SKILL ISSUE: RELATIONSHIPS BETWEEN BELIEFS ABOUT EMOTIONS, ACHIEVEMENT GOALS FOR EMOTION REGULATION, AND MENTAL HEALTH

by

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Abstract

Emotion regulation is important for various areas of functioning, including well-being and mental health (Aldao et al., 2010). Previous research (Rusk et al., 2011) shows that people differ on how motivated they are to demonstrate their ability to control their emotions (performance goals) and how motivated they are to learn to control their emotions better (learning goals). The current study explored the relationship between beliefs about controllability and usefulness of emotions and how much the participants endorsed higher performance and learning emotion regulation goals. The study also explored how emotion regulation goals and emotion beliefs correlated with various indicators of well-being. The initial correlational study showed that believing emotions can be controlled predicted higher performance-avoidance goals for emotion regulation, while believing that emotions were generally useful had a weak negative association with learning emotion regulation goals. Additionally, higher emotion controllability beliefs, predicted lower well-being, which was mediated by performance-avoidance goals. A second study was conducted to replicate the findings and assess the causal relationship between emotion controllability beliefs and performance-avoidance emotion regulation goals by manipulating emotion controllability beliefs. Correlation analysis showed results contrary to the first study, with higher controllability beliefs predicting lower performance-avoidance goals, higher performance-approach goals, and better well-being. The experiment did not show a significant increase in performance goals following the manipulation. More research is needed to confirm these findings and assess current methodologies in the field.

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Finally, I would like to dedicate this thesis to the sons and daughters of Ukraine. To those who have given their lives in the fight for the freedom of their people, to those who fight on, standing as a bulwark against darkness, and to those who live on in service of one another, and make the sacrifice of the best of us meaningful with their lives.

Thank you.

Introduction

The writings of Ancient Greek philosophers reveal that for millennia people have thought of emotions as entities separate from, and oftentimes antithetical to, reason (Knuuttila, 2004). For instance, in his *Republic*, Plato (380-370/2016) presents a model of the mind that is split into three parts: the reasoning part, concerned with wisdom and knowledge, the appetitive part, concerned with avoiding suffering and seeking pleasure, and the spirited part, which is concerned with passion, feeling, and emotion. In that same work, Plato sets out a moral model that presents emotions as misguided judgements that need to be strictly controlled, so that reason may reign supreme (Knuuttila, 2004). This negative view of emotion was not shared by all of Plato's contemporaries. Aristotle (350/2014), for instance, endorsed a much more positive view of emotions in his work, insisting that it is virtuous to feel emotions, as long as it is done at the right time and place, toward the right things, and to the appropriate extent. Both philosophers agree, however, that emotions are a fundamental part of the human condition and can only be controlled and contained to a certain extent. This notion was contested by the philosophers in the Roman school of Stoicism, who, while agreeing with Plato's position that emotions were fundamentally useless and negative, held an extreme position regarding their controllability, insisting that emotion can be eliminated completely from the human mind, so as not to corrupt it with misguided judgements (Seneca, 65/1917; Knuuttila, 2004).

These two disagreements on the nature of emotion that have persisted in the study of the human mind for millennia, are at the core of this paper. Indeed, the two chief dimensions of beliefs concerning emotions – namely, whether emotions are controllable versus uncontrollable and good versus bad, are not only critically important for emotion processes (e.g., emotion regulation; Ford & Gross, 2019), but are also significant predictors of mental health and well-

being (Kneeland et al., 2016; Moumne et al., 2021; Shulkin et al., 2024). This paper examines these concepts in-depth and aims to contribute to current psychological knowledge regarding the role of beliefs in affective processes and their clinical implications.

Conceptualizing Emotion and Emotion Regulation

With the field of emotion regulation growing rapidly since the 1990s (Gross, 2015), the very concept of emotion and emotion-regulation-related processes is covered in a cloud of conceptual confusion, with a diverse range of terms and definitions used to characterize affective processes (Buck, 1990). Fortunately, theoretical work has been conducted by emotion researchers in the past decade to more effectively clarify and operationalize these terms. In his review of the concept of emotion regulation in psychological science, Gross (2015) differentiates between three types of affective states. The first of these is stress responses, defined as negatively valenced affective states caused by the person's inability to successfully respond to the demands of a situation. Another is moods, which are diffuse, relatively stable and long-lasting affective states that influence cognition as well as behavior. In contrast to these two states, emotions are affective states that are more short-lived, unstable and fluctuating than moods, and more specific than stress responses.

Even when set apart from other affective states, emotions are difficult to conceptualize and categorize, and there is still little agreement on many aspects of emotion, such as whether emotions are universal, whether they are hierarchically organized with some emotions being more evolutionarily and behaviorally basic than others, and whether they are an objective biological reality or social constructs. However, several generally agreed-on core features of emotion have been outlined by Barrett and her colleagues (2007). First, emotions occur when an individual appraises a situation as being relevant to an active goal (Scherer et al., 2001). Goal-

evoking emotions vary widely and can be as broad and enduring as surviving, and as temporary and specified as winning in a board game. If the situation is relevant to the goal, it activates an emotion (Gross, 2014). Importantly, this evaluation of the relevance of a situation to a goal is not static, and as the situation changes, or as the person attaches a different meaning to the situation that affects its relevance to the goal, emotions also change (Gross, 2014). As a result of such evaluative processes, emotions unfold and change with time (Cunningham & Zelazo, 2007).

Second, emotions are multifaceted and involve interconnected changes in the domains of physiology, behavior, and subjective experience (Mauss et al., 2005). In addition to affecting the subjective experience of a person, emotions can motivate individuals to act in certain ways, from inducing basic responses like facial expressions (Ekman et al., 1987) to more specific instrumental behaviors, such as running away or punching (Gross, 2015). Finally, emotions also reflect autonomic and endocrine physiological reflexes that arise from emotional cues and motivationally relevant stimuli, which work to provoke perceptual processing and motivate response behaviors (Lang & Bradley, 2010). Evidence from empirical research demonstrates that these three aspects of emotion are interlinked and coherent, with the experiential and behavioral dimensions of emotion being highly associated with one another and modestly associated with physiological responses (Mauss et al., 2005).

Finally, emotions can be adaptive and maladaptive. On one hand, this distinction is determined by context rather than type of emotion, with adaptive emotions guiding perceptual processing, information gathering, and decision making in ways appropriate for the situation (Gross, 2015). On the other hand, emotions can be maladaptive when their intensity is inappropriate (i.e., overreaction & underreaction to a situation), when the duration of emotional responses is too brief or too long, when emotions occur too often or too rarely, or when the type

of emotion experienced is inappropriate for the context (Gross & Jazaieri, 2014). Because emotions are difficult to objectively quantify, it is difficult to define clear criteria for when these aspects of emotions are appropriate, and when they become problematic. However, the definition of adaptive emotions implies that emotions are maladaptive if their intensity, duration, frequency, or type interfere with perceptual processing, information gathering, and decision making required to effectively respond to the demands of a situation. This potential negative effect of emotions is what makes emotions regulation an important adaptive tool necessary for effective psychological functioning.

Individuals have a measure of control over all three types of affective states, and often exert that control when these states infringe on an important goal (Gross, 2015). For instance, individuals can cope with stress responses and regulate both their moods and emotions. Emotion regulation specifically can be defined as attempts to influence the emotions an individual has, the times at which they have them, and the way they experience and express them (Gross, 1998). Emotion regulation is characterized by the individual activating a goal to modify the emotion generation process. (Gross et al., 2011). This goal can be activated either to regulate one's own emotions (intrinsic emotion regulation), or to regulate another person's emotions (extrinsic emotion regulation; Gross, 2015). As people are usually motivated to maximize pleasure and minimize suffering (Larson, 2000), emotion regulation frequently focuses on increasing positive emotions like joy and happiness and decreasing negative emotions like sadness and anxiety. However, individuals can also be motivated to decrease pleasant emotions and increase unpleasant emotions in order to achieve their long-term goals (Tamir, 2009). For instance, one can seek to increase anger to motivate themselves to act or decrease joy to avoid smiling and appear more serious during an important negotiation. Importantly, these affective changes are not

instantaneous events, but rather processes that unfold over time (Gross, 2015). The temporal aspect of emotion regulation is crucial because it highlight the potential points at which emotion regulation failure is likely to occur.

Extended Process Model of Emotion Regulation

A commonly accepted theoretical framework for emotion regulation is Gross' (2015) extended process model of emotion regulation, which conceptualizes emotion regulation as a process arising from interactions of various valuation systems that people employ in their daily lives to make judgments about their internal and external world and act to minimize the gap between their goals for what their world should be like and the perceived reality of the world they live in. This process involves the four components of (a) World, (b) Perception, (c) Valuation, and (d) Action impulse. First, the person finds themselves in a world, or a situation, that is at odds with their desired world state (World). Through attentional deployment, they perceive certain aspects of the world that are relevant to their goals (Perception). Next, they recruit a valuation system that determines the relationship of these perceived elements to their goals (Valuation). The output of these systems are action impulses aimed to minimize the discrepancy between the perceived world and the goal world (Action). By implementing these actions, the person finds themselves in a new perceived world, which continues the cycle until the reality-goal discrepancy is minimized below the attentional threshold (Gross, 2015).

A crucial component of the extended process model is that there are several such valuation systems active at the same time, and emotion regulation occurs through their interaction (Gross, 2015). For instance, when a primary valuation system produces an action impulse, that action in turn become part of the person's world, and a secondary valuation system is likely to be involved to perceive unwanted action impulses, evaluate their nature, and produce

a goal, for example, to change these impulses. Emotion regulation arises through this process if the primary valuation system outputs an emotion such as anger or sadness, and a secondary valuation system perceives this emotion as maladaptive, and thus outputs an action impulse to change this emotion, which activates a goal to modify emotions that characterizes emotion regulation (Gross, 2015).

Gross (2015) describes emotion regulation as a second-level valuation system consisting of three functionally connected valuation systems associated with three stages of emotion regulation: (a) the identification stage, (b) selection stage, and (c) implementation stage. In the identification stage, the emotion produced by a first-level valuation system is detected by a second-level identification valuation system and evaluated in terms of whether it needs to be regulated. If the identification system determines that the emotion needs to be regulated, a goal to regulate the emotion is activated, which leads to the activation of the selection valuation system, which is concerned with selecting an appropriate strategy for regulating an emotion. In this stage, potential emotion regulation strategies are represented and evaluated based on contextual factors, which leads to the selection of the strategy considered most appropriate. This determination leads to the activation of a goal to use the selected strategy and activates the implementation valuation system, which is concerned with generating and utilizing situation-specific tactics to implement the selected emotion regulation strategy. During this stage, various potential tactics are evaluated, the most promising tactic is selected and an action impulse to implement this tactic being generated (Gross, 2015).

The last stage of the emotion regulation cycle is the monitoring stage. As the second-order valuation system operates over time, and the implementation of the selected strategy changes the evaluation of the first-order valuation system that led to the activation of emotion

regulation, the second-order valuation system maintains, switches, or stops emotion regulation efforts according to the detected changes. If the current emotion is satisfactory, or if the level of the emotion is lowered below the threshold at which the valuation system is activated, the second-order valuation system is deactivated, and emotion regulation stops. If the satisfactory state is not reached but a positive change is achieved (e.g., emotion level is lowered toward the threshold), the emotion regulation effort is maintained, with the second-order valuation system outputting the same emotion regulation tactic in its implementation stage. If the target emotion fails to change, or changes in an undesirable direction, emotion regulation switching occurs, the goal to regulate the target emotion continues to be activated, and new emotion regulation strategies or tactics are outputted at the implementation stage of the second-order valuation system (Gross, 2015).

Emotion regulation failure can occur at any stage of this process. For instance, insufficient self-awareness can cause failure in the identification stage, leading to no emotion being evaluated as needing to be regulated. This idea is consistent with the finding that individuals who are more aware of different emotions they experience are more likely to engage in emotion regulation (Barrett et al., 2001). Similarly, an individual may fail to select an appropriate strategy to regulate an emotion. For example, someone who has a small repertoire of regulation strategies may overly rely on distraction and choose to implement it even in situations when it is maladaptive. Gross (2015) points out that failure at this stage may also occur due to low emotion regulation self-efficacy, referring to an individual's belief that they are incapable of successfully implementing an emotion regulation strategy. Finally, the individual may fail to implement a strategy even after successfully selecting an appropriate one, for example if they fail to come up with effective tactics to implement it in their situation. Additionally, failure of the

monitoring system can lead to maladaptive emotion regulation processes, such as when an emotion regulation strategy changes an emotion in an undesirable direction, but the process is maintained because the individual fails to detect this negative change, or when emotions are regulated excessively even after they brought below an appropriate threshold.

