

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

# Mindfulness & Self-Compassion:

## Pathways to Healthy Functioning in Youth

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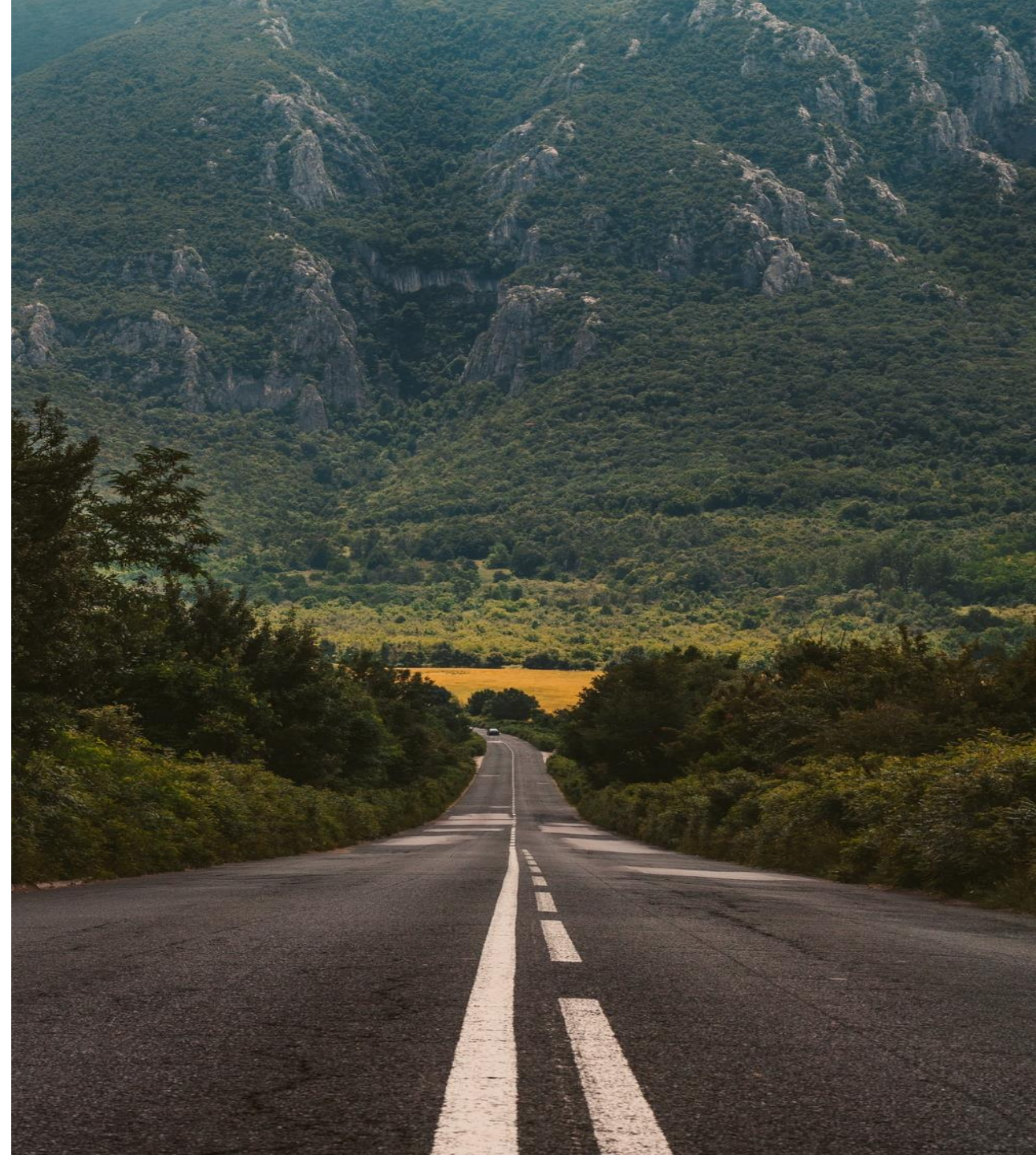
April 11, 2021



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# Where We're Going

- **Challenges of adolescence**
- **Mindfulness**
  - Definition
  - Research
- **Self-compassion**
  - Definition
  - Research





# Challenges of adolescence

- 14% of 13-18 year olds experience a mood disorder
- 32% experience an anxiety disorder
- 19% diagnosed with a behavior disorder
- 11% have a substance use disorder

