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Beliefs about emotion: implications for avoidance-based emotion regulation and psychological health

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ABSTRACT

People's beliefs about their ability to control their emotions predict a range of important psychological outcomes. It is not clear, however, whether these beliefs are playing a causal role, and if so, why this might be. In the current research, we tested whether avoidance-based emotion regulation explains the link between beliefs and psychological outcomes. In Study 1 ($N = 112$), a perceived lack of control over emotions predicted poorer psychological health outcomes (increased self-reported avoidance, lower well-being, and higher levels of clinical symptoms), and avoidance strategies indirectly explained these links between emotion beliefs and psychological health. In Study 2 ($N = 101$), we experimentally manipulated participants' emotion beliefs by leading participants to believe that they struggled (low regulatory self-efficacy) or did not struggle (high regulatory self-efficacy) with controlling their emotions. Participants in the low regulatory self-efficacy condition reported increased intentions to engage in avoidance strategies over the next month and were more likely to avoid seeking psychological help. When asked if they would participate in follow-up studies, these participants were also more likely to display avoidance-based emotion regulation. These findings provide initial evidence for the causal role of emotion beliefs in avoidance-based emotion regulation, and document their impact on psychological health-related outcomes.

People differ considerably in their beliefs about emotions. This is true both for people's beliefs about whether emotions are things that can be controlled (their *implicit theories of emotion*; Tamir, John, Srivastava, & Gross, 2007), and for their beliefs about their personal ability to control their own emotions (their *regulatory self-efficacy*; Caprara, Di Giunta, et al., 2008). These two research traditions complement each other and operate synergistically, with findings suggesting that both kinds of beliefs are consequential, and linked to important psychological health outcomes (e.g. stress, anxiety, depression, loneliness, and satisfaction with life). An important question that remains, however, is whether these control-related beliefs are actually playing a causal role, and if so, why this might be.

One possibility is that people's beliefs about their emotions influence their emotion regulation efforts,

inclining people towards more or less adaptive strategies for managing emotions in day-to-day life. In the past few decades, research on emotion regulation processes has demonstrated that different emotion regulation strategies have wide ranging consequences for psychological health (Gross, 2015; Mennin & Fresco, 2015). Some strategies are approach-based and are generally considered useful and adaptive. For example, cognitive reappraisal, which involves "changing a situation's meaning in a way that alters its emotional impact" (Gross & Thompson, 2007, p. 14) is associated with a wide range of positive psychological health outcomes (Gross & Thompson, 2007). Other strategies, however, like avoidance-based strategies are generally regarded as having less adaptive consequences for psychological health. For example, behavioural avoidance (avoiding situations, persons, or things); cognitive avoidance

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(denying, minimising, or suppressing thoughts or feelings); expressive suppression (voluntarily hiding the outward expression of emotions); and repression (inhibiting the experience and expression of emotions) are strategies that are often associated with a range of negative health and well-being outcomes (Webb, Miles, & Sheeran, 2012).

Here, we review research on implicit theories of emotion and emotion regulation self-efficacy, with particular attention to avoidance-based emotion regulation. We chose to focus on avoidance because it is a widely used emotion regulation strategy and one that has far reaching consequences for psychological health. In a recent meta-analysis of 114 emotion regulation studies, Aldoa, Nolen-Hoeksema, and Schweizer (2010) found that dispositional avoidance (along with rumination and suppression) were among the strongest predictors of psychopathology symptoms. Habitual reliance on avoidance as a form of coping is also associated with a range of indicators of poor long-term health and well-being (Penley, Tomaka, & Wiebe, 2002; Suls & Fletcher, 1985). In the current studies, we were particularly interested in whether people's beliefs about their emotions influenced their tendencies to engage in avoidance-based emotion regulation efforts. In a cross-sectional study (Study 1), we examine the links between emotion beliefs (implicit theories and self-efficacy), avoidance, and psychological health. Then, in an experimental study (Study 2), we test the causal role of emotion regulation self-efficacy in predicting avoidance by manipulating people's regulatory self-efficacy (their beliefs about their personal ability to control their own emotions).