The extended process model is useful for understanding individual differences in emotion regulation because it conceptualizes emotion regulation as a complex process that involves many stages, positing that successful emotion regulation requires a range of skills, from self-awareness needed to identify a problematic emotion to creative problem-solving need to develop an effective tactic to regulate it. Thus, emotion regulation can be conceptualized as a skill which can be learned, improved, and mastered. The remainder of this paper focuses on examining individual differences in the motivation to demonstrate and master this skill.

Emotion Regulation Goals

The concept of emotion regulation goals takes root in theoretical work by Dweck and Leggett (1988), who developed a model of motivation and personality based on goals, where the goals an individual pursues shape the framework within which they interpret and react to events. The authors differentiated between performance goals, which are aimed at achieving favorable judgements of the individual's competence by others, and learning goals, aimed at increasing the individual's competence. Performance goals, in turn, can be divided into performance-approach goals, defined as goals to maximizing positive competency judgements from others, and performance-avoidance goals, aimed at minimizing negative competency judgements from others (Dweck & Leggett).

These goals underlying human motivation are important because by shaping the framework of reactions, different goals ultimately formulate different behavioral patterns and

responses to life events, a conclusion supported in a study conducted by Elliott and Dweck (1988). In the experiment, fifth-grade children were presented with a pattern-recognition task. After completing it, half the children were told that they did well on the task, while the other half were told they did poorly, manipulating their perceived ability. Then, the children were asked to choose between a learning-focused task, which involved making mistakes to learn, and a performance-focused task, which involved demonstrating one's mastery of the task. In one condition, the value of the learning task was emphasized, while in the other, the value of the performance task was emphasized, manipulating children's performance and learning goals. Participants who picked the performance task were then asked to pick one of three difficulty levels. In fact, all children were given the same task regardless of their choices. The task consisted of three problems. After giving their response to a problem, the participants were always told they were wrong to examine their reactions to failure. The participants' choices, performance, and verbalizations were recorded. The results indicated that children were more likely to pick the learning task when the learning goal was emphasized, and vice versa. Additionally, children in the high ability feedback condition who picked the performance task were more likely to pick a more challenging difficulty level than children in the low ability feedback condition. As the tasks progressed, the performance of participants completing the performance task in the low ability condition deteriorated more than that of participants in the high ability condition. No difference was found in children completing the learning task. Additionally, in the performance condition, but not the learning condition, children in the low ability group were more likely to verbalize failure attributions than those in the high ability group and were also more likely to attribute it to uncontrollable factors, as well as to verbalize negative affect. These results demonstrate that children who pursued performance goals were

more negatively affected by negative feedback than those who pursued learning goals (Elliott & Dweck). Based on this study, Dweck and Legget (1988) posit that a focus on performance goals creates the helpless response pattern, characterized by avoiding challenge and underperforming in the face of obstacles, while a focus on learning goals shapes a mastery-oriented response pattern characterized by seeking challenges and effective performance even when faced with obstacles or failure. These findings were further supported and elaborated upon by later studies on motivation (e.g., Dykman, 1998; Grant & Dweck, 2003).

Although this theory was developed with intelligence-related constructs in mind, the authors note that it is highly generalizable (Dweck & Leggett, 1988), and can be applied to constructs even outside the self. This ability motivation framework was first applied to the study of emotion regulation by Rusk and her colleagues (2011) in a study examining whether pursuing different emotion regulation goals affects individuals' choice of emotion regulation strategies. The authors defined the concept of performance goals for emotion regulation as goals to prove one's ability to manage emotions, and learning goals for emotion regulation as goals to improve one's ability to manage emotions, and adapted Dykman's (1998) Goal Orientation Inventory to measure emotion regulation goals specifically. To examine whether performance goals are associated with strategies of rumination and thought suppression, as well as with depressive symptoms, the authors conducted a correlational study and concluded that higher performance goals predicted higher rumination, thought suppression, and depressive symptoms. Additionally, participants who scored higher on performance goals and lower on beliefs about their ability to manage emotions reported greater depressive symptoms than other participants. Furthermore, performance-avoidance goals, defined as goals to avoid demonstrating incompetence, were more

predictive of depressive symptoms than performance-approach goals, defined as goals to demonstrate competence (Rusk et al., 2011).

Emotion Beliefs

Dweck and Leggett's (1988) theory also links motivation to personality to explain individual differences in the goals that people choose to pursue. In particular, implicit theories that people hold regarding different aspects of themselves, such as intelligence, personality, or emotion, predict their goals and inform their behavior patterns connected to those attributes (Grant & Dweck, 203). People can hold either an entity theory, believing that an attribute is fixed or stable, or an incremental theory, believing that an attribute is dynamic and can be increased through effort (Grant & Dweck). These implicit theories are closely tied to goals in the sense that a person's emphasis on proving their ability regarding an attribute usually indicates that they hold an entity theory for that attribute, while an emphasis on learning and improving tends to predict an incremental theory for that attribute (Dweck & Yeager, 2019 Grant & Dweck; Robins & Pals, 2002).

Crucially, implicit theories inform self-regulatory responses of individuals to obstacles or difficult situations (Grant & Dweck, 2003). Applying this model to the field of emotion regulation, we can predict that people's implicit theories of emotion will affect what emotion regulation strategies they choose to (Moumne et al., 2021). This is important because emotion regulation strategies vary in the degree to which they are adaptive and have differing consequences for the individuals employing them. For instance, individuals preferring to use reappraisal (i.e., changing the way they think about the situation) experience more positive emotion, less negative emotion, better interpersonal functioning, and better well-being than individuals who tend to use emotional suppression (i.e., trying not to express the emotions they

are feeling; Gross & John, 2003). In general, more active cognitive emotion regulation strategies such as cognitive reappraisal (i.e., reinterpreting the situation in more positive terms), problem solving (i.e., attempting to positively influence the event in practical ways), and acceptance (i.e., accepting emotions even when they are negative) are negatively associated with psychopathology (Aldao & Nolen-Hoeksema, 2010; Garnefski et al., 2001; Martin & Dahen, 2005), while maladaptive emotion regulation strategies such as catastrophizing, rumination, and self-blame have been shown to be positively associated with measures of depression (Garnefski & Kraaji, 2006).

A belief that seems to be associated with what emotion regulation strategies individuals prefer utilizing concerns the controllability of emotions. People who believe emotions are malleable and controllable (incremental theory), as opposed to fixed and uncontrollable (entity theory), are more likely to engage in active emotion-regulation attempts and choose more adaptive strategies that promote psychological well-being and functioning (Moumne et al., 2021; Tamir et al., 2007). Specifically, higher emotion controllability beliefs are associated with higher use of cognitive reappraisal, which mediates the relationship between implicit controllability beliefs and well-being, where lower controllability beliefs are associated with lower use of reappraisal, which, in turn, is associated with lower wellbeing (De Castella et al., 2013). Additionally, individuals who believe emotions are malleable are generally more likely to attempt to regulate their emotions than individuals who believe emotions are fixed entities, which implies that individuals holding low controllability beliefs may experience lower well-being because they do not even attempt to manage distressing emotions (Kneeland et al., 2016a).

A similar but distinct dimension of emotion beliefs affecting emotion regulation is emotion regulation self-efficacy, which is based on Bandura's (1997) concept of self-efficacy,

referring to beliefs about the individual's ability to exert control over important events and situations. Thus, emotion regulation self-efficacy refers to an individual's beliefs about how much control they hold over their emotions (De Castella, 2013). Emotion regulation self-efficacy is similar to implicit theories about controllability of emotion in the sense that they both are concerned with people's beliefs about how controllable emotions are, but they differ in the sense that implicit theories are concerned with how controllable emotions are *in general*, while self-efficacy beliefs are concerned with each person's ability to control *their own* emotions. For instance, it's possible for a person to believe emotions are malleable and can be controlled, but at the same time hold a low emotion regulation self-efficacy belief, believing that they personally are incapable of effectively changing their emotions. The construct of emotion-regulation self-efficacy was first assessed in a study by De Castella and colleagues (2013), who found that emotion regulation self-efficacy is not only a separate construct from implicit theories of emotion but is also a better predictor of well-being. Thus, utilizing this scale over the implicit theories measure may be more theoretically advantageous. Additionally, the study found that on average, people scored higher on self-efficacy controllability beliefs than on general controllability measures (De Castella et al.), implying that people in general hold higher beliefs about their ability to control their own emotions than people's abilities to control their emotions in general.

Another important category of emotion beliefs is whether individuals consider emotions to be good or bad, or, viewed differently, as useful or useless (Ford & Gross, 2018; 2019). This dimension of emotion beliefs is not as widely studied as beliefs regarding the controllability of emotion, but these beliefs may also be important for well-being and significant for emotion regulation. Viewed from the perspective of the extended process theory of emotion regulation,

beliefs about emotion uselessness can cause emotion regulation problems at any of the three stages of emotion regulation. It can lead to excessive regulation attempts at the identification stage, selecting too many strategies to regulate emotions, or overestimating certain tactics, with failures at these stages contributing to negative mental health outcomes and psychopathology (Berglund et al., 2023; Ford & Gross, 2018; 2019). Indeed, believing emotions are relatively useless has been found to be associated with higher levels of stress, anxiety, and depression (Becerra et al., 2020), while beliefs that positive and negative emotions are useless have been shown to be associated with difficulties regulating both positive and negative emotions (Preece et al., 2022). While these preliminary findings concerning emotion usefulness beliefs indicate their significance for emotion regulation and mental health, the subject remains largely unexplored.

Emotion Beliefs and Emotion Regulation Goals

Although the connection between emotion beliefs, emotion regulation, and well-being has received a considerable amount of attention (for reviews, see Hong & Kangas, 2022; Sheppes et al., 2015), the relationship between emotion beliefs, emotion regulation goals, and psychopathology has not been studied extensively. To date, only one study (Moumne et al., 2021) has directly explored the relationship between emotion regulation goals and emotion beliefs. The authors explored associations between emotion regulation strategies, implicit theories of emotions, and learning and performance goals for emotion regulation, finding that lower emotion controllability beliefs were associated with higher performance-avoidance goals and lower performance-approach goals for emotion regulation. This latter finding, indicating that people who believe emotions are controllable are more likely to value demonstrating their emotions, is inconsistent with the implicit theory framework (Moumne et al.). The authors

interpret these findings in terms of controllability beliefs being linked to emotion regulation self-efficacy and proposing that it's possible that someone who believes emotions are controllable is also more likely to believe they will be successful in controlling their emotions, and thus place a higher emphasis on demonstrating this capability. Additionally, the authors found that learning goals were not associated with implicit theories of emotion. (Moumne et al.). I propose that it is possible that learning goals might instead be associated with beliefs about the usefulness of emotions. For instance, someone who believes both positive and negative emotions are useful might not be motivated to learn to control their emotions because they see less adaptive value in this skill than someone who believes positive emotions are useful while negative emotions are harmful and may thus be motivated to learn to control their emotions to maximize positive outcomes.

Moumne and colleagues' (2021) study also contributes to emotion regulation literature by using cluster analysis to identify three patterns of cognitive emotion regulation: (a) the adaptive, (b) maladaptive, and (c) low regulation profiles. Adaptive regulators tended to simultaneously use strategies associated with adaptive outcomes and avoid strategies associated with maladaptive outcomes, while a reverse trend was observed for maladaptive regulators. Low regulators, meanwhile, showed a pattern of low use of both adaptive and maladaptive strategies. Adaptive regulators were more likely to hold higher emotion controllability beliefs, higher learning goals for emotion regulation, and lower performance-avoidance goals than maladaptive regulators. Low regulators differed from these two patterns in that they generally reported lower performance-approach, performance-avoidance, and learning goals for emotion regulation (Moumne et al., 2021). This study clearly identifies the positive association between that adaptive emotion regulation patterns, believing that emotions are malleable, and emphasizing

learning goals for emotion regulation, further highlighting the importance of exploring what factors contribute to individual differences and underlying dynamics in emotion beliefs and emotion regulation goals.

The Present Research

The current research aimed to extend these findings and fill existing gaps in the literature by examining the links between emotion beliefs, goals for emotion regulation, and mental health and well-being. In Study 1, I examined the associations between implicit theories of emotion, emotion regulation self-efficacy beliefs, emotion usefulness beliefs, emotion regulation goals, and mental health and well-being measures. I also assessed the role of emotion regulation self-efficacy beliefs as a mediator between implicit theories of emotion and performance goals for emotion regulation as well as the role of performance-avoidance goals as a mediating variable between self-efficacy beliefs and mental health outcomes. In Study 2, I attempted to replicate the results of Study 1 as well as to examine whether a causal link exists between emotion regulation self-efficacy beliefs and performance goals for emotion regulation by attempting to manipulate participants' self-efficacy beliefs and test for significant changes in performance-approach and performance-avoidance goals for emotion regulation.

