EXAMINING A PROTOTYPE MOBILE APP FOR SELF-CRITICAL THOUGHTS: A CLINICAL COMPONENT TEST

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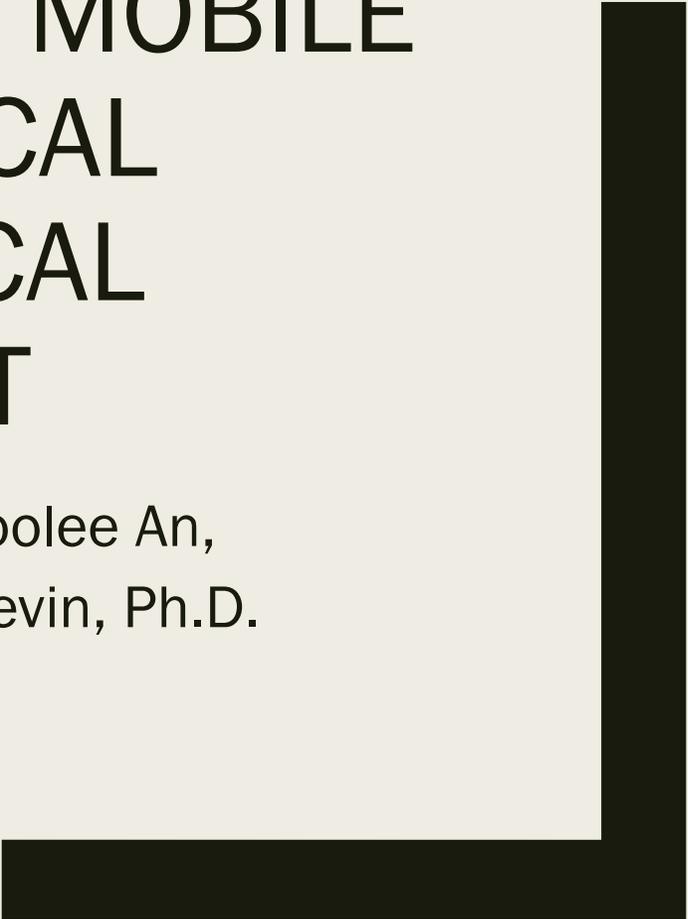
Disclosure

- We have not received and will not receive any commercial support related to this study or presentation.

Background

- Contextual CBTs and traditional CBTs both address impact of thoughts on psychopathology and well-being, but with different procedures and processes

- Both restructuring and defusion have led to improvements on specified outcomes in some studies (Deacon et al., 2011; Yovel et al., 2014)

- Other studies have found some stronger effects for defusion (Larsson et al., 2016; Moffitt et al., 2012) and others found different mediators (Deacon et al., 2011; Yovel et al., 2014)

Background

- Past studies have mostly been brief, single-intervention (Deacon et al., 2011; Larsson et al. 2016; Yovel et al., 2014), and used unscreened samples (Larsson et al. 2016; Moffitt et al., 2012; Yovel et al., 2014)

- Mobile apps are a promising way to do clinical component testing

- Chose to target those high in self-criticism

Study Design

- All procedures online
- Baseline assessment & randomization
  - *Defusion mobile app, restructuring mobile app, or waitlist*
- Active conditions given 20-min tutorial and encouraged to use mobile app for next two weeks
- Post assessment after two weeks

Participants & Procedures

- 87 adults high in self-criticism ("inadequate-self" subscale of FSCRS) participated

- 68.9% female, mean age 22.76, 91% White non-Hispanic

- Mean FSCRS score was 35.02
  - *One SD above mean in clinical samples (Baiao et al., 2015)*

Intervention

- Three random check-in notifications and a daily diary notification each day

- If participant reported struggling with difficult thoughts, skills were suggested

- Participants could access a library of tools at any time, including "Quick tips," "Reflect on a thought" and "Work with a current thought"

- Some unique skills included in each condition

Results

|	Defusion	Restructuring	Benchmark
Completion rate	77%	79%	
Used app at least once	90%	93%	
App sessions completed (M)	48	42	Notified 56 times for sessions
Overall usability rating (SUS)	81	81	72.75 = Good 85.58 = Excellent
Helpful	3.91	4.13	1 – 5 Scale 4 = "Mostly Agree"

