



FRIENDSHIPS IN ADOLESCENCE: A LIFELINE OR A LOAD?

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HELLO!



ADOLESCENCE

Friendships become centrally important

- Acceptance
 - Companionship
 - Intimacy
 - Social Support
-
- Emotion Socialization
 - Identity Formation



ADOLESCENCE

Emotional adjustment problems become more common

- Anxiety (> 30%)
- Depression (20%)
- Self-Injury (17%)
- Suicide (10% attempt)

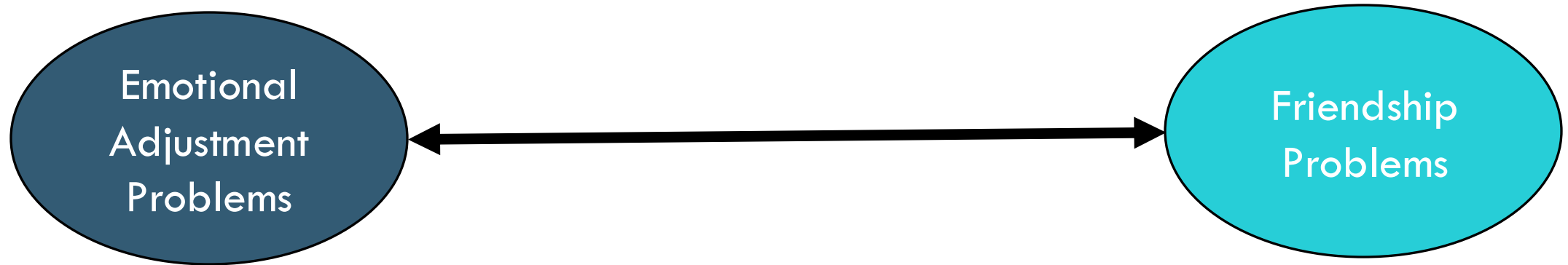
DEVELOPMENTAL SCIENCE: FRIENDSHIPS AND MENTAL HEALTH



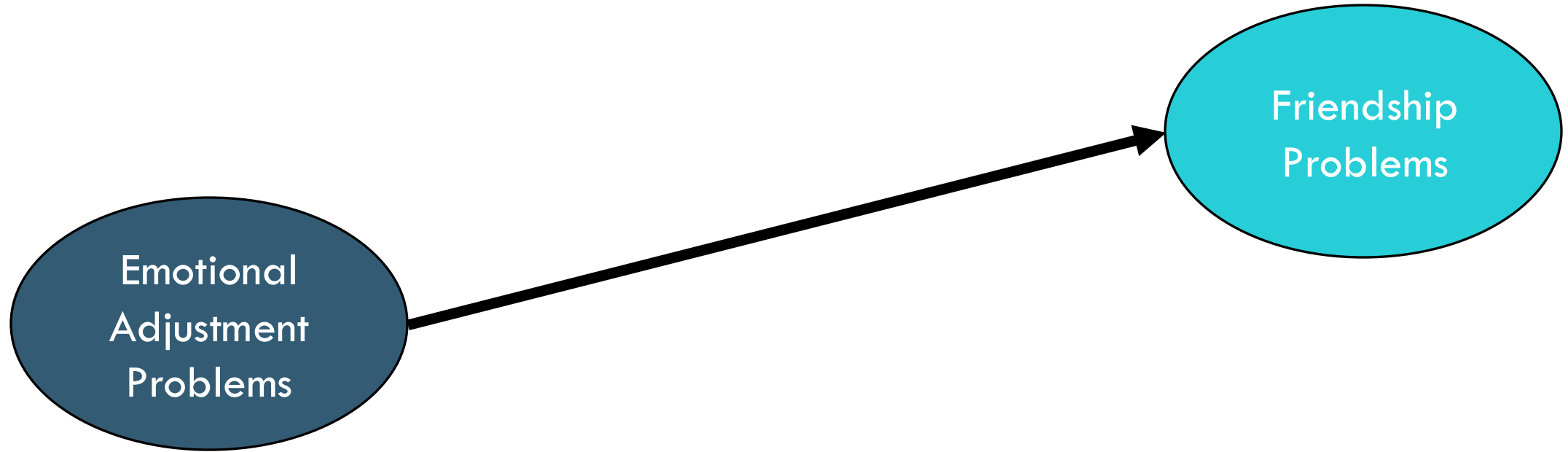
CLINICAL SCIENCE: MENTAL HEALTH AND FRIENDSHIPS



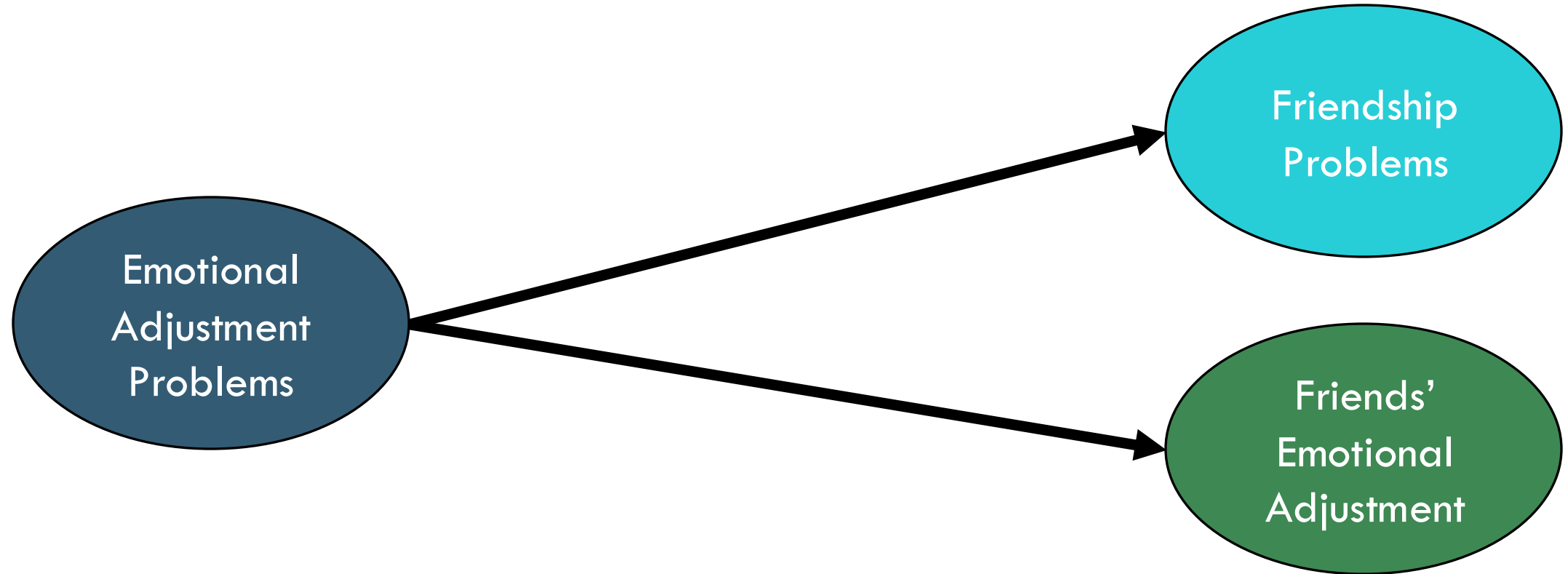
DEVELOPMENTAL PSYCHOPATHOLOGY: TRANSACTIONAL ASSOCIATIONS (AND DIFFERENTIAL TRAJECTORIES)



INTERPERSONAL THEORIES OF DEPRESSION



INTERPERSONAL THEORIES OF DEPRESSION





CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

Meta-analyses ($n = 16$)

- 589 unique effects from 233 studies
- Concurrent and longitudinal effects
- Friendship experiences
 - Number of friends
 - Positive friendship quality / social support
 - Negative friendship quality / conflict
- Emotional adjustment
 - Depressive symptoms
 - Loneliness
- Moderator effects
 - Age, gender, length btw assessments, friendship reciprocity, publication year



CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

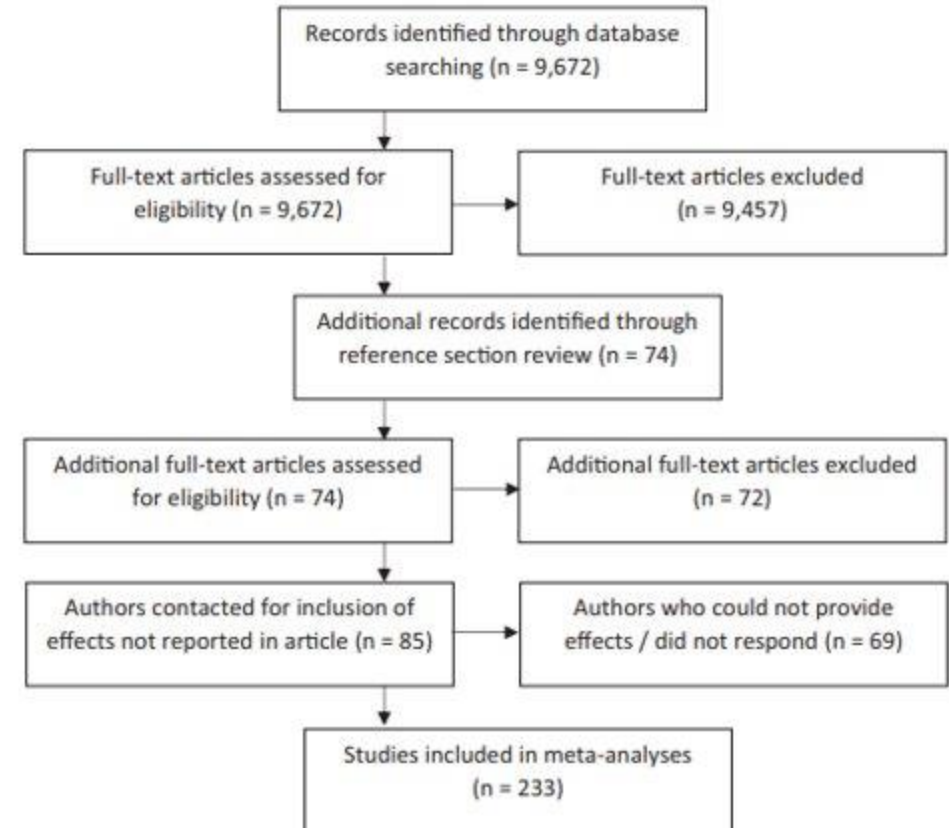


Figure 1. PRISMA flow diagram (Moher, Liberati, Tetzlaff, & Altman, 2009) of study identification. The 233 studies retained for quantitative analyses contributed 589 effects across 16 meta-analyses.



CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

CONCURRENT EFFECTS

Depressive Symptoms

▪ # of friends ($N = 25,333$)	-.15****
▪ Positive FQ ($N = 90,654$)	-.23****
▪ Negative FQ ($N = 23,480$)	.26****

Loneliness

▪ Number of friends ($N = 10,028$)	-.29****
▪ Positive FQ ($N = 15,293$)	-.41****
▪ Negative FQ ($N = 3,998$)	.21****

**** $p < .0001$



CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

LONGITUDINAL EFFECTS

Time 1 Friendship → Time 2 Emotional Adjustment

of Friends

- Depressive symptoms ($N = 5,420$) $-.12^{****}$
- Loneliness ($N = 2,561$) $-.24^{****}$

Positive FQ

- Depressive symptoms ($N = 22,433$) $-.11^{****}$
- Loneliness ($N = 2,719$) $-.26^{****}$

Negative FQ

- Depressive symptoms ($N = 4,509$) $.20^{****}$
- Loneliness -----

**** $p < .0001$



CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

LONGITUDINAL EFFECTS

Time 1 Emotional Adjustment → Time 2 Friendship

Depressive Symptoms

- # of friends ($N = 5,358$) -.12****
- Positive FQ ($N = 13,211$) -.14****
- Negative FQ ($N = 5,193$) .18****

Loneliness

- Number of friends ($N = 1,229$) -.20****
- Positive FQ ($N = 1,372$) -.29****
- Negative FQ -----

**** $p < .0001$



CLARIFYING ASSOCIATIONS OF FRIENDSHIP WITH LONELINESS AND DEPRESSION

ADDITIONAL ANALYSES

Differential Effects (see Borenstein et al., 2009)

- Loneliness effects > Depressive symptom effects
- Negative FQ effects > Positive FQ effects

Moderation

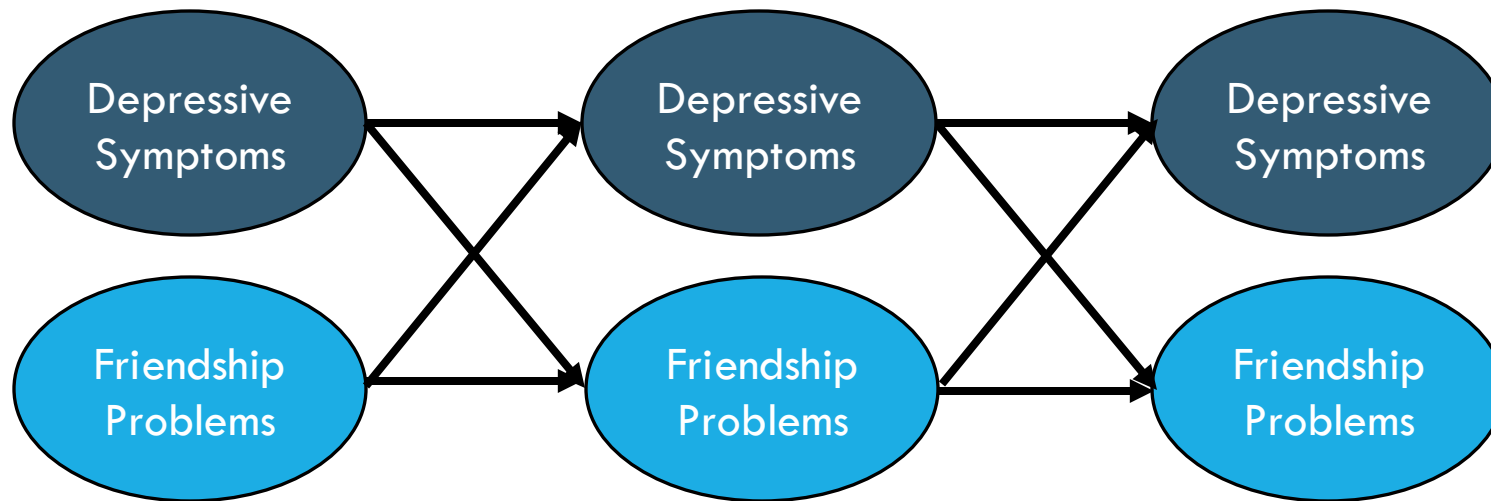
- Gender (girls > boys; pos FQ → depressive sx)
- Age (younger > older; depressive sx effects)
- Length between assessments
- Friendship reciprocity
- Publication year

Publication Bias

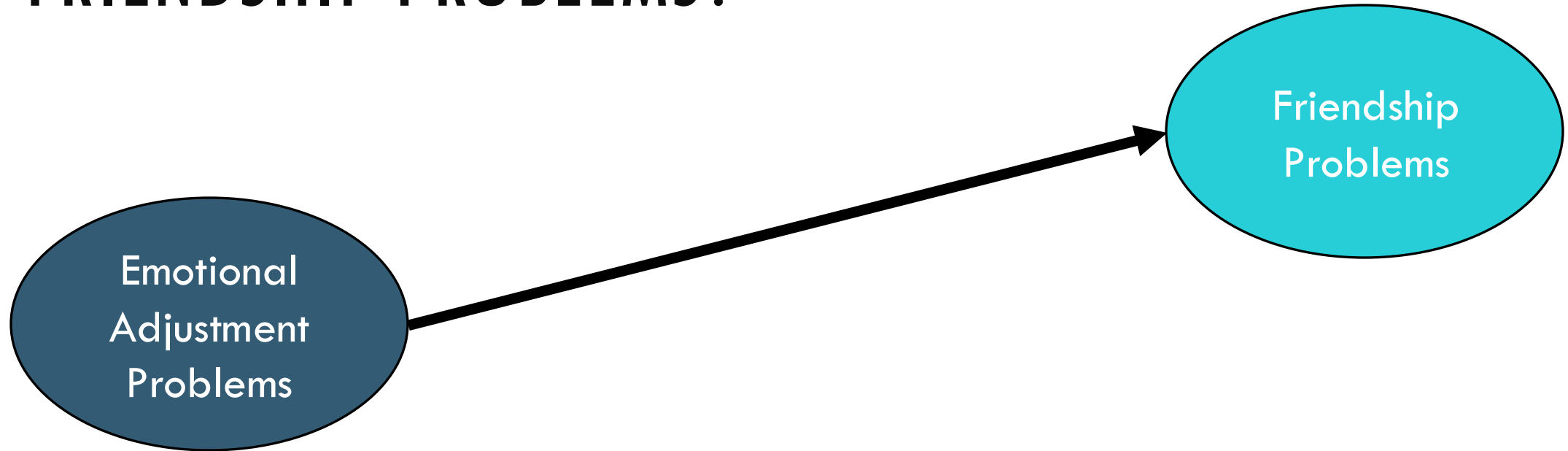
- Sensitivity analysis using selection methods
- Corrected effect sizes (by .01-.03)
- No bias

