

REJECTION SENSITIVITY AND FEMALE ADOLESCENT DEPRESSION: THE IMPACT OF SOCIAL SUPPORT

Kayla Baresich

Abstract

- Background: Adolescence is a time of rapid physical maturation, psychological and cognitive development amidst the backdrop of a constantly evolving social landscape. It is likely a combination of these many factors that puts girls at a three-fold greater risk of developing mood disorders compared to their male peers. Rejection sensitivity has been identified as a powerful predictor of depression and may be particularly relevant to female adolescents due to the increasingly high importance of social relationships to girls in this developmental stage. In the current study, the impact of social support from family and friends was examined as a positive influence on reducing rejection sensitivity, and thus, symptoms of depression in adolescent girls.
- Objective: The objective of the current study was to determine whether higher rejection sensitivity and lack of perceived social support would independently predict depression and whether a lack of perceived social support from family, rather than friends, would be a stronger predictor of depression. Furthermore, family social support was expected to buffer the effects of rejection sensitivity on girls' risk for depression.
- Method: 56 adolescent girls (mean age = 12.46, SD = .93) completed self-reported measures of rejection sensitivity (Child's Rejection Sensitivity Questionnaire), social support (Multidimensional Scale of Perceived Social Support), and depressive symptoms (Mood and Feelings Questionnaire). Factor analyses were utilized to identify distinct constructs of depression (somatic, self-hatred, suicidal/hopeless) assessed using the Mood and Feelings Questionnaire. Exploratory mediation analyses examined social support as a mediator in the relationship between rejection sensitivity and depression symptoms.
- Results: Rejection sensitivity significantly predicted depression ($p < .001$), and social support from both family and friends was associated with reduced depression symptoms assessed over the total MFQ ($p = .001$, $p = .007$). Furthermore, social support from family mediated the effects of rejection sensitivity on somatic symptoms of depression, but not symptoms associated with self-hatred or suicidality/hopelessness.
- Conclusions: Social support, particularly from family, was protective against the deleterious effects of rejection sensitivity on depression symptoms. These findings highlight the importance of considering social factors in the risk of adolescent depression and the critical buffering influence of emotional support.



(Breslau et al., 2017; Albert & Newhouse, 2019)

From the age of 12, females are **3x** more likely to be diagnosed with depression than males of the same age.

ABC Model of Gender Difference in Depression



Affective

- Emotional reactivity
- Temperament



Biological

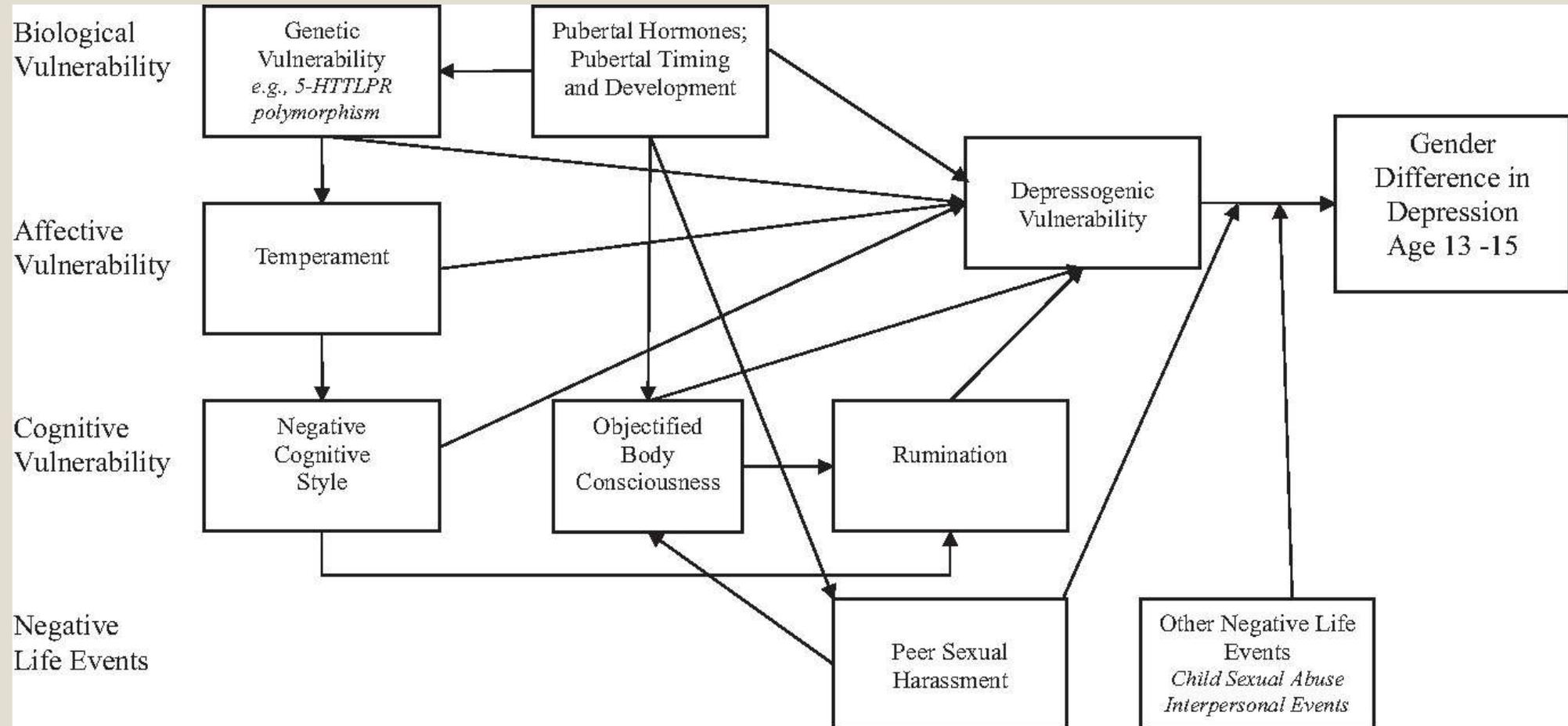
- Genetic vulnerabilities
- Pubertal hormones



Cognitive

- Cognitive style
- Rumination

ABC Model





Rejection Sensitivity: A Psychological Vulnerability for Depression

- Rejection sensitivity is a cognitive bias in which individuals **anxiously expect, readily perceive, and intensely react** to perceived social rejection

Two Main Types: Anxious and Angry Rejection Sensitivity

Anxious Rejection Sensitivity

- characterized by anxious feelings
- associated with internalizing problems, such as anxiety and social withdrawal

