-0.06, 0.06]	0.04 _a (0.02)* [0.00, 0.08]	-0.02 _b (0.01) [-0.05, 0.01]	0.07 _a (0.02)** [0.02, 0.12]	0.008
Conflict					
Intercept	-0.34 (0.16)* [-0.65, -0.02]	-0.09 (0.11) [-0.31, 0.14]	-0.16 (0.07)* [-0.31, -0.01]	0.01 (0.14) [-0.26, 0.27]	0.004
Slope	0.13 _a (0.04)** [0.06, 0.20]	0.01 _b (0.03) [-0.04, 0.06]	0.02 _b (0.02) [-0.01, 0.05]	0.03 _b (0.03) [-0.03, 0.09]	0.003
Emotional Support					
Intercept	-0.20 _a (0.17) [-0.53, 0.13]	-0.22 _a (0.12) [-0.46, 0.01]	-0.08 _{ab} (0.08) [-0.23, 0.07]	0.23 _b (0.14) [-0.04, 0.51]	0.008
Slope	0.06 (0.06) [-0.06, 0.19]	0.12 (0.05) [0.03, 0.21]	0.01 (0.03) [-0.04, 0.07]	0.01 (0.05) [-0.09, 0.12]	0.006

Note: $n = 281$ (61.3% girls). Coefficients (standard deviation) with different subscripts within a row are significantly different from one another ($p < 0.05$). 95% confidence intervals are shown in brackets.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

categorical variable, the PROC MIXED analysis created dummy variables to be included in the model as predictors.

The analyses were conducted using the following models:

Level 1

$$Y_{ij} = \beta_{0i} + \beta_{1i}(\text{age}_{ij}) + \varepsilon_{ij}$$

Level 2

$$\begin{aligned} \beta_{0i} &= \gamma_{00} + \gamma_{02}(\text{gender}_i) + \gamma_{03}(\text{rom. involvement}_i) \\ &\quad + \gamma_{04}(\text{rom. involvement}_i * \text{gender}_i) + u_{0i} \\ \beta_{1i} &= \gamma_{10} + \gamma_{12}(\text{gender}_i) + \gamma_{13}(\text{rom. involvement}_i) \\ &\quad + \gamma_{14}(\text{gender}_i * \text{rom. involvement}_i); \end{aligned}$$

First, the age, romantic involvement groups and gender variables were introduced into the model to examine their main effects. Second, the interaction between age and romantic involvement groups was added to the model, to determine whether the effects of the romantic involvement groups varied over time, beyond the main effects mentioned above. Third, the interactions between gender and age, gender and romantic involvement groups and gender, age and romantic involvement groups were added to the model to evaluate the moderating role of gender on the links under study. When a significant interaction was found, the simple main effects for each subgroup were examined.

Results

Preliminary and Descriptive Analyses

The data for each variable were examined to ensure that its level of asymmetry did not exceed twice its standard deviation. In these instances, the variables were normalized using an appropriate log transformation (Field, 2013). Non-linear effects for time were tested for each dependent variable. However, no significant effect emerged. Unstandardized means and standard deviations of the variables under study between the ages of 16 and 22 are presented in Table 1. Results of the main effects and changes over time in best friendship quality are presented in Table 2. The next section presents the results separately for each dependent variable (intimacy, conflict, emotional support) according to the three steps of our model testing.

Intimacy. First, a main effect of age was observed, with participants reporting an increase in intimacy with their best friend between the ages of 16 and 22 ($\beta = 0.02$, $t(260) = 2.08$, $p < 0.05$). At age 16 (intercept), no main effect of the romantic involvement groups emerged. However, a main effect of gender was observed, as girls reported experiencing more intimacy with their best friend than boys ($\beta = -0.40$, $t(1252) = -7.46$, $p < 0.001$). Second, significant effects for the interaction between age and the romantic involvement groups (slope) were observed. Specifically, participants in the Sporadic and Frequent groups showed a significant increase in

intimacy with their best friend ($\beta = 0.04$, $t(1252) = 2.13$, $p < 0.05$, and $\beta = 0.07$, $t(1252) = 2.81$, $p < 0.01$, respectively). No changes were observed for the Late or Long-Term groups. Third, a moderating effect of gender was observed on the link between age and intimacy, with boys showing a significant increase in intimacy with their best friend between the ages of 16 and 22 ($\beta = 0.05$, $t(1252) = 3.29$, $p < 0.01$), while girls did not ($\beta = -0.002$, $t(1252) = -0.12$, $p = n.s.$). No other moderating effects of gender were observed.