FRIENDSHIP AND EMOTIONAL ADJUSTMENT

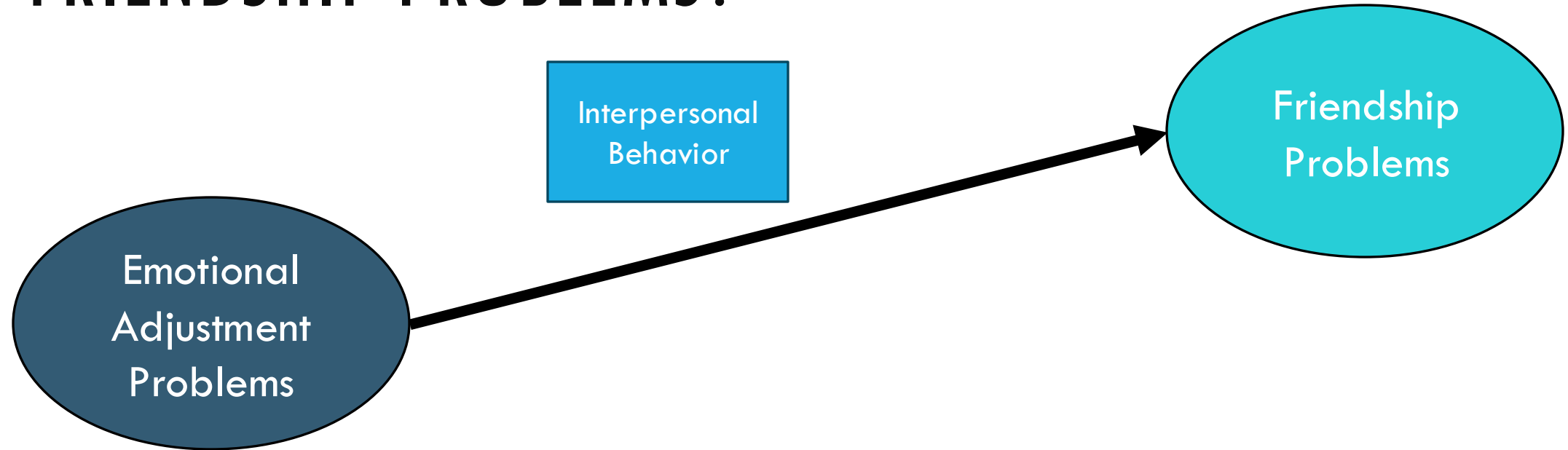
- Transactional relations of depressive symptoms with self- and friend-reported friendship problems? What do friends say?
 - 3 waves of assessment
 - Friendship-driven change AND symptom-driven change
 - Depressive symptoms linked with **ONLY** self-reported friendship problems (not friends' reports!)



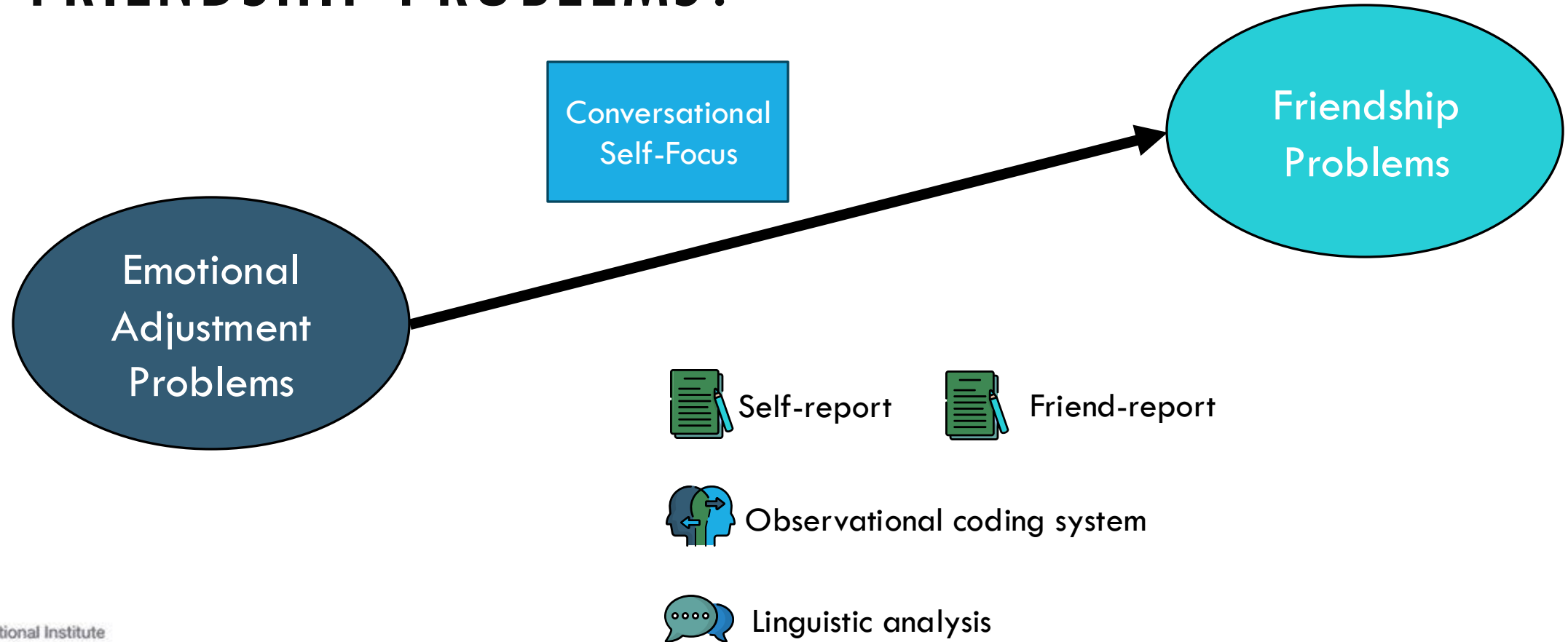
DO ALL DEPRESSED ADOLESCENTS HAVE FRIENDSHIP PROBLEMS?