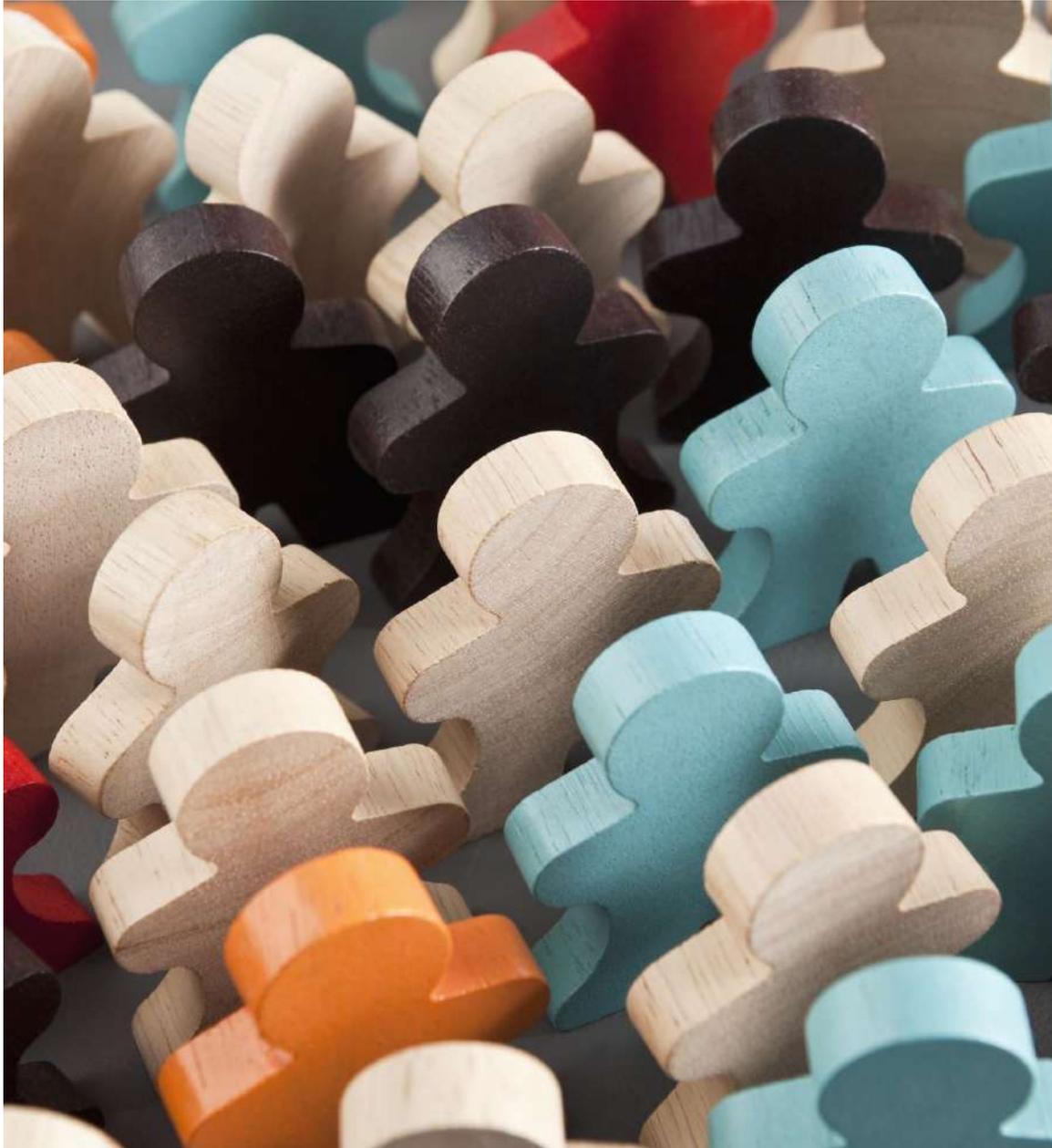


This Photo by Unknown Author is licensed under [CC BY-NC-ND](#)

Angry Rejection Sensitivity

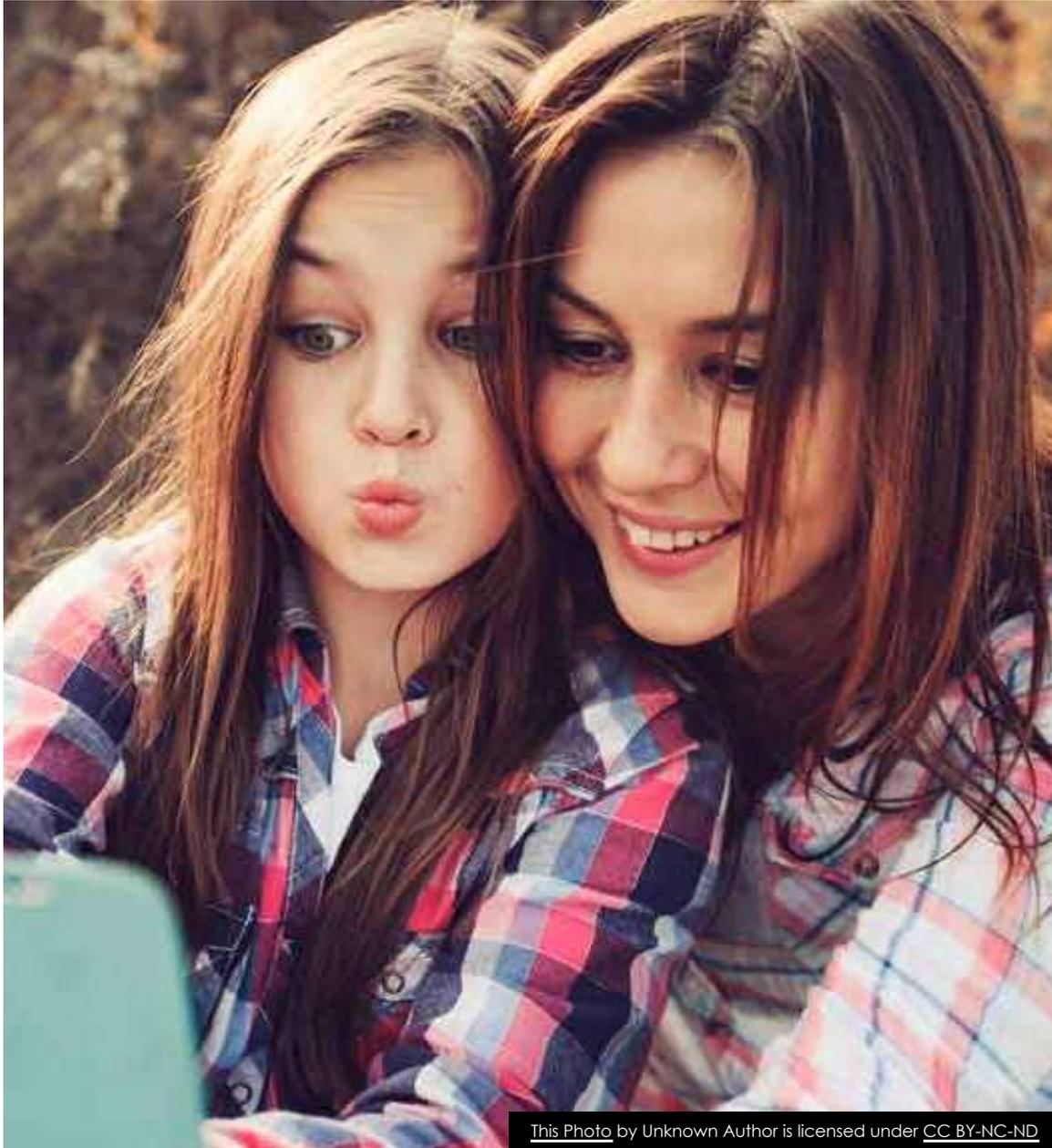
- characterized by angry feelings
- associated with externalizing problems, such as aggression