Conflict. First, a main effect of age was observed, with youths reporting an increase in conflict with their best friend between the ages of 16 and 22 ($\beta = 0.05$, $t(260) = 3.52$, $p < 0.001$). No main effect was observed for the romantic relationship groups or gender. Second, as for the effects of the interaction between age and the romantic involvement groups, the results show that participants in the Late group reported a significant increase in conflict with their best friend between the ages of 16 and 22 ($\beta = 0.13$, $t(1252) = 3.61$, $p < 0.001$). No changes were observed for the Sporadic, Long-Term or Frequent groups. Third, no moderating effect of gender was observed.

Emotional support. First, a main effect of age was observed, with youths reporting an increase in emotional support from their best friend between the ages of 19 and 22 ($\beta = 0.05$, $t(261) = 2.07$, $p < 0.05$). A main effect of the romantic involvement groups was observed at age 19 (intercept), as participants in the Frequent group reported perceiving significantly more support from their best friend compared to participants in the Late ($\beta = 0.43$, $t(514) = 1.97$, $p < 0.05$) and Sporadic ($\beta = 0.46$, $t(514) = 2.49$, $p < 0.05$) groups. A main effect of gender was also observed at age 19, as girls reported perceiving significantly more support from their best friend than boys ($\beta = -0.25$, $t(514) = -3.98$, $p < 0.001$). Second, no effects of the interaction between age and the romantic involvement groups were observed for any of the four groups. Third, no moderating effect of gender was observed.

Discussion

Several authors have argued that the study of friendship during the transition to adulthood must consider the growing presence of romantic relationships (Chow et al., 2012; DeLay, Laursen, Bukowski, Kerr, & Stattin, 2016). However, the few studies on this issue show divergent results, which can be attributed to the use of a cross-sectional design and a reductive conceptualization of romantic involvement. The present study aimed to fill these gaps by using a longitudinal design and considering the heterogeneity of romantic involvement.

Romantic Involvement Groups and Best Friendship Quality

As expected, the dimensions of best friendship quality (intimacy, conflict and emotional support) evolved differently between adolescence and emerging adulthood according to the romantic involvement groups identified during this period. Our statistical design allowed us to consider two parameters for these dimensions: 1) the initial level (intercept) and 2) changes over time (slope).

At age 16, no differences emerged between the various romantic involvement groups regarding the levels of intimacy and conflict with the participants' best friend. However, a significant effect of

the romantic groups on perceived emotional support was observed at age 19, as youths in the Frequent group reported perceiving significantly more support from their best friend than youths in the Sporadic and Late groups.

The lack of significant results for the intimacy and conflict variables at age 16, in contrast to the significant effect of the romantic involvement groups on perceived emotional support at age 19, could be explained by the fact that in adolescence (i.e. age 16), romantic relationships are often considered to be superficial relationships, while friendship plays a prominent role as the primary source of intimacy and support (Bouchey & Furman, 2006; Brown, 1999). Therefore, it is possible that romantic relationships do not yet play a sufficiently significant role in the social universe of adolescents to have an effect on the quality of their friendships at this age. In contrast, at age 19, most young people have entered the world of dating, and romantic partners are starting to replace close friends as a primary source of intimacy and support (Arnett, 2015; Chow et al., 2012). It is thus plausible that romantic patterns may have an effect on best friendship quality at this age. Moreover, the results observed for emotional support are in line with those found by Rauer et al. (2013) showing that, in adolescence, youths in the Frequent group reported the highest level of perceived emotional support in their friendship. However, some studies have shown that best friendship quality differs according to romantic relationship status during adolescence (Cheung & McBride-Chang, 2011), which contradicts our findings. This divergence could be explained by the binary conceptualization of romantic involvement usually used in the literature, which contrasts with our conceptualization based on developmental patterns of involvement.