Implicit theories of emotion

Research indicates that people hold implicit beliefs about the fixed or malleable nature of a wide range of abilities and traits including: intelligence (Blackwell, Trzesniewski, & Dweck, 2007; Robins & Pals, 2002), personality (Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997), athletic ability (Ommundsen, 2001), chronic pain (Higgins, Bailey, LaChapelle, Harman, & Hadjistavropoulos, 2014), relationships (Knee, Nanayakkara, Vietor, Neighbors, & Patrick, 2001), and even one's morality or the nature of the world in general (Chiu, Dweck, Tong, & Fu, 1997; Chiu, Hong, & Dweck, 1997). Compared to *incremental* theorists (who believe in the potential for change), people holding *entity* theories typically believe in the fixed,

unchanging nature of these attributes and traits. In the context of emotion, people holding an *entity theory of emotions* more readily agree "people have very little control over their emotions". People holding an *incremental theory*, on the other hand, view emotions as malleable and believe that "everyone can learn to control their emotions" (Tamir et al., 2007).

Across numerous studies, entity beliefs about emotions have been associated with poorer psychological health outcomes. Tamir et al. (2007) found that entity beliefs about emotions were associated with fewer positive and more negative emotional experiences during the transition to college, as well as increased feelings of isolation, loneliness, and depression. These findings were also present over time, with entity beliefs predicting more negative and less positive affect over the academic school year. Other research has found that college students who believe emotions cannot be controlled report greater depressive symptoms and poorer well-being as well as higher levels of stress, anxiety, and depression (De Castella et al., 2013; Romero, Master, Paunesku, Dweck, & Gross, 2014; Schroder, Dawood, Yalch, Donnellan, & Moser, 2015). These findings have also been identified in clinical samples (De Castella et al., 2013, 2014). In addition, research has also found links between entity beliefs about emotions and a range of maladaptive emotion regulation strategies including self-blame, resignation, and reduced perspective taking (Kneeland, Nolen-Hoeksema, Dovidio, & Gruber, 2016a) as well as reduced use of cognitive reappraisal (De Castella et al., 2013; Tamir et al. 2007). In one study, when faced with a distressing emotional movie clip, entity theorists (compared to incremental theorists) reported greater negative affect during and after viewing the clip, and were less likely to watch the same clip again to learn about its ending (Kappes & Schikowski, 2013). Compared to incremental theorists, entity theorists have also scored lower in ability-based emotional intelligence (Cabello & Fernández-Berrocal, 2015); and are less likely to use adaptive emotion regulation strategies like cognitive reappraisal in daily life (De Castella et al., 2013; Schroder et al., 2015; Tamir et al., 2007; Veilleux, Salomaa, Shaver, Zielinski, & Pollert, 2015). Finally, people holding entity beliefs about emotions often score higher on measures of anxiety and depression, but are more likely to avoid psychological help, selecting medication as a primary treatment preference for hypothetical mental health problems

(Schroder et al., 2015). Overall, there is growing research linking implicit beliefs about emotions with emotion regulation, clinical symptoms, and well-being. However, for a complete picture of the role emotion beliefs play in psychological health, it is also necessary to examine research on emotion regulation self-efficacy.

Emotion regulation self-efficacy

Self-efficacy beliefs refer to an individual's belief about his or her own personal capacity to exert control over the events that matter (Bandura, 1997). People with high self-efficacy in a particular domain typically display more effortful, persistent, and resilient coping efforts (Bandura, 1997, 2001). People with low self-efficacy, on the other hand, have little incentive to undertake challenging tasks or persevere in the face of difficulties (Bandura, 1997, 2001). Like implicit theories, efficacy beliefs contribute to the quality of human functioning by influencing cognitive, affective, motivational, and decisional processes that support individuals in achieving their goals. Research on self-efficacy also spans a wide range of social, emotional, psychological, and performance domains including but not limited to academic achievement (Bandura, 1997; Honicke & Broadbent, 2016), athletic performance (Moritz, Feltz, Fahrbach, & Mack, 2000), social skills (Moe & Zeiss, 1982), adolescent adjustment (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003; Caprara, Fida, et al., 2008), self-defence (Ozer & Bandura, 1990), phobias (Bandura, 1983), addiction (Kadden & Litt, 2011), depression (Maddux & Meier, 2015), eating disorders (Berman, 2006; Pinto, Heinberg, Coughlin, Fava, & Guarda, 2008), and trauma (Benight et al., 2015; Benight & Bandura, 2004).