Social Support & Depression

- Social support is protective against depression
- Conversely, deficits in social support predict depression



This Photo by Unknown Author is licensed under [CC BY-NC-ND](#)

Family Support

- Support from family, especially parents, is critical for healthy development
- Deficits in parental support predict depression

(Gariépy et al., 2016; Sheeber et al., 2007; Stice et al., 2004)

Friend Support

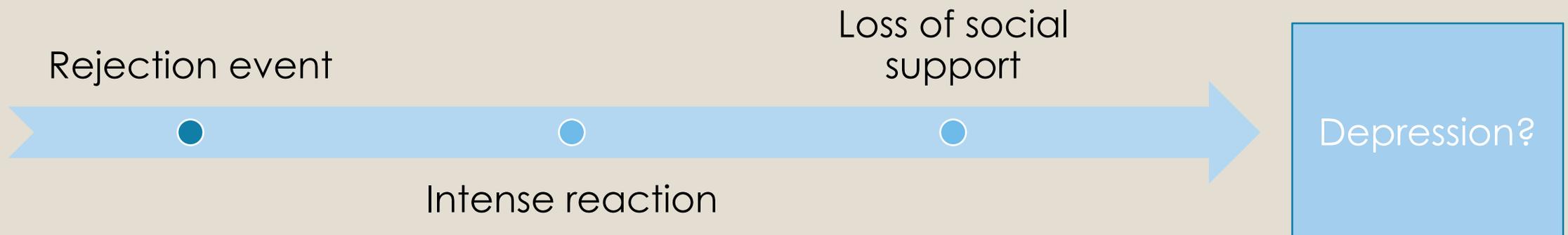
- Peer relationships become more significant in adolescence
- Peer relationships can offer support but can also be stressful
- Peer conflict, especially peer rejection, predicts depression

(Fredrick et al., 2018; Poulin & Chan, 2010; Slavich et al., 2020)



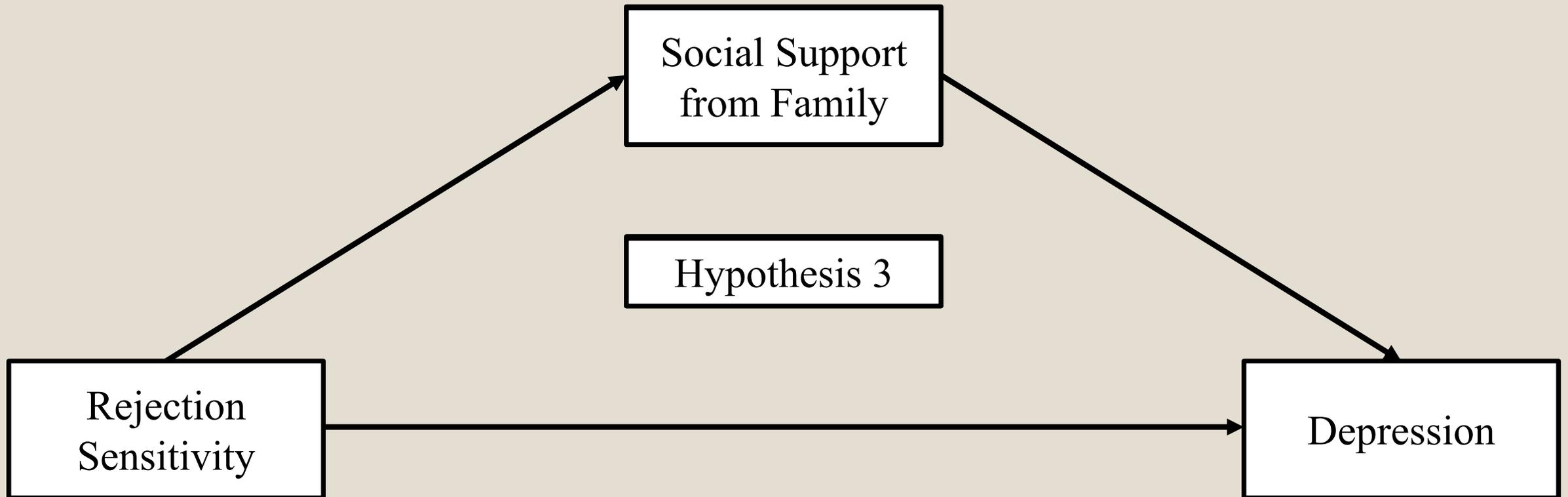
Rejection Sensitivity and the Self-Fulfilling Prophecy

- “Can cause individuals to anxiously expect, readily perceive, and **intensely react** after perceived experiences of rejection”
- may lead to a self-fulfilling prophecy, in which their behavior in response to perceived rejections leads to the loss of social support



(Downey & Feldman, 2004; Downey et al., 1998)

Proposed Model of Rejection Sensitivity, Social Support, and Depression





METHODS



This Photo by Unknown Author is licensed under [CC BY-SA](#)

