

EMOTIONALLY-FOCUSED MENTORING: A MULTI-METHOD ASSESSMENT OF
EMOTION REGULATION

By

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A Thesis Submitted to The Honors College
In Partial Fulfillment of the Bachelor's degree

With Honors in

Psychology

THE UNIVERSITY OF ARIZONA

M A Y 2 0 2 1

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Abstract

Emotionally-Focused Mentoring is a novel intervention project that aims to enhance attachment security through the promotion of healthy emotion regulation skills specifically for insecurely attached college students. Although there are many self-report measures of emotion regulation, prior literature has not produced a method of capturing observed interpersonal emotion regulation over time. In the present study, I worked to identify if trained judges can reliably code observed emotion regulation across five weeks using an Emotion Interview task that we developed for the purposes of this study. I developed the Emotion Regulation Observable Coding Scale and recruited a team of five undergraduate coders, who served as the trained judges. In a sample of 82 college students who ranked high on attachment insecurity, I found that observed emotion regulation could be coded with a high degree of interrater reliability. However, contrary to the hypothesis that I participants would evidence improvements in emotion regulatory behaviors over time, I observed no significant changes in the primary outcome variable. Several reasons might explain this result, including that the Emotion Interview tasks may not have accurately captured interpersonal emotion regulation and future research would benefit from measuring observed emotion regulation in a more naturalistic environment. Nonetheless, continuing to explore how researchers might capture observed interpersonal emotion regulation remains an important endeavor.

Attachment styles are conceptualized as different ways of regulating our emotions in the context of our relationships (Bowlby 1969). Repeated interactions with caregivers and close others can impact our attachment orientations—the emotion regulation strategies we develop over time to survive in our early life environments to (Caldwell & Shaver, 2013). These emotion regulation strategies can differ from person to person and play an important role in people's lives, impacting the way people interpret relational scenarios and respond to others.

Along with our genetic predispositions, repeated interactions with close others give rise to different styles of attachment, most broadly categorized as being more securely vs. insecurely attached. People who rank higher on attachment insecurity tend to perceive their early life interactions with caregivers as cold or rejecting while those who are securely attached perceived their early life interactions with caregivers as tend, warm and caring. Those who are insecurely attached may use specific emotion regulation strategies that create subcategories of attachment insecurity, attachment anxiety or attachment avoidance (Fraley, et al., 2013).

Ranking high on insecure attachment is characterized by more extreme emotional reactions, such as emotional suppression/avoidance or overinvolvement/anxiety (Caldwell & Shaver, 2013). People who are more anxiously attached may be upregulating their emotions, exhibiting hypersensitivity to rejection, protesting separation, and amplifying their desire for intimacy or closeness. People ranking high in attachment anxiety may struggle to trust close others and crave more attention. On the other hand, those who score higher in attachment avoidance may have learned early on that they cannot rely on others; thus, they tend to downregulate their emotional experiences, distancing themselves from close others, suppressing emotional needs, and becoming very self-reliant.

Insecure Attachment: The Consequences of Maladaptive Emotion Regulation Strategies

Although these maladaptive emotion regulation strategies may have been adaptive in early life contexts, being able to manage emotions from a place of security may be more adaptive as we enter adulthood and create new relationships. In fact, research demonstrates that those who are more securely attached tend to have an easier time creating and managing their relationships. This may be because those who are more secure can express their emotions in a balanced manner, exhibit compassion for self/others, and generally trust close others; thus, they are better able to create meaningful relationships over time and manage relational discord (Caldwell & Shaver, 2013). Unfortunately, those who struggle with emotion regulation, who may be insecurely attached, also experience serious psychological and social consequences.

Relationship difficulties. Attachment insecurity is associated with more maladaptive personal and relational outcomes. For example, those who rank higher on attachment insecurity experience difficulties creating relationships and experience less satisfaction in their relationships (Collins & Read, 1990). They may crave large amounts of reassurance and intimacy from their partners which can strain relationships. People ranking higher on attachment insecurity can also be resistant to opening up to their partners, finding it difficult to be vulnerable which can hinder the growth of relationships (Dunham, et al., 2011). Combinations of these maladaptive emotion regulation strategies can place a large stress on the relationship and on the other person involved.