**Overall, 22% have severe impairment or distress**



# More recently ...

From 2012 → 2015, depression increased

- among girls by 50%
- among boys by 21%

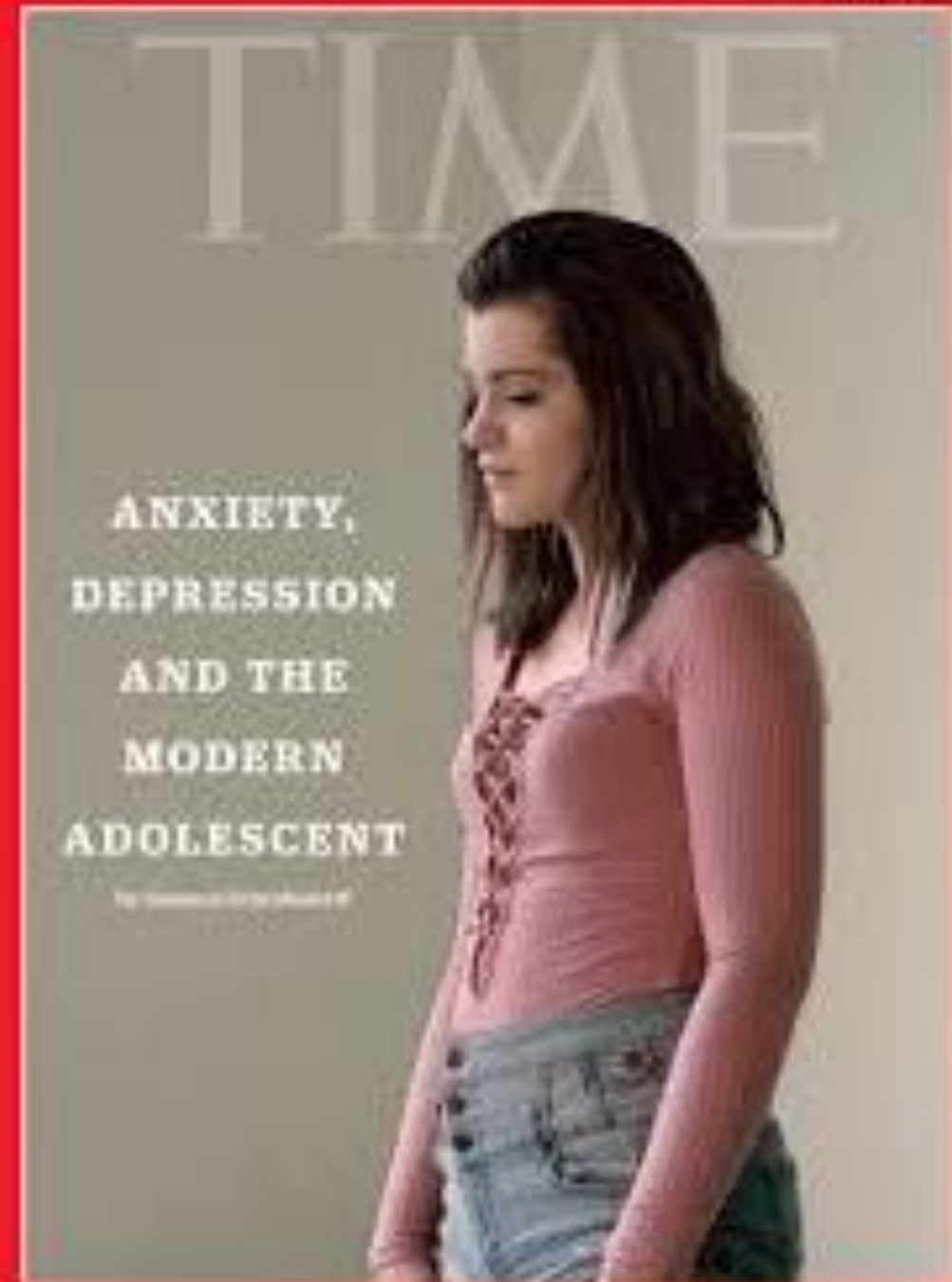
Among 12-14 yr olds, compared to 2007, in 2014:

- 3x as many girls
- 2x as many boys

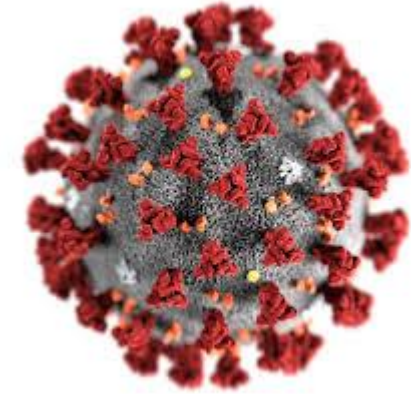
**TOOK THEIR OWN LIVES.**

**And this was pre-Covid.**

(Twenge, 2017)



# Covid-related psychological distress



- **In China, n=1036**
  - Age 6-15
  - April, 2020
  - 12% depression, 19% anxiety, 6% both
- **In India, n=121 quarantined youth & n=131 non-quarantined youth**
  - Age 9-18
  - 66% experienced helplessness, 69% worried, 62% fear (for all youth)
  - Fear, nervousness, annoyance, anxiety-related insomnia, isolation, sadness significantly more in quarantined group
- **In US, from April–October, 2020, mental health hospital emergency visits increased**
  - by 31% for age 12-17
  - by 24% for age 5-11

(Chen, Zheng, Liu, Gong, Guan, & Lou, 2020; Leeb, Bitsko, Radhakrishnan, Martinez, Njai, & Holland; Saurabh, Ranjan 2020)

**CURRENT STATE OF THE RESEARCH**

# Mindfulness



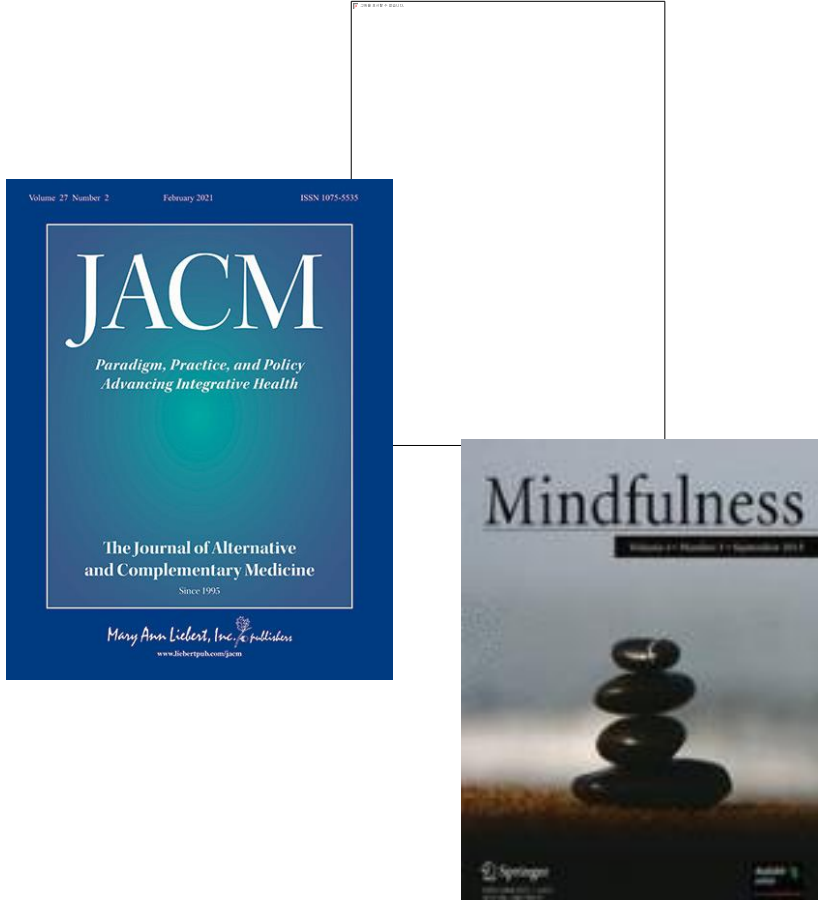
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# Mindfulness definition