Results

- Defusion condition outperformed waitlist on hatred self-criticism, self-reassurance, distress, and interference with functioning with effect sizes from $d = 0.61$ to $d = 1.23$

- Cognitive restructuring outperformed waitlist on self-reassurance ($d = 0.92$) and distress ($d = 0.99$)

- But, no significant difference when comparing cognitive defusion and restructuring on any outcome

Interference with Functioning
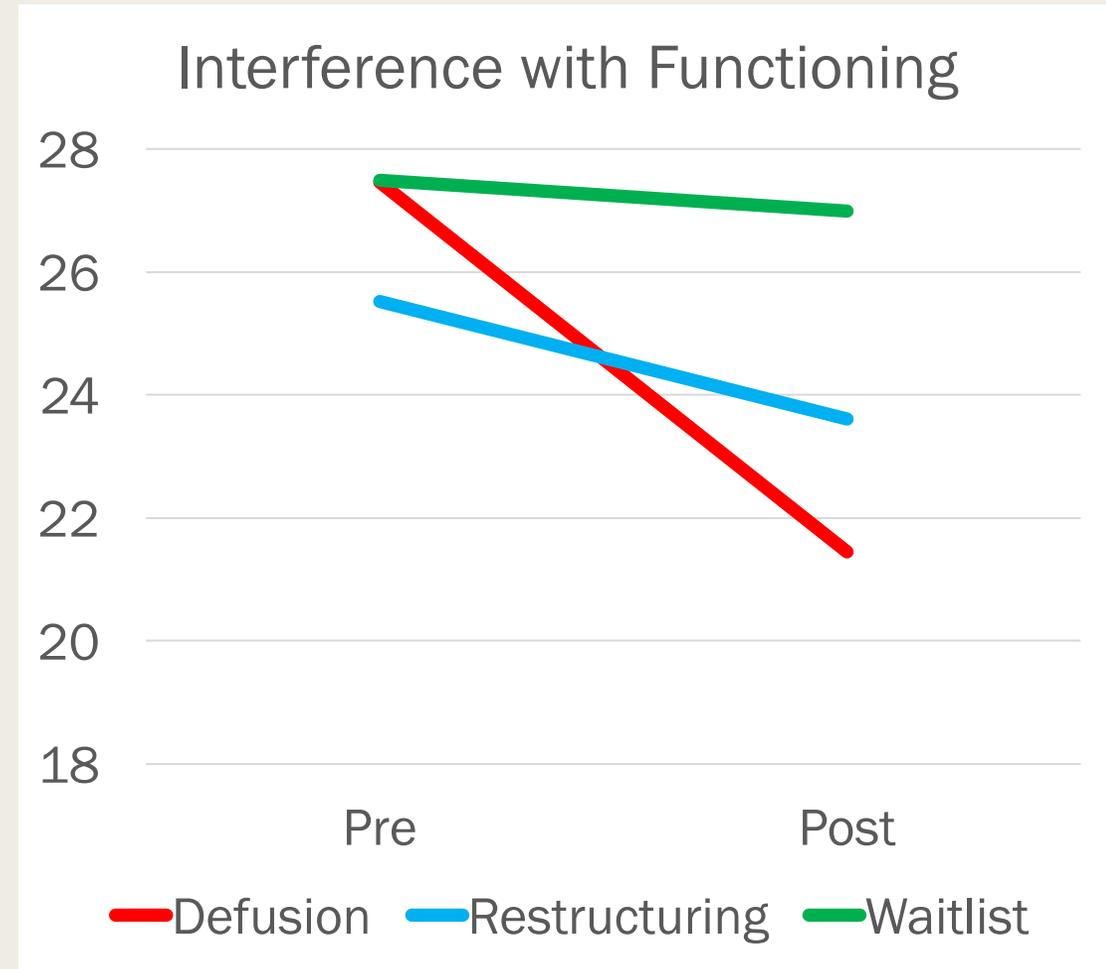
Daily Diary Results