Psychological distress. Maladaptive emotion regulation strategies were shown to be a significant predictor of depressive symptoms in a study by Dr. Reilly (Marchand-Reilly, 2012). This study had adults in dating relationships report their attachment anxiety (AAS; Collins &

Read, 1990) and their depressive symptoms through various self-report measures (Radloff, 1977). Dr. Reilly found that when the adults “reported more anxiety over being abandoned or rejected, they reported more depressive symptoms” (Marchand-Reilly, 2012). In fact, people who rank higher on insecure attachment report more mental health problems and psychological distress, such as higher rates of anxiety, eating disorders, and depressive symptoms (Love & Murdock, 2016; Nada Raja, McGee, & Stanton, 1992; O'Connor & Elklit, 2008; Hazan & Shaver, 1993; Zachrisson & Skårderud, 2010). These studies suggest that treatment for depressive symptoms should consider incorporating adaptive emotion regulation training and that difficulties regulating one’s emotions are a closely associated with psychological distress.

Risky behaviors. Maladaptive emotion regulation strategies are also positively associated with risky sexual behavior as seen in a study by Tull et al. (2012). The likelihood of using a protection during sex in a risky setting was negatively associated with the use of maladaptive emotion regulation strategies (Tull et al., 2012). Assessing maladaptive emotion regulation skills could be a target of intervention to decrease risky sexual behavior and to mitigate the negative affects sexually transmitted diseases have on people and their community. Furthermore, a study done by Robertson, et al. (2014), showed that aggressive behavior is associated with the use of maladaptive emotion regulation strategies. This finding highlights aggressive behaviors that have come from maladaptive emotion regulation strategies that negatively affect not only close others, but the health of a community. This study also shows that programs designed to reduce aggressive behaviors should incorporate the practice of using adaptive emotion regulation strategies since it was found that participants with less histories of aggression were reporting the use of adaptive emotion regulation strategies (Robertson et al., 2014).

Emotionally-Focused Mentoring (EFM)

Given the consequences of insecure attachment and the emotion dysregulation that embodies attachment insecurity, an important next step is to begin to develop interventions that might promote more healthy emotion regulation skills for at-risk populations. One recent intervention that has been developed to address emotion dysregulation for those who may be more insecurely attached is “Emotionally-Focused Mentoring.”

Emotionally-Focused Mentoring (EFM) is a 5-week psychotherapeutic program designed to promote attachment security in insecurely attached young adults. EFM was designed by Atina Manvelian as part of her doctoral dissertation in clinical psychology at the University of Arizona (Manvelian et al., 2021). The EFM program developed by Manvelian targets emotion regulation skills by pairing the insecurely attached first year college student with a more securely attached undergraduate mentor. Manvelian (et al., 2021) conducted a small feasibility and acceptability study of EFM as well as a larger pilot study with 82 participants who started the EFM program, 55 of whom completed all five weeks of the EFM program. The pilot study was an open trial—there was no comparison group and random assignment was not used; therefore, caution is needed in concluding that any changes in psychological outcomes observed across EFM are a consequence of the intervention itself versus the passage of time or the mere act of sitting down with a supportive mentor.

The undergraduate mentors in EFM were trained in the principles of Emotion-Focused Therapy (EFT; Johnson, 2019) which promoted healthy emotion regulation skills by acting as a lay therapist. The mentors also offered unique support to the participants as they navigated the intense transition into college that most people in their position do not have access to. The

central component of EFM is to meet with their mentor for one hour a week to discuss how they would have traversed the challenging relational scenarios presented during each meeting. The challenging relational scenarios are specifically designed to foster a discussion where the participant's attachment-related schemas are activated and attachment-related emotions are identified, reflected, deepened, normalized, and shaped. The mentor guides the participants through this process by keeping a neutral stance and helping them regulate their emotions in a more balanced manner, one that is more secure instead of anxious or avoidant. EFM aims to provide a safe relationship for the participants to identify their patterns of interaction, express their emotions, and practice engaging with close others.