Study 1

The present study aimed to contribute to emotion regulation research in two ways. Firstly, it aimed to further examine the relationship between emotion beliefs and emotion regulation goals. Although one study (Moumne et al., 2021) previously explored the associations between implicit theories of emotion and goals for emotion regulation, no studies to date have explored the relationship between emotion regulation self-efficacy beliefs and goals for emotion regulation. De Castella and her colleagues (2013) introduced the concept of self-efficacy into

emotion regulation literature by comparing participants' beliefs about general controllability of emotions (implicit theories) and their beliefs about their ability to control their own emotions (emotion regulation self-efficacy), and finding that participants' beliefs about their own emotions are more predictive of factors like psychological distress and well-being, and explained a large amount of variance on these measures over and above implicit theories of emotion. These findings suggest that self-efficacy beliefs may be even more strongly associated with mental health and well-being measures and may be even more important for both emotion regulation goals and the process of emotion regulation in general, than implicit theories of emotion. The present study tested this hypothesis by exploring the relationship between emotion regulation self-efficacy beliefs and emotion regulation goals. Because people who believe they are better at controlling their own emotions might be more likely to believe they will succeed in their emotion regulation attempts, I predict implicit theories of emotion and emotion regulation self-efficacy beliefs will be positively associated with performance-approach goals for emotion regulation and negatively associated with performance-avoidance goals for emotion regulation (Hypothesis 1).

Second, this study examined the relationship between learning goals for emotion regulation and beliefs about the usefulness of emotions. Learning goals for emotion regulation may depend on how beneficial a person considers emotion regulation to be, which in turn may be closely tied to usefulness beliefs that person holds about emotions. A person who believes emotions are generally useless or harmful, will likely place higher importance on emotion regulation, and thus be more likely to endorse learning goals for emotion regulation than a person who believes emotions are generally useful or beneficial, and thus is more likely to be more accepting of their emotions and place less importance on being able to regulate them. Thus,

I predicted that emotion usefulness beliefs for both negative and positive emotions will be negatively associated with learning goals for emotion regulation (Hypothesis 2).

This study also assessed the associations between emotion beliefs, emotion regulation self-efficacy, emotion goals, and measures of mental health including emotional, social, and psychological well-being, life satisfaction, depression, anxiety, stress, and loneliness. Consistent with prior research (De Castella et al., 2018; Moumne et al., 2021), I predicted that emotion regulation self-efficacy beliefs would be negatively associated with loneliness, stress, anxiety, and depression, and positively associated with life satisfaction and emotional, social, and psychological well-being (Hypothesis 3a); that learning goals would be positively associated with all measures of well-being and life satisfaction, and negatively associated with stress, anxiety, depression, and loneliness (Hypothesis 3b); and that performance-avoidance goals would be positively associated with stress, anxiety, depression, and loneliness, and negatively associated with life satisfaction and all types of well-being (Hypothesis 3c).

Additionally, the study sought to explore the mediating role emotion regulation self-efficacy beliefs play in the relationship between implicit theories of emotion and performance goals for emotion regulation. Because individuals with lower controllability beliefs are less likely to have high self-efficacy beliefs, and thus might feel threatened by the idea of demonstrating their emotion regulation ability (Moumne et al., 2021), I predicted that self-efficacy beliefs would mediate the relationship between implicit theories of emotion and performance-approach as well as performance-avoidance goals for emotion regulation (Hypothesis 4).

Method

Participants

Participants were recruited via SONA research participation system. All participants were TCU students and received credit as compensation for participation in the study. Two hundred participants were recruited. Twenty-three (11.5%) did not pass attention checks and were thus excluded from the dataset. The final sample consisted of 177 participants. The participants were mostly female (84.8%) and White (77.5%). The mean age of the sample was 19.26 years (*SD* = 2.46).

Procedure

Participants were told that the study examined the relationship between personality traits and attitudes. The questionnaire consisted of 87 items and took approximately 15 min to complete. After completing the survey, the participants were debriefed, informed of the study's intentions, informed of their right to withdraw data, and provided with the opportunity to do so, and then thanked for their participation and dismissed.

Materials[1]

Emotion Controllability Beliefs

The 4-item Implicit Theories of Emotion Scale (ITES; Tamir et al., 2007) was used to measure general beliefs about controllability of emotions. The scale contains two low controllability items (e.g., "No matter how hard they try, people can't really change the emotions that they have") and two high controllability items (e.g., "If they want to, people can change the emotions that they have"). The participants were asked to rate their agreement with each item on a 5-point Likert scale (1 = *strongly disagree,* 5 = *strongly agree*). The scale demonstrated acceptable internal consistency in the current sample ($\alpha = .74$).

Emotion Regulation Self-Efficacy Beliefs

[1] Score for all measures (separately) were computed by taking the average across items.

Emotion regulation self-efficacy beliefs were assessed using the 4-item Personal Beliefs About Emotions Scale (De Castella et al., 2013). This scale is an adapted version of the Implicit Theories of Emotion Scale (ITES; Tamir et al., 2007), with items framed in the first-person to measure beliefs about one's ability to control their own emotions. It contains two high controllability items (e.g., "If I want to, I can change the emotions that I have") and two low controllability items (e.g., "No matter how hard I try, I can't really change the emotions that I have"). Participants were asked to rate their agreement with each item on a 5-point Likert scale (1 = *strongly disagree,* 5 = *strongly agree*). The scale demonstrated acceptable internal consistency in the current sample (α = .77).

Emotion Usefulness Beliefs

Emotion usefulness beliefs were assessed using the Emotion Beliefs Questionnaire (Becerra et al., 2020). The Emotion Beliefs Questionnaire is a 16-item scale that assesses general beliefs about controllability and usefulness of emotions. Only the eight items assessing usefulness beliefs were included for the purposes of this study. The scale contains four items evaluating usefulness beliefs regarding negative emotions (e.g., "There is very little use for negative emotions") and four items evaluating usefulness beliefs regarding positive emotions (e.g., "People don't need their positive emotions"). The participants were asked to rate their agreement with each item on a 7-point Likert scale (1 = *strongly disagree,* 7 = *strongly agree*). The Emotion Beliefs Questionnaire is a valid, reliable, psychometrically sound scale (Becerra et al., 2020; Johnston et al., 2024), and demonstrated acceptable internal consistency in the current sample for the negative emotions' subscale (α = .78), but reduced internal consistency for the positive emotions' subscale (α = .62). Overall scale internal consistency was acceptable (α = .71).

Goals for Emotion Regulation

Goals for emotion regulation were measured using the Achievement Goal Scale (AGS; Elliot & Church, 1997), adapted to measure goals for emotion regulation by Rusk and colleagues (2011). The scale contains 13 items, with 4 measuring performance-approach goals (e.g., "My goal is to manage my emotions better than most other people"), 4 measuring performance-avoidance goals (e.g., "I worry about the possibility of being unable to control my emotions"), and 5 measuring learning goals (e.g., "I want to learn as much as possible from my emotions") for emotion regulation. The participants were asked to rate their agreement with each item on a 7-point Likert scale (1 = *strongly disagree,* 7 = *strongly agree*). The scale demonstrated good internal consistency in the current sample (α = .81). All the subscales demonstrated acceptable internal consistency, including performance-approach (α = .79), performance-avoidance (α = .75), and learning (α = .79) subscales.

Well-being

Participants completed the Mental Health Continuum Short Form (MHC-SF; Keyes, 2002). The scale consists of 14 items, with 3 items measuring emotional well-being (e.g., "In the past month, how often did you feel happy?"), 5 items measuring social well-being (e.g., "In the past month, how often did you feel that you belonged to a community [like a social group, your neighborhood, your city]?"), and 6 items measuring psychological well-being (e.g., "In the past month, how often did you feel that your life has a sense of direction or meaning to it?") The participants were asked to indicate how often they feel a particular way using a 6-point Likert scale (0 = *Never*, 5 = *Everyday).* The scale is reliable and valid (Yeo & Suárez, 2022) and demonstrated high internal consistency in the current sample (α = .93). The emotion well-being

(α = .85), social well-being (α = .87), and psychological well-being (α = .88) subscales demonstrated good internal consistency.

Life Satisfaction

Life satisfaction was measured using the Satisfaction with Life Scale (Diener et al., 1985). The scale includes five items measuring how satisfied participants feel with their life (e.g., "I am satisfied with my life.") The participants were asked to rate their agreement on an 8-point Likert scale (1 = *strongly disagree;* 8 = *strongly agree*). The scale demonstrated good internal consistency in the current sample (α = .83).

Clinical Symptoms

Clinical symptoms were measured using the 21-item Depression, Anxiety, and Stress Scales. (DASS-21; Henry & Crawford, 2005; Lovibond & Lovibond, 1995). The scale contains three subscales, each consisting of seven items that measure symptoms of depression (e.g., "I couldn't seem to experience any positive feeling at all") anxiety (e.g., "I felt I was close to panic") and stress (e.g., "I found it difficult to relax"). The participants were asked to rate how much each item applied to them over the past week on a 4-point Likert scale (0 = *Did not apply to me at all*; 3 = *Applied to me very much, or most of the time*). The DASS was found to be a valid and reliable scale for use in both clinical (Brown et al., 1997) and non-clinical samples (Henry & Crawford, 2005). In the current sample, the scale demonstrated high internal consistency as a whole (α = .93) and good internal consistency for each of its subscales (Depression α = .89; Anxiety α = .82; Stress α = .83).

Loneliness

Loneliness was measured using the Los Angeles Loneliness Scale (ULS-8; Hays & DiMatteo, 1987). This scale consists of eight items measuring loneliness (e.g., "I lack

companionship"). Participants were asked to rate how often they felt a certain way on a 4-point Likert scale (0 = *I never feel this way*; 3 = *I often feel this way*). The ULS-8 is a reliable and valid scale (Hays & DiMatteo, 1987; Russel, 1996), and demonstrated good internal consistency in the present sample ($\alpha = .81$).

Results

Preliminary Analyses

Independent samples *t*-tests were conducted to examine gender differences on emotion beliefs and emotion regulation goals. No effects of gender were found on any measure of emotion beliefs or emotion regulation goals ($ps \geq .173$). A one-way analysis of variance (ANOVA) was performed to examine the effects of ethnicity on these measures. Although the test revealed a significant difference between groups on emotion regulation self-efficacy beliefs $F = 2.42$; $p = .029$; $\eta = .079$, post-hoc pairwise comparisons revealed no significant differences between any two groups, $ps \geq .077$. No significant differences between groups were found for any other measure, $ps \geq .231$.

Correlation Analyses

Bivariate correlation analyses were conducted to examine relationships between all variables. Descriptive statistics and correlations among the variables are reported in Table 1. Significant relationships were observed between different emotion beliefs as well as emotion regulation goals. Specifically, all emotion regulation goals positively correlated with one another, and general emotion controllability beliefs (implicit theories) were positively correlated with emotion regulation self-efficacy beliefs as well as with emotion usefulness beliefs. Associative links were also observed between emotion beliefs and emotion regulation goals.

Generally, both general and personal controllability beliefs correlated with performance goals, while negative emotion usefulness beliefs correlated with learning goals for emotion regulation.

Next, the relationships between emotion beliefs and mental health measures were analyzed. These analyses revealed that higher emotion controllability beliefs were positively correlated with increased stress, depression, anxiety, and loneliness, as well as lower well-being and life satisfaction. Similar results were found for emotion regulation self-efficacy beliefs. No significant correlations were observed between positive or negative emotion usefulness beliefs and any of the mental health measures. Finally, correlations between emotion regulation goals and mental health measures revealed that higher learning goals were related to higher psychological well-being, while higher performance-avoidance goals were correlated with higher stress, anxiety, depression, and loneliness, as well as lower well-being and life satisfaction. Performance-approach goals did not significantly correlate with any mental health measures.

Mediational Analyses

The finding that higher emotion regulation self-efficacy beliefs were correlated with worse mental health outcomes was surprising. One potential explanation for these findings is that a mediating relationship exists wherein higher emotion regulation self-efficacy beliefs predict higher performance-avoidance goals for emotion regulation, which, in turn, predict worse mental health and well-being outcomes. To test this hypothesis, six mediational models using PROCESS V4.2 (Model 4; Hayes, 2022) examined whether performance-avoidance goals mediate the relationship between emotion regulation self-efficacy beliefs and social well-being, psychological well-being, stress, anxiety, loneliness, and life satisfaction (see Figures 1-6; see Table 3 for inferential statistics). The results for all analyses demonstrated that self-efficacy beliefs were a positive predictor of performance avoidance (*a*-paths). Further, performance-

avoidance goals negatively predicted social well-being, psychological well-being, and life satisfaction but positively predicted stress, anxiety, and loneliness when controlling for self-efficacy beliefs (*b*-paths). For the six mediation analyses, bootstrapping procedures were performed with 95% confidence intervals on 5,000 reiterations of the data. All indirect effects were statistically significant.