**The awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally** (Kabat-Zinn, 1994)

# From meta-analyses and reviews:



- Zenner, Herrnleben-Kurz, & Walach, 2014
- Zoogman, Goldberg, Hoyt, & Miller, 2015
- Kallapiran, Koo, Kirubakaran & Hancock, 2015
- Felver, Celis-de Hoyos, Tezanos, & Singh, 2016
- Kohut, Stinson, Davies-Chalmers, Ruskin & Van Wyk, 2017
- Klingbeil, Renshaw, Willenbrink, Copek, Chan, Haddock, Yassine & Clifton, 2017
- Carsley, Khoury, & Heath, 2018
- McKeering & Hwang, 2019



# Description of studies

- Participants
  - Age 4-21
  - Public and private schools; most during school
  - US, UK, Canada, Australia, Hong Kong
- Outcomes
  - Wellbeing (anxiety, depression, stress, optimism, coping, self-regulation, self-compassion)
  - Cognitive functioning
  - Physical measures (cortisol, heart rate, sleeping patterns)
- Facilitator
  - Mixed; classroom teacher, outside facilitator

# Interventions

## Intensity

- Content – components of MBSR, e.g., breath awareness & lovingkindness
- Duration – 4 to 24 weeks; median of 8 weeks; 160-3700 minutes
- Home practice - varied

## Types

- MBSR (Kabat-Zinn, 1990)
- MBCT (Segal, 2002)
- Components of MBSR
- Breathing Awareness Meditation intervention (Barnes et al., 2008)
- Mindful Schools (Liehr & Diaz, 2010)
- Learning to BREATHE (Broderick, 2013)
- Soles of the Feet (Singh et al., 2003)
- Mindfulness in Schools (Volanen, 2020)

# Findings



- Positive effects on:
  - depression
  - stress
  - externalizing problems
  - optimism
  - positive affect
  - prosocial functioning
  - stress resilience
  - disruptive behavior

# Findings, continued

- suicidal ideation
- executive functioning
  - working memory
- anxiety
- cognitive performance
- larger effect sizes at *follow-up* than post-treatment (Klingbeil et al 2017)





# Moderators:

When and for whom  
are programs most  
effective?

- Program facilitator
  - Trained classroom teacher is likely best overall – data are mixed
- Developmental period of student
  - age 15-18 more effective than younger
- Intervention dosage
  - More time in program, better effects
- Clinical samples
- Psychological outcomes (i.e., depression, anxiety)

# From the teachers:

## What worked:

- Teachers embodying mindfulness
- Support from administration & parents
- Collaboration with fellow teachers
- Relaxed physical environment

- Students were more relaxed & settled
- Less disruptive behavior
- Increased on-task behavior

## Barriers:

- Time pressure, crowded curriculum
- Students didn't always engage

# Strengths of studies



- Large studies; average  $n > 100$
- Balanced according to age range, gender, grade distribution
- Almost half had majority of non-white participants
- Most were in typical classroom during school hours
- Nearly one-third included out-of-school practice
- Many used elements of MBSR

# Limitations & Future Directions

- Randomized Controlled Trials
  - Active controls – control for structure, format
- Statistically account for classroom & school effects
- Include students with disabilities
- Include SES
  - If family income is unavailable, access data from school district or community
- Replicate research on existing programs
- Report gender differences



# Future directions, continued

- Evaluate interventionist training
  - How much training is necessary?
- Conduct meta-analyses
  - Include moderators, e.g. classroom teacher vs. outside facilitator
- More diverse outcome measures
  - Multi-informant, e.g. teachers, parents, school staff
- Conduct component studies
  - Determine active program components
- Online & inpatient programs, particularly for clinical samples



# Future directions, continued

- Include “real world outcomes” from schools & school districts
  - Student achievement
  - Behavior data
  - Attendance data
- Collect follow-up data
- Determine how much practice is needed to show effects
- Assess fidelity of intervention delivery
  - Are facilitators delivering intervention the way it was intended?
- Investigate mechanisms
  - How do programs work?

# Most recent study ... under review n= 73 studies (Phan et al.)

Outcome	% of all studies	% showing improvement	Improvement in these areas
Well-being	15	44	
Self-Compassion	7	100	
Social functioning	15	85	Social competence, prejudice, empathy
Mental Health	29	64/80	Depression/ anxiety
Self-regulation & emotionality	41	100	Executive function, resilience, self-regulation
Mindful awareness	15	73	Mindfulness, awareness of thoughts, emotions, body sensations
Attentional focus	26	83	Attention, concentration, distractibility
Psychological & physiological stress	19	75	Stress, cortisol, right amygdala activity, functional connectivity & brain plasticity
Problem behaviors	11	100	Aggression, disruptive behaviors, conduct & externalizing behavior
Academic performance	22	94	Report card grades, auditory/verbal memory, GPA, math performance, math score, social studies score

# In summary ...

## **Highest quality studies showed**

- Resilience
- Generalized anxiety
- Obsessive compulsiveness
- Panic
- Worry

## **improvement in:**

## **Second to highest quality studies showed improvement in:**

- Self-concept
- Self and emotion regulation
- Coping
- Executive function
- Cognitive control
- Mood
- Social bias
- Attentional problems



**CURRENT STATE OF THE RESEARCH**

# Self-Compassion



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A photograph of a cozy window nook. A red pillow is propped up against a white window frame. In front of it, on a white fur rug, sits a wooden tray holding a lit candle in a glass jar, a white mug with a red design, and a small box of matches. Several books are stacked on the rug. The scene is warmly lit, suggesting a comfortable and nurturing environment.