The sessions of the EFM intervention covered a wide range of relational scenarios over 5 weeks. Session 1 was the introductory session where the mentor and participant met for the first time and they discussed the participant's interactions with their caregivers throughout their childhood. This was a critical session since every participant of the program was a first-year freshman and the discussion of their childhood in past tense could be a novel experience. In session 2, the mentor asked how the participants would maintain a close relationship with someone such as with a parent or close friend. Session 3 had the participants discuss how they would handle a conflict with someone close to them. Session 4 asked the participants to discuss how they would act when tasked with setting boundaries with close others who are acting in ways that hurt or disrespect them. Lastly, Session 5 asked the participants to discuss how they act when they are letting go of a relationship. In every session, the participants were presented with a relational scenario and the choice of 3 responses in which each response portrayed a secure, avoidant or anxious attachment action. The participants and mentor discussed which statement the participants related to the most which often led to the discussion of a past experience of the

participants. This is when the mentor worked to reflect what they heard, investigate the participant's emotions and to help them identify and realize their own emotions to ultimately to help them become more securely attached. These sessions were free flowing and allowed the participants and mentor to discuss anything relating to the topic of the session. This offered a unique set of challenges such as participants avoiding to answer questions or when participants would talk about an unrelated topic which is when the mentors would ask participants guiding questions to help them develop their thoughts about the topic at hand.

Manvelian (et al., 2021) reported substantial changes in attachment insecurity and self-reported emotion regulatory difficulties over the 5-week EFM program, resulting in medium effect sizes, suggesting that both attachment security and emotion dysregulation were improving over time. Unfortunately, one of the chief limitations of their study is that the primary outcomes were exclusively self-report. Although self-report is a valid and probably the best means of assessing subjective experience, it would be ideal to capture *behavioral changes* in the constructs of interest. Beyond what participants say about their experiences in the study, do these also behave differently when it comes to thinking about and discussing emotionally evocative experiences? My honors thesis was designed to answer this question. As part of the EFM study conducted by Manvelian (et al., 2021), participants completed a standardized emotion regulatory assessment task at three occasions. This task asked participants to think back to a time in the very recent past when they felt anger or frustrated. They were then asked to explain what triggered their emotions, the story behind their emotions, and how they coped with the experience. This task was designed with the primary goal of eliciting observable differences in emotion regulatory skill and revealing changes in observable emotion regulatory behaviors, which is a key goal for the EFM program.

Present Study: A Multi-Method Approach to Emotion Regulation

The focus of this study was to develop a behavioral coding system for assessing emotion regulation among participants in the EFM program, then evaluating whether participants demonstrated changes in emotion regulation over three assessment periods (across 5 weeks) and whether changes in participants' self-reported difficulties with emotion regulation and attachment insecurity would be correlated with changes in observed emotion regulation. Based on these broad goals, I made the following specific hypotheses: (1) A team of five undergraduate raters will evidence a high degree of inter-rater reliability (average ICCs $>.70$) when assessed observed emotion regulation; (2) Participants will evidence significant improvement in their emotion regulation skills over time, including increases in observed comfort discussing and experiencing strong emotions; (3) Greater improvement in observed emotion regulatory skill will be positively correlated with greater self-reported decreases in emotion regulation difficulties and attachment insecurity.

METHOD

Participants

Participants in this study were 82 college freshman students at the University of Arizona who ranked high in attachment insecurity. The participants did not know they were recruited because of their attachment styles. Before the study began, the participants were consented and completed an Emotion Interview Task before their first visit and after their third and fifth visit. The participants were told that they were participating in a new initiative to cultivate emotional and social wellness among first-year college students. Over the total participants, 82 completed session one, 72 completed three sessions and 55 participants completed all five sessions. The

participants were economically and racially diverse. About 76% of the participants identified as female and the average age of the participants was 18 years old. About 25% of participants identified as first-generation college students and approximately 27% of participants identified as something other than heterosexual. About one half of the participants had been to therapy at some point in the past. About one third of the participants expressed suicidal ideation in the past two weeks and one third had taken psychiatric medications in the past year.