Similarly, given that both emotional well-being and depression was associated with implicit theories of emotion, I then examined whether these relationships were mediated by performance-avoidance goals, testing two mediational models using PROCESS V4.2 (Model 4; Hayes, 2022; see Figures 7-8; see Table 3 for inferential statistics). The results of both analyses indicated that implicit theories of emotion were a positive predictor of performance avoidance (*a*-paths), and that performance avoidance, in turn, negatively predicted emotional well-being and positively predicted depression (*b*-paths). For both mediation models, bootstrapping procedures performed with 95% confidence intervals on 5,000 reiterations of the data. Indirect effects were statistically significant for both models.

Finally, it is possible that the relationship between emotion controllability beliefs and performance goals is mediated by self-efficacy beliefs, since lower controllability beliefs may lead the individual to have lower beliefs in their ability to control their own emotions, which might make them less interested in proving their emotion regulation competency due to fear of failure (Moumne et al., 2021). To test this hypothesis, a mediational model was tested using PROCESS V.4.2 (Model 4; Hayes, 2022) to determine whether self-efficacy beliefs mediated the relationship between implicit theories of emotion and performance-avoidance goals for emotion regulation. See Figure 9 for the mediational model. The results revealed that implicit theories of emotion positively predicted self-efficacy beliefs (a-path), $b = .30$ (SE = .08), $t = 3.69$, $p \leq .001$,

and that self-efficacy beliefs were a positive predictor of performance-avoidance goals (b-path) b = .68 (SE = .20), t = 3.27, $p \leq .001$. Bootstrapping procedures using 95% confidence intervals with 5,000 reiterations of the data were significant (.06, .4). These results indicate that higher implicit theories of emotion are associated with higher self-efficacy beliefs which, in turn, are associated with higher performance-avoidance goals.

Discussion

This study examined associations between beliefs about emotions, emotion regulation goals, and measures of mental health. The aim of the study was to confirm previous findings on the relationship between emotion controllability beliefs and goals for emotion regulation (Moumne et al., 2021), as well as to explore the associations between emotion beliefs and emotion regulation goals and mental health. Finally, this study sought to examine the relationship between emotion usefulness beliefs and emotion regulation goals.

The results supported previously reported findings (De Castella et al., 2013) on the positive association between emotion controllability beliefs and emotion regulation self-efficacy, indicating that an individual's belief that emotions are controllable predicts their belief that they can control their own emotions. However, this association was small (r = .269) as compared to past work (r = .73; De Castella et al.). Thus, this finding needs to be replicated to more accurately establish the size of the correlation between the two constructs.

Based on findings by Moumne and colleagues (2021), I predicted that implicit theories of emotion and emotion regulation self-efficacy beliefs would be positively associated with performance-approach goals for emotion regulation and negatively associated with performance-avoidance goals (Hypothesis 1). The results did not support this hypothesis. Rather, the results indicate that both high controllability beliefs and high self-efficacy beliefs predict high

performance-avoidance beliefs, and that neither controllability beliefs nor self-efficacy beliefs significantly correlate with performance-approach goals. One possible explanation is that individuals who believe emotions are controllable and/or believe they can control their own emotions are more averse to situations where they fail to prove they can control their emotions. Such persons may interpret this failure as a personal shortcoming than individuals who believe emotions are uncontrollable and/or believe they have little control over their own emotions. This would lead individuals endorsing high emotion controllability and/or emotion regulation self-efficacy beliefs to endorse higher performance-avoidance goals, representing their goal to avoid such situations. However, because these findings are at odds with previous research (Moumne et al.), further research is needed to support them.

The present study was the first to examine the relationship between emotion usefulness beliefs and emotion regulation goals. Although usefulness beliefs are outside the theoretical framework in which emotion goals are rooted (Dweck & Leggett, 1988), it is likely that individuals who believe all emotions are useful may generally be less motivated to engage in emotion regulation than individuals who believe some emotions are useful and others are useless or harmful. Thus, I predicted that emotion usefulness beliefs will be negatively associated with learning goals for emotion regulation (Hypothesis 2). The results did not support this hypothesis, instead indicating that individuals who believe negative emotions specifically are useful are more likely to endorse learning emotion regulation goals. One possible explanation is that learning about emotions and learning to better control one's emotions specifically might lead one to believe that even negative emotions are useful. This explanation, however, fails to account for the lack of a significant correlation between learning goals and believing that positive emotions are useful. Additionally, because the relationship between learning goals and negative emotion

usefulness beliefs is quite small, these results are not sufficient to conclude that usefulness beliefs play an important role in goals for emotion regulation or vice versa.

Finally, this study tested several predictions concerning the relationship between emotion beliefs and emotion regulation goals and mental health and well-being. One such prediction (Hypothesis 3a) was that emotion regulation self-efficacy would be negatively associated with loneliness, stress, anxiety, and depression, and positively associated with life satisfaction and well-being. This hypothesis was not supported by the data. The results showed that both believing emotions are generally controllable and believing in one's ability to control their own emotions predicts higher levels of stress, anxiety, loneliness, and depression, as well as lower well-being and life satisfaction. Partially confirming the final hypotheses (i.e., Hypotheses 3a & 3b), learning goals were found to predict higher psychological well-being, while higher performance-avoidance goals predicted higher stress, anxiety, depression, and loneliness, as well as lower well-being and life satisfaction.

Although the finding that emotion controllability and emotion regulation self-efficacy beliefs are associated with worse mental health seem counterintuitive, this relationship makes sense if the role performance-avoidance goals for emotion regulation play in this relationship is taken into account. Indeed, the results of this study suggest that the relationships between self-efficacy and mental health outcomes is mediated by performance-avoidance goals. Thus, the reason self-efficacy is negatively associated with well-being is because self-efficacy beliefs predict higher performance-avoidance goals, which are, in turn, associated with lower well-being. This finding holds true for many measures of mental health, including social and psychological well-being, life satisfaction, stress, anxiety, and loneliness. Although there was no significant relationship observed between self-efficacy beliefs and depression and emotional

well-being, these two well-being measures were related to implicit theories of emotion. Data obtained from mediation analyses suggest that implicit theories of emotion predict higher performance-avoidance goals which, in turn, predict higher depression and lower emotional well-being. In sum, the results indicate that the relationship between higher controllability/self-efficacy beliefs and lower well-being outcomes is mediated by performance-goals, revealing one of mechanisms through which emotion controllability beliefs can negatively impact well-being.

Overall, the findings from Study 1 shed some light on the relationship between emotion beliefs and emotion regulation goals, but many of them contradict previous research (Moumne et al., 2021), as well as the theoretical foundations from which these constructs take root. Study 2 was conducted to support these findings within an experimental paradigm, as well as to attempt to test for a possible causal link between emotion regulation self-efficacy and performance goals for emotion regulation.

Study 2

To further investigate the relationship between emotion regulation self-efficacy beliefs and performance goals for emotion regulation, and to examine causal links between the two constructs, Study 2 explored the effects of a manipulation of emotion regulation self-efficacy beliefs on performance goals for emotion regulation. Based on the findings of Study 1, I predicted that an increase in emotion regulation self-efficacy beliefs would lead to an increase in performance-avoidance goals for emotion regulation (Hypothesis 5a), as well as an increase in performance-approach goals for emotion regulation (Hypothesis 5b).

Additionally, previously only a handful of studies have attempted to manipulate emotion beliefs. A study by Bigman and colleagues (2016), for instance, manipulated the participants' beliefs about the success of their emotion regulation attempts by giving participants in the

experimental group a fictitious drug and telling them it has the side effect of improving emotion control. The authors found that participants who expected their emotion regulation to be more successful were more successful in controlling their emotional responses compared to participants in the control group (Bigman et al.). Another study (Kneeland et al., 2016a) presented individuals with text passages providing fictitious data and arguments either for emotions being fixed or malleable to induce the corresponding belief. After a negative emotion induction, participants who were led to believe emotions are fixed were less likely to engage in certain emotion regulation strategies (self-blame and perspective-taking) than participants who were led to believe emotions are malleable, demonstrating a causal effect of implicit theories of emotion on choice of emotion regulation strategy (Kneeland et al., 2016a). Another study using the same experimental belief manipulation found that participants who were led to believe emotions are malleable were more likely to use cognitive reappraisal as a strategy to spontaneously regulate social anxiety than participants who were led to believe emotions are fixed (Kneeland et al., 2016b). Together, these studies demonstrate the causal relationship between implicit theories of emotion and emotion regulation behaviors.

Only one study so far (De Castella et al., 2018) has experimentally manipulated emotion regulation self-efficacy beliefs.[2] The manipulation consisted of a survey, writing task, and fictitious feedback meant to lead the participants to believe either that they possessed a high degree of control over their emotions (high emotion regulation self-efficacy) or that they struggled with controlling their emotions (low emotion regulation self-efficacy). The authors found that participants in the low self-efficacy group reported greater intention to use avoidance strategies in the future, were more likely to avoid seeking psychological assistance, and were

[2] Although the study by Bigman and colleagues (2016) also manipulated emotion regulation self-efficacy beliefs, no measure of self-efficacy beliefs was reported in that study.

more likely to display avoidance-based emotion regulation (De Castella et al.). This study demonstrates that, similarly to implicit theories of emotion, emotion regulation self-efficacy beliefs have a causal effect on regulatory behavior.

To date, no studies have examined the causal relationship between emotion regulation self-efficacy and goals for emotion regulation. This study sought to fill this gap in the research and extended the findings of Study 1 by examining the effects of a manipulation of emotion regulation self-efficacy beliefs on emotion regulation goals. To achieve this aim, I used the manipulation developed by De Castella and colleagues (2018) as a manipulation of self-efficacy, and examined its effect on participants' reported emotion regulation goals. Based on previous research (Moumne et al., 2021) and data from Study 1, I predicted that participants in the high self-efficacy condition would endorse higher performance-avoidance goals, and participants in the low self-efficacy condition would endorse lower performance-avoidance goals for emotion regulation compared to participants in the control condition.

Method

Participants

Participants were recruited via SONA research participation system. All participants were TCU students and received credit as compensation for participation in the study. A total of 305 participants were recruited. One hundred and thirty (42.6%) people were excluded due to incomplete data, not providing consent to use their data in analyses, or failing attention checks. The final sample consisted of 175 participants. Fifty-seven participants were in the high self-efficacy condition, 57 participants were in the low self-efficacy condition, and the remaining 61 participants were in the control condition. The participants were mostly female (91.4%) and White (76%). The mean age was 19.88 (*SD* = 1.84).

Materials

Participants completed many of the same questionnaires as described in Study 1. These included the ITES (Tamir et al., 2007; α = .85)**;** the Personal Beliefs About Emotions Scale (De Castella et al., 2013; α = .83); the Emotion Beliefs Questionnaire (Becerra et al., 2020; negative emotions subscale [α = .80], positive emotions subscale [α = .67], overall scale [α =.72]); the AGS (Elliot & Church, 1997; overall scale [α = .80], performance-approach goals subscale [α = .82], performance-avoidance goals subscale [α = .68], learning goals subscale [α = .82]); the MHC-SF (Keyes, 2002; overall score [α = .91], emotion well-being [α = .88], social well-being [α = .82], psychological well-being [α = .83]); life satisfaction (Diener et al., 1985; α = .87); the DASS-21 (Henry & Crawford, 2005; Lovibond & Lovibond, 1995; overall score [α = .92], depression [α = .81], anxiety [α = .81], stress [α = .81]); and the ULS-8 (Hays & DiMatteo, 1987; α = .81).

Procedure

The experimental procedure was adapted from De Castella et al. (2018). All participants were told that the study aimed to examine the relationship between personality traits and attitudes. After giving informed consent, the participants completed the questionnaires, which were used as baseline measures before the manipulation. Then, the participants were randomly assigned to one of three groups. In the high self-efficacy group, the manipulation aimed to increase the participants' emotion regulation self-efficacy beliefs. Conversely, in the low self-efficacy group, the manipulation aimed to decrease the participants' emotion regulation self-efficacy beliefs. Finally, a third of the participants were assigned to a control group.

After completing baseline measure questionnaires, all participants completed the Emotion Control Survey. Participants in the experimental groups were told that the survey was supposed

to assess how much control they have over their emotions. Survey items in the high self-efficacy condition were biased to make participants feel good about their ability to control their emotions. (e.g., “Most of the time, I'm pretty good at controlling my emotions;” “I rarely have emotional outbursts at work/school”). Conversely, survey items in the low self-efficacy condition were biased to make participants feel good about their ability to control their emotions. (e.g., “There have been times when even calling or spending time with friends has failed to put me in a better mood;” “Sometimes, my emotions are NOT easy things to change”). Participants in the control condition were given a survey about their attitudes toward their exams (e.g., It bothers me that I may have difficult final exams this semester”).