# Self-compassion definition

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Being kind to yourself when you are struggling – being nurturing, protective, caring, and motivating; treating oneself as you would a good friend. (Neff, 2003; Germer & Neff, 2019)

# Meta-analysis and review:

- **Marsh, Chan & Macbeth, 2018**

- Assess magnitude of effect between self-compassion and psychological distress (i.e., depression, anxiety, stress)
- 19 studies
- Intervention (n=2), longitudinal (n=4) & correlational (n=13)

- **Pullmer, Chung, Samson, Balanji & Zaitsoff, 2019**

- Review of relationship between self-compassion & depression in youth
- 18 studies
- Intervention (n=5), prospective, correlational longitudinal (n=2) & correlational (n=11)

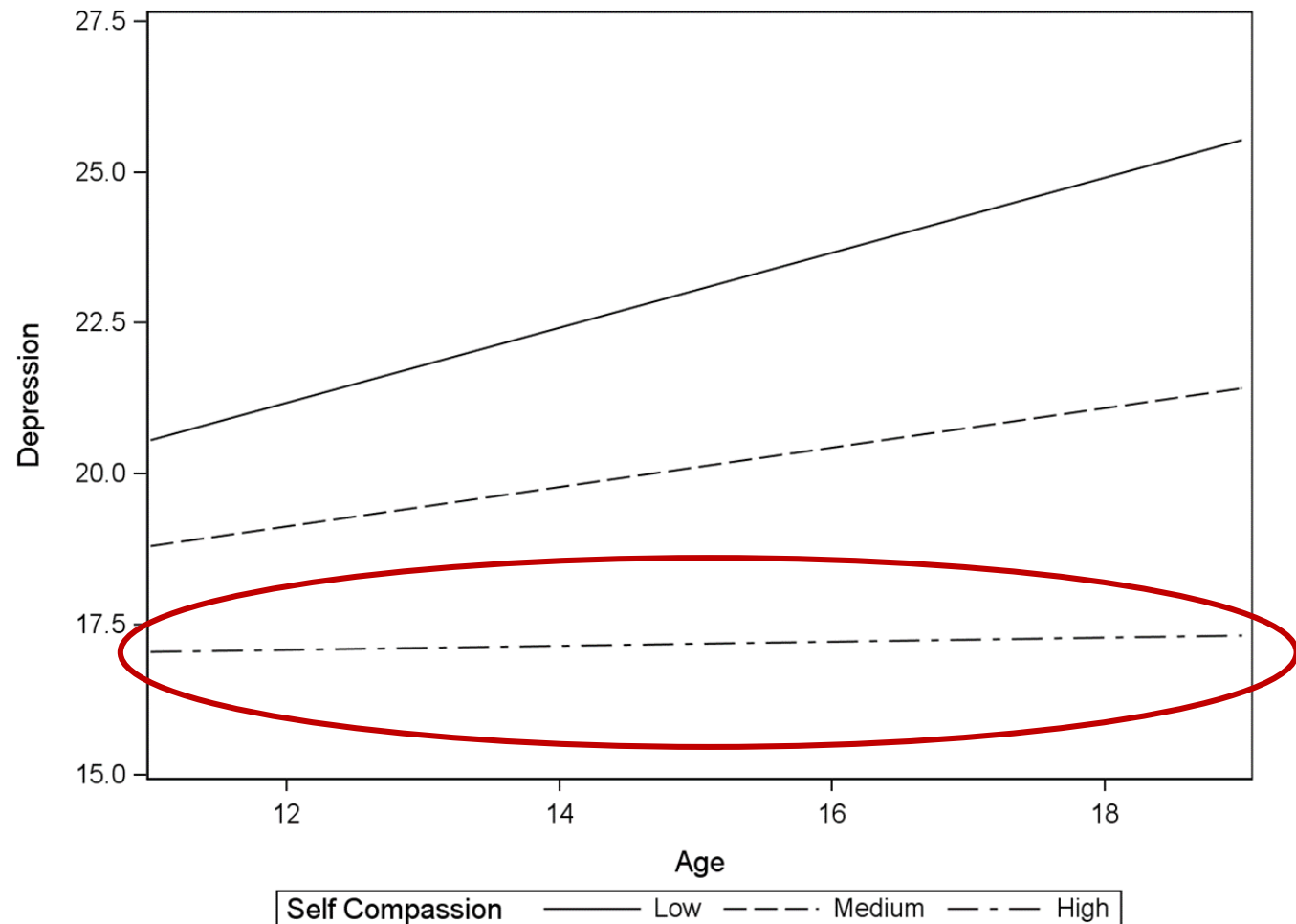
# Findings

- Strong negative relationship between SC & depressive symptoms
- Correlation between self-compassion and psychopathology was large
- Mixed findings on gender; correlation not affected by gender but older girls have lower SC than boys of same age and of younger girls
  - Was affected by age – SC/psychopathology relationship was weaker in older teens
- When separating subscales, self-kindness & mindfulness were negatively related to depressive symptoms; common humanity was not
- Composite scores of wellbeing (e.g., depression, anxiety, social connectedness) correlated with self-compassion