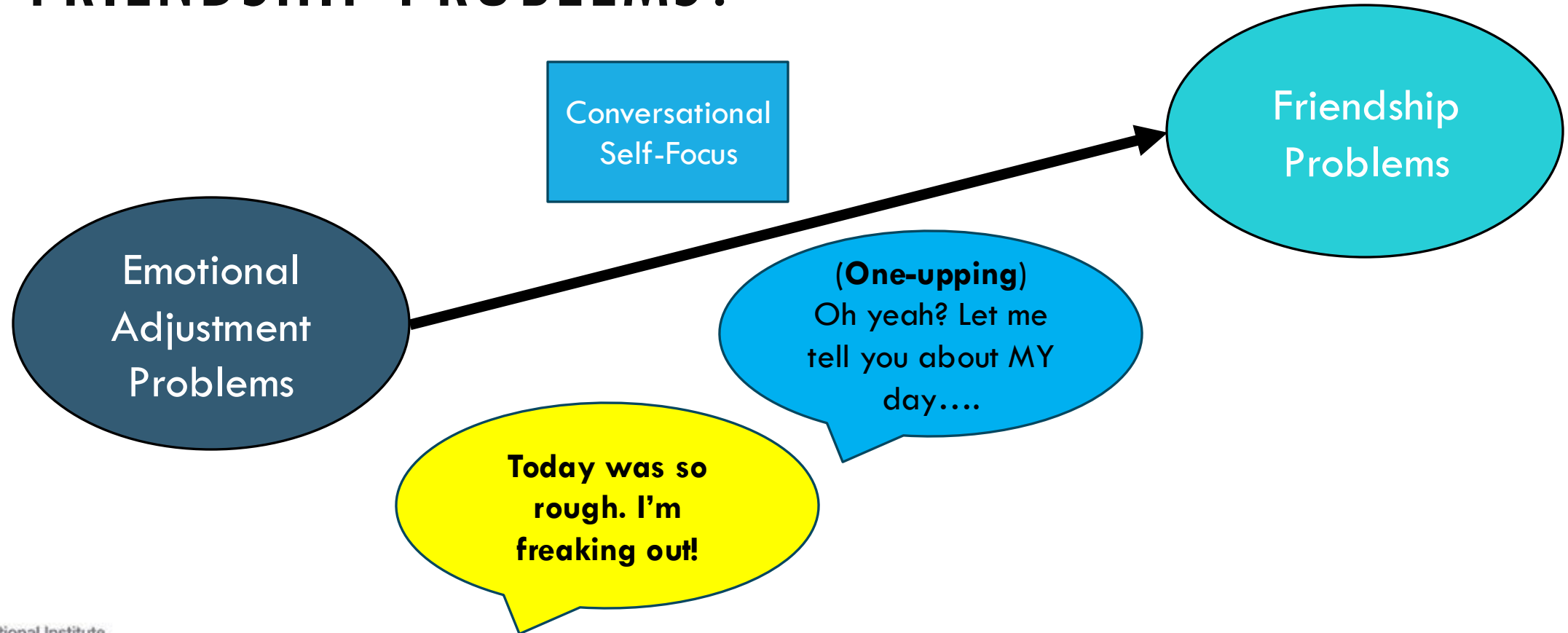
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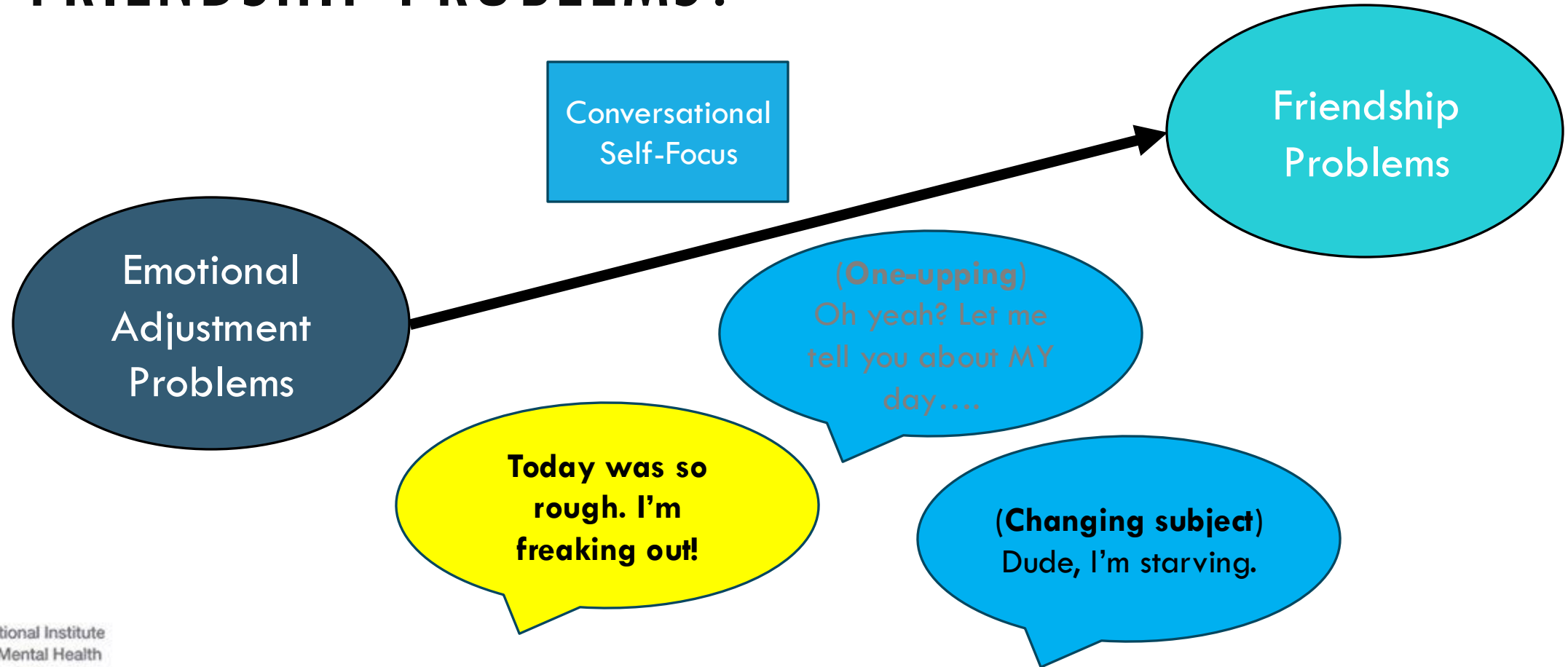
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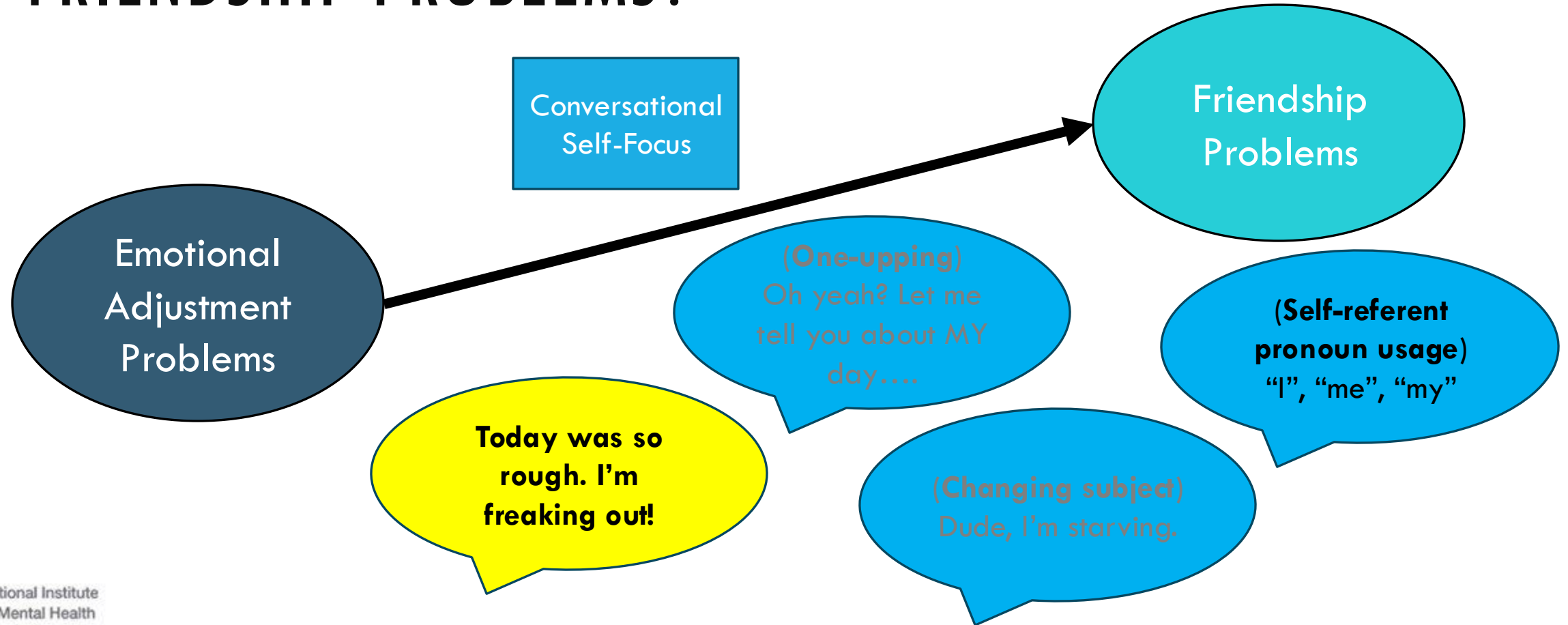
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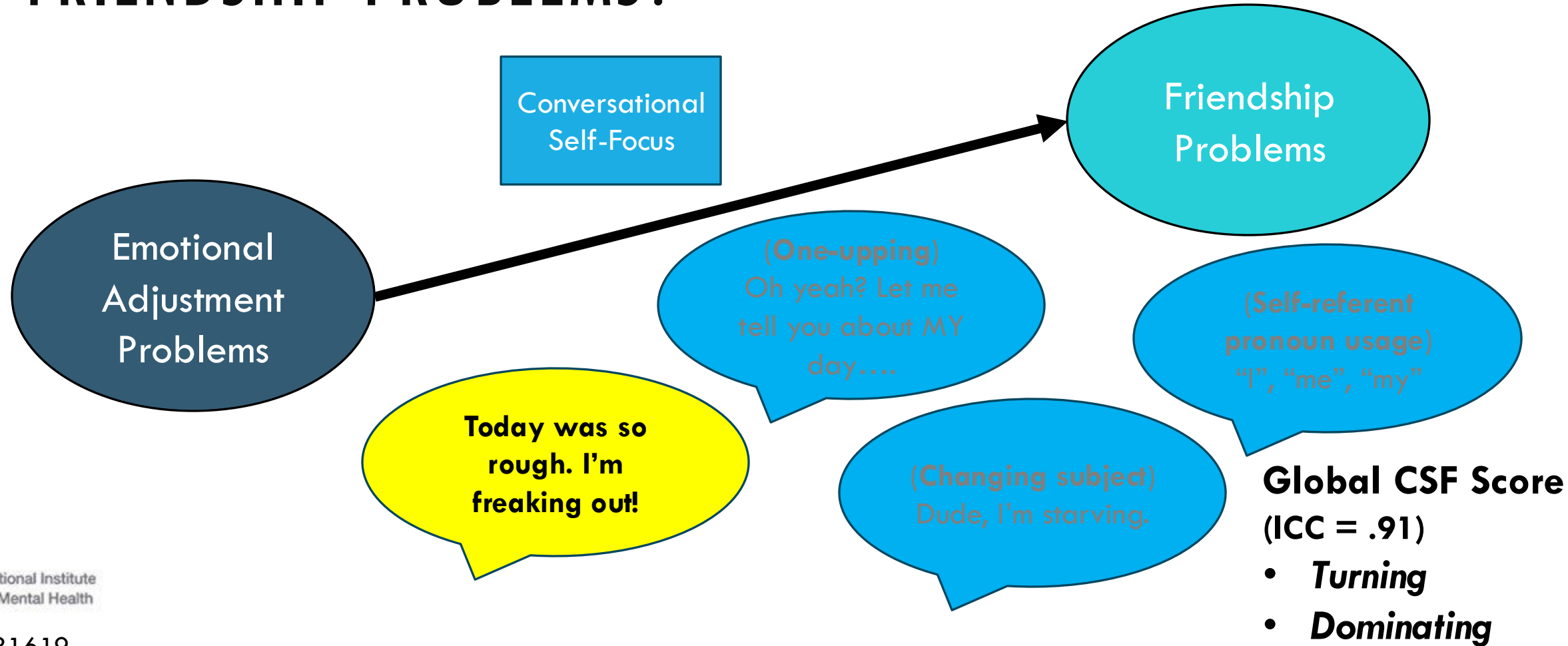