Next, participants were presented with a writing task. Participants in the experimental conditions were instructed to provide “personal examples from the past 6 months where you feel that you successfully managed, changed or controlled your emotions.” The participants were instructed to provide as many responses as they could, but the number of spaces for responses was limited. Participants in the high self-efficacy condition were provided with space to provide four examples, while participants in the low self-efficacy condition were provided with 14 spaces. This was meant to manipulate their self-efficacy beliefs as participants in the high self-efficacy condition were much more likely to fill all spaces with responses than participants in the low self-efficacy condition, thus improving their confidence in their emotion regulation ability.

Finally, participants were presented with fictitious feedback on their performance. Participants in the high self-efficacy condition were presented with the text “You appear to have a substantial degree of control over your emotions. You have scored in the top 15% of people in our research on emotion regulation,” while participants in the low self-efficacy condition were presented with the text “You may have substantial difficulty controlling your emotions. You

have scored in the bottom 15% of people in our research on emotion regulation." Both groups were presented with an image of the normal curve, with an indicator on the top and bottom 15% respectively. To increase the believability of the feedback, a buffer screen with a loading indicator and the text "Loading participant response" was displayed to the participants for 7 s before the feedback was presented. Participants in the control group were not presented with feedback.

After receiving the feedback, (or, in the control group, immediately after the writing task), participants completed all the surveys again to obtain a post-manipulation measure of participants' emotion beliefs, emotion regulation goals, and well-being indicators. After completing the questionnaires, the participants were debriefed, provided with an opportunity to withdraw their data from the study, thanked for their participation, and dismissed.

Results

Preliminary Analyses

Independent samples *t*-tests were conducted to examine gender and race differences in emotion beliefs and emotion regulation goals. Consistent with the results of Study 1, no effects of gender were found on any measure of emotion beliefs or emotion regulation goals ($ps \geq .346$). A one-way analysis of variance (ANOVA) was performed to examine the effects of ethnicity on these measures. The test revealed no significant differences between groups on any of the measures ($ps \geq .506$).

Correlation Analyses

Bivariate correlation analyses were conducted to examine relationships between all variables. Descriptive statistics and correlations among the variables are reported in Table 2. Some significant relationships were observed between emotion beliefs, as well as between

emotion beliefs and emotion regulation goals. Specifically, a positive relationship was observed between general controllability beliefs and self-efficacy beliefs, but neither was correlated with usefulness beliefs. At the same time, higher emotion regulation self-efficacy beliefs predicted lower performance-avoidance and higher performance-approach goals for emotion regulation. All goals for emotion regulation positively correlated with one another. In terms of correlations with mental health and well-being measures, the general pattern is that higher controllability and self-efficacy beliefs, as well as higher learning goals predicted better mental health, while higher performance-avoidance goals, and, to a lesser extent, performance-approach goals, predicted worse mental health.

Mediational Analyses

Mediation analyses were performed to examine the potential mediational role performance-avoidance goals play in the relationship between self-efficacy beliefs and mental health outcomes. To this end, six mediational models using PROCESS V4.2 (Model 4; Hayes, 2022) examined whether performance-avoidance goals mediate the relationship between emotion regulation self-efficacy beliefs and emotional, social, and psychological well-being, stress, anxiety, and depression (see Table 5 for inferential statistics). The results for all analyses suggest that self-efficacy beliefs were a positive predictor of performance-avoidance goals (*a*-paths), while performance-avoidance goals negatively predicted emotional well-being, social well-being, and psychological well-being, but positively predicted stress, anxiety, and depression when controlling for self-efficacy beliefs (*b*-paths). For the six mediation analyses, bootstrapping procedures were performed with 95% confidence intervals on 5,000 reiterations of the data. Notably, none of the indirect effects were statistically significant.

Mixed-Design Analysis of Variance (ANOVA)

A 3 (between subjects; group: low, high vs. control) × 2 (within-subjects; time: pre vs. post) mixed design analysis of variance (ANOVA) was performed on the emotion controllability beliefs (implicit theories) scores. The results showed a main effect of time, F (1,171) = 8.63, p = .004, η_{p^2} = .048, with participants scoring higher on emotion controllability beliefs at Time 2 (M = 3.66, SE = .06) as compared to Time 1 (M = 3.54, SE = .07). The main effect of group was not significant, F (2,171) = 2.59, p = .078, η_{p^2} = .029. The main effects, however, were qualified by a significant 2-way interaction, F (2,171) = 5.79, p = .004, η_{p^2} = .063. See Table 3 for descriptive statistics. Simple main effect analyses using the Bonferroni correction showed that participants in the high self-efficacy condition scored greater on emotion controllability beliefs than the low condition at Time 2, p = .004. All other comparisons of groups within time were non-significant (ps ≥ .175). Looked at differently, simple main effect analyses examined directions over time as a function of the group. The results showed that in the high condition, participants scored greater at Time 2 versus Time 1, $p \leq .001$. There were no other differences across time ps ≥ .308.

A 3 (between subjects; group: low, high vs. control) × 2 (within-subjects; time: pre vs. post) mixed design ANOVA was also performed on the emotion regulation self-efficacy belief scores. The main effect was not significant for either time, F (1,169) = 1.042, p = .309, η_{p^2} = .006, or group, F (2,169) = 1.245, p = .291, η_{p^2} = .015. No comparisons of groups within time were significant, ps ≥ .299. No significant differences within time were observed, ps ≥ .176.

Finally, a 3 (between subjects; group: low, high vs. control) × 2 (within-subjects; time: pre vs. post) mixed design ANOVA was performed on the performance-approach emotion regulation goals scores. The results showed a main effect of time, F (1, 172) = 17.597, $p \leq .001$, η_{p^2} = .093, with participants scoring higher on performance-approach goals at Time 1 (M = 4.89, SE = .09) compared to Time 2 (M = 4.66, SE = .11). The main effect for group was not

significant, F (2,172) = 2.809, p = .063, η_{p^2} = .032. The interaction between time and group was also not significant, F (2, 172) = 2.603, p = .077, η_{p^2} = .029.

No main effects for group or time were found for performance goals in general, performance-avoidance or performance-approach goals specifically, or learning goals for emotion regulation. Additionally, no significant interaction effects between group and time were found for these measures.

Discussion

The purpose of Study 2 was two-fold. First, it attempted to replicate the results reported in Study 1. Second, it used a manipulation to test the causal relationship between emotion regulation self-efficacy beliefs and performance goals for emotion regulation. Many discrepancies were observed between the two sets of correlations. Specifically, although a positive relationship between implicit theories of emotion and emotion regulation self-efficacy beliefs was observed in both studies, the correlation in Study 2 was much larger than in Study 1. The correlation size observed in Study 2 is very similar to that reported by De Castella and colleagues (2013; r = .703 vs. r = .73).

Importantly, the relationship between controllability beliefs and performance-avoidance goals, which was observed in Study 1 was not found in Study 2. The relationship between emotion regulation self-efficacy and performance-avoidance goals was found to be positive in Study 1 but was observed to be negative in Study 2. The findings of Study 2 are consisted with the results reported by Moumne and her colleagues (2021), and conceptually make more sense than those observed in Study 1. However, it's important to note that the internal validity of the performance-avoidance goals subscale was questionable in the present sample, which casts doubt on whether the questionnaire was effective at measuring these beliefs in the participants. When it

comes to usefulness beliefs, believing that negative emotions are useful predicted higher learning goals in Study 1, but not in Study 2, which further indicates that emotion usefulness beliefs may not play a significant role in goals for emotion regulation.

The differences between studies are also found in the relationship between emotion beliefs and mental health outcomes. Most importantly, the relationship between mental health and emotion regulation self-efficacy beliefs in Study 2 was mostly reversed compared to Study 1, indicating that the more an individual believes they are capable of controlling their own emotions, the more likely they are to report lower stress, depression and anxiety, and higher scores across all measures of well-being. Based on the fact that performance-avoidance goals mediated the relationship between self-efficacy beliefs and well-being and mental health in Study 1, I expected that a similar, reverse relationship would be observed in this study, where higher self-efficacy beliefs would predict lower performance-avoidance goals, which would in turn predict lower well-being and higher negative symptoms. However, results from mediation analyses did not support this conclusion. Thus, contrary to findings from Study 1, the results of this study do not support this hypothesis. As a result, no conclusive insight could be drawn on the mechanisms underlying the relationship between higher self-efficacy beliefs and better mental health.

The study also attempted to manipulate participants' emotion controllability beliefs, specifically targeting emotion controllability beliefs (implicit theories) and self-efficacy beliefs concerning emotion regulation. Based on previous research utilizing this manipulation (De Castella et al., 2018), I expected participants in the high self-efficacy condition to report significantly higher controllability beliefs and higher emotion regulation self-efficacy compared to participants in the low self-efficacy condition following the manipulation. This hypothesis was

only partially supported. The results showed that participants in the high self-efficacy condition scored significantly higher on implicit theories of emotion, compared to participants in the low self-efficacy condition, indicating that the manipulation successfully manipulated participants' implicit beliefs concerning the controllability of emotion in general. However, contrary to prior findings (De Castella et al.), no significant difference was observed in emotion regulation self-efficacy beliefs between the groups following the manipulation. It is difficult to explain why the manipulation successfully changed participants' beliefs about the controllability of emotions in general without changing their beliefs about their ability to control their own emotions, especially given that the manipulation aimed to manipulate the participants' beliefs in their own ability. However, given the high correlation between the two beliefs, it is unsurprising that the participants reported holding higher controllability beliefs after being exposed to feedback praising their emotion regulation ability. It is also possible that by taking the survey, the participants learned something new about the nature of emotions, and thus came to believe that emotions can be controlled by the time they took the implicit theories of emotion questionnaire for the second time, even if the manipulation failed to induce the belief that they were capable or incapable of controlling their own emotions. Additionally, given the high number of participants that had to be excluded due to failing attention checks, it is likely that the participants found it more difficult to focus on the study and give it their full attention, which would have affected their responses. Finally, given that emotion controllability beliefs were not significantly associated with performance or learning goals in this sample, it is unsurprising that a change in emotion controllability beliefs following the manipulation did not produce a change in any of the emotion regulation goals the participants reported.

General Discussion

Emotion regulation has been widely studied in the past few decades, with findings from empirical research highlighting its importance for daily functioning as well as the role it plays in mental health and psychopathology (for reviews, see Gross, 2015; Gross & Jazaieri, 2014). Further research (e.g., Tamir et al., 2007) applied the concept of implicit theories, developed by Dweck and colleagues (Dweck & Leggett, 1988; Grant & Dweck, 2003; for a review, see Dweck, 1999) to the field of emotion regulation to study the way beliefs about emotions affect the emotion regulation process on the individual level. Controllability beliefs as well as beliefs about the goodness or usefulness of emotions, have since been studied as an important factor affecting the emotion regulation process (for a review, see Ford & Gross, 2019). The application of Dweck's theory of achievement motivation to the study of emotion regulation was further extended by Rusk and her colleagues (2011) to study the role performance and learning goals for emotion regulation play in emotion regulation. Moumne and her colleagues (2021) linked these two lines of research to study how emotion beliefs and emotion regulation goals contribute to individual differences in emotion regulation, and specifically the kinds of emotion regulation strategies individuals tend to pursue. However, to date, this topic has received little attention.

This research aimed to contribute to prior work in several ways. First, I sought to extend the findings on the relationship between emotion controllability beliefs and emotion goals reported by Moumne and colleagues (2021) by extending it to the concept of emotion regulation self-efficacy beliefs. Because emotion regulation self-efficacy beliefs are distinct from implicit theories of emotion, referring to an individual's beliefs about their ability to control their emotions, as opposed to controllability of emotions in general, and are a better predictor of well-being (De Castella et al., 2013), examining this category of beliefs might contribute to our understanding of the link between emotion beliefs and emotion regulation goals. Results from

the current studies indicate that a higher belief in the ability to control an individual's own emotions, predicted higher performance goals held by the individual. The type of performance goal this belief is associated with differs between studies, with self-efficacy beliefs predicting higher performance-avoidance goals in Study 1, and higher performance-approach goals in Study 2, a finding that is more consistent with previous research. This finding supports the idea proposed by Moumne et al. that an individual who believes they can control their emotions is more motivated to try and prove this ability due to their higher belief in their success, compared to someone who does not believe they are capable of controlling their emotions.