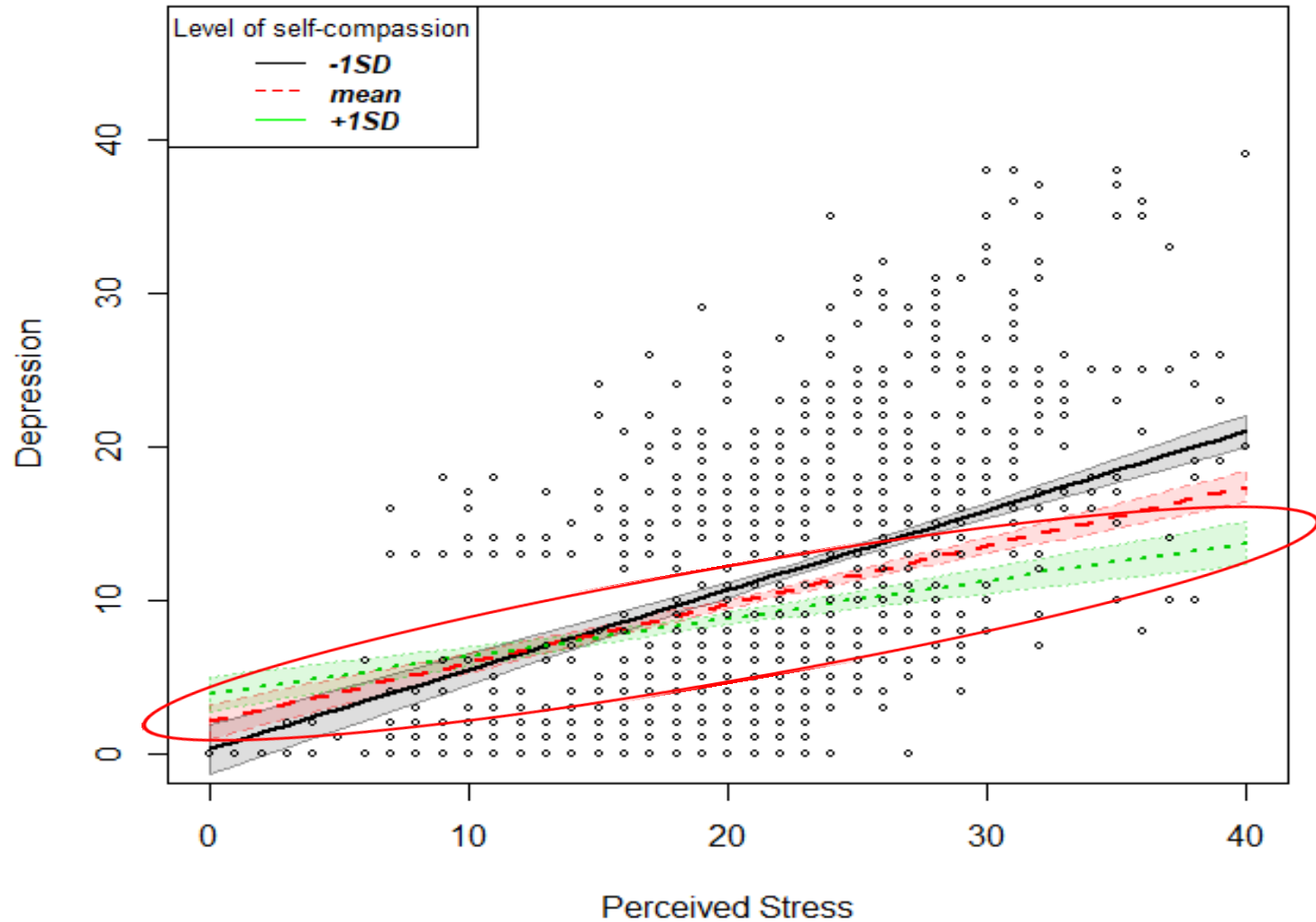
# Relationship Between Age and Depression (US)

**With greater self-compassion, teens have less depression as they get older.**



(Bluth et al., 2016)

# Relationship Between Stress and Depression (US)



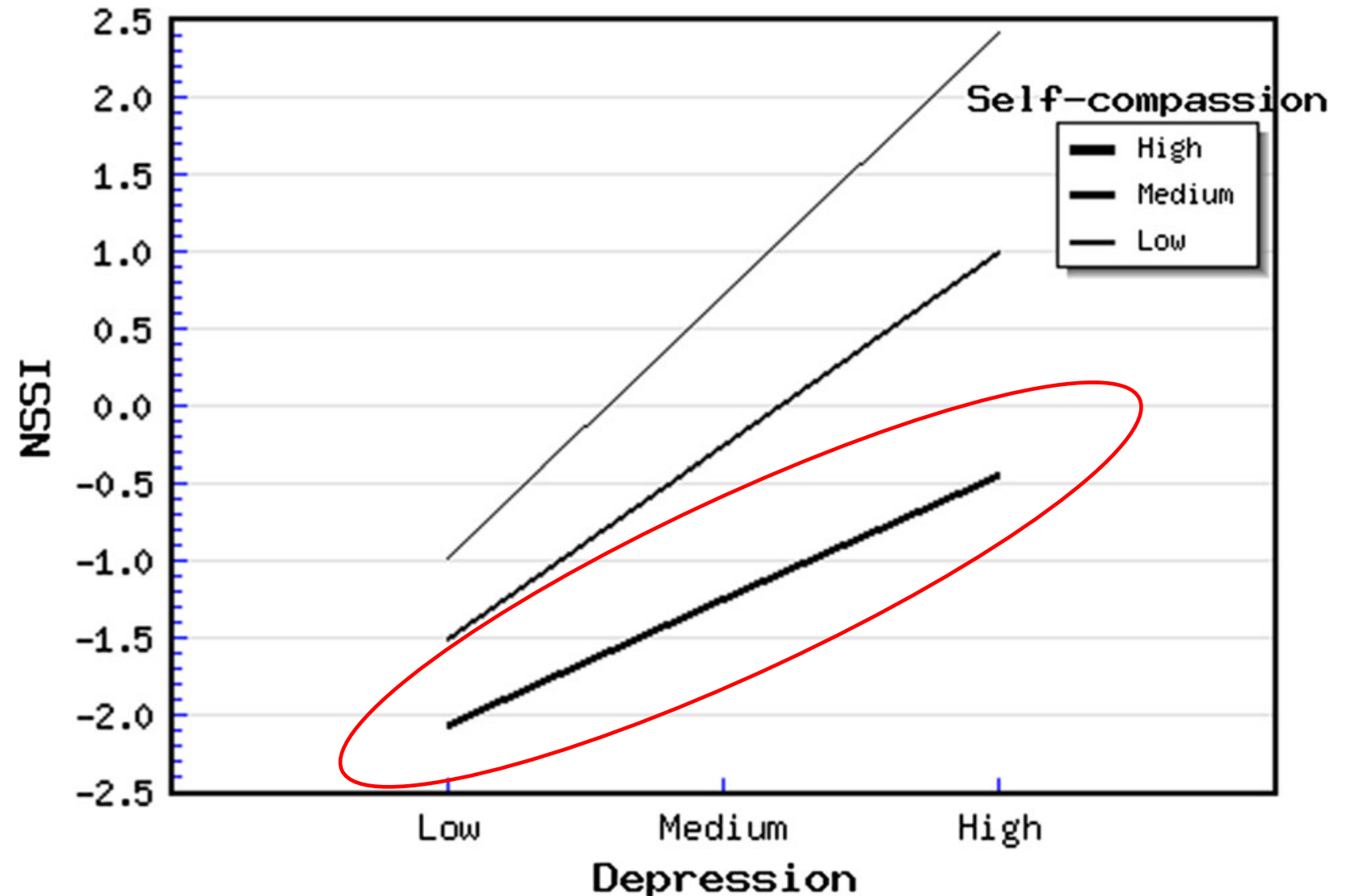
**With greater self-compassion, teens are less likely to get depressed when they're stressed.**

(Lathren, Bluth & Park, 2019)