Participants

- 56 girls ages 11-14
- Restricted to Tanner stages 3 and 4
- Exclusion criteria: some medications & severe mental illness

Procedure



Parent completes online screening survey to determine participant's eligibility



Parent completes phone interview to discuss timeline & confirm participant's pubertal stage

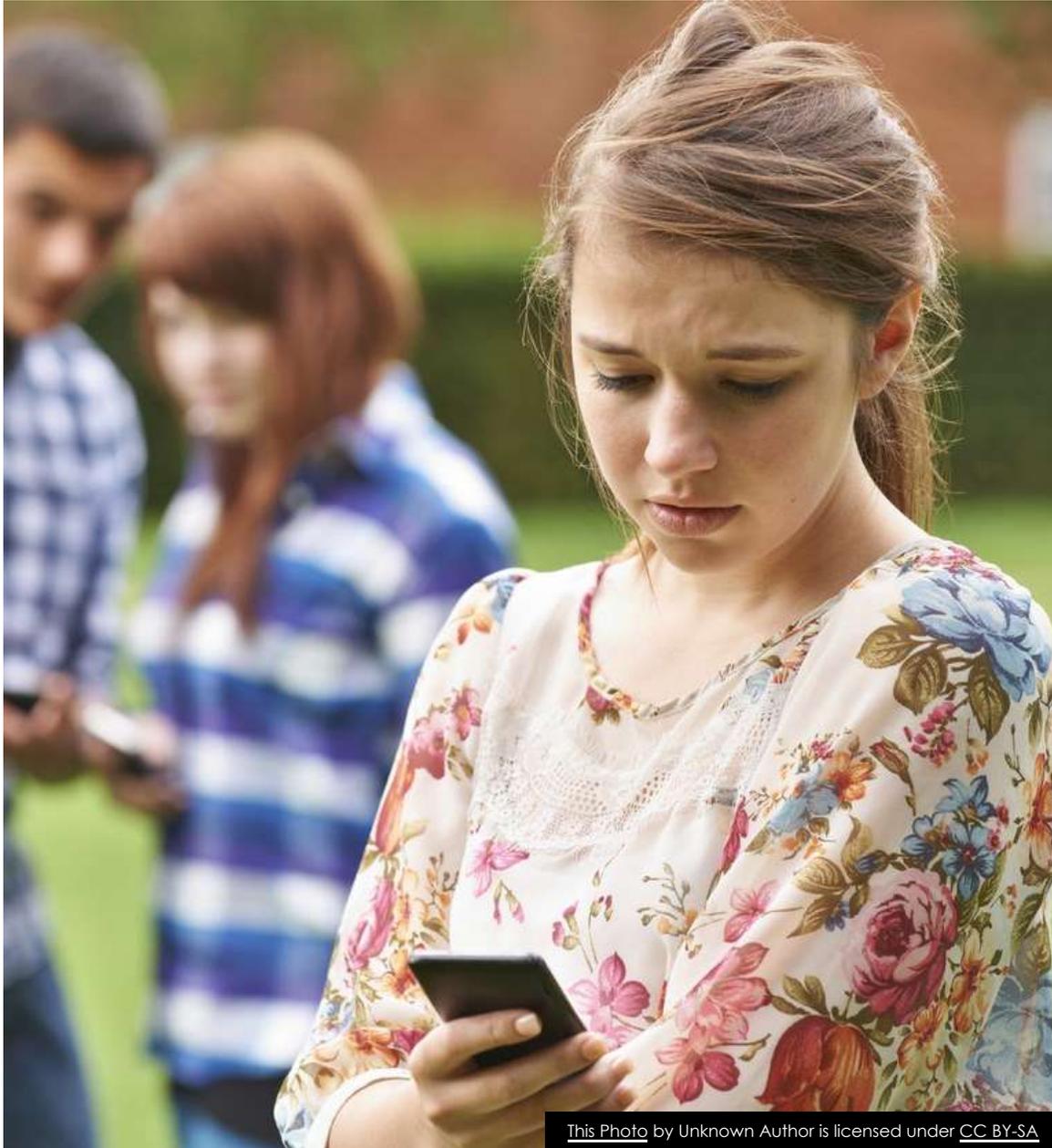


Participant completes clinical interview & self-report questionnaires at enrollment session



Mood and Feelings Questionnaire (MFQ)

- Items assess participants' possible behavior and feelings over the past two weeks
 - "I felt miserable and unhappy"
 - "I felt grumpy and cross with my parents"
- Participants rate statements as true, sometimes true, or not true
- Cronbach's alpha = .945