In the domain of emotions, people with high emotion regulation self-efficacy are typically confident in their ability to ameliorate negative emotional states once they have arisen (e.g. "keep from getting discouraged by strong criticism" or "avoid flying off the handle when you get angry") (Caprara, Di Giunta, et al., 2008). By contrast, people with low emotion regulation self-efficacy are not confident about their ability to regulate their negative emotions. Research indicates that when people expect to be unsuccessful at regulating their emotions, they experience more depressive symptoms (Catanzaro & Mearns, 1999), exhibit greater patterns of threat-based cardiovascular reactivity (Blascovich, 2008), and are more likely to appraise these physiological signals in a way that increases negative affect, vigilance for threat cues, and performance impairments (Jamieson, Mendes, & Nock, 2013). Caprara, Fida, et al. (2008) found that across three countries low emotion regulation self-efficacy was also associated with poorer adjustment (self-esteem, prosocial behaviour, and positive affect), as well as higher levels of maladjustment (negative affect, shyness, irritability, aggression, anxiety, and depression). Other research indicates that low emotion regulation self-efficacy predicts anxiety, worry, and social avoidance (Tahmassian & Moghadam, 2011), sexual risk-taking behaviours (Valois, Zullig, Kammermann, & Kershner, 2013), as well as depression and delinquency concurrently and longitudinally at 3 and 7 years follow-up studies (Caprara, Fida, et al., 2008).

The link between emotion beliefs and psychological health

Why are beliefs about emotion (i.e. implicit theories and self-efficacy beliefs) related to psychological health? One possibility is that emotion beliefs influence avoidance-based emotion regulation, guiding people towards specific emotion regulation strategies that, in turn, determine how successful they are in managing their emotions. For example, in the context of implicit theories, people who believe that emotions cannot be controlled may need to rely on strategies like *behavioural avoidance* (i.e. avoiding an action, person, or thing to prevent exposure to situations that could cause distress) or *cognitive avoidance* (i.e. denying, minimising, or suppressing thoughts or feelings about an experience to escape from unpleasant bodily sensations, thoughts, memories, and emotions). The related construct of experiential avoidance refers to efforts directed at escaping private inner experiences like thoughts, emotions, and memories (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Although these strategies may provide relief in the short term, they can also increase the frequency of unpleasant thoughts, feelings, and sensations (Gross, 1998a, 2002; Wegner, Schneider, Carter, & White, 1987), as well as dampen positive emotions by interfering with one's ability to be fully immersed in present experience (Gross & John, 2003; Gross & Levenson, 1997; Kashdan, Barrios, Forsyth, & Steger, 2006). Chronic use of avoidance and suppression also contribute to feelings of loneliness, inauthenticity, and disconnection (John & Gross, 2004), and predict lower levels of social and emotional support; fewer

close relationships with others; and lower levels of life satisfaction and well-being (Gross & John, 2003; John & Gross, 2004).

In the domain of self-efficacy, people typically avoid activities and situations they believe exceed their coping capabilities, but readily undertake activities and select environments they judge themselves capable of handling (Bandura, 1997; Ozer & Bandura, 1990). With a low sense of self-efficacy, risky, and even safe aspects of an environment can be viewed as dangerous and uncontrollable, leading to increased anxiety, situational avoidance, and restricted involvement in recreational, social, and community activities (Ozer & Bandura, 1990). Low emotion regulation self-efficacy is also associated with significantly higher levels of experiential avoidance – avoidance of unwanted inner experiences such as emotions, thoughts, and memories (Fergus, Bardeen, & Orcutt, 2013; Gratz & Roemer, 2004).

Despite a growing body of correlational research on the links between emotion beliefs and psychological health, less is known about the causal role of people's beliefs about their emotions: Do people's beliefs about their inability to control their emotions cause them to rely more on avoidance-based strategies to regulate their emotions? Or does habitual use of avoidance strategies (and other maladaptive forms of emotion regulation) cause people to hold fixed beliefs about their emotions? Understanding the causal links between emotion beliefs and emotion regulation has important practical and theoretical implications, but to date only a few studies have experimentally manipulated people's beliefs about their emotions (Bigman, Mauss, Gross, & Tamir, 2015; Kneeland et al., 2016a; Kneeland, Nolen-Hoeksema, Dovidio, & Gruber, 2016b), and no studies have explicitly examined how emotion beliefs influence avoidance-based emotion regulation.