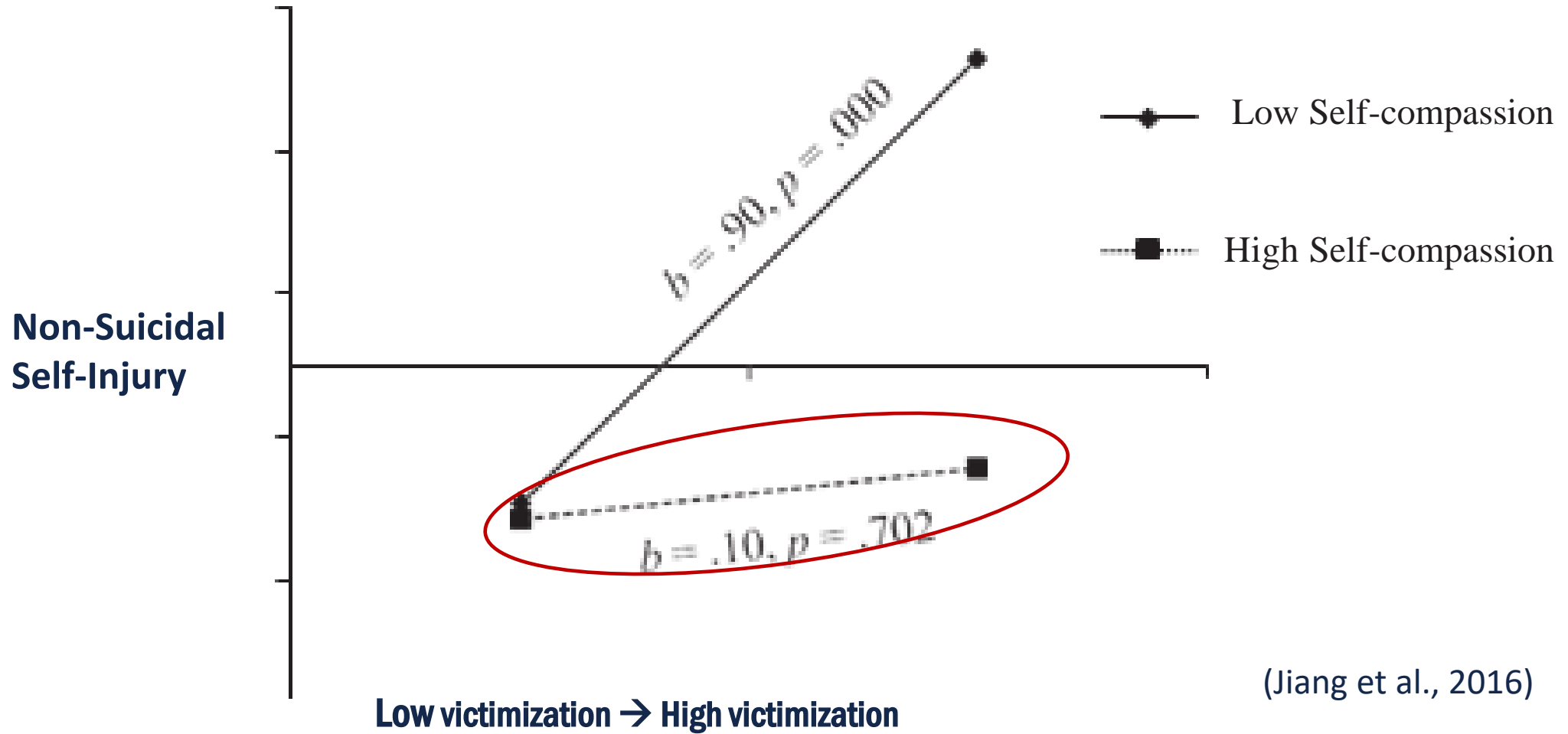
# Relationship Between Depression and NSSI (Portugal)

With greater self-compassion, depression is less likely to lead to non-suicidal self-injury (NSSI).

(Xavier et al., 2016)



# Relationship Between Victimization and NSSI (China)



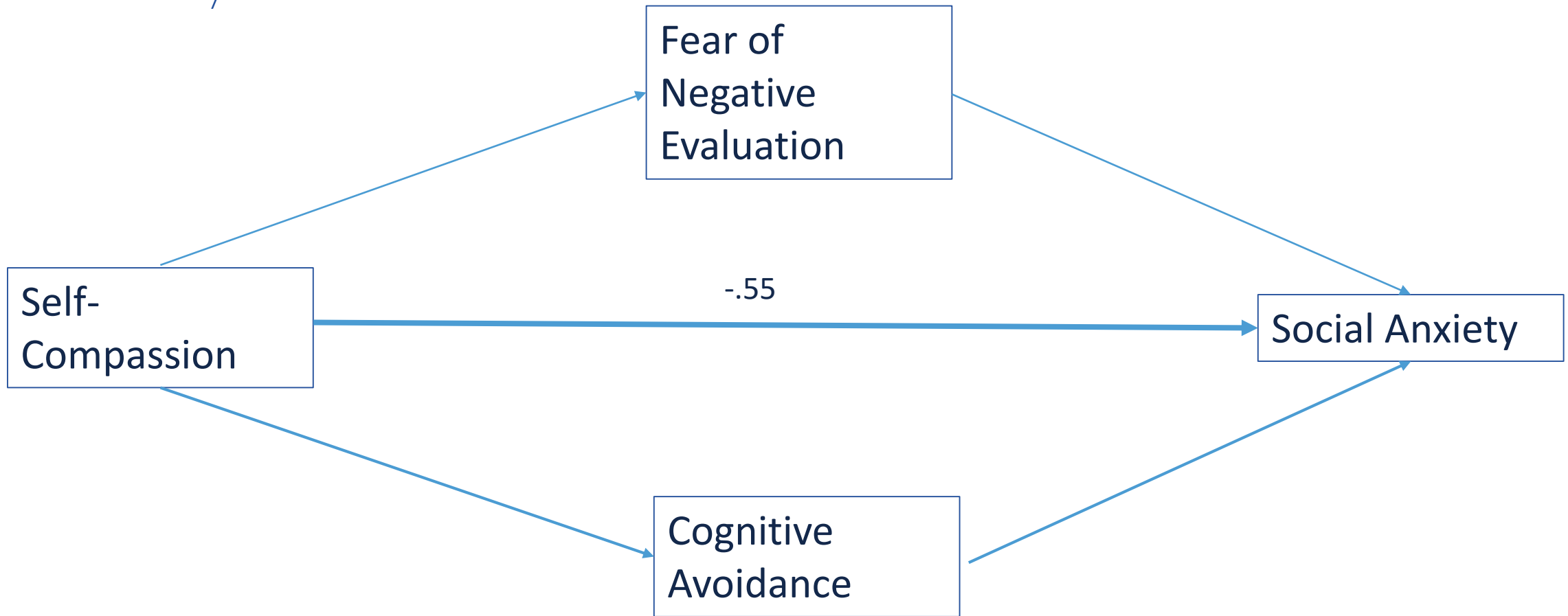
# Relationship Between Self-Esteem and Mental Health (Australia)