Procedures & Measures

Participants would meet with their mentor for an hour a week for 5 weeks. They would meet in a quiet and private room in the University of Arizona Department of Psychology building. The participant and mentor would discuss the scheduled relational scenario for 30 minutes and the last 20 minutes of each session was made available to the participant to discuss anything pertinent to the participant's personal life. The mentees participated in an Emotion Interview Task during weeks 1, 3 and 5. Directions for the task were as follows:

“Please take a moment to bring to mind a time in the past two weeks where you felt very frustrated or angry with someone. Situate yourself in that time and place. Think about where you were, who else was there, and what was happening for you in those moments... Remembering how frustrated or angry you felt, please answer the following questions:”

- 1. Describe what may have triggered those emotions for you?**
- 2. Describe what you were feeling, deep down?**
- 3. What was the story behind your emotions? Why do you think you were feeling that way?**
- 4. How did you manage or cope with the emotions? Did you share your experience with anyone? If so, how?**

5. What do you think the other person or people involved were feeling? Tell us about their perspective.

The Emotion Interview Task was designed to identify the following constructs: (a) the degree to which the participant could identify what triggered their emotion (b) identify their primary or underlying emotions besides anger (c) develop a narrative behind their emotion (d) their coping skills and their ability to perspective-take. These interviews were conducted in the same setting as the mentorship sessions but took place with an unrelated research assistant. Participants were given time in between each question to formulate a response; each interview was audio-recorded in its entirety in preparation for coding.

Codes & Coder Ratings

Five research assistants were recruited to help judge and code participants' responses to the Emotional Interview Task. Over the course of a week, all five coders were trained to identify various emotion regulation skills through multiple introductory lectures establishing the concept of emotion regulation. Coders participated in training sessions where they listened to a recording of two actors participating in the Emotion Interview Task to become familiar with the *Emotion Regulation Coder Form* (ERCF; Appendix A). As shown in Appendix A, this form assessed how well the participants regulated their emotions through the use of various skills such as: how well they could create a coherent narrative of the event, how well they were able to identify their primary underlying emotion, and how well they were able to identify what triggered their emotions. Once training was completed, the coders were tasked to identify how well the participants regulated their emotions by completing the nine-item ERCF questionnaire.

Each coder rated every recorded Emotion Interview Task. The data was randomized and assigned so that the coders completed their ratings completely independent from each other. It is also important to note that the coders were not allowed to collaborate with each other when rating. Instructions were given to the coders in order to maintain uniform completion of the coder form throughout the project. The Code Instructions go as follows: 1) navigate to assignment spreadsheet to your Coder ID tab; 2) identify the Participants ID & Session number recording next assigned; 3) navigate to the folder of recordings to the corresponding session number folder; 4) find indicated file; 5) listen to the interview recording in its entirety; 6) Read through and fill out the Emotion Regulation Coder Form in Qualtrics; 7) Return to the assignment spreadsheet and indicate the date of completion. Each coder was assigned to code about 44 participant recordings over 2 weeks. Every 2 weeks the coders and I would meet to discuss their progress with their assigned recordings and their questions and concerns with the items of the *Emotion Regulation Coder Form*. Throughout the Fall 2020 semester, the coders coded a total of 185 Interview Task recordings.

Measures

All participants filled out the following surveys at week one, three, and five. Coders completed the *Emotion Regulation Observable Coding Scale*.

Revised Adult Attachment Scale – Close Relationships Version (Collins & Read, 1996). The Adult Attachment Scale (AAS) has 18-items. The AAS measures the degree to which people are insecurely attached, specifically capturing how they feel about intimacy, closeness, and trust. It also considers the degree to which people fear rejection and abandonment in their relationships. The measure assesses two different dimensions: attachment anxiety and attachment avoidance.

For example, an item representative of attachment anxiety might be, “I often worry that other people don’t really love me.” An example of attachment avoidance might be, “I find it difficult to allow myself to depend on other.” The items were answered on a 1-5 Likert scale with 1=Not at all characteristic of me, 5= Very characteristic of me. The Cronbach’s alpha was good being .83 for anxiety and .82 for avoidance.

State Adult Attachment Measure (Gillath et al., 2009). The State Adult Attachment Measure captures changes in attachment insecurity and security through a 21-item measure. It contains three subscales all with good reliability measuring avoidance, anxiety, and security. Examples of these items are, “I feel alone and yet don’t feel like getting close to others,” “I wish someone would tell me they really loved me,” and “I feel like others care about me.” These items were answered on a 1-7 Likert scale as follows 1= Disagree Strongly, 4- Neutral/Mixed, 7= Agree Strongly). Each of the three subscales suggest good internal consistency with Cronbach’s alpha coefficients from .83 to .87.