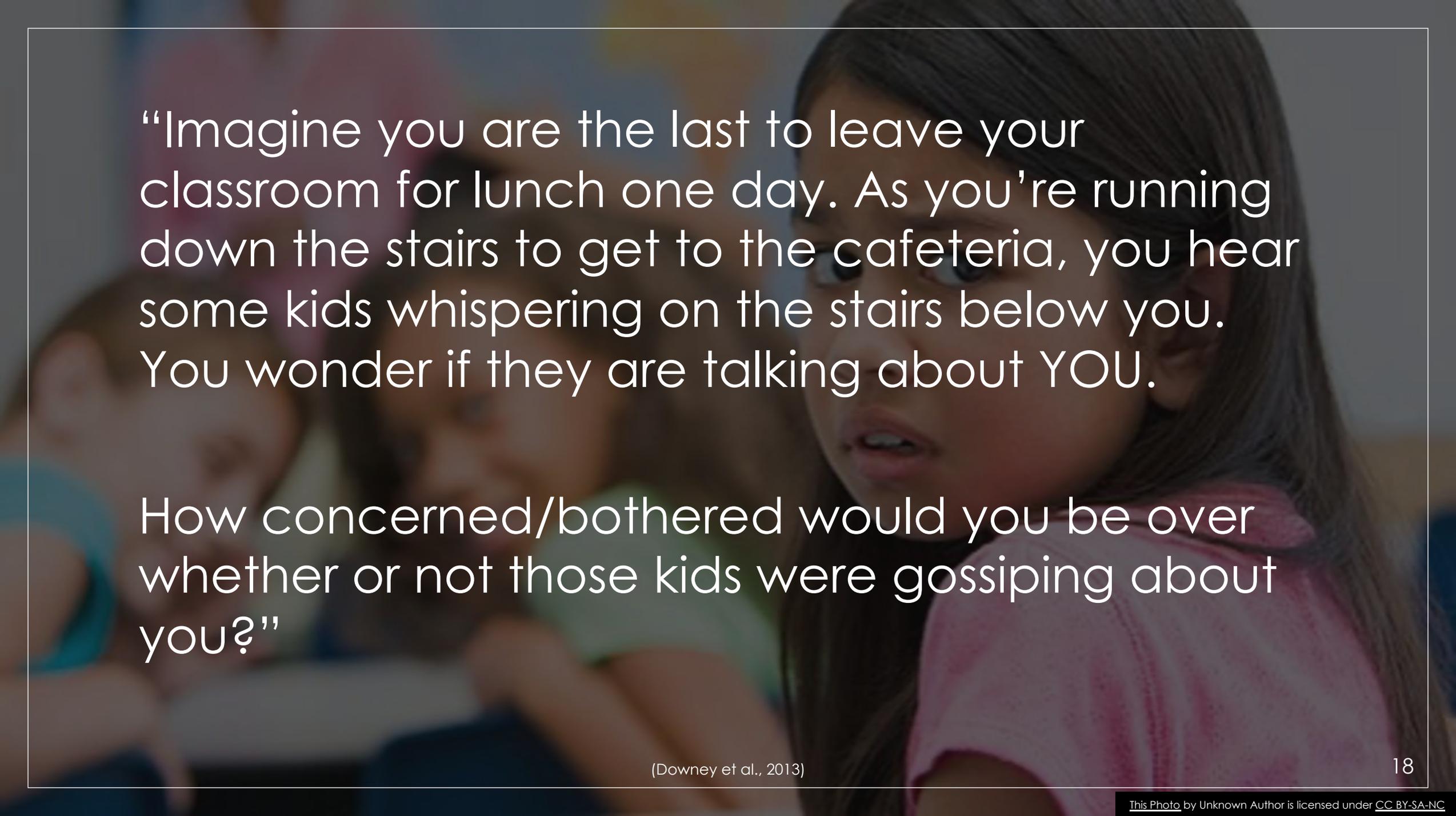


This Photo by Unknown Author is licensed under [CC BY-SA](#)

Children's Rejection Sensitivity Questionnaire (CRSQ)

- Potential rejection scenarios are described, and participants are asked to rate on a 6-point Likert scale scale how anxious the rejection would make them feel, how angry the rejection would make them feel, and how likely the rejection would be to occur
- Cronbach's alpha = .866

(Downey et al., 2013)



“Imagine you are the last to leave your classroom for lunch one day. As you’re running down the stairs to get to the cafeteria, you hear some kids whispering on the stairs below you. You wonder if they are talking about YOU.

How concerned/bothered would you be over whether or not those kids were gossiping about you?”



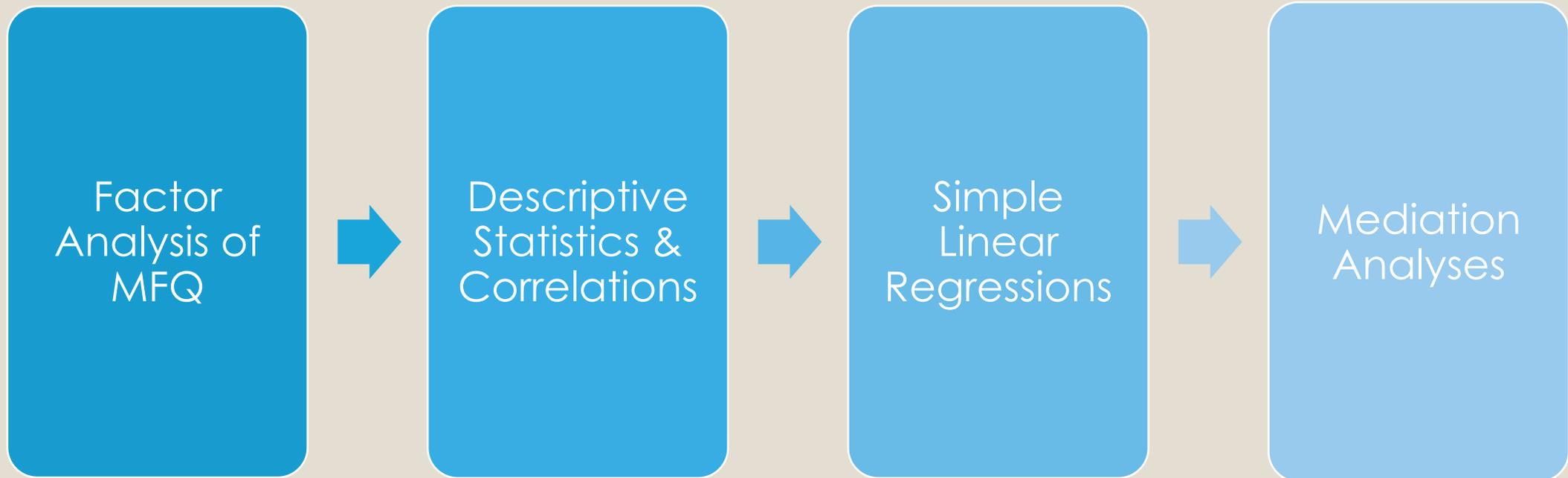
This Photo by Unknown Author is licensed under [CC BY-SA-NC](#)

Multidimensional Scale of Perceived Social Support

- Assesses social support from family, friends, and significant others
- Participants rank each item on a 7-point Likert scale
 - “There is a special person who is around when I am in need”
 - “My family really tries to help me”
- Cronbach’s alpha = .963

(Zimet et al., 1988)