Another aim of this research was to contribute to our understanding of emotion regulation motivation by examining the relationship between usefulness beliefs and goals for emotion regulation. I predicted that for both positive and negative emotions, a person who believes emotions to be useless would be more motivated to learn to control them, seeking to minimize their negative effects, and would thus be more likely to report higher learning goals for emotion regulation. Findings from the present work do not support this hypothesis. Whereas Study 1 found that higher usefulness beliefs weakly predicted higher learning goals, contrary to the hypothesis, Study 2 failed to support this finding, indicating a lack of a significant correlation. Taken together, the results of these studies do not support the idea that emotion usefulness beliefs play an important role in emotion regulation goals. This may partly be explained by the fact that the questionnaire developed by Rusk and her colleagues (2011) to measure goals for emotion regulation, based on Elliot and Church's (1997) Achievement Goal Scale, only asks participants about their desire to learn about or learn from their emotions. Thus, even if individuals' desire to learn to control their emotions indeed increased with their belief that emotions are useless, it is unlikely that this scale would be able to accurately capture this

increase. To examine the relationship between learning emotion regulation goals and beliefs about the usefulness of emotions, it would be useful to create an alternative scale that would more directly capture goals to learn to control emotions.

Another aim of this research was to examine the mediating role that emotion regulation self-efficacy beliefs play in the relationship between implicit theories of emotion and performance goals for emotion regulation. The idea that self-efficacy beliefs link these two constructs was first proposed by Moumne and colleagues (2021), who postulated that higher emotion controllability beliefs may also predict emotion regulation self-efficacy beliefs, which in may make an individual more likely to endorse performance-avoidance beliefs because they are more likely to believe they will be successful in their emotion regulation attempts. While Study 1 provided evidence supporting this hypothesis, it was not replicated in Study 2, which provided evidence for the associative link between controllability beliefs and self-efficacy beliefs, as well as for the positive relationship between self-efficacy beliefs and performance-approach goals but did not demonstrate a significant relationship between controllability beliefs and performance-approach goals. Thus, more research is needed before a conclusive statement can be made about the mediating role of self-efficacy beliefs on the relationship between emotion controllability beliefs and goals for emotion regulation.

The current studies also sought to examine whether performance goals mediated the relationship between self-efficacy beliefs and measures of mental health, including well-being, life satisfaction, stress, anxiety, depression, and loneliness. Although the results from Study 1 provide support for this idea, they were not replicated in Study 2 where, although self-efficacy beliefs were negatively associated with performance-avoidance goals, as well as all examined measures of mental health except loneliness and life satisfaction, and performance-avoidance

goals were in turn associated with all measures of mental health, no significant mediating effect was found. It is possible that an alternative mechanism exists that links emotion beliefs, emotion regulation goals, and mental health, but, given the incongruent results of the two studies, more research needs to be conducted to replicate their results concerning the mediating role of performance-avoidance goals specifically.

Also, this research aimed to contribute to work on emotion regulation and well-being by examining the associations between emotion beliefs, emotion regulation goals, and stress, anxiety, depression, loneliness, as well as life satisfaction and different aspects of well-being. The results suggest that performance goals and performance-avoidance goals specifically have important implications for mental health. Specifically, endorsing higher performance-avoidance goals predicted worse mental health outcomes, including higher stress, anxiety, depression, and loneliness, and lower life satisfaction as well lower scores on every aspect of well-being. Both implicit theories and self-efficacy significantly predicted some of these outcomes, but the results differed between studies. These findings lend credence to the results reported by Moumne and colleagues (2021), which suggest that performance-avoidance goals are linked to a maladaptive profile of emotion regulation, which in turn is likely to negatively affect mental health. Further studies are required to examine this link directly.

It is not clear why the correlations between these constructs differ so much between the two studies. Since the dataset that was used to calculate bivariate correlations in Study 2 consisted of participant responses collected before the manipulation, the conditions in which the participants in the two studies completed the questionnaires were identical. Both studies were fully conducted online, which means there was no way to know or control the conditions in which the participants took the study. To confirm these results, it would be beneficial to conduct

Study 2 in controlled laboratory conditions to ensure the conditions in which the participants answer the questions are as homogeneous as possible. However, previous empirical research is much more in line with the results of Study 2 than with Study 1. Nevertheless, these findings should be interpreted with caution and further empirical research should be conducted to replicate them.

Finally, the present work aimed to examine the causal relationship between emotion regulation self-efficacy and performance goals for emotion regulation by manipulating participants' emotion regulation self-efficacy beliefs and examining the effect of the manipulation on participants' performance goals. The manipulation in Study 2 did not successfully manipulate participants' self-efficacy beliefs, and no significant change in any goals for emotion regulation was observed following the manipulation in any of the groups. One possible reason why this manipulation was successful in the study by De Castella and colleagues (2018), but not here, is poor quality of participant responses. Study 2 was fully conducted online, and involved taking the same long survey twice, which likely negatively affected the participants' attention. This seems especially likely given that a large portion of the responses had to be discarded due to the participants failing attention checks. Some ways to address this problem in the future would be to conduct the study in person, as well as to exclude the well-being items from the survey at one or both time points.

Although no significant change was detected in self-efficacy beliefs following the manipulation, results indicate that participants who were induced to believe they were better than most at controlling their emotions held significantly stronger emotion controllability beliefs compared to participants who were induced to believe that they were worse than most at controlling their emotions. However, no significant difference was found between the

participants who were induced to believe they were better than most at controlling their emotions and participants in the control group, whose emotion beliefs were not specifically targeted. Therefore, it is plausible that the change was caused by the process of taking the study, as opposed to the manipulation itself. It is likely that just answering questionnaires about emotion beliefs could affect one's implicit theories of emotion even without an explicit manipulation of implicit theories. After all, one trait of these beliefs is that they are implicitly held, rather than explicitly expressed (Dweck, 1999). Asking participants questions about the controllability of their emotions inevitably brings these implicit beliefs to the forefront of their attention, causing them to explicitly consider the beliefs they hold about emotion, potentially for the first time in their lives. The process of consciously evaluating these beliefs may cause them to change fairly quickly, especially when the participant is exposed to further questions about the controllability of emotions. Thus, we cannot exclude the possibility that a participant's implicit theories of emotions changed between the two time points at which measurements were taken because they reevaluated these implicitly held beliefs having explicitly considered them after being exposed to the relevant questions in the survey. A potential explanation for why an increase wasn't observed in the low self-efficacy group is that the manipulation mitigated this effect by decreasing their emotion regulation self-efficacy beliefs which are closely correlated with implicit theories of emotion, in ways that were not detected by the analysis. Further studies are required to examine this aspect of the relationship between implicit theories of emotion and emotion regulation self-efficacy beliefs, as well as to study the potential limitations of measuring implicit beliefs in a repeated-measure design.

With the present results, as well as previously conducted research on the subject, it might be important to reexamine the way that Dweck and Leggett's (1988) theory of motivation and

implicit theories has been applied to emotion research. While intended to be generalizable to beliefs and goals concerning ability in a broad range of aspects of life, this theoretical framework may not be as directly applicable to emotions as to other attributes. For instance, let us compare emotion beliefs to intelligence beliefs, and how they interact with respective goals. A person who holds an entity theory regarding intelligence believes intelligence is fixed, and thus when their performance and learning goals regarding intelligence are examined, they are more likely to endorse performance goals for intelligence (Grant & Dweck, 2003). The connection between beliefs and goals is straightforward in the sense that they are both concerned with the same construct: intelligence. The same cannot be said for emotion beliefs and goals. For instance, literature exploring emotion controllability beliefs generally is concerned with implicit theories of emotion– whether emotions *themselves* are fixed or malleable (e.g., De Castella et al., 2013; Moumne et al., 2021; Rusk et al., 2011). However, goals relating to emotions, as they are examined in those same studies (e.g., Moumne et al.; Rusk et al.), are not goals relating to emotions *themselves,* but rather goals concerning *emotion regulation*, or one's goals to prove or improve their ability to control their emotions. Thus, unlike intelligence, where both implicit theories and ability goals tap into the same construct, implicit theories of emotion refer to a different concept than emotion regulation goals. The importance of this difference becomes apparent as its implications are considered. For instance, it makes sense for someone who believes intelligence is a fixed entity to want to prove their intelligence. However, it makes much less sense for someone who believes emotions are fixed entities – and thus cannot be controlled – to be motivated to prove their ability to control their emotions. Rather, if they believe emotions to be uncontrollable, they would be unlikely to have any goals to prove their ability to control them. Thus, although Dweck and Leggett's (1988) framework predicts that entity theories would

be associated with performance goals, successfully translating this prediction to the field of emotion may require reconceptualizing the constructs of implicit theories and performance goals regarding emotion and emotion regulation to better fit the principles of this theoretical model.

Conclusion

In the studies discussed, I aimed to contribute to research on individual differences in emotion regulation by examining the relatively unexplored subject of emotion regulation goals, and their relationship to beliefs about the goodness and controllability of emotion and mental health. The results of this work were mixed, with the inconsistent findings between the two studies offering little clarity on the subject. Still, several conclusions can be made. First of all, data from both studies supports the conclusion that higher performance-avoidance goals for emotion regulation predict lower mental health and well-being. Indeed, these results are consistent with the findings from research on implicit theories and performance goals indicating that a focus on performance goals results in a maladaptive profile of responses to obstacles and setbacks (Dweck & Leggett, 1988). One way to apply this research would be to develop interventions targeting the way people relate to their emotions, and specifically their motivations to avoid seeming incompetent at controlling their emotions. Given that at the heart of this motivation likely lies the relationship a person has with their emotions, one possibility for future research is to examine how general acceptance-focused interventions affect emotion regulation goals.

The important question of what exact factors affect a person's motivation to learn to improve their emotion regulation skills remains largely unanswered. It is possible that one reason why the present studies provided little insight on this subject is that the surveys that were used to measures learning goals for emotion regulation do not capture this motivation very well. To

attempt to examine these goals more effectively, it would be beneficial to develop more specific tools for measuring individuals' motivation to improve emotion regulation as a skill. Given the lack of conceptual clarity resulting from the adaptation of Dweck and Leggett's (1988) achievement goal theory to the field of emotion, it would perhaps be wise to examine this motivation outside of the conceptualizations of implicit theories and achievement goals as they are presented within this model.

One way to increase our knowledge on emotion beliefs is to develop new manipulations for emotion regulation self-efficacy beliefs, and to replicate the findings of those previously found to be successful. Although manipulating general controllability beliefs has been successfully achieved on several occasions using essays promoting one or another belief, manipulating participants' beliefs about their ability to manipulate their own emotions is more complicated, but given the importance of these beliefs in emotion regulation and well-being, creating additional elegant, carefully designed manipulation techniques can provide us with precious knowledge on the causal dynamics associated with this crucial dimension of emotion-related beliefs.

The present research had several limitations in addition to those discussed above. First, it relied on self-report surveys, which cannot guarantee objectivity or honesty of participants and are subject to potential demand effects. It should be noted, however, that measures were taken to prevent participants from guessing the nature of the work (i.e., cover story). Second, both studies were fully conducted online. Thus, it was impossible to control the conditions in which the participants took the study or know the potential effects they might have had on their responses. Although attention checks were implemented to exclude participants who were not paying attention from the final dataset, due to this limitation the quality of participant responses cannot

be guaranteed. Further, due to the correlation nature of Study 1 and part of Study 2, no causal inference can be made about the relationship between these variables except those that were examined in the experimental portion of Study 2. For this reason, correlational data, the direction of the relationship cannot be readily established. For instance, for the negative correlation between self-efficacy beliefs and depression, we cannot exclude the possibility that higher depression causes an individual to be less optimistic about their emotion regulation ability, rather than higher self-efficacy beliefs resulting in more successful emotion regulation attempts, and thus lower negative emotion and depressive symptoms.

Another limitation is a lack of generalizability, since both samples were overwhelmingly female (84.8% in Study 1; 91.4% in Study 2) and consisted of university students. Further replications with other populations should be conducted to ensure generalizability of the results. Additionally, given the low power resulting from very few male participants, I could not analyze gender differences effectively in this study, and future studies with more balanced gender distributions should examine whether gender differences exist in emotion beliefs and goals for emotion regulation. Finally, although the current work evaluated mental health and well-being outcomes, the usefulness of its findings for clinical application is limited since samples in both studies were taken from the general population, as opposed to a clinical one. To examine the role emotion beliefs and emotion regulation goals play in specific clinical disorders, additional studies must be conducted within clinical populations of interest.