Difficulties in Emotion Regulation Scale –Short Form (Kaufman, Xia, Fosco, Yaptangco, Skidmore, & Crowell, 2015). This scale is an 18-item shortened version of the Difficulties in Emotion Regulation Scale that measures people’s ability to “identify, understand, and accept emotional experiences, control impulsive behaviors when distressed, and flexibly modulate emotional responses as situationally appropriate.” Items are answered on a 1-5 Likert Scale (1- Almost Never, 2-Sometimes, 3-About half the time, 4-Most of the time, and 5- Almost always) and example items are, “I am confused about how I feel,” “when I am upset, I have difficulty controlling my behaviors,” and “I pay attention to how I feel.” The Cronbach’s alpha of this scale suggests strong reliability at .93.

Emotion Regulation Observable Coding Scale

This is a 9-item scale that assessed various aspects of ER skills. The items were scored on a 1-10 Likert scale. High scores represented good emotion regulation skills while low scores represented poor emotion regulation skills however, the individual scales had the same structure but were detailed to the specific items (i.e. “To what extent can the participants identify what made them angry or frustrated?” 1= not able to identify trigger at all, 5= somewhat able to identify trigger, 10= very explicitly identify trigger; “To what extent was the participants able to understand the other person’s emotion experience in the situation?” 1= was unable to take the perspective of other party, 5= somewhat able to take the perspective of other party, 10= completely able to take the perspective of the other party). The seventh item was reverse scored from the original scale: “To what extent does the participants seem to be containing/holding back strong emotions?” 1= participants allows strong emotions to be expressed, 5= somewhat contains/holds back strong emotions, 10= participants is making tremendous efforts to hold back strong emotions. Because a focus of the study is on determining the overall reliability of the ER skills coding, I discuss the creation of the ER composite score in the Results.

Data Analysis

Our first aim does not require any analysis as it focuses on developing our coding system. I evaluated my first hypothesis by assessing the inter-rater reliability of the coding system, as determined by evaluated using intraclass correlation (ICC) statistics; the ICC refers to the extent of true score variance is represented between raters (Shrout & Fleiss, 1979). For Aim 3 and to test my main study hypotheses, I used a series of correlation and regression analyses to

determine if coded TA is associated with self-reported closeness and changes in attachment orientations over time.

RESULTS

I analyzed the data according to the main study hypotheses. My first hypothesis centered on assessing the inter-rater reliability of observed emotion regulation, and consistent with the idea that trained coders could reliably discern differences in emotion regulatory capacity, I expected to observe a high degree of inter-rater agreement. I assessed the inter-rater reliability by assessing the intraclass correlation (ICC) for each of the 9 total items on the observational coding scale (see Table 1). Specifically, I evaluated the ICCs for ER using a two-way mixed effects model in SPSS ICC (2,5). As shown in Table 1, the overall average measures ICCs ranged from 0.63 to 0.95 for the 9 items. After taking the mean across the five coders for each of the items in my observation coding scale, I then evaluated the extent to which the mean of all the coded items was itself a reliable composite scale; the mean ER composite at each of the three occasions evidenced reasonable internal consistency ($\alpha = .75, .68, \text{ and } .66$ for Time 1, Time 3, and Time 5, respectively). Overall, these findings indicate that the raters were reliable in their assessment of ER at each timepoint. Across the three assessment tasks, separated by 5 weeks, the observers/raters adequately captured true score variance in ER across the participants in the study.

Having established that the observers were reliable in their assessment of ER, my second hypothesis centered on changes in observed ER across the 5-week period, which corresponded to changes across the entirety of the EFM program. (The first ER assessment task occurred at the baseline session, prior to any EFM sessions.) To evaluate this hypothesis, I conducted a series of

paired-sample *t*-tests, comparing the mean ER composites at Time 1 vs Time 3, Time 3 vs. Time 5, and Time 1 vs. Time 5. The means for each timepoint are displayed in the bottommost rows of Table 1. None of the paired-sample *t*-tests revealed a significant mean change in observed ER. I also computed a raw ER change score as Time 5 – Time 1 (higher scores are associated with better ER—thus, higher change scores represent greater improvements in ER), and consistent with the paired-samples results, the mean ER change score was not significantly different from zero in a one-sample *t*-test, $t = .94$, $p = .35$, mean difference = .11, 95% CI: -.13 - .36. Therefore, I find no support for my second hypothesis; I did not observe significant change in behaviorally assessed ER across the three study tasks.