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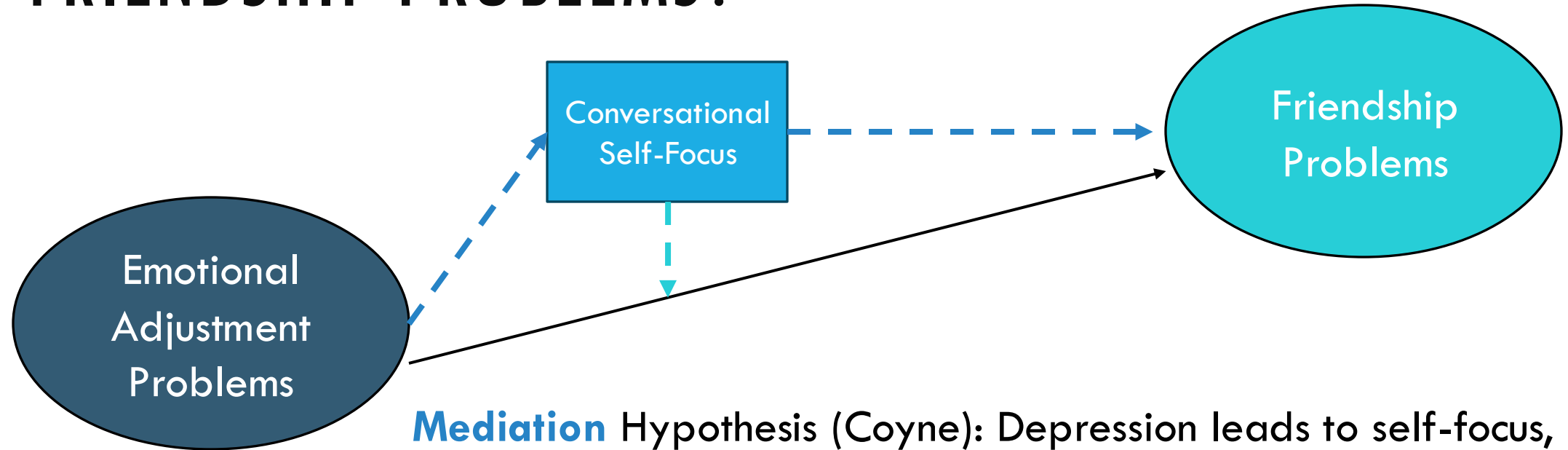
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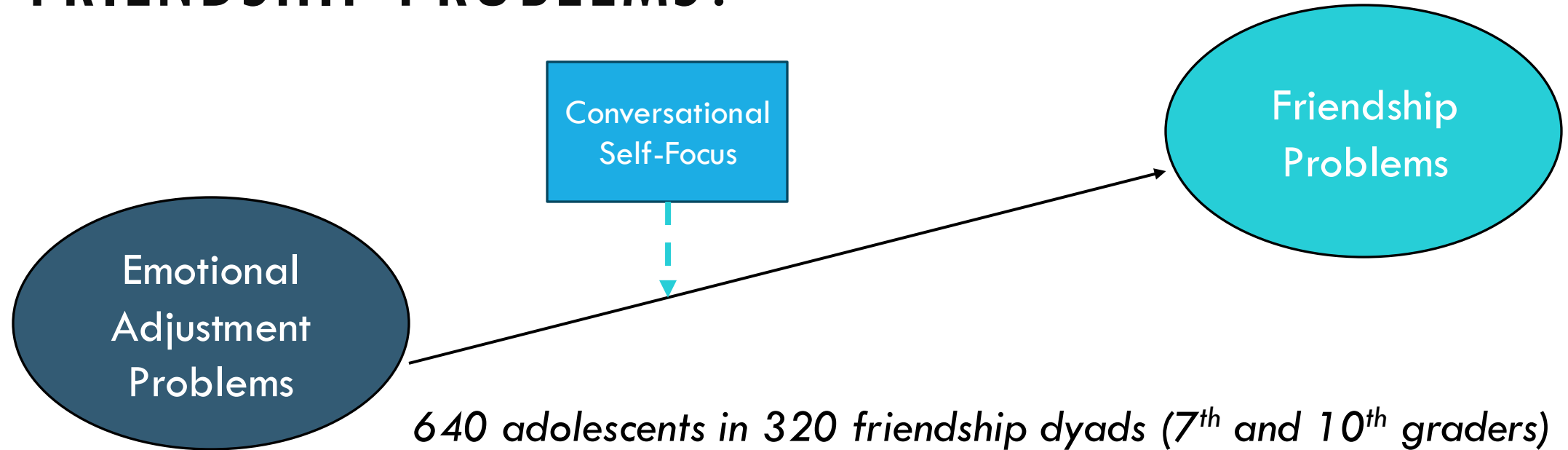
DO ALL DEPRESSED ADOLESCENTS HAVE FRIENDSHIP PROBLEMS?