The present research

The goal of the present research was to examine links between emotion beliefs, avoidance-based emotion regulation, and psychological health (loneliness, satisfaction with life, stress, anxiety, and depression). In Study 1, we assessed cross-sectional links between implicit theories of emotion and emotion regulation self-efficacy as well as the use of cognitive and behavioural avoidance strategies in daily life. We also explored the role of avoidance as a potential intervening variable between participants' beliefs about their emotions and psychological health outcomes. In Study 2, we tested the hypothesised causal role of emotion regulation self-efficacy in shaping avoidance-based emotion regulation by experimentally manipulating participants' self-efficacy beliefs about their ability to change or control their emotions.

Study 1: emotion beliefs, avoidance, and psychological health

In Study 1, we predicted that emotion beliefs would be associated with the use of cognitive and behavioural avoidance in daily life. We assessed these beliefs using both a measure of implicit theories of emotions and a measure emotion regulation self-efficacy. We predicted that, consistent with prior research, a perceived lack of control over emotions would be negatively associated with psychological health (loneliness, satisfaction with life, stress, anxiety, and depression). Finally, we predicted that avoidance-based emotion regulation would explain the relationship between emotion beliefs and these outcomes.

Methods

Participants

Participants were 112 individuals (67 females) recruited from Amazon Mechanical Turk (MTurk) (Buhrmester, Kwang, & Gosling, 2011). Participants were offered 70 cents in exchange for completing a short online survey and participation was restricted to Amazon Turk workers with a Human Intelligence Task (HIT) approval rate >95% and minimum of 500 approved HITs. These basic requirements help ensure a higher quality of survey responders (Buhrmester et al., 2011). A statistical power analysis was performed for sample size estimation using the software package GPower (Erdfelder, Faul, & Buchner, 2016). Based on data from similar research on implicit theories of emotion (De Castella et al., 2013), correlation coefficients ranged from .24 to .38 – a small to medium effect by Cohen's (1988) standards. With a two-tailed test, an alpha = .05 and power = 0.8, the projected sample size needed to detect effects of this size (i.e. larger than $r = .20$) is approximately $N = 110$.

Based on this analysis, data collection continued until we obtained a valid sample >110. From 150 responses collected in total, 10 were either duplicate surveys (by the same participant) or left mostly blank or incomplete (missing data >10%) and were

excluded from the analysis. To identify participants who may not have been carefully reading all the survey items, three questions were embedded randomly in different sections of the survey that instructed participants to select a specific response (e.g. "please select 'strongly disagree'"). Twenty-eight participants incorrectly answered these screening questions and were removed from the analysis, reducing the final sample to 112.

Participants in the final sample ranged from 18 to 66 years of age ($M = 35.27$, $SD = 12.37$). The sample consisted of 58% White Caucasian, 20% Asian, 4.5% Hispanic, 1.2% African-American, 0.9% European; 15.4% of subjects chose not to indicate their ethnicity. Participants varied in educational backgrounds: 10.5% indicated their highest level of education consisted of high school or equivalent; 3.2% indicated they had attained vocational/technical training; 30.5% reported having some university education; 37.9% reported completing university; 14.7% completed a masters programme; 2.1% had completed a doctoral degree/PhD; and, 1.1% completed a professional degree (MD/JD).

Measures

Study 1 measures included scales assessing beliefs about emotions, avoidance-based emotion regulation, and psychological health.

Beliefs about emotions. Implicit theories about emotions were assessed using the 4-item Implicit Theories of Emotion Scale (Tamir et al., 2007), and emotion regulation self-efficacy was assessed using the 4-item Personal Beliefs About Emotions Scale (De Castella et al., 2013). For the implicit theory scale, items assessed broad beliefs about the malleability of emotions (e.g. "No matter how hard they try, people can't really change the emotions they have"). For emotion regulation self-efficacy, items were reframed in the first-person reflecting personal beliefs about one's ability to control or change their emotions (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 on a 5-point (strongly disagree; strongly agree) Likert scale. Two items on each scale were reverse-scored and items for each scale were averaged to provide a mean for implicit theories of emotion and a mean for emotion regulation self-efficacy. On both measures higher scores reflected a perceived lack of control over emotions, and lower scores reflected greater perceived control over emotions. In

the current sample, internal consistency was adequate (implicit theories $a = .73$; emotion regulation self-efficacy $a = .85$)