Data Analysis Plan

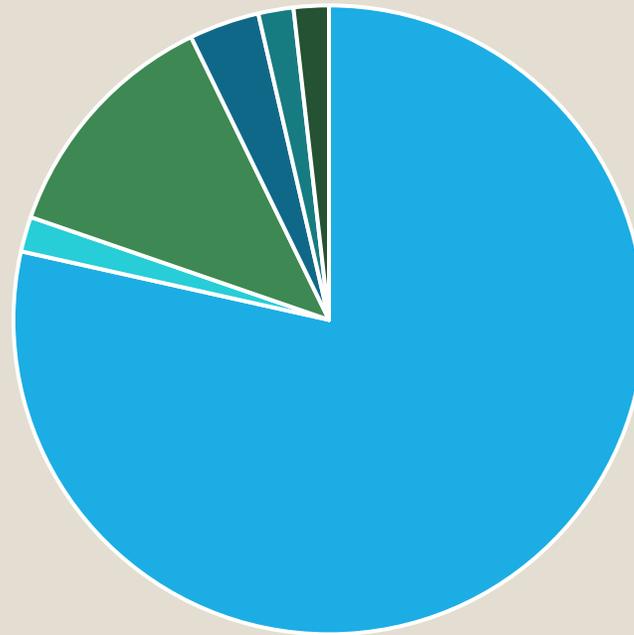




RESULTS

Demographic Information: Race

Race



■ White/Caucasian

■ Bi- or multi-racial

■ Native Hawaiian/Pacific Islander

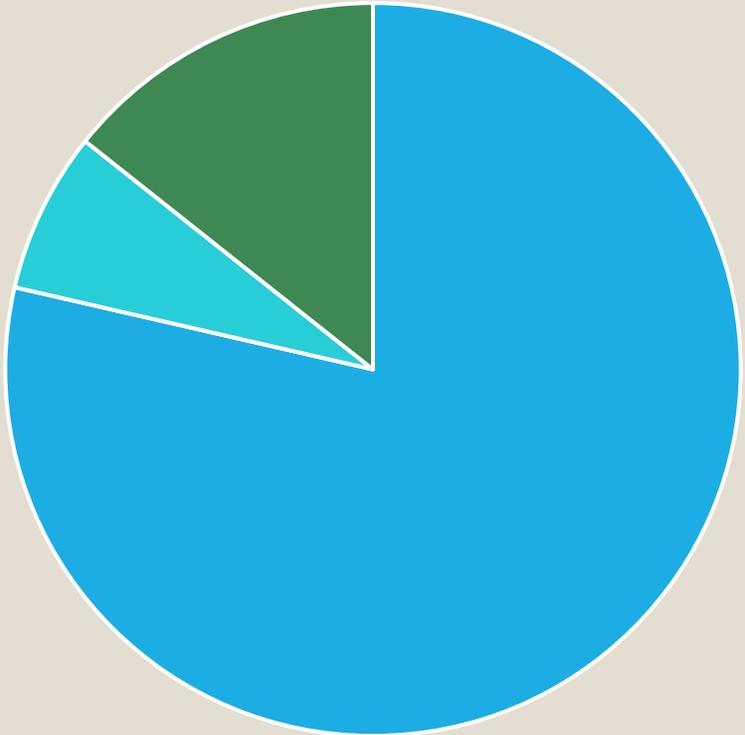
■ Black/African-American

■ Latina/Hispanic

■ American Indian/Alaska Native

Demographic Information: Sexual Orientation

Sexual Orientation



■ Heterosexual ■ LGBTQ+ ■ Choose not to respond

MFQ Factor Analysis

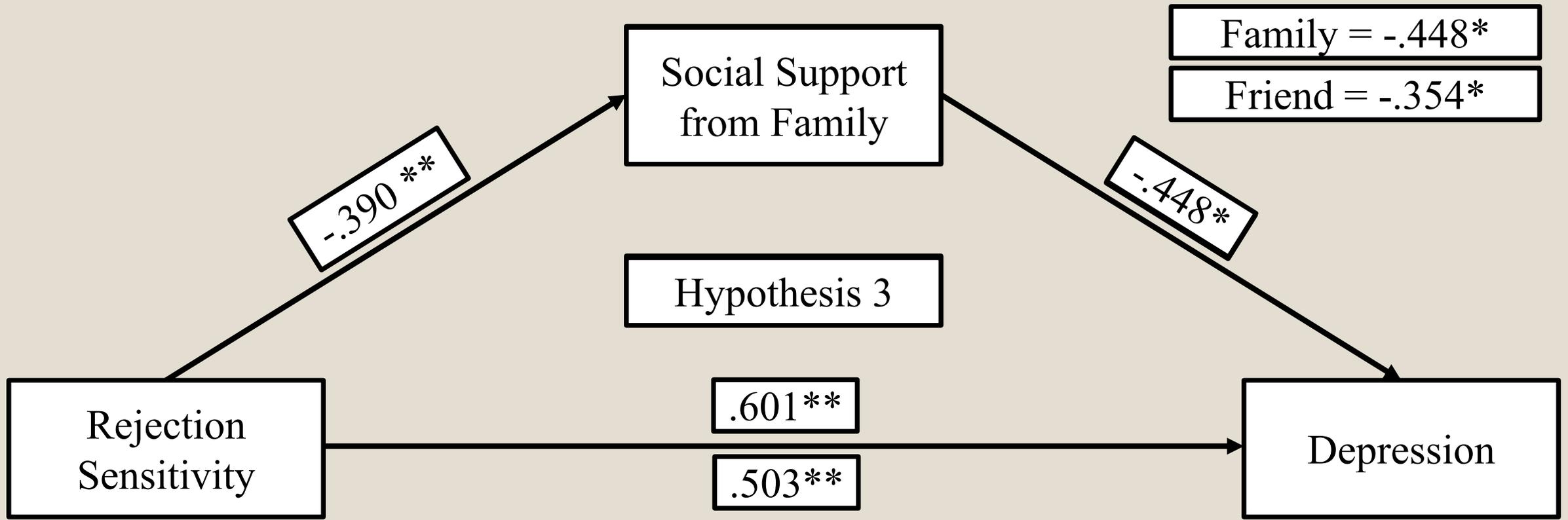
- An exploratory factor analysis was performed on the Mood and Feelings Questionnaire (MFQ) using principal axis factoring with varimax rotation
- Three factors best represented the measure:

Somatic symptoms ($\alpha = .907$)