Mediation Hypothesis (Coyne): Depression leads to self-focus, which leads to rejection

Moderation Hypothesis: High levels of depressive symptoms + CSF leads to rejection

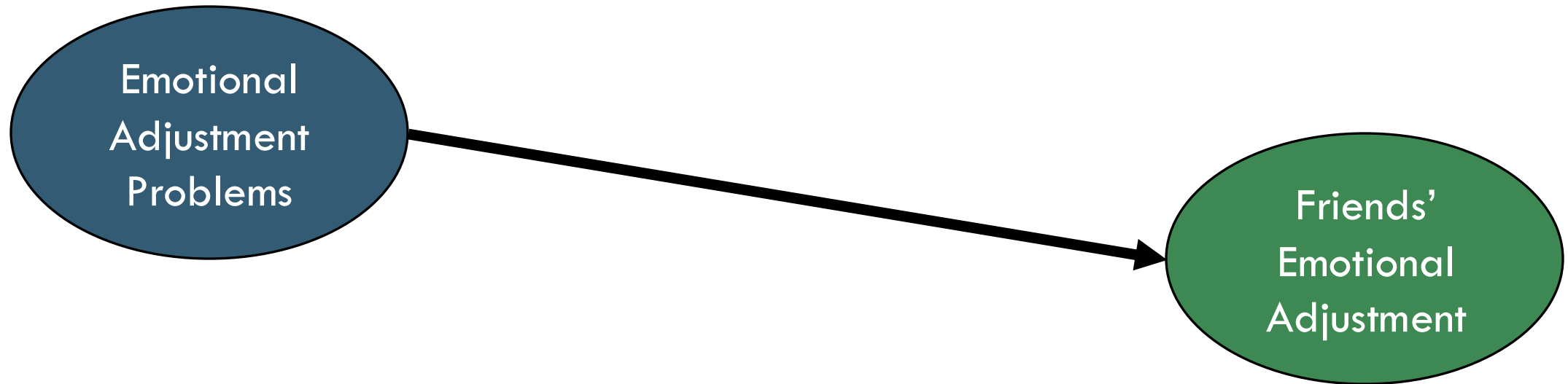
DO ALL DEPRESSED ADOLESCENTS HAVE FRIENDSHIP PROBLEMS?



*640 adolescents in 320 friendship dyads (7th and 10th graders)
62% European American, 30% African American, 6% Multiracial, 1.5% Asian*

****Moderation** Hypothesis: High levels of depressive symptoms + CSF leads to rejection by friends (friend-reported) 9 months later*

INTERPERSONAL THEORIES OF DEPRESSION





SOCIALIZATION (CONTAGION)

Phenomenon in which an individual begins to exhibit behaviors (including thoughts and feelings) that are similar to the behaviors exhibited by those close to them

- Roommates
- Friends
- Co-workers
- Intimate partners

In adults: Depressive symptoms

In adolescents: Deviant behaviors, depressive symptoms, disordered eating, health-risk behaviors



SOCIALIZATION (CONTAGION) PROCESSES

Process(es) by which the behaviors (including thoughts and feelings) of close others influence individuals' own behaviors

Mediators (how)

Deviant behaviors

- Response to deviant talk (especially laughter)

Moderators (why/under what conditions)

Depressive symptoms

- Social anxiety (influencee)
- High peer status (influencer)
- High friendship quality (relationship)

EXPANDING OUR UNDERSTANDING OF SOCIALIZATION (CONTAGION)



**DEPRESSIVE AND
ANXIETY SYMPTOMS**



**NON-SUICIDAL SELF-
INJURY (NSSI)**



RISK FOR SUICIDE?



DEPRESSION CONTAGION

Well-documented in adults

Emerging literature on adolescents

- What about children?
- What about anxiety?
- Gender differences?
- How does contagion happen?

Perhaps the way kids talk about their worries and concerns with one another has something to do with it....



CO-RUMINATION

(ROSE, 2002; ROSE ET AL., 2007)

Excessive talk about problems:

- Rehashing the problem over and over
- Speculating about its causes and consequences
- Focusing on negative affect / how bad the it makes you feel
- Encouraging problem talk to continue

Linked concurrently and longitudinally with

- Higher levels of positive friendship quality (companionship, validation, intimacy)
- Higher levels of depressive and anxiety symptoms



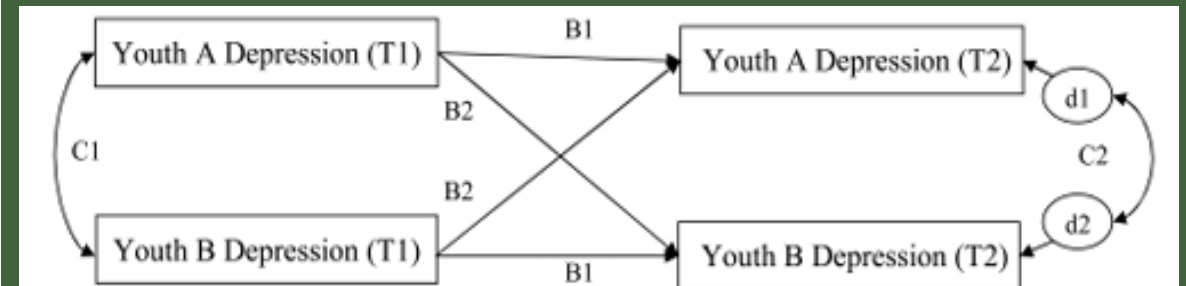
MECHANISMS OF DEPRESSION AND ANXIETY CONTAGION

548 youth in two groups: children (3rd / 5th) and adolescents (7th / 9th)

Paired in 274 reciprocal, same-gender friendship dyads

Measures of depressive (CDI; Kovacs, 1992) and anxiety symptoms (RCMAS; Reynolds & Richmond, 1985); co-rumination, and normative self-disclosure (Rose, 2002) over 6 months

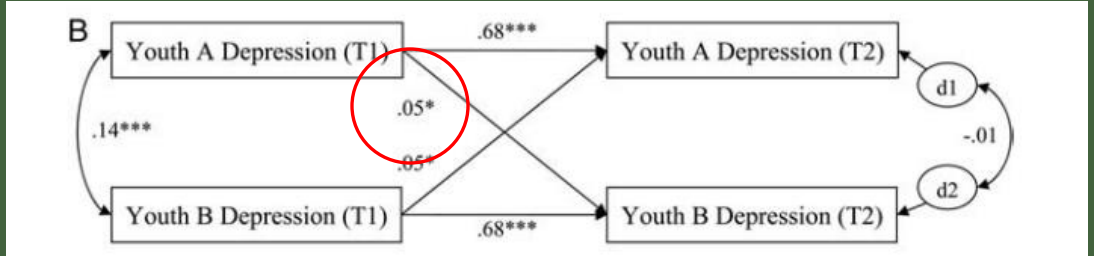
Actor-Partner Interdependence Models (Kenny, 1996)