The present research leaves open many intriguing questions concerning the relationship between emotion regulation, emotion beliefs, goals for emotion regulation, and mental health. In addition to potential ways to confirm or extend these findings mentioned above, further studies can be conducted to shed light on these questions and increase our knowledge in this area. First,

more carefully designed experimental studies would be beneficial for our understanding of the causal relationship between emotion beliefs, emotion regulation goals, and emotion usefulness beliefs. For example, it could prove fruitful to further study how performance emotion regulation goals are affected by changes in beliefs concerning emotion controllability. Additionally, longitudinal research on emotion-regulation-related constructs and mental health could provide vital information about the role this crucial cognitive mechanism plays in well-being, especially in clinical populations. More fundamentally, empirical studies should be conducted to more thoroughly examine the applicability of Dweck and Leggett's (1988) motivation theory of achievement to the field of emotion and emotion regulation, specifically to test whether the way the constructs of implicit theories of emotion, emotion regulation goals, and the relationship between them are conceptualized is supported by the data. Finally, more research should be conducted to examine the way that emotion goals and beliefs are measured. Both studies indicated a questionable internal consistency for the subscale examining beliefs concerning the usefulness and positive emotions, and Study 2 showed low internal consistency for performance-avoidance beliefs, which calls into question whether the current questionnaires are effective at capturing these constructs and calls for more research to verify the validity of these scales.

Finally, these studies studied emotion beliefs in a very general sense. While people certainly do hold beliefs about whether emotions are controllable and useful in general, there are many more emotion-related beliefs to be explored, such as beliefs regarding specific emotions, beliefs about emotions in certain contexts, and beliefs about expressing emotions (Ford & Gross, 2019). For instance, it's possible that people believe some emotions are more controllable than others, than emotions are good in certain situations, but bad in other situations, and that emotional feelings are controllable, but physiological expressions of these emotions are not. In

fact, given the complexity of emotional processing and human belief systems, it is inevitable that there is much more nuance in the emotion-related beliefs than what this study was able to explore. Unraveling the endless knots of this nuance may prove to be an infinite task, but it is one that is certain to provide us with invaluable knowledge on the way emotions impact many aspects of the human mind.

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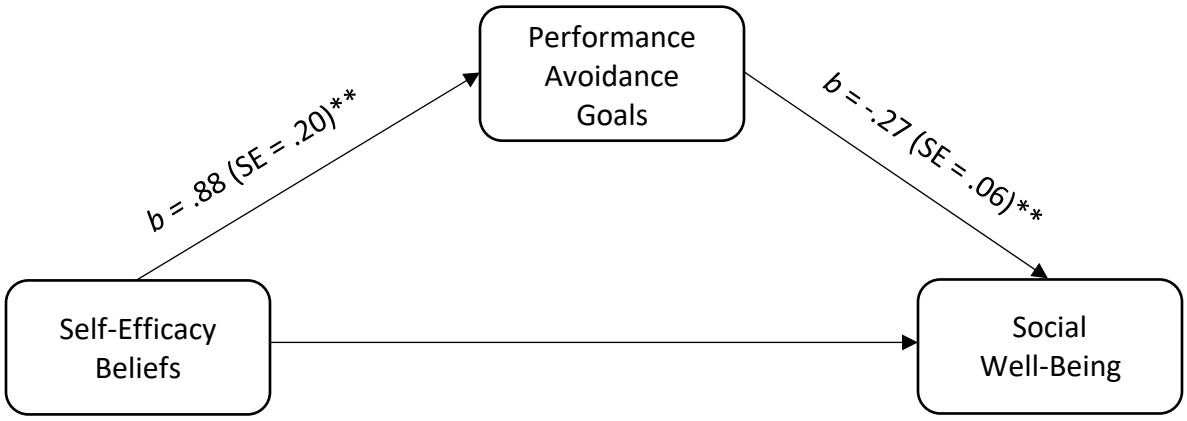
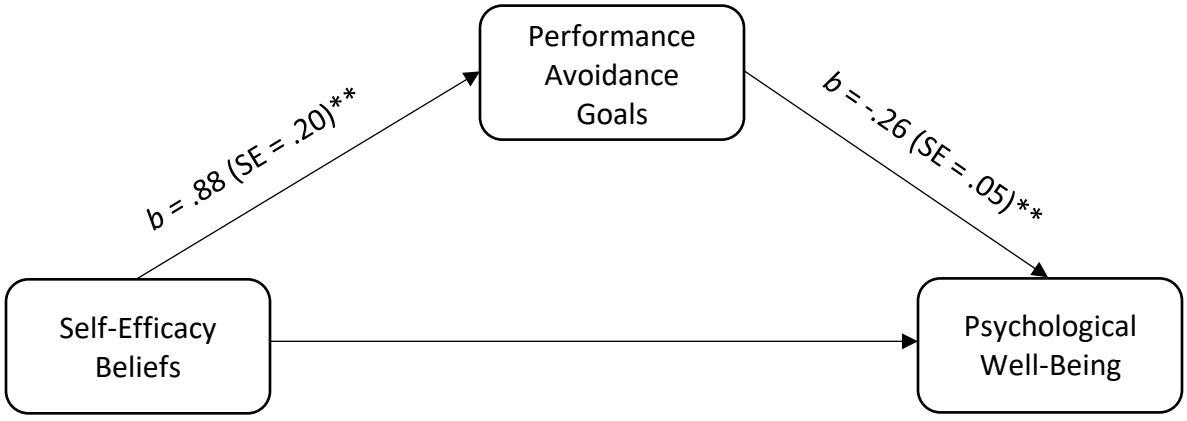
Appendix A: Figures and Tables

Figure 1.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Social Well-Being



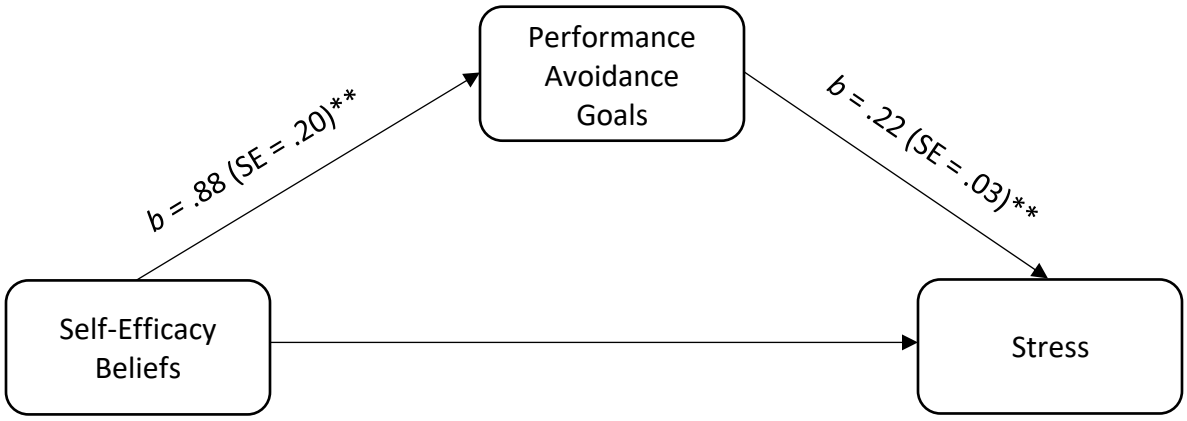
Note: *$p \leq .05$, **$p \leq .001$

Figure 2.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Psychological Well-Being



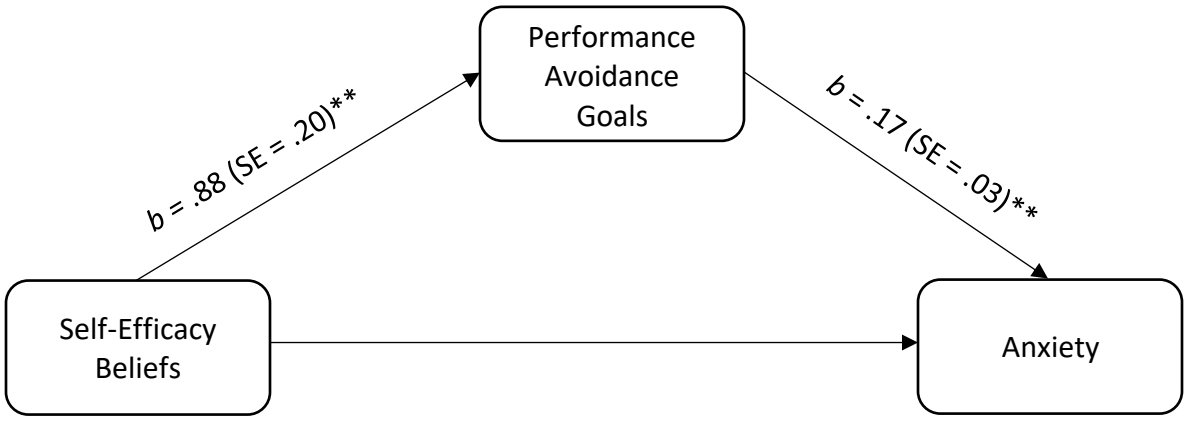
Note: *$p \leq .05$, **$p \leq .001$

Figure 3.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Stress



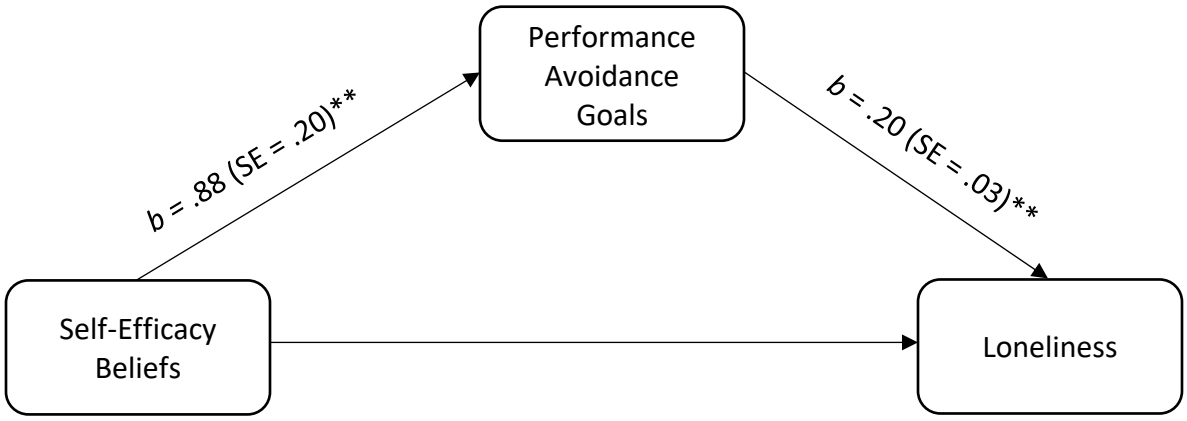
Note: *$p \leq .05$, **$p \leq .001$

Figure 4.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Anxiety



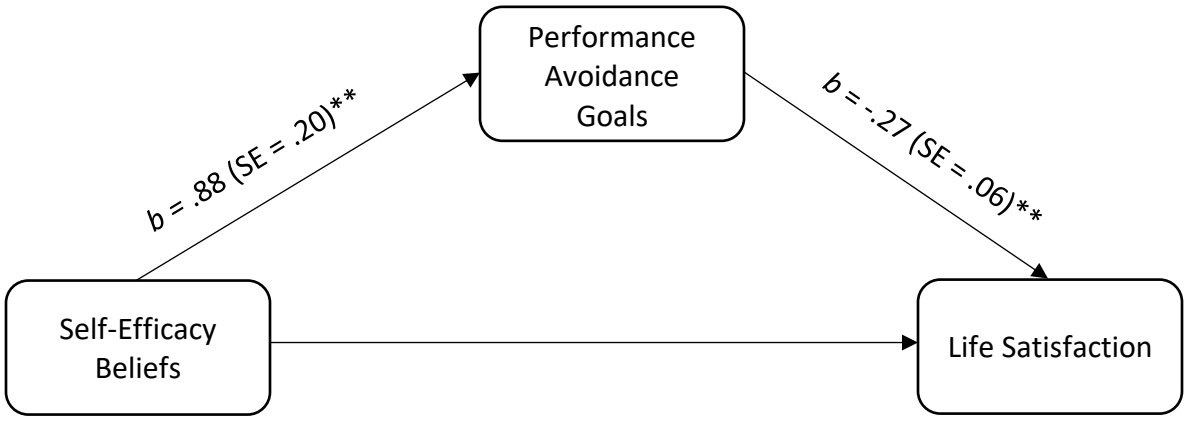
Note: *$p \leq .05$, **$p \leq .001$

Figure 5.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Loneliness



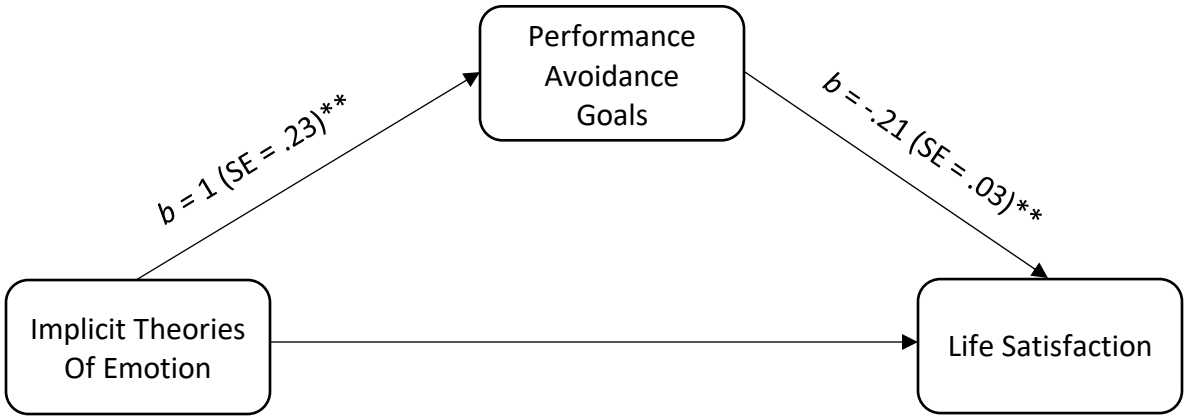
Note: *$p \leq .05$, **$p \leq .001$

Figure 6.
A Mediational Model on the Relationship Between Self-Efficacy Beliefs and Life Satisfaction



