



# Concurrent and Prospective Associations Among Co-rumination, Adjustment and Friendship in Emerging Adults



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## Introduction & Aims

### Introduction

- ❖ Co-rumination (CR) is defined as excessive problem-focused discussion that is associated both concurrently (Rose, 2002) and prospectively with positive friendship quality (Calmes & Roberts; 2008; Rose et al. 2007) and depressive symptoms (Hankins et al., 2010; but see also Starr & Davila, 2009).
- ❖ Past research that has examined these prospective relationships is limited (Hankins et al., 2010; Rose et al. 2007; Starr & Davila, 2009), varied in terms of time frame, and has produced mixed results. The majority of this recent work has focused on youth and/or females.
- ❖ In light of this, the current study will explore whether CR contributes to change in adjustment and friendship quality over time or is simply a correlate of these variables in a sample of college men and women.

**Research Question 1:** Does CR contribute to change in adjustment and friendship quality over time or is CR simply a correlate of these variables?

- ❑ Hypothesis 1: Cross-sectional associations will be found between CR and anxiety/depression and positive friendship quality

- ❑ Aim 2: In light of limited and mixed results, prospective relationships will be examined

**Research Question 2:** Are there gender differences in CR and does gender moderate the relationship between CR and anxiety/depression and friendship quality?

- ❑ Hypothesis 2: Women will report higher levels of CR than men

## Method

### Participants

- ❖ 102 college students (T1)
  - Females = 56, Males = 46
  - Mean age = 19.6 years
  - Predominately Caucasian (80%), Asian-Pacific Islander (7%), Hispanic (6%) and other (7%)
  - Seventy-nine students (78%) participated again one year later (T2)

## Method

### Procedures

Students were recruited through introductory psychology courses, instructed to bring a same-sex close friend to the lab, and separately completed measures of CR, friendship quality (FQ), and internalizing problems.

### Measures

- ❖ **Co-Rumination Questionnaire (CR; Rose, 2002)**
  - 27 items (1 = *not at all true* to 5 = *really true*);  $\alpha = .94$
  - e.g., "We'll talk about every part of the problem over and over"
- ❖ **Adult Manifest Anxiety Scale (AMAS-C; Lowe et al., 2005)**
  - 49 items (1 = *yes* or 0 = *no*);  $\alpha = .90$
  - e.g., "I worry a lot of the time"
- ❖ **Beck Depression Inventory (BDI; Beck et al., 1996)**
  - 21 items (0 = no depressive symptoms to 3 = prominent symptoms);  $\alpha = .86$
  - e.g., 0 I do not feel sad  
1 I feel sad much of the time  
2 I am sad all the time  
3 I am so sad or unhappy that I can't stand it
- ❖ **Network of Relationships Inventory (NRI-R; Furman, & Burhmester, 1985) – Social Support Scale**
  - 24 items (1 = *little or none* to 5 = *the most*)
  - It is an average of 8 subscales – companionship, instrumental aid, nurturance, affection, admiration, reliable alliance, support, satisfaction
  - Self-disclosure – Intimacy subscale of the NRI was not included given conceptual overlap with CR.
  - e.g., "How good is your relationship with this person?";  $\alpha = .97$

## Results

- ❑ **Hypothesis 1:** Cross-sectional associations will be found between CR and anxiety/depression and positive friendship quality (FQ)
- ☑ Expectedly and consistent with prior studies, there were significant positive concurrent relationships between CR and adjustment at baseline (T1) and one-year follow-up (T2). While CR was significantly related to positive FQ at T1, there was no significant concurrent relationship between these variables at T2 (see Table 1).

## Results

- ❑ **Aim 2:** In light of limited and mixed results, prospective relationships will be examined
- ☑ While T1 CR was positively associated with T2 depression and anxiety, the relationships failed to reach statistical significance. Baseline CR was significantly positively associated with later FQ. Neither T1 depression nor T1 anxiety were associated with T2 CR; baseline FQ was positively associated with later CR.