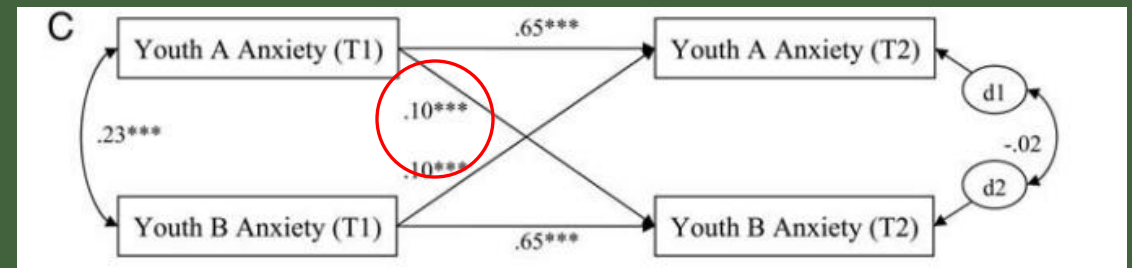


MECHANISMS OF DEPRESSION AND ANXIETY CONTAGION

Depression contagion was observed for adolescents AND children



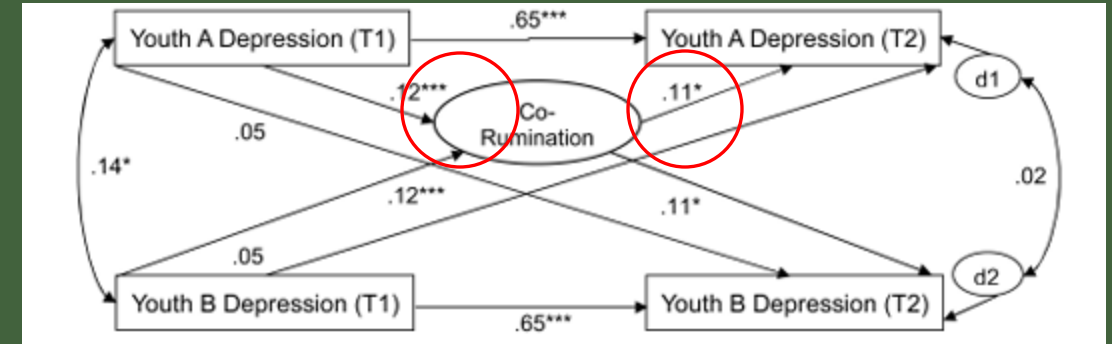
Anxiety contagion was observed for adolescents and female children (but not younger boys)





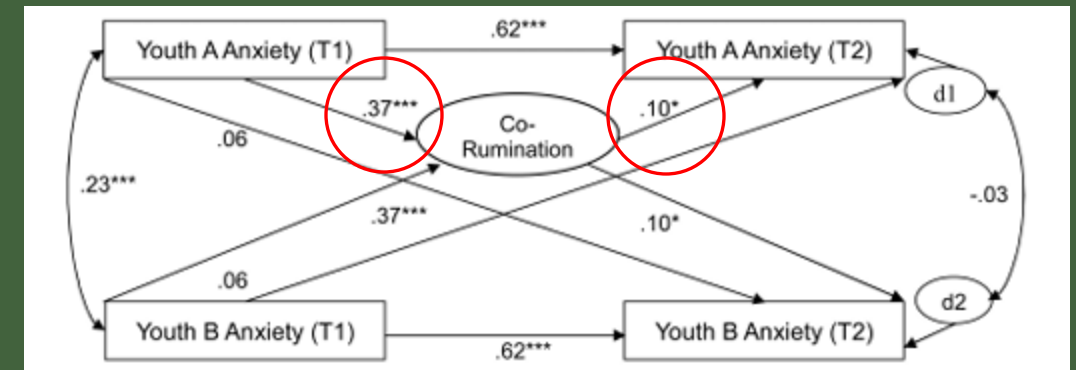
MECHANISMS OF DEPRESSION AND ANXIETY CONTAGION

Co-rumination mediated depression contagion for adolescents (not children)



Sobel's $z = 2.12$, $p < .05$; 95% CI: 0.002, 0.027

Co-rumination mediated anxiety contagion for girls and adolescent boys



Sobel's $z = 2.00$, $p < .05$, 95% CI: 0.00016, 0.07224

Schwartz-Mette & Rose, 2012; *Developmental Psychology*



MECHANISMS OF DEPRESSION AND ANXIETY CONTAGION

Self-disclosure did not mediate any contagion effect for any group!

Normative self-disclosure (sharing thoughts and feelings) w/friends is GOOD for adjustment.

Co-rumination (extreme focus on problems, negative affect) confers adjustment RISKS.

***Both self-disclosure and co-rumination were linked with CLOSE, POSITIVE FRIENDSHIPS**



MORE ABOUT THE PROCESS...

When does co-rumination mediate depression contagion in adolescence?

- Characteristics of the friend (overactive empathy)
- Characteristics of the adolescent (excessive reassurance seeking)
- Characteristics of the friendship (high positive friendship quality)

EXPANDING OUR UNDERSTANDING OF SOCIALIZATION (CONTAGION)



DEPRESSIVE AND
ANXIETY SYMPTOMS



**NON-SUICIDAL
SELF-INJURY (NSSI)**



RISK FOR SUICIDE?



CONTAGION OF NSSI IN ADOLESCENCE

NSSI: self-harming behavior without the intent to die (cutting, burning, hitting, etc.)

Intrapersonal and interpersonal functions

- Regulation of negative affect through negative reinforcement processes (intrapersonal)
- Regulation of negative affect through communication, support, or aggressive mechanisms (interpersonal)

Imprecise measurement of socialization

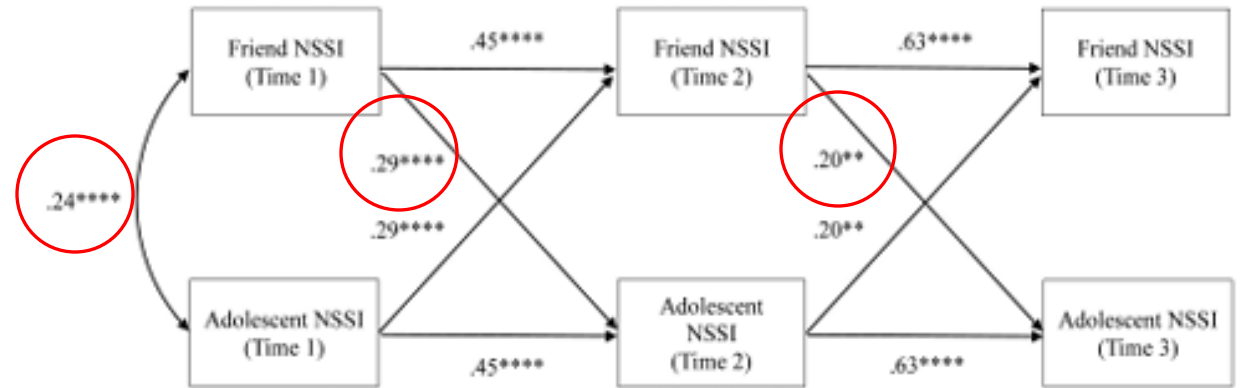
- Documentation of NSSI “clusters”
- Perceiving that a friend engages in NSSI predicts increased NSSI
- Failure to assess friendship reciprocity
- Failure to measure friends’ actual behaviors

186 adolescents (13-18) and their chosen best friend

Paired in 93 reciprocal, same-gender friendship dyads

Measures of NSSI frequency (Prinstein et al., 2008), emotion regulation (DERS; Gratz & Roemer, 2004), and friendship quality (FQQ; Parker & Asher, 1993) at 3-month intervals

Cross-Lagged Actor-Partner Interdependence Models



CONTAGION OF NSSI IN ADOLESCENCE (SCHWARTZ-METTE & LAWRENCE, 2019)

Independent Risk Factors, Contagion Moderators, or Both?

Emotion Regulation

- BOTH a risk factor AND moderator of contagion
- Independently predicted adolescents' increased NSSI (kids with high levels of ER difficulty experienced increasing NSSI freq.)
- Interacts with friends' NSSI to facilitate contagion (only kids with high levels of ER difficulty experienced contagion effects)

Friendship Quality

- Positive: NEITHER
- Negative: NEITHER

CONTAGION OF NSSI IN ADOLESCENCE
(SCHWARTZ-METTE & LAWRENCE, 2019)

Remaining Questions

Does co-rumination mediate NSSI contagion?

- Some kids talk about NSSI together (but many don't)

In what contexts does NSSI most easily “spread”?

- Is it “simple” observational learning?
- Some NSSI is visible (but some is not)
- Some kids engage in NSSI together (but many don't)

Other “third variables” to consider?