Avoidance-based emotion regulation. Avoidance strategies were measured using the Cognitive–Behavioural Avoidance Scale (CBAS, Ottenbreit & Dobson, 2004). The CBAS contains 31 items that measure avoidance strategies along cognitive, behavioural, social, and non-social dimensions. These include Cognitive Social Avoidance (e.g. "I try not to think about problems in my personal relationships"); Behavioural Social Avoidance (e.g. "I tend to make up excuses to get out of social activities"); Cognitive Non-social Avoidance (e.g. "I avoid making decisions about my future"); and Behavioural Non-social Avoidance (e.g. "I quit activities that challenge me too much"). Participants are asked to rate the items on a 5-point Likert-type scale (1 = Not at all true for me, to 5 = Extremely true for me). Social and non-social avoidance is typically examined more in the context of clinical disorders like social anxiety. Given our study goals, and interest in assessing common cognitive and behavioural avoidance-based emotion regulation strategies, we utilised the *total avoidance scale* and the separate *cognitive* and *behavioural* subscales, collapsing across the social and non-social items. Previous research using only the cognitive and behavioural scales provides support for this two-factor model (Blalock & Joiner, 2000), and indicates that these scale dimensions are valid and reliable, displaying good internal consistency (Cognitive Avoidance $a = .90$; Behavioural Avoidance $a = .93$), and test–retest reliability at one week (Cognitive Avoidance $a = .87$; Behavioural Avoidance $a = .91$) (see Carvalho & Hopko, 2011). For each scale, items were averaged to yield a mean avoidance score, with higher scores indicating a greater degree of avoidance (Carvalho & Hopko, 2011). Cronbach's alpha for the current study was .85 for cognitive avoidance and .90 for behavioural avoidance. The mean total avoidance score (the average across all items) was used for ease of reporting, when examining avoidance as a potential mediating variable. Descriptive statistics for the CBAS subscales and total CBAS scale can be found in Table 1. Cronbach's alpha for the total CBAS scale was .93.

Psychological health. To assess psychological health we used measures of social and general well-being (loneliness and life satisfaction) as well as measures of clinical symptoms (depression, anxiety, and

Table 1. Descriptive statistics, Cronbach's alphas, and pearson product-moment correlations (Study 1, N = 112).

Variable	M	SD	Range	α	Correlations									
					1	2	3	4	5	6	7	8	9	10
Emotion Beliefs & Avoidance Strategies														
1. Fixed Emotion Beliefs (Implicit Theories)	10.47	2.53	4.00–17.00	.60	1									
2. Fixed Emotion Beliefs (Self-Efficacy)	10.55	3.02	4.00–20.00	.73	0.75**	1								
3. Cognitive Avoidance	2.37	0.86	1.00–4.88	.85	0.29**	0.37**	1							
4. Behavioural Avoidance	2.52	0.91	1.00–5.00	.90	0.28*	0.39**	0.79**	1						
5. Total Avoidance	2.44	0.84	1.00–4.75	.93	0.30**	0.41**	−0.21**	0.94**	1					
Psychological Health														
6. Loneliness	15.19	4.52	7.00–27.00	.86	0.34**	0.40**	0.62**	0.64**	0.67**	1				
7. Life Satisfaction	21.77	6.96	5.00–35.00	.90	−0.19^	−0.24^	−0.27**	−0.32**	−0.31**	−0.53**	1			
8. Stress	13.41	5.08	7.00–28.00	.90	0.28*	0.31**	0.55**	0.50**	0.55**	0.46**	−0.11	1		
9. Anxiety	11.46	5.08	7.00–28.00	.92	0.30*	0.34**	0.59**	0.56**	0.61**	0.53**	−0.09	0.80**	1	
10. Depression	12.75	5.67	7.00–28.00	.94	0.34**	0.37**	0.63**	0.58**	0.63**	0.66**	−0.41**	0.76**	0.75**	1

^$p < .05$, *$p < .01$, **$p < .001$.