Table 1

Coder-rated Emotion Regulation Items and Interclass Correlations Coefficients at Each Assessment Period.

Items	Time 1	Time 3	Time 5
1: To what extent can the participants identify what made them angry or frustrated?	.82	.81	.77
2: To what extent can the participants identify their primary underlying emotion?	.85	.81	.78
3: To what extent does the participants create a coherent narrative (story) about their experience?	.77	.74	.82
4: In the emotion interview, we ask the participants if they shared their experience with someone else (i.e., like a friend, parent, etc.). To what extent do you think the participants discussed their experience with someone else?	.95	.91	.94

5: To what extent was the participants able to understand the other person's emotional experience in the situation?	.82	.77	.87
6: To what extent did the participants seem comfortable answering the questions?	.83	.83	.86
7: To what extent does the participants seem to be containing/holding back strong emotions?	.65	.71	.74
8: To what extent did the participants have a negative or positive effect on their experience?	.63	.69	.61
9: How intensely is the participants experiencing his/her emotions when talking about their experience?	.77	.83	.71

The absence of mean change on observed ER does not mean that ER change would be uncorrelated with changes in the constructs we expect it to covary with over time. In particular, my third hypothesis centered on the predictive validity of observed ER. I expected greater improvement in observed emotion regulatory skill would be positively correlated with greater self-reported decreases in emotion regulation difficulties and attachment insecurity. Before conducting this analysis, I first explored the correlations between observed ER at the baseline (Time 1) assessment and the baseline self-reports on ER difficulties and attachment insecurity. I found no significant associations among any of these variables. In addition, when evaluating my third hypothesis, I again find no significant associations between ER change and changes in self-reported difficulties of emotion regulation or attachment insecurity. Specifically, ER change was associated with attachment avoidance change at $r = .23$, attachment anxiety change, $r = -.10$, and self-reported emotion regulatory difficulties at $r = .03$. Although the association between coder-rated ER change and attachment avoidance change was not different from zero ($p = .13$), the significance of the effect is limited by the low statistical power in this study. The fact that coder-rated ER change explains 5% of the variance in self-reported avoidance change over the study period may be noteworthy. This association is illustrated below in Figure 1.

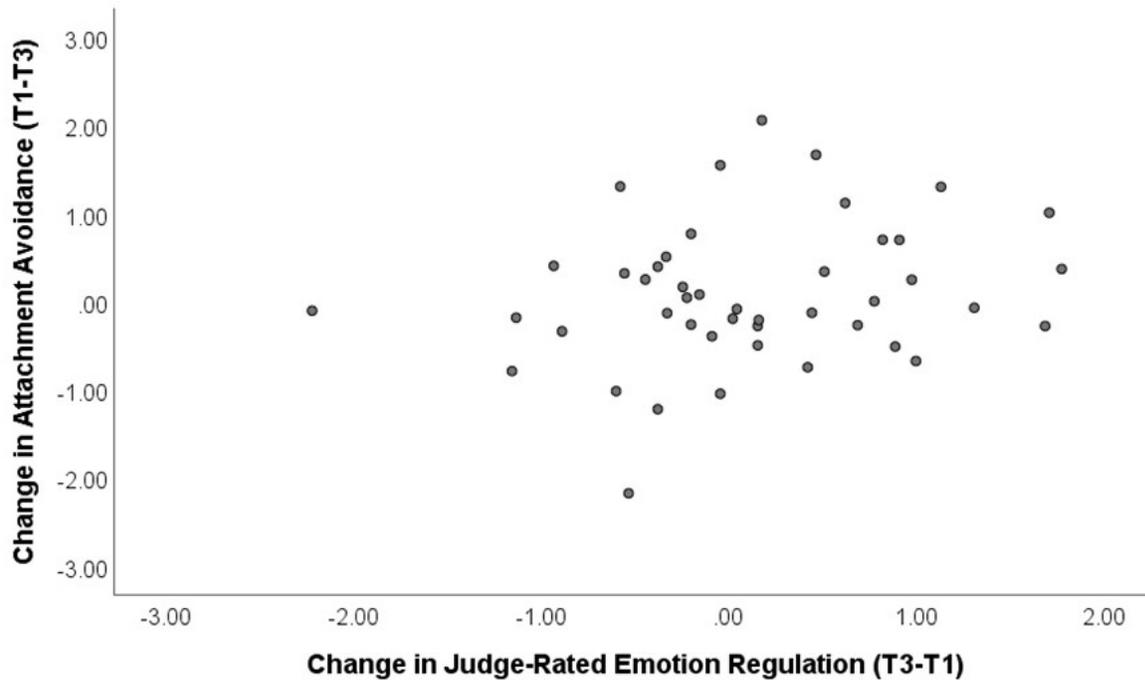


Figure 1. Bivariate association between change in coder-rated ER and self-reported attachment avoidance.