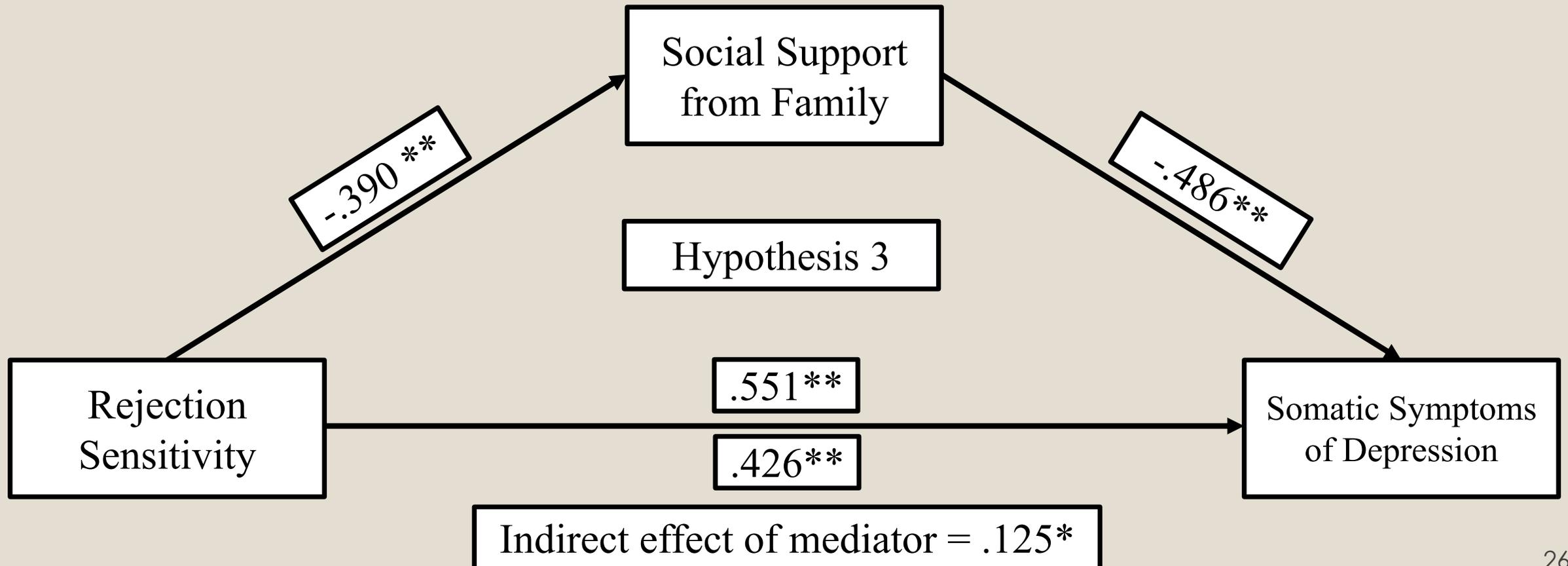
Self-hatred ($\alpha = .899$)

Suicidal & hopeless symptoms ($\alpha = .868$)

Model of Rejection Sensitivity, Social Support, and Depression



Model of Rejection Sensitivity, Social Support, and Somatic Symptoms of Depression





DISCUSSION

Recap of Findings

Replicated Findings

- Rejection sensitivity predicts depression
- Social support is protective against depression

Novel Findings

- Family support, relative to peer support, is a more protective influence against depression
- **Family support partially mediates (explains) the relationship between rejection sensitivity and somatic symptoms of depression**



Family vs. Friend Support

- Both forms of social support were protective against depression, particularly family support



This Photo by Unknown Author is licensed under [CC BY-NC-ND](#)

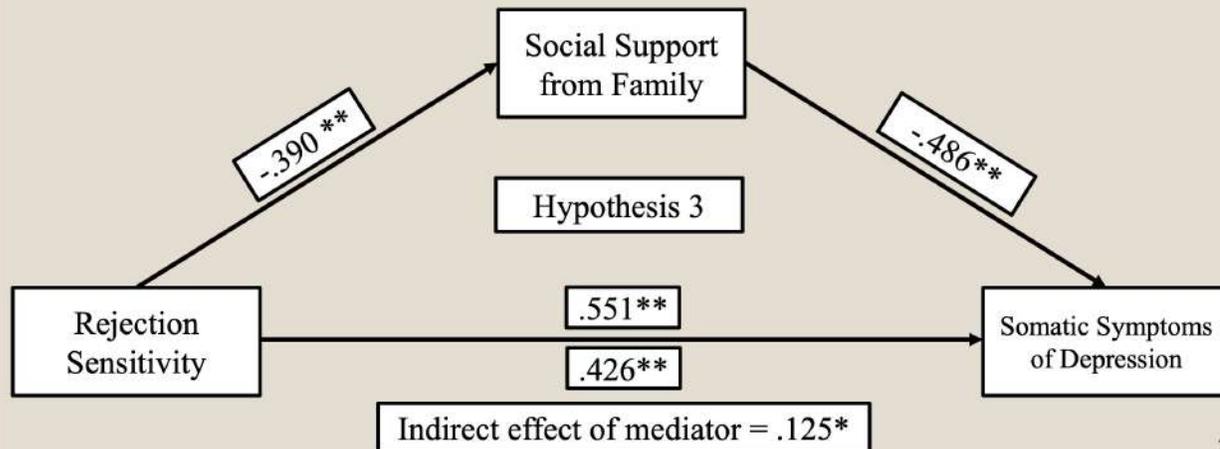
(Poulin & Chan, 2010; Mackin et al., 2017)

Family vs. Friend Support

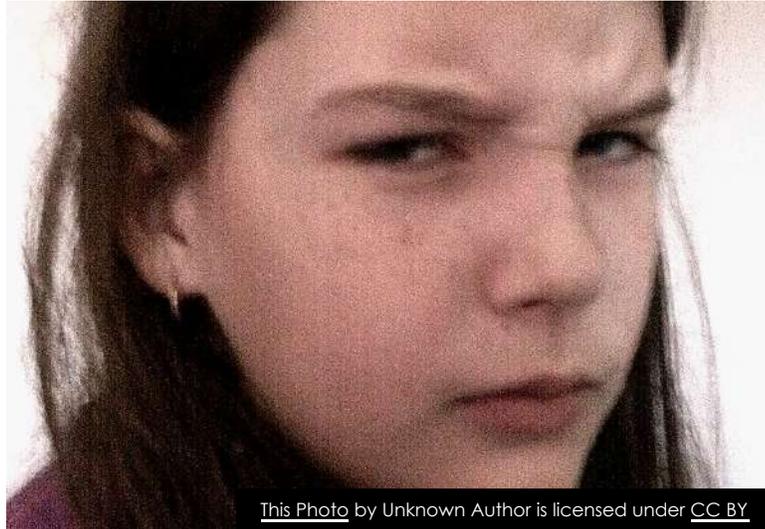
Peer relationships are naturally somewhat uncertain & troubled at this age, without this necessarily being of clinical significance

Deficits in support from family may be a sign of dysfunction at home not conducive to healthy development

Model of Rejection Sensitivity, Social Support, and Somatic Symptoms of Depression



- After experiences of rejection from peers, perhaps highly RS adolescents, instead of seeking support from family, socially isolate and withdraw
- This would prevent adolescents from receiving the support they need in order to cope with peer rejection



This Photo by Unknown Author is licensed under [CC BY](#)



This Photo by Unknown Author is licensed under [CC BY](#)

Why would this relationship only hold with somatic symptoms?