As for changes over time in best friendship quality, the results partially confirm our hypotheses. On the one hand, changes in best friendship quality between adolescence and emerging adulthood appear to be related to the romantic involvement of the youths during this period. However, an increase in best friendship quality was not necessarily linked to a romantic group marked by less exploration and commitment. Although the results observed for the Sporadic and Long-Term groups were consistent with this hypothesis, the results for the Late and Frequent groups brought out some nuances.

First, youths in both the Sporadic and Frequent groups reported an increase in intimacy with their best friend between the ages of 16 and 22, although they differed significantly in terms of their romantic involvement. Interestingly, previous studies showed that youths in these groups were generally well liked by their peers and reported good friendships during adolescence, as did youths in the Long-Term group (Boisvert & Poulin, 2016; Rauer et al., 2013). Yet, contrary to those in the Long-Term group, it appears that youths in the Sporadic and Frequent groups became involved in romantic relationships that did not last over time, for reasons that remain to be investigated. It is thus possible that they were seeking to compensate for the lack of a stable romantic partner, who could have been a significant source of intimacy, by turning to their best friend to fulfill this role.

The similarity of the results observed for these two groups and their divergence with the results found for the Long-Term group suggests an alternate interpretation: the mere fact of being more involved in romantic relationships is not enough for young people to turn to their partners as their primary source of social provisions. Rather, being in a relationship marked by commitment may be what leads to this phenomenon. Thus, youths in the Frequent group, who had several consecutive, but not very committed, romantic

relationships may have tended to turn to their best friend as a source of intimacy, as did youths in the Sporadic group. On the other hand, youths in the Long-Term group, who maintained more committed romantic relationships with a stable partner, may have tended to turn to their partner as the primary source of intimacy and thus did not need to rely as much on their best friend. This explanation could also account for the divergence in results observed in studies assessing the links between romantic status and friendship quality, since these studies do not consider the aspects of romantic exploration and commitment related to romantic involvement (Furman & Winkles, 2010).

As for the youths in the Long-Term group, the lack of change in the quality of their best friendship appears to align to a certain degree with our hypothesis. Indeed, this finding suggests that, since these youths were engaged in stable and committed romantic relationships between adolescence and emerging adulthood, they did not need to rely as much on their best friend as a source of intimacy compared to youths in the Sporadic and Frequent groups.

Finally, the results observed for youths in the Late group (increase in conflict, but no change in intimacy or support) contradicted our initial hypothesis. This could be explained by the fact that, in early adolescence, youths in the Late group tend to be characterized by social withdrawal, difficulty integrating into their peer group, and poorer-quality friendships (Boisvert & Poulin, 2016; Rauer et al., 2013). These difficulties may reflect gaps in the social skills needed to build and maintain quality relationships, which may impair the ability of these youths to find a source of intimacy and support in their best friend, as well as impairing their ability to become romantically involved.

In general, our findings suggest that being involved in romantic relationships marked by low levels of commitment leads young people to turn more to their best friend as a source of intimacy. However, this effect could also go in the opposite direction. Indeed, young people in the Sporadic and Frequent groups may derive significant levels of social provisions from their best friend, which could lead them to be less interested in seeking a committed romantic relationship to meet these needs. As for youths in the Long-Term group, they may experience a plateau in the quality of their best friendship, which would lead them to turn more towards a committed romantic relationship as a source of intimacy. Another possible interpretation is that youths in the Sporadic and Frequent groups might present distinct personal characteristics that lead them to be more invested in their close friendships as they grow older, a hypothesis that remains to be investigated. Finally, the lack of social skills that appears to characterize youths in the Late group might explain their difficulties both in terms of romantic involvement and the quality of their best friendship, with both types of relationships evolving in a similar way.

With respect to gender, boys showed a greater increase in intimacy with their best friend than girls. A possible explanation for this result could be that, as they age, boys become more confident in their identity and sexuality, which allows them to be more comfortable in their close friendships (Way & Greene, 2006). However, the lack of significant results for conflict and emotional support suggests that changes in these dimensions during the transition to adulthood do not vary by gender. Moreover, gender did not moderate the link between romantic involvement and friendship quality over time. As the exploration and development of romantic relationships is a normative developmental task (Arnett, 2015), the links between best friendship quality and romantic involvement

might reflect a somewhat normative passage for all youths which is therefore experienced in a similar way by both genders.