DISCUSSION

Emotionally-Focused Mentoring is a novel psychotherapeutic intervention that aims to promote attachment security in young adults through the use of a mentor-participants relationship over 5 weeks. The mentors used Emotion-Focused Therapy techniques throughout the program by identifying and reflecting the participants' emotions to ultimately help them become more securely attached. The participants conducted an Emotion Interview Task where they were tasked to identify and explain their feelings about a recent angry or frustrating experience. In this honors thesis, I focused on evaluating if there is a way to code for observable changes in emotion regulation. First, I sought to develop a behavioral coding system for

assessing emotion regulation capabilities among the participants of the EFM program. I specifically hypothesized that a team of five undergraduate coders will evidence a high degree of inter-rater reliability when assessing observed emotion regulation. Secondly, I hypothesized that participants will show evidence of significant improvement in their emotion regulation skills over time. Lastly, greater self-reported decreases in emotion regulation difficulties and attachment insecurity will be positively correlated with greater improvement in observed emotion regulatory skill.

We found that the mean of ICCs across the five coders for each item evidenced adequate inter-rater reliability. In addition, the mean ER composite on each occasion evidenced reasonable internal consistency. The coders were reliable in their assessment of emotion regulation at each timepoint. The data surrounding my first hypothesis shows support that the coders were reliable in their assessment of ER.

For my second hypothesis, I conducted a series of paired-sample t tests comparing the mean of the ER composites as stated in the results. This test showed that all the paired-sample-t-tests produced a non-significant mean change in observed ER. The same results were found when I also computed a raw ER change score with the difference in scores between Time 5 & Time 1. My data gathered on the ER changes of the participants from Time 1 to Time 5 did not show improvement in ER skills. My third hypothesis was to observe a greater improvement in observed emotion regulatory skill that would be positively correlated with greater self-reported decreases in emotion regulation difficulties and attachment insecurity. As this relationship should be expected since a decrease in these areas is the goal of EFM. Overall, I found no significant associations linking ER change to self-reported changes in attachment orientations. However, as shown in Figure 1, I observed a potentially meaningful association between increases in ER skill

and *decreases* in attachment avoidance ($r = .23, p = .13$). We should be cautious in interpreting this effect given that it is not reliably different from zero. At the same time, the significance of this effect hinges on the statistical power. Using the estimates effect of $r = .23$, I conducted a power analysis and determined that a sample size of 146 would be needed to reject the null hypothesis. To the extent that the correlation effect is precise, this information provides a critical next step for research and reflects the likely need for a far larger sample size in order to show that changes in ER are associated with changes in attachment avoidance. To explore this further, I also conducted a *retrospective power analysis* and determined that with a sample of 51 participants completing the entire study, and with an effect of R^2 of .0529, the existing power to reject the null hypothesis for this particular analysis was .38, which is far below contemporary standards of .80 (when hypothesis testing is a key goal for the study, which it was not in the pilot investigation).

My findings raise a number of important points. First, emotion regulation is often a process that unfolds within oneself and may therefore be difficult to capture over time as an overt behavior, especially if the changes in emotion regulation are not dramatic. Second, if we aim to measure interpersonal emotion regulation, it might be important to measure ER during an interaction task where participants can engage in real-time with an attachment figure or close friend. This real-time event would give a more realistic setting to judge behavioral ER. Finally, it may also be the case that the emotion regulation capacities of the participants are changing within the therapeutic environment but may be difficult to capture outside the structured space.

Limitations & Future Directions

The present study had many strengths. First, the Emotion Interview task was one of the first measures designed to try to capture observed emotion regulation. Second, using a multi-method approach often lends itself to being able to assess a construct from multiple perspectives. Unfortunately, results did not pan out as expected. Although we did see that judges could reliably observe and code for different aspects of emotion regulation, changes in observed emotion regulation were harder to detect.