- 9<sup>th</sup> graders with low self-esteem:
  - If high self-compassion, then *no change* in mental health a year later
  - If low self-compassion, then *worse* mental health a year later



(Marshall et al., 2015)

# Relationship Between Self-Compassion & Social Anxiety (Scotland)



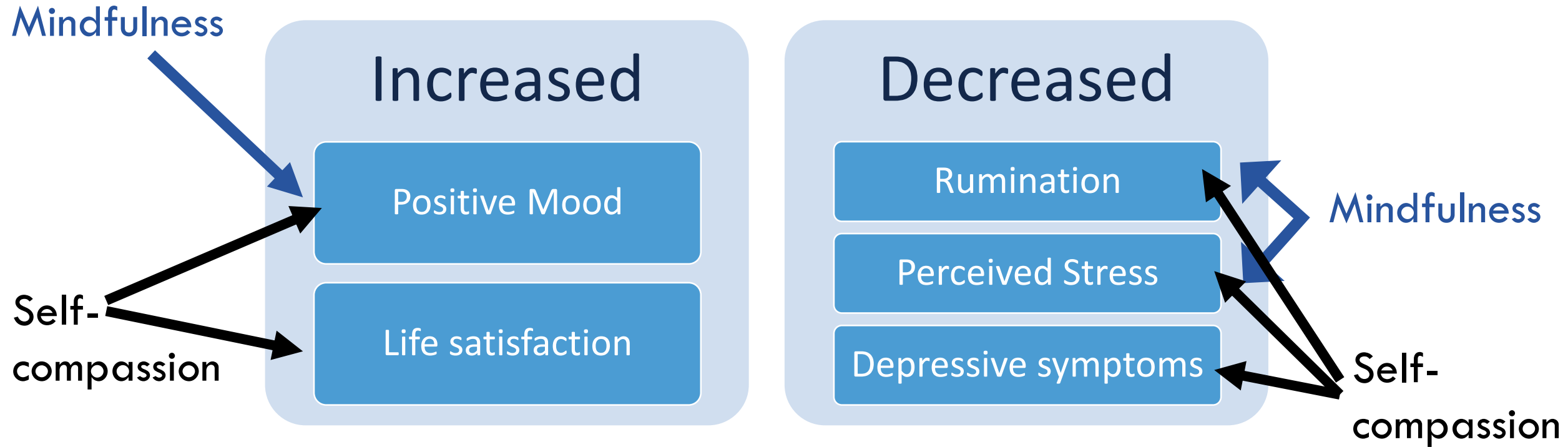
(Gill, Watson, Williams & Chan, 2018)

# Other Evidence of Buffering Effect of Self-Compassion

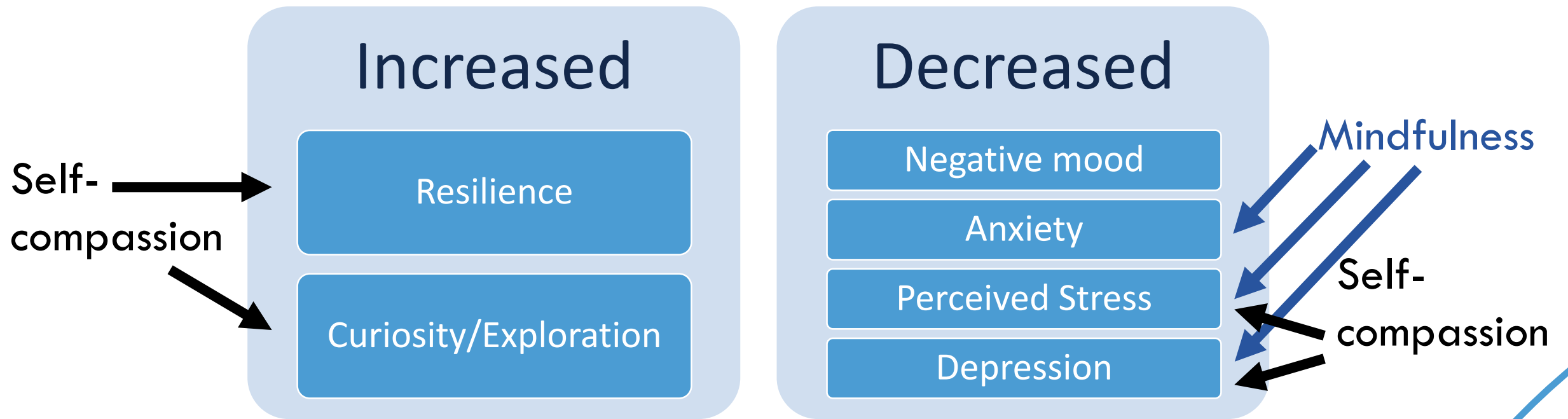
- **Chronic academic stress → worse wellbeing, including negative affect**
  - 208 undergraduates (China)
  - Those with greater self-compassion have less negative mood (Zhang et al., 2016)
- **Victimization → mental health**
  - 15-18 yo who had been victimized as children and had poor school performance (Spain)
  - Those high in SC had better mental health (Jativa & Cerezo, 2014)
- **Traumatic event → PTSD, depression, anxiety, suicidal ideation**
  - 15-19 year old refugees (Israel)
  - Those high in SC had less psychological symptoms (Zeller et al., 2015)