Limitations, Strengths, and Future Directions

This study has some limitations that should be considered. A first limitation is the lack of assessment of emotional support between the ages of 16 and 18. A second limitation relates to the use of self-reported questionnaires, which are susceptible to the subjectivity of the participants. The perceptions of friends and romantic partners were not considered here, and mutuality in relationships could not be established. Third, one of the Cronbach alphas observed for the conflict scale was rather low (.58). However, this value was observed for only one measurement time out of seven, with all other values being higher than .75. Lastly, the sample involved in this study was relatively homogeneous, with the majority of participants being French-speaking Caucasian Canadians from a similar socioeconomic background.

These limitations are, however, offset by the methodological strengths of the study, especially its 7-year longitudinal design with an annual assessment of best friendship quality and romantic involvement. This design allowed for the use of multilevel analyses adapted to the evaluation of intra-individual changes in the youths' friendship experiences as a function of the romantic involvement groups.

These findings open the door to several future studies. First, friends and romantic partners are treated here as two distinct groups of individuals. However, future studies should carefully investigate scenarios in which a best friend may become a romantic partner or vice versa, and how these instances might be linked to best friendship quality. Second, best friendship quality and romantic involvement develop in the context of the larger peer group, which also undergoes several changes throughout adolescence. The complex links among these different levels of peer experiences remain relatively unknown. Third, one must consider that friendship and romantic involvement might also develop in a bidirectional fashion where one is likely to influence the other.

Conclusion

This study shows that changes observed in best friendship quality during the transition to adulthood are linked to the romantic involvement of youths during this period. These results support the suggestion that close friends and romantic partners play similar social functions, and that the study of friendships during the transition to adulthood must consider the growing presence of romantic relationships (Chow et al., 2012). Moreover, these results confirm the relevance of considering the development of romantic involvement as a heterogeneous phenomenon.