- Defusion condition improved significantly on frequency of thoughts and noticing thoughts over time and restructuring condition did not
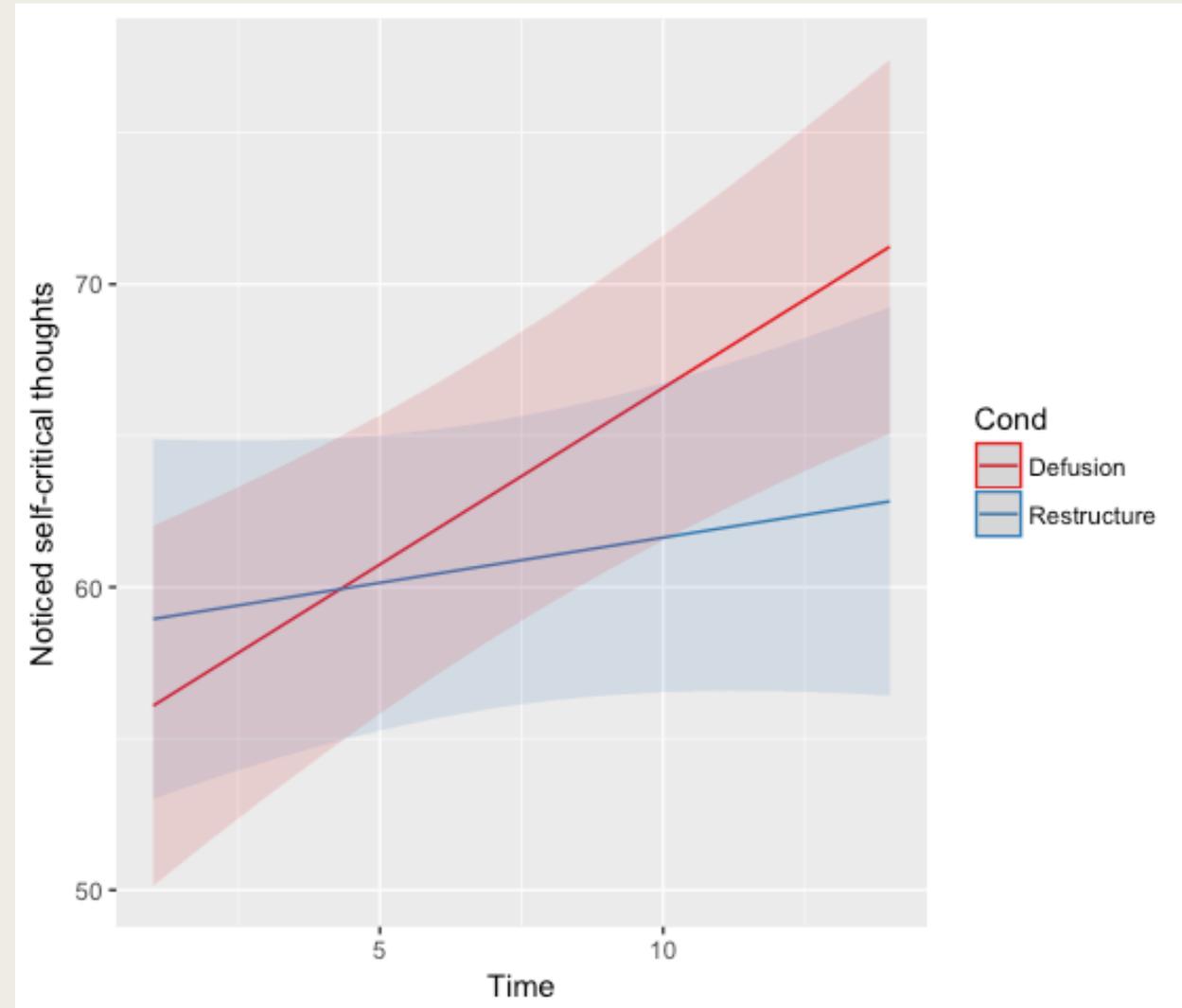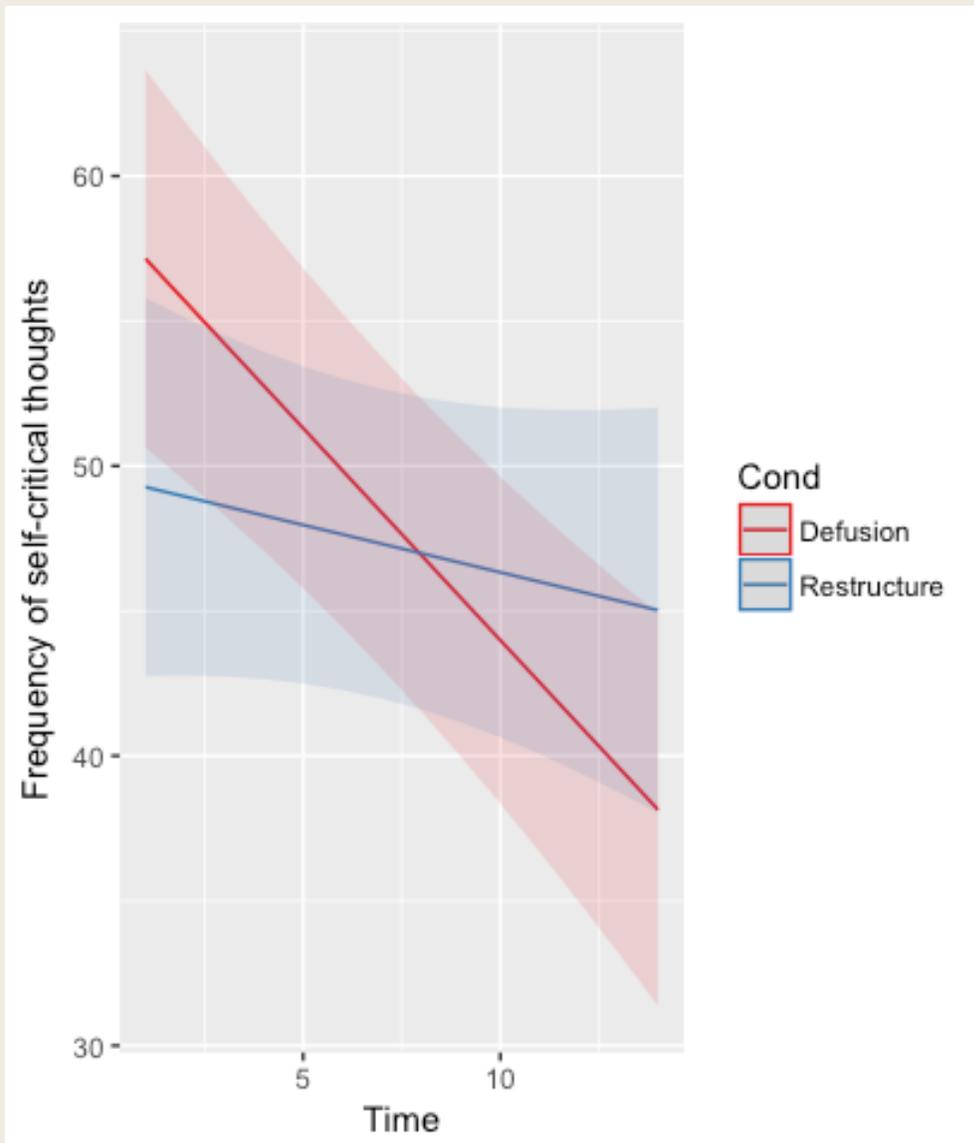
Results