# Inward Bound Meditation experience (iBme): *5-day mindfulness meditation retreat*



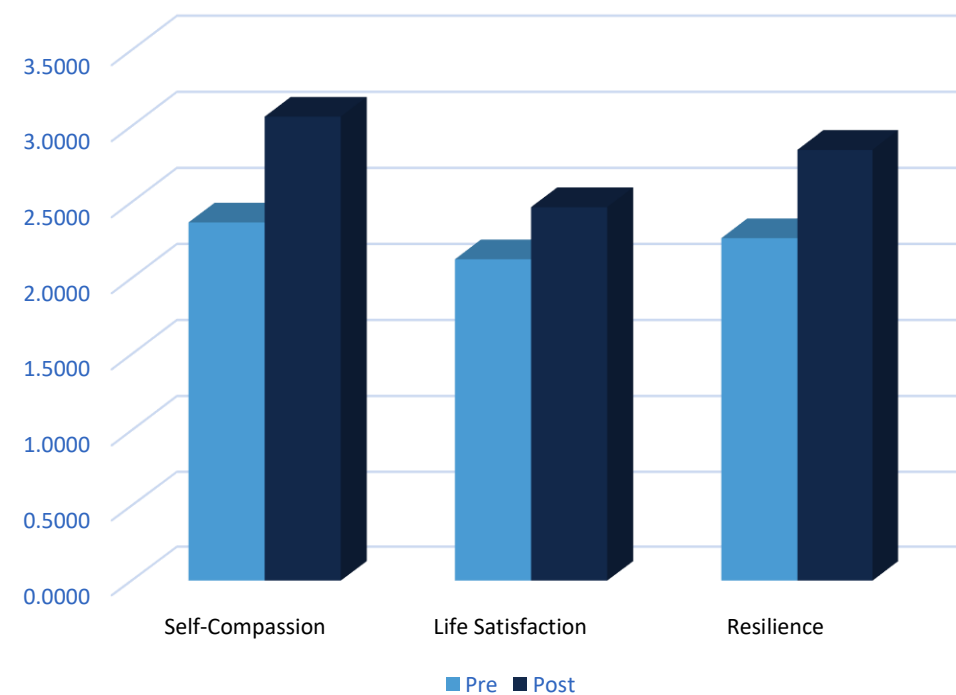
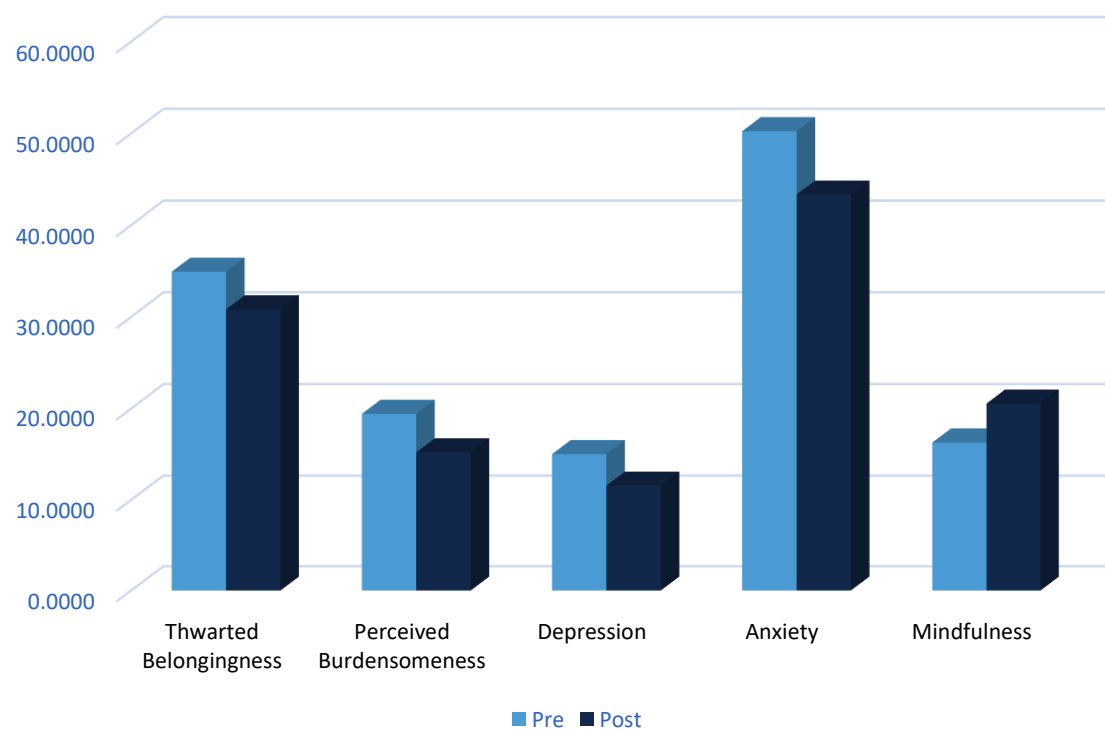
# Making Friends with Yourself: A Mindful Self-Compassion Program for Teens



(Bluth et al., 2016; Bluth & Eisenlohr-Moul, 2017)

# Making Friends with Yourself for Transgender Teens

## Changes Pre- to Post-Intervention (n=29)



## In summary

- Self-compassion is inversely proportional to psychopathology (i.e., depression, anxiety, stress)
- Self-compassion can protect against negative outcomes of challenges of adolescence
- Can be particularly effective in high-risk teens
- Girls between 12 and 16 are at increased risk for low self-compassion and high depression
- Programs that cultivate self-compassion can help

# Limitations and Future Directions

- **Socioeconomic status (SES) needs to be assessed**
- **More investigation into ethnic minority groups**
- **More investigation into LGBTQ populations**
- **Intervention research – different lengths of programs and individual components**
- **Within-person analyses of self-compassion on depressive symptoms**
  - **Moderated by gender, sexual orientation, ethnicity, gender identity, SES**

# Future directions, continued

- Need more controlled intervention studies
- Consistency across scales used (e.g., self-compassion scale, depression scale)
- Consistency across terms and design
  - Definition of “younger” and “older” adolescents
  - Replication of intervention research
- Investigate how self-compassion unfolds developmentally
  - What are precursors to self-compassion?
- More on clinical samples (e.g., depressed youth)



**Final thought ...** Adolescence is a critical period for intervention to determine the mental health trajectory through adulthood.  
**How will we proceed?**





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