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References

- Allison, P. D. (2012, April). *Handling missing data by maximum likelihood*. Paper presented at the SAS Global Forum, Orlando, FL, USA.
- Arnett, J. J. (2015). *Emerging adulthood: The winding road from the late teens through the twenties* (2nd ed.). New York, NY: Oxford University Press. doi:10.1093/oxfordhb/9780199795574.013.9
- Bagwell, C. L., Bender, S. E., Andreassi, C. L., Kinoshita, T. L., Montarello, S. A., & Muller, J. G. (2005). Friendship quality and perceived relationship changes predict psychosocial adjustment in early adulthood. *Journal of Social and Personal Relationships, 22*, 235–254. doi:http://dx.doi.org.proxy.bibliotheques.uqam.ca:2048/10.1177/0265407505050945
- Bagwell, C. L., & Schmidt, M. E. (2011). *Friendships in childhood and adolescence*. New York, NY: The Guilford Press.
- Boisvert, S., & Poulin, F. (2016). Romantic relationship patterns from adolescence to emerging adulthood: Associations with family and peer experiences in early adolescence. *Journal of Youth and Adolescence, 45*, 945–958. doi:10.1007/s10964-016-0435-0
- Boisvert, S., & Poulin, F. (2017). Navigating in and out of romantic relationships from adolescence to emerging adulthood: Distinct patterns and their correlates at age 25. *Emerging Adulthood, 5*, 216–223. doi:10.1177/2167696816675092
- Bouchey, H. A., & Furman, W. (2006). Dating and romantic experiences in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 313–329). Oxford, UK: Blackwell Publishing Ltd. doi:10.1002/9780470756607.ch15
- Brown, B. B. (1999). “You’re going out with who?”: Peer group influences on adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 291–329). New York, NY: Cambridge University Press. doi:10.1017/CBO9781316182185.013
- Carbery, J., & Buhrmester, D. (1998). Friendship and need fulfillment during three phases of young adulthood. *Journal of Social and Personal Relationships, 15*, 393–409. doi:10.1177/0265407598153005
- Cheema, J. R. (2014). Some general guidelines for choosing missing data handling methods in educational research. *Journal of Modern Applied Statistical Methods, 13*, 53–75. doi:10.22237/jmasm/1414814520
- Cheung, S. K., & McBride-Chang, C. (2011). Relations of gender, gender-related personality characteristics, and dating status to adolescents’ cross-sex friendship quality. *Sex Roles, 64*, 59–69.
- Chow, C. M., Roelse, H., Buhrmester, D., & Underwood, M. K. (2012). Transformations in friend relationships across the transition into adulthood. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways: From adolescence to young adulthood* (pp. 91–112). Thousand Oaks, CA: Sage. doi:10.4135/9781452240565.n5
- Connolly, J. A., & Johnson, A. M. (1996). Adolescents’ romantic relationships and the structure and quality of their close interpersonal ties. *Personal Relationships, 3*, 185–195. doi:10.1111/j.1475-6811.1996.tb00111.x
- DeLay, D., Laursen, B., Bukowski, W. M., Kerr, M., & Stattin, H. (2016). Adolescent friend similarity on alcohol abuse as a function of participation in romantic relationships: Sometimes a new love comes between old friends. *Developmental Psychology, 52*, 117–129. doi:10.1037/a0039882
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage.
- Furman, W., & Buhrmester, D. (1985). Children’s perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*, 1016–1024. doi:10.1037/0012-1649.21.6.1016
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development, 63*, 103–115. doi:10.2307/1130905
- Furman, W., & Rose, A. (2015). Friendships romantic relationships and other dyadic peer relationships in childhood and adolescence: A unified relational perspective. In R. M. Lerner, W. F. Overton, & P. C. M. Molenaar (Eds.), *The handbook of child psychology and developmental science* (7th ed., Vol. 3: Social and emotional development, pp. 932–966). Hoboken, NJ: John Wiley & Sons.
- Furman, W., & Winkles, J. K. (2010). Predicting romantic involvement, relationship cognitions, and relationship qualities from physical appearance, perceived norms, and relational styles regarding friends and parents. *Journal of Adolescence, 33*, 827–836. doi:10.1016/j.adolescence.2010.07.004
- Laursen, B., & Bukowski, W. M. (1997). A developmental guide to the organisation of close relationships. *International Journal of Behavioral Development, 21*, 747–770. doi:10.1080/016502597384659
- Markiewicz, D., Lawford, H., Doyle, A. B., & Haggart, N. (2006). Developmental differences in adolescents’ and young adults’ use of mothers, fathers, best friends, and romantic partners to fulfill attachment needs. *Journal of Youth and Adolescence, 35*, 127–140. doi:10.1007/s10964-005-9014-5
- Orpinas, P., Horne, A. M., Song, X., Reeves, P. M., & Hsieh, H.-L. (2013). Dating trajectories from middle to high school: Association with academic performance and drug use. *Journal of Research on Adolescence, 23*, 772–784. doi:10.1111/jora.12029
- Rauer, A. J., Pettit, G. S., Lansford, J. E., Bates, J. E., & Dodge, K. A. (2013). Romantic relationship patterns in young adulthood and their developmental antecedents. *Developmental Psychology, 49*, 2159–2171. doi:10.1037/a0031845
- Rauer, A. J., Pettit, G. S., Samek, D. R., Lansford, J. E., Dodge, K. A., & Bates, J. E. (2016). Romantic relationships and alcohol use: A long-term, developmental perspective. *Development and Psychopathology, 28*, 773–789. doi:http://dx.doi.org.proxy.bibliotheques.uqam.ca:2048/10.1017/S0954579416000304
- Reis, H. T., Lin, Y.-C., Bennett, M. E., & Nezek, J. B. (1993). Change and consistency in social participation during early adulthood. *Developmental Psychology, 29*, 633–645. doi:10.1037/0012-1649.29.4.633
- Rosenthal, N. L., & Kobak, R. (2010). Assessing adolescents’ attachment hierarchies: Differences across developmental periods and associations with individual adaptation. *Journal of Research on Adolescence, 20*, 678–706. doi:10.1111/j.1532-7795.2010.00655.x
- Rubin, K. H., Bukowski, W. M., & Parker, J. (2006). Peer interactions, relationships, and groups. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology, Vol. 3: Social, emotional, and personality development* (pp. 571–645). Hoboken, NJ: Wiley. doi:10.1002/9780470147658.chpsy0310
- Way, N., & Greene, M. L. (2006). Trajectories of perceived friendship quality during adolescence: The patterns and contextual predictors. *Journal of Research on Adolescence, 16*, 293–320. doi:10.1111/j.1532-7795.2006.00133.x