- Baseline self-compassion interacted with time and condition in predicting frequency, noticing, believing
- Self-compassion interacted with time in restructuring but not defusion condition

Defusion:
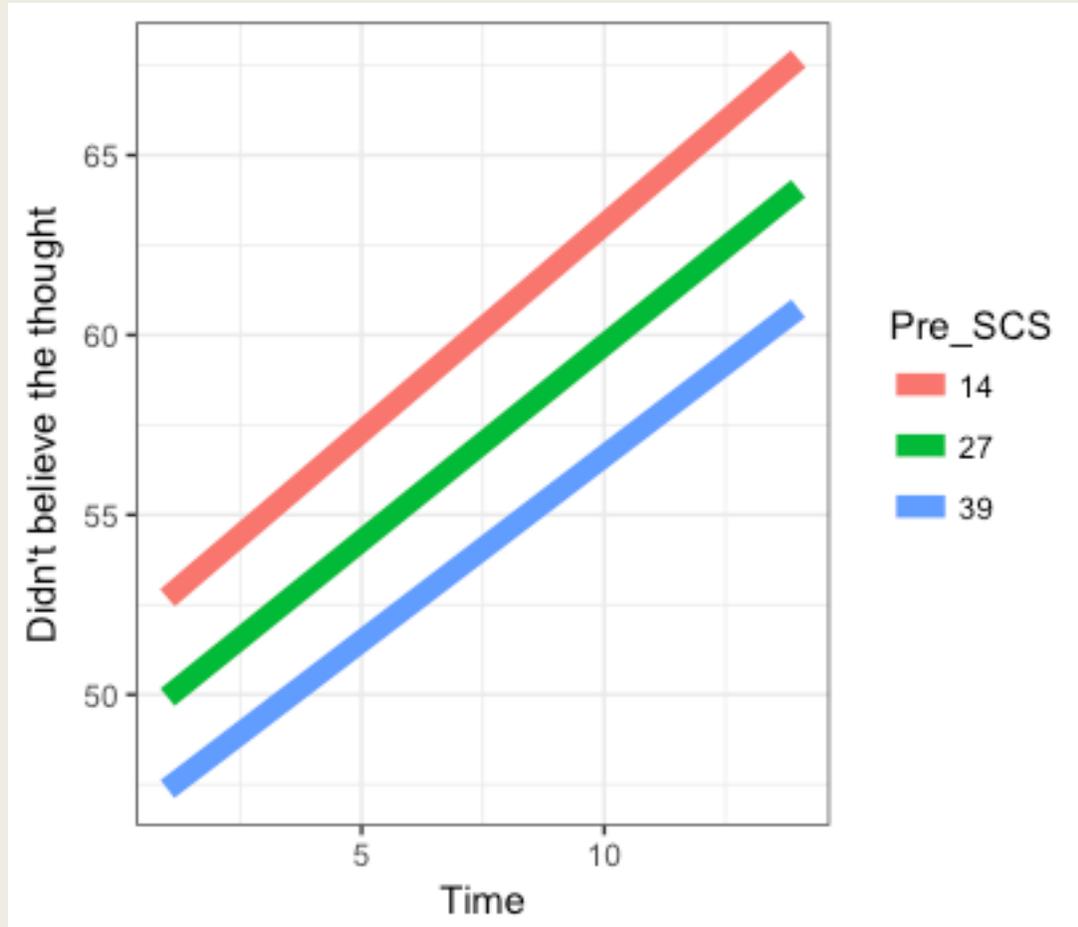
Restructuring:
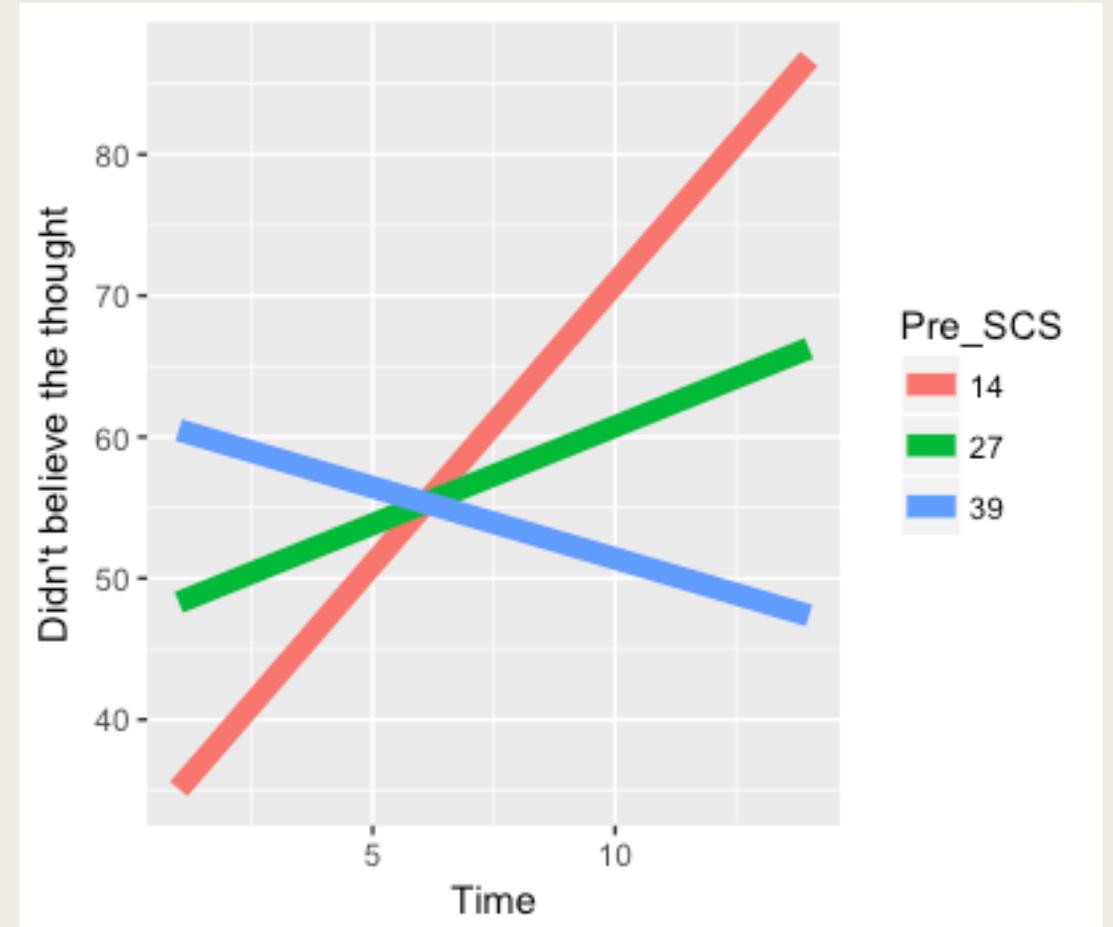
Discussion