CONTAGION OF NSSI IN ADOLESCENCE
(SCHWARTZ-METTE & LAWRENCE, 2019)

EXPANDING OUR UNDERSTANDING OF SOCIALIZATION (CONTAGION)



DEPRESSIVE AND
ANXIETY SYMPTOMS



NON-SUICIDAL SELF-
INJURY (NSSI)



RISK FOR SUICIDE?



RISK FOR SUICIDE?

New(er) studies:

Long & Schwartz-Mette (under review)

Schwartz-Mette et al. (in prep)



DIRECT VS. INDIRECT SOCIALIZATION OF SUICIDE RISK (LONG & SCHWARTZ-METTE, UNDER REVIEW)

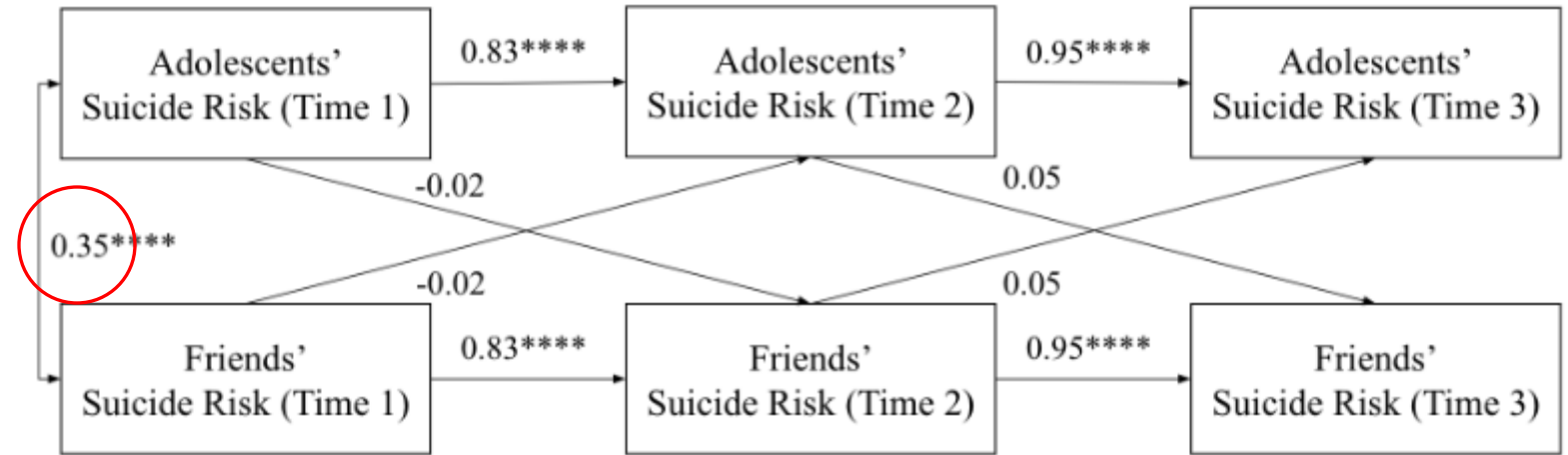
Re-analysis of Schwartz-Mette & Lawrence (2019) sample

- Direct socialization of suicide risk?
- Or indirect (via known risk pathways)?

Interpersonal Psychological Theory of Suicide (Joiner, 1999)

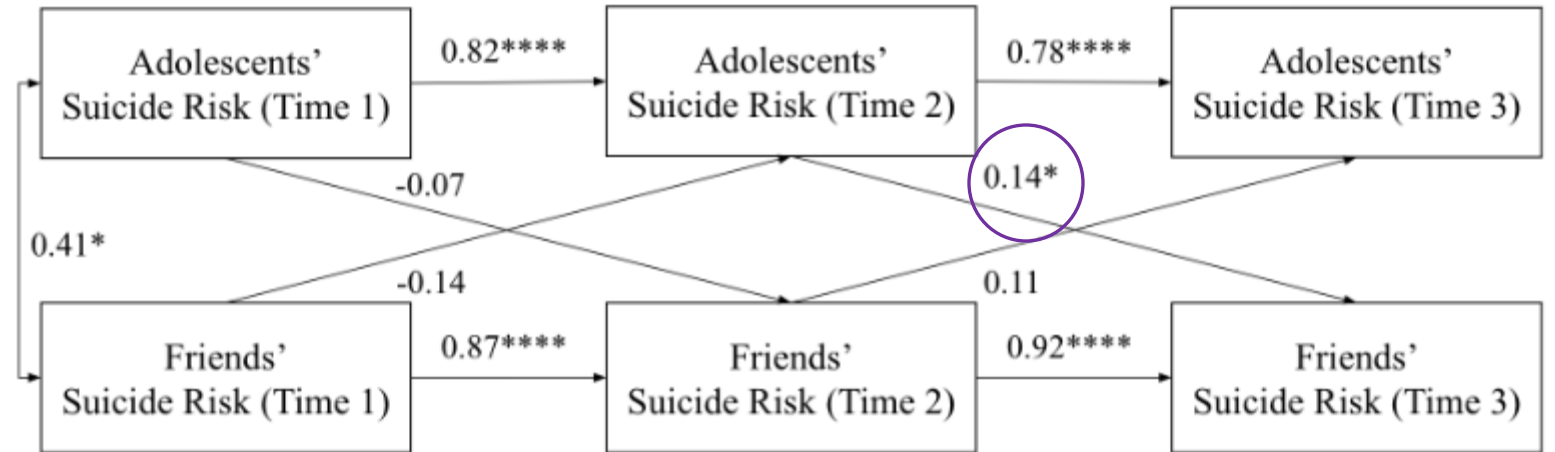
- Risk for suicide is conferred (most proximally) by de-sensitization of the self-preservation instinct.....
- NSSI (proxy)

No evidence of **direct** socialization of suicide risk within friendship dyads



DIRECT VS. INDIRECT SOCIALIZATION OF SUICIDE RISK
(LONG & SCHWARTZ-METTE, UNDER REVIEW)

Except for those adolescents with *pre-existing NSSI*



DIRECT VS. INDIRECT SOCIALIZATION OF SUICIDE RISK

(LONG & SCHWARTZ-METTE, UNDER REVIEW)



A ROLE FOR CO- RUMINATION? (SCHWARTZ-METTE ET AL., IN PREP)

Recent NIH grant focused on role of co-rumination in socialization of depression, NSSI, and suicide risk within friendship dyads and across social networks

Lots to do! (More info coming soon!)

First step....is co-rumination linked with adolescents' own risk for suicide?

The BIRCH (*Building Community Health and Interpersonal Resilience*) Project (N = 936)

Assessed 5x over an academic year (2019, 2020, 2021)

Thanks to COVID..... (see Schwartz-Mette et al., 2022)

Cohort 1 (AY 2019-2020), N = 521 (M = 14.56 years, 82% EuroAmerican, 56% female-identifying)

Time 1 (October 2019; survey) to Time 3 (February 2020; survey)

Co-Rumination Questionnaire (Rose, 2002), range 1-5

Suicide Behaviors Questionnaire-Revised (Osman et al., 2001) range 3-18 (cutoff = 7)

A ROLE FOR CO-RUMINATION?
(SCHWARTZ-METTE ET AL., IN PREP)

Co-rumination significantly moderated the association between baseline and 4-month suicide risk ($b = .19, p < .05$).

At low CR (1.65 on 1-5 scale), no change in suicide risk ($b = .11, p = .40$)

At average CR (2.56), increase of .28 units in risk across 4 months ($p < .01$)

At high CR (3.47), increase of .48 units in risk across 4 months ($p < .001$)

Johnson-Neyman regions of significance:

Slightly below-average levels ($CR = 2.11$), increase of .19

At highest levels ($CR = 4.96$), increase of .74 (sample mean = 4.64; clinical cutoff = 7)

A ROLE FOR CO-RUMINATION?
(SCHWARTZ-METTE ET AL., IN PREP)



FUTURE DIRECTIONS

Does co-rumination mediate socialization of NSSI and suicide risk in dyadic friendships?

Socialization across adolescents' social networks?

What relevant third variables have we yet to consider?

- Physiological reactivity and facial mimicry/synchrony as vulnerability markers
- Parasocial interactions



**WHAT THOUGHTS AND
QUESTIONS DO YOU HAVE?**

Thanks for your attention!

Get in touch anytime:
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