Table 1

| Measures | T1    |      |        |         |        |        | T2   |        |      |    |
|----------|-------|------|--------|---------|--------|--------|------|--------|------|----|
|          | Mean  | SD   | CR     | BDI     | AMAS   | FQ     | CR   | BDI    | AMAS | FQ |
| Time 1   |       |      |        |         |        |        |      |        |      |    |
| CR       | 2.30  | 0.67 | --     |         |        |        |      |        |      |    |
| BDI      | 7.60  | 5.98 | .18*   | --      |        |        |      |        |      |    |
| AMAS-C   | 16.45 | 8.88 | .15*   | .62***  | --     |        |      |        |      |    |
| FQ       | 3.26  | 0.89 | .25**  | -.32*** | -.15*  | --     |      |        |      |    |
| Time 2   |       |      |        |         |        |        |      |        |      |    |
| CR       | 2.20  | .67  | .52*** | .07     | .06    | .22*   | --   |        |      |    |
| BDI      | 6.94  | 5.11 | .16*   | .60***  | .28**  | -.17*  | .18* | --     |      |    |
| AMAS-C   | 14.84 | 8.42 | .17*   | .52***  | .69*** | -.10   | .19* | .59*** | --   |    |
| FQ       | 2.70  | 1.01 | .21*   | -.26*   | -.17*  | .56*** | -.03 | -.14   | -.09 | -- |

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

To understand the temporal ordering of variables across time, a series of separate hierarchical regression analyses were conducted predicting adjustment or FQ.

Table 2  
Baseline co-rumination and gender predicting later friendship quality, anxiety and depression

| Predictor Variables | Friendship Quality (T2) |         |       | Anxiety (T2) |         |       | Depression (T2) |         |       |
|---------------------|-------------------------|---------|-------|--------------|---------|-------|-----------------|---------|-------|
|                     | $\beta$                 | $t$     | $R^2$ | $\beta$      | $t$     | $R^2$ | $\beta$         | $t$     | $R^2$ |
| Step 1:             |                         |         |       |              |         |       |                 |         |       |
| FQ (T1)             | .58                     | 5.61*** | .31   | --           | --      | --    | --              | --      | --    |
| Anxiety (T1)        | --                      | --      | --    | .66          | 7.80*** | .47   | --              | --      | --    |
| Depression (T1)     | --                      | --      | --    | --           | --      | --    | .58             | 6.22*** | .36   |
| Step 2:             |                         |         |       |              |         |       |                 |         |       |
| Gender              | .58                     | 1.59    | .35   | .15          | .51     | .50   | .03             | .09     | .36   |
| Step 3:             |                         |         |       |              |         |       |                 |         |       |
| Co-rumination (T1)  | .19                     | 1.38    | .35   | .14          | 1.24    | .50   | .07             | .56     | .36   |
| Step 4:             |                         |         |       |              |         |       |                 |         |       |
| Gender X CR (T1)    | -.40                    | -1.08   | .36   | -.33         | -1.11   | .51   | -.11            | -.32    | .37   |

Note.  $\beta$ s are standardized regression coefficients in the final model in which predictor variables were simultaneous predictors.  
<sup>†</sup> $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

## Results

For depression, anxiety and FQ, CR was not a significant predictor of later outcomes once the effect of gender and baseline levels of adjustment and FQ were considered (see Table 2). Similarly, the interaction of CR and gender was not a significant predictor of later depression, anxiety or FQ. Thus, CR appears to be a correlate rather than predictor of later adjustment problems and FQ in our sample of young adults.

- ❑ **Hypothesis 2:** Women will report higher levels of CR than men

- ☑ Consistent with recent studies of children/adolescents, women reported significantly higher levels of CR at T2,  $t(75) = 1.67, p < .05, d = .39$  (gender differences at T1 failed to reach significance,  $t(100) = 1.34, p < .10, d = .27$ ). However, gender did not moderate any of the longitudinal relationships between CR and adjustment or between CR and FQ. Although at odds with Rose et al.'s (2007) past work, it is consistent with more recent studies of children and adolescents (Hankins et al., 2010; Stone et al. 2010) who similarly did not find support for gender moderation.

## Conclusions

- ❖ With limited research on CR, particularly among older adolescents and young adults, it is unclear whether unique sampling issues or a meaningful developmental shift from adolescence to adulthood explains the lack of prospective relationships.
- ❖ Longitudinal research that spans this developmental transition and expands methodology is sorely needed. Specifically, this research should include:
  - Collection of observational data that enhances our understanding of the topics and dyadic processes that may be associated with adjustment trade-offs
  - Peer context variables (e.g., friendship network size/density; friendship reciprocity; rejection) which may vary developmentally and inform our understanding of associations between CR and outcomes across time
- ❖ Such designs promise to enhance our understanding of the unique ways in which CR may change across developmental contexts and whether certain factors predict varying trajectories.