- Fairly simple 2-week intervention but high usage and acceptability

- No significant differences between defusion and restructuring on main pre-post outcomes, but defusion did impact more outcomes compared to waitlist

Discussion

- In daily diary data, those in defusion condition improved significantly on frequency and noticing while those in restructuring did not

- Defusion intervention did not depend on baseline self-compassion, but restructuring did

Next steps

■ Replication in more diverse sample

■ Replication in more typical clinical setting

■ More timepoints

■ Collaboration with CBT experts

■ Continued clinical component testing

– *Comparisons and additive designs*

– *Connecting processes to context – what works, for who, when, for what outcomes*

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Screen 1 (Prompt):

One way to practice getting unhooked from your thoughts is to look at your mind from a new perspective. Click an option to explore ways of looking at your mind and how that affects your actions.

assistant

○ Your mind is like a bully

○ Your mind is like click bait

○ Your mind is like wearing rose colored glasses

○ Your mind is like a rude party guest

Back   OK   Skip

Screen 2 (Prompt):

YOUR MIND IS LIKE AN OVEREAGER ASSISTANT. Its constantly handing notes - what to do, watch out for, suggestions, warnings, etc... Some are helpful and some are upsetting. As the boss, what do you do?

○ Yell at my overeager assistant to stop bugging me

○ Thank my overeager assistant for trying to do its job

Back   OK   Skip

Screen 3 (Prompt):

What is one way you might practice working with your overeager assistant?

○ Picturing an assistant telling me each thought when I'm worrying or hooked

○ Remembering I'm the boss and I can choose how to respond to each thought

○ Thanking my mind for doing its job when it brings up difficult thoughts

Back   OK   Skip

In this exercise we will explore a negative or unrealistic thought you are struggling with and look to identify what distortions are there. Starting to notice these distortions can be a good first step to challenging these unhelpful thoughts. Press OK to continue.

Back   OK   Skip

Distortions are patterns in your negative thoughts that don't fit reality. What is the most important distortion you are making right now with this thought?

○ Absolutes: Thinking in extremes (all good or bad, best or worst, etc..)

○ Guesses: Jumping to conclusions about events or what others are thinking

○ Tunnel Vision: Seeing only what confirms your view, ignoring all else

Back   OK   Skip

Your thought probably has to do with a more specific series of events or situations. What situations/events are you overgeneralizing this to?

☐ All people in the world

☐ Every time I try to meet my goal

☐ All of my friends

☐ All of my love interests

☐ Every time I interact with this person

☐ Every job

Back   OK   Skip