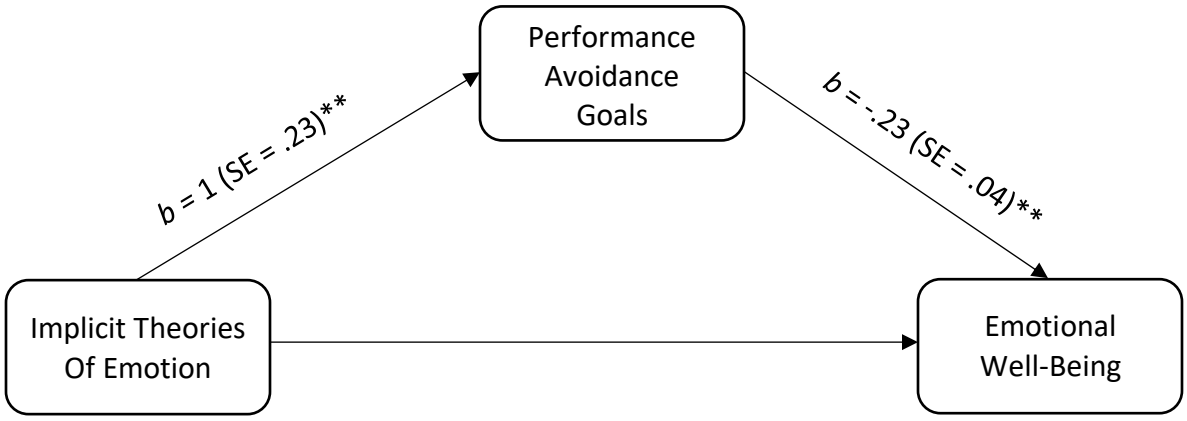
Note: *$p \leq .05$, **$p \leq .001$

Figure 7.
A Mediational Model on the Relationship Between Implicit Theories of Emotion and Life Satisfaction



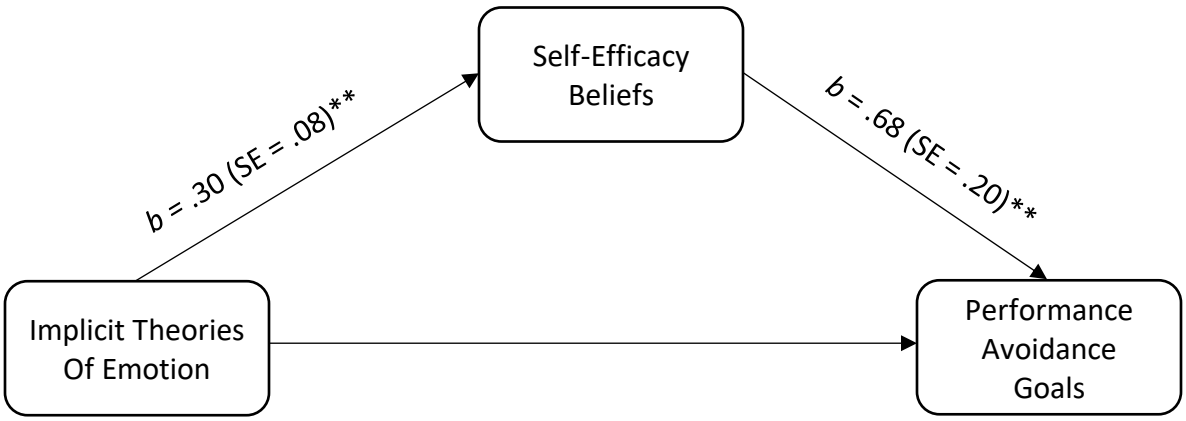
Note: *$p \leq .05$, **$p \leq .001$

Figure 8.
A Mediational Model on the Relationship Between Implicit Theories of Emotion and Emotional Well-Being



Note: *$p \leq .05$, **$p \leq .001$

Figure 9.
A Mediational Model on the Relationship Between Implicit Theories of Emotion and Performance-Avoidance Goals



Note: *$p \leq .05$, **$p \leq .001$

Table 1.
Descriptive Statistics and Bivariate Correlations (Study 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Implicit Theories	1														
2. Self-Efficacy	.269**	1													
3. Negative Usefulness	.136	-.011	1												
4. Positive Usefulness	.159*	.129	.216**	1											
5. Learning Goal	.011	-.029	-.169*	-.109	1										
6. Avoidance Goal	.329**	.307**	-.130	.085	.172*	1									
7.Approach Goal	.116	.228**	-.091	-.035	.481**	.349**	1								
8. Stress	.171*	.264**	-.086	.046	-.005	.482**	.156*	1							
9. Anxiety	.194**	.213**	-.108	.134	-.015	.428**	.086	.793**	1						
10. Depression	.181*	-.146	-.032	.136	-.058	-.058	.086	.717**	.756**	1					
11. Emotional well-being	-.239**	-.123	.009	-.099	.133	.133	-.002	-.465**	-.491**	-.638**	1				
12. Social well-being	-.214**	-.162*	-.043	-.063	.144	.144	.007	-.424**	-.370**	.470**	.604**	1			
13. Psychological well-being	-.220**	-.162*	-.093	-.135	.242**	.242**	.012	-.449**	-.395**	-.572**	.721**	.678**	1		
14. Life Satisfaction	-.209**	-.152*	.059	-.123	.061	.061	-.043	-.297**	-.359**	-.573**	.702**	.469**	.645**	1	
15. Loneliness	.321**	.240**	.011	.049	-.121	-.121	.341	.497**	.491**	-.559**	-.536**	-.475**	-.609**	-.450**	1
Mean	3.06	3.21	2.34	1.32	5.26	4.08	4.78	1.85	1.56	1.49	5.03	4.32	4.75	5.3	1.99
SD	.41	.45	.79	.49	.95	1.30	1.15	.63	.58	.58	.80	1.10	.92	1.08	.59

*$p \geq .05$
**$p \geq .001$
Note. For both Negative Usefulness and Positive Usefulness subscales, a higher score indicates a lower emotion usefulness belief.

Table 2.
Descriptive Statistics and Bivariate Correlations (Study 2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Implicit Theories	1														
2. Self-Efficacy	.703**	1													
3. Negative Usefulness	.043	.129	1												
4. Positive Usefulness	-.063	-.012	.171*	1											
5. Learning Goal	.123	.114	.095	-.058	1										
6. Avoidance Goal	-.111	-.155*	-.021	.139	.185*	1									
7.Approach Goal	.138	.275**	-.076	-.007	.278*	.370**	1								
8. Stress	-.200**	-.258**	.047	.078	.121	.531**	.211**	1							
9. Anxiety	-.273**	-.307**	.068	.104	.101	.476**	.121	.777**	1						
10. Depression	-.171*	-.241**	.069	.098	.019	.487**	.192*	.709**	.619**	1					
11. Emotional well-being	.089	.158*	-.017	-.139	.062	-.296**	-.073	-.485**	-.417**	-.635**	1				
12. Social well-being	.088	.202**	.061	-.09	.223**	-.224**	.066	-.347**	-.274**	-.409**	.656**	1			
13. Psychological well-being	.062	.229**	.026	-.118	.186*	-.297**	-.041	-.399**	-.335**	-.529**	.681**	.695**	1		
14. Life Satisfaction	.019	.112	-.047	-.153*	.053	-.221**	-.02	-.353**	-.293**	-.499**	.680**	.604**	.604**	1	
15. Loneliness	-.062	-.134	.074	.048	-.032	-.402**	.047	.529**	.418**	.589**	-.577**	-.493**	-.582**	-.514**	1
Mean	3.54	3.79	2.28	1.25	5.39	3.98	4.88	1.93	1.62	1.49	5.02	4.04	4.90	5.27	1.98
SD	.88	.79	.77	.39	.94	1.26	1.22	.58	.58	.52	.82	1.09	.83	1.15	.60

*$p \geq .05$
**$p \geq .001$
Note. For both Negative Usefulness and Positive Usefulness subscales, a higher score indicates a lower emotion usefulness belief.

Table 3
Mediational Models Between Self-Efficacy (Predictor), Performance-Avoidance Goals (Mediator), and Well-being Outcomes (Study 1).

	b	*SE*	*t*	*p*
Social Well-being (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Social Well-being (*b*-path)	-.27	.06	-4.10	≤ .001
95% Confidence Interval (CI): [-.37, -.08]				
Psychological Well-being (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Psych. Well-being (*b*-path)	-.26	.05	-4.89	≤ .001
95% Confidence Interval (CI): [-.39, -.10]				
Stress (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Stress (*b*-path)	.22	.03	6.55	≤ .001
95% Confidence Interval (CI): [.10, .30]				
Anxiety (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Anxiety (*b*-path)	.17	.03	5.38	≤ .001
95% Confidence Interval (CI): [.08, .25]				
Loneliness (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Loneliness (*b*-path)	.20	.03	6.12	≤ .001
95% Confidence Interval (CI): [.09, .28]				
Life Satisfaction (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	.88	.20	4.27	≤ .001
Performance-av. → Life Satisfaction (*b*-path)	-.27	.06	-4.44	≤ .001
95% Confidence Interval (CI): [-.41, -.11]				

Table 4
Mediational Models Between Implicit Theories of Emotion (Predictor), Performance-Avoidance Goals (Mediator), and Well-being Outcomes (Study 1).

	b	*SE*	*t*	*p*
Depression (Outcome)				
Implicit Theories → Performance-av. (*a*-path)	1	.23	4.6	≤ .001
Performance-av. → Depression (*b*-path)	.21	.03	6.51	≤ .001
95% Confidence Interval (CI): [.11, .36]				
Emotional Well-being (Outcome)				
Implicit Theories → Performance-av. (*a*-path)	1	.23.	4.6	≤ .001
Performance-av. → Emotional Well-being (*b*-path)	-.23	.04	-5.07	≤ .001
95% Confidence Interval (CI): [-.41, -.11]				

Table 5
Mediational Models Between Self-Efficacy (Predictor), Performance-Avoidance Goals (Mediator), and Well-being Outcomes (Study 2).

	b	*SE*	*t*	*p*
Emotional Well-being (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Emotional Well-being (*b*-path)	-.18	.05	-3.8	≤ .001
95% Confidence Interval (CI): [-.0009, .10]				
Social Well-being (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Social Well-being (*b*-path)	-.17	.06	-2.67	< .01
95% Confidence Interval (CI): [-.003, .1]				
Psychological Well-being (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Psych. Well-being (*b*-path)	-.17	.05	-3.70	< .01
95% Confidence Interval (CI): [-.003, .1]				
Stress (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Stress (*b*-path)	.23	.03	7.86	≤ .001
95% Confidence Interval (CI): [-.12, .0006]				
Anxiety (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Anxiety (*b*-path)	.20	.03	6.71	≤ .001
95% Confidence Interval (CI): [-.11, 0]				
Depression (Outcome)				
Self-efficacy → Performance-av. (*a*-path)	-.25	.12	-2.06	.04
Performance-av. → Depression (*b*-path)	.19	.03	6.96	≤ .001
95% Confidence Interval (CI): [-.11, 0]				

Table 6
Means of Implicit Theories of Emotion (Study 2)

	Time 1		Time 2	
	M	SE	M	SE
Control	3.61	.11	3.68	.10
Low	3.42	.12	3.40	.11
High	3.59	.12	3.89	.11