- Somatic factor of MFQ also included items assessing irritability- a significant clinical feature of adolescent depression
- Somatic symptoms: highly predictive of depression later in life, regardless of whether an adolescent meets current diagnosis of depression

- Further validation of factor analysis on Mood and Feelings Questionnaire is necessary
- No longitudinal data- cannot make assumptions of causality
- Lack of racial diversity in study sample
- Insufficient statistical power to include relevant covariates of peer support, peer stress, age, and pubertal status, in mediation model

Limitations



This Photo by Unknown Author is licensed under [CC BY-SA](#)

Implications

- Support for family therapy in treatment of some female adolescents with depression
- Importance of using factor analysis to make more precise claims about the relationships between variables

(Diamond et al., 2002)



Future Directions

- Inclusion of additional covariates in mediation model
 - Recent stressful life events, especially interpersonal stress
 - Might incidents of peer stress predict support-seeking behavior from family members?
- Pubertal status
 - Will these relationships hold for older adolescents?



QUESTIONS?

Bibliography

Albert, K. M., & Newhouse, P. A. (2019). Estrogen, stress, and depression: Cognitive and biological interactions. *Annual Review of Clinical Psychology, 15*, 399–423. <https://doi.org/10.1146/annurev-clinpsy-050718-095557>

Altemus, M., Sarvaiya, N., & Epperson, C. N. (2014). Sex differences in anxiety and depression clinical perspectives. *Frontiers in Neuroendocrinology, 35*(3), 320–330. <https://doi.org/10.1016/j.yfrne.2014.05.004>

Ayduk O, Downey G, Kim M. Rejection sensitivity and depressive symptoms in women. *Personality and Social Psychology Bulletin. 2001;27:868–877*. <https://doi-org.libproxy.lib.unc.edu/10.1177/0146167201277009>

Breslau, J., Gilman, S. E., Stein, B. D., Ruder, T., Gmelin, T., & Miller, E. (2017). Sex differences in recent first-onset depression in an epidemiological sample of adolescents. *Translational Psychiatry, 7*(5), e1139–e1139. <https://doi.org/10.1038/tp.2017.105>

Bibliography

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi-org.libproxy.lib.unc.edu/10.1037/0033-2909.98.2.310>

Crowe, M., Ward, N., Dunnachie, B., & Roberts, M. (2006). Characteristics of adolescent depression. *International Journal of Mental Health Nursing*, 15(1), 10–18. <https://doi.org/10.1111/j.1447-0349.2006.00399.x>

Diamond, G. S., Reis, B. F., Diamond, G. M., Siqueland, L., & Isaacs, L. (2002). Attachment-Based Family Therapy for Depressed Adolescents: A Treatment Development Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(10), 1190–1196. <https://doi.org/10.1097/00004583-200210000-00008>

Downey G, Bonica C, Rincón C. Rejection sensitivity and adolescent romantic relationships. *The development of romantic relationships in adolescence*. Cambridge University Press; New York, NY, US: 1999. pp. 148–174.

Bibliography

Downey, G., & Feldman, S. I. (2004). Implications of Rejection Sensitivity for Intimate Relationships. *The interface of social and clinical psychology: Key readings* (pp. 173–198). Psychology Press.

Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology*, 75(2), 545–560.
<https://doi.org/10.1037/0022-3514.75.2.545>

Downey, G., Lebolt, A., Rincón, C., and Freitas, A. L.. (2013). Children's Rejection Sensitivity Questionnaire (CRSQ). Measurement Instrument Database for the Social Science. Retrieved from www.midss.ie

Fredrick, S. S., Demaray, M. K., Malecki, C. K., & Dorio, N. B. (2018). Can social support buffer the association between depression and suicidal ideation in adolescent boys and girls? *Psychology in the Schools*, 55(5), 490–505.
<https://doi.org/10.1002/pits.22125>

Bibliography

Gariépy, G., Honkaniemi, H., & Quesnel-Vallée, A. (2016). Social support and protection from depression: Systematic review of current findings in Western countries. *The British Journal of Psychiatry*, 209(4), 284–293. <https://doi.org/10.1192/bjp.bp.115.169094>

Hyde, J. S., & Mezulis, A. H. (2020). Gender Differences in Depression: Biological, Affective, Cognitive, and Sociocultural Factors. *Harvard Review of Psychiatry*, 28(1), 4–13. <https://doi.org/10.1097/HRP.0000000000000230>

Koch, M. K., Mendle, J., & Beam, C. (2020). Psychological distress amid change: Role disruption in girls during the adolescent transition. *Journal of Abnormal Child Psychology*. <https://doi.org/10.1007/s10802-020-00667-y>

London, B., Downey, G., Bonica, C., & Paltin, I. (2007). Social Causes and Consequences of Rejection Sensitivity. *Journal of Research on Adolescence*, 17(3), 481–506. <https://doi.org/10.1111/j.1532-7795.2007.00531.x>

Mackin, D. M., Perlman, G., Davila, J., Kotov, R., & Klein, D. N. (2017). Social support buffers the effect of interpersonal life stress on suicidal ideation and self-injury during adolescence. *Psychological Medicine*, 47(6), 1149–1161. <http://dx.doi.org.libproxy.lib.unc.edu/10.1017/S0033291716003275>

Bibliography

McGuire, T. C., McCormick, K. C., Koch, M. K., & Mendle, J. (2019). Pubertal maturation and trajectories of depression during early adolescence. *Frontiers in Psychology, 10*. <https://doi.org/10.3389/fpsyg.2019.01362>

Poulin, F., & Chan, A. (2010). Friendship stability and change in childhood and adolescence. *Developmental Review, 30*(3), 257–272. <https://doi.org/10.1016/j.dr.2009.01.001>

Sheeber, L., Hops, H., Alpert, A., Davis, B., & Andrews, J. (1997). Family support and conflict: Prospective relations to adolescent depression. *Journal of Abnormal Child Psychology, 25*(4), 333–344. <https://doi.org/10.1023/a:1025768504415>

Stice, E., Ragan, J., & Randall, P. (2004). Prospective Relations Between Social Support and Depression: Differential Direction of Effects for Parent and Peer Support? *Journal of Abnormal Psychology, 113*(1), 155–159. <https://doi.org/10.1037/0021-843X.113.1.155>

Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment* 1988;52:30-41.