This project also has limitations. For example, observed emotion regulation was captured by asking participants to recall a scenario in which they were upset and to answer a series of questions about this scenario with a random research assistant. Given that interpersonal emotion regulation often depends on trust being built over time between two people, observable changes in emotion regulation may be more difficult to capture between strangers. If future research is done on observable behavior of emotion regulation skills, I believe studies would benefit from capturing ER in a more natural environment than compared to a lay-therapist program. This study was done in a very similar environment to a therapy setting which can make participants resistant to opening up from the very beginning. Although my study focused on prompted emotion regulation skills, it would be beneficial to capture ER in an unprompted setting such as throughout a full mentoring session. Observing more natural examples of ER would give more accurate data of how the participants would act outside of the EFM program.

This study also had a limited sample size, so we are not able to generalize the results to the larger population of young adults. Another limitation was the average age of 18. This study does not yield any notion that we would find similar results if a similar study was done focusing

on different age groups. Finally, the present study was simply tracking emotion regulation over time without a control group; therefore, it is not known whether we would have observed changes in emotion regulation compared to a control group that did not receive the intervention. Future researchers should think more carefully about the kind of emotion interview task they might design and the way in which this task might be administered to participants.

Conclusion

The present study is a sub-project of a larger intervention, called Emotionally-Focused Mentoring (EFM), that aimed to promote attachment security through the enhancement of emotion regulation skills for a sample of insecurely attached college students. Previous research has not yet identified specific ways to capture observed interpersonal emotion regulation. Thus, I aimed to identify if trained judges can reliably code observed emotion regulation across five weeks. I also aimed to understand if participant's evidenced improved emotion regulation skills as observed by our coders over time. Using a sample of 82 participants who ranked high on attachment insecurity, we found that trained judges were able to observe a number of emotion regulation skills with a high degree of interrater reliability. Contrary to what I predicted, judge-rated emotion regulation did not demonstrate significant increases or changes over time.

Continuing to explore how researchers might measure observed interpersonal emotion regulation is an important task as it would allow researchers and practitioners to circumvent the problem of the social desirability bias associated with self-report measures, where participants may be reporting better emotion regulation skills; however, it is not known if these skills would be observable in everyday life. Future research should try to measure observed interpersonal emotion regulation in a more naturalistic setting, such as during the therapeutic relationship or during everyday conversations that might occur between attachment figures over time.

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APPENDIX A

1. To what extent can the participants identify what made them angry or frustrated?
1-10 scale; 1 = Not able to identify trigger at all, 5= somewhat able to identify trigger, 10 = very explicitly identify trigger
2. To what extent can the participants identify their primary underlying emotion?
1-10 scale; 1= unable to identify primary emotion, 5= somewhat able to identify primary emotion, 10=able to identify primary emotion explicitly
3. To what extent does the participants create a coherent narrative about their experience?
1-10 scale; 1=Narrative is confusing and not coherent, 5= narrative is somewhat coherent,10=Narrative is fully coherent
4. In the emotion interview, we ask the participants if they shared their experience with someone else (i.e., like a friend, parent, etc.). To what extent do you think the participants discussed their experience with someone else?
1-10 scale; 1=did not share experience at all, 5= somewhat shared experience with another party, 10= shared their experience completely with another party
5. To what extent was the participants able to understand the other person's emotional experience in the situation?
1-10 scale; = was unable to take the perspective of the other party, 5= somewhat able to take perspective of other party, 10= completely able to take the perspective of the other party and understand how they might be thinking or feeling
6. To what extent did the participants seem comfortable answering the questions?
1-10 scale: 1= seemed very uncomfortable answering questions,5= somewhat comfortable answering questions, 10= was very comfortable answering questions
7. To what extent does the participants seem to be containing/holding back strong emotions?
1-10 scale: 1= participants allows strong emotions to be expressed, 5= somewhat contains/holds back strong emotions10= participants is making tremendous efforts to hold back strong emotions.
8. To what extent did the participants have a negative or positive affect about their experience?
1=negative 5=neutral, 10=positive
9. How intensely is the participants experiencing his/her emotions when talking about their experience?
1=neutral, 5=somewhat intense, 10=very intense