stress). For well-being, loneliness was measured using the 8-item revised version of the University of California, Los Angeles Loneliness Scale (ULS-8; Hays & DiMatteo, 1987). Research indicates that the ULS-8 is reliable ($α = .84$) and displays good concurrent and discriminant validity with related constructs (Hays & DiMatteo, 1987; Russell, 1996; Russell, Peplau, & Cutrona, 1980; Wua & Yao, 2008). Life satisfaction was measured using the 5-item Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a commonly used measure of life satisfaction (e.g. "In most ways my life is close to ideal"). Items are rated on a 7-point Likert scale with total scores ranging from 5 to 35. Internal consistency in the current sample was good for both scales (ULS-8, $α = .86$; SWLS $α = .90$). Clinical symptoms were measured using the 21-item Depression, Anxiety, and Stress Scales (DASS-21; Henry & Crawford, 2005; Lovibond & Lovibond, 1995). The DASS-21 contains three subscales (each with seven items) that assess symptoms of stress (e.g. "I found it hard to wind down"), anxiety (e.g. "I felt scared without any good reason"), and depression (e.g. "I felt that life wasn't worthwhile") within the past week. Research with the DASS indicates that the scale is reliable and valid for use in both clinical (Brown, Chorpita, Korotitsch, & Barlow, 1997) and nonclinical samples (Henry & Crawford, 2005; Page, Hooke, & Morrison, 2007) and the combined 21 total score is a sensitive tool for screening for stress, anxiety, and depression (Tran, Tran, & Fisher, 2013). In the current sample, internal consistency for the DASS was good (Stress $α = .90$; Anxiety $α = .92$; Depression $α = .94$; Total DASS $α = .96$). Principal components analysis of all our psychological health items revealed that the DASS scales formed a single factor (Eigenvalues = 14.40, factor loadings > .61) accounting for 42.4% of the overall variance. This was followed by two separate factors for satisfaction with life (SWLS, Eigenvalues = 4.48, factor loadings > .64) and loneliness (ULS, Eigenvalues = 1.67, factor loadings > .40). For this reason, to examine the indirect effect of avoidance on these measures, we retained the separate ULS and SWLS and used the summed DASS-21 scale as the global indicator of clinical symptoms.

Procedure

Participants were invited to complete surveys online through Amazon Turk. They were also informed that participation was voluntary, confidential, that they could withdraw at any time, and that there were no

right or wrong answers. Participants first completed measures of beliefs about emotions, followed by the dependent variables: measures of cognitive and behavioural avoidance, well-being, and clinical symptoms. The presentation order for scales and items were randomised and all survey variables and data exclusions are reported in the text. Ethics approval for this project was obtained from the Australian National University Human Research Ethics Committee (HREC).

Results and discussion

Preliminary analyses

Across all variables, missing data were rare due to form validation settings (<1%), and were imputed with the overall mean for that variable – a conservative technique in such cases (Tabachnick & Fidell, 2007). As in previous work on implicit theories (Tamir et al., 2007), theories of emotion were not significantly related to gender or ethnicity and these variables are not discussed further. Means (M), standard deviations (SD), ranges, internal consistencies (a) and correlations for all variables are presented in Table 1.

As part of our preliminary analyses, we examined which of the two emotion belief scales would be most meaningfully related to our dependent variables. We expected, as with previous research on implicit theories (De Castella et al., 2013, 2014; De Castella & Byrne, 2015), that people's personal self-efficacy beliefs about *their* emotions would be a better predictor of avoidance-based emotion regulation and psychological health than general implicit theories. To explore the predictive validity of each measure, we conducted a series of two-step hierarchical regression analyses examining the unique variance explained by the implicit theory and self-efficacy emotion beliefs measures. For each of the dependent variables, implicit theories of emotion were entered in the first step, followed by emotion regulation self-efficacy in the second step. Age, gender, and education were not significant predictors and were therefore excluded from the analysis as covariates. Table 2 displays the unstandardised (B) and standardised regression coefficients (β), as well as R^2 and R^2 change for the full and restricted models in each analysis.

Results indicated that consistent with previous research on the personal emotion beliefs scale (De Castella et al., 2013, 2014), people's self-efficacy beliefs about their ability to change *their own*

emotions uniquely predicted avoidance-based strategies and psychological health over and above their implicit theories about emotions in general. Conversely, when controlling for self-efficacy beliefs, implicit theories of emotions failed to explain unique variance on any of the dependent variables. These findings are consistent with existing research that has found that people's beliefs about *their* emotions explain unique variance in outcomes over and above general implicit theories (De Castella et al., 2013, 2014; Tamir et al., 2007).[1] Based on these findings, and to facilitate clarity in reporting, we use the emotion regulation self-efficacy scale in all subsequent analyses.

Beliefs about emotions, avoidance, and psychological health

Consistent with predictions, a lack of perceived control over emotions (low regulatory self-efficacy) was associated with higher levels of cognitive avoidance ($r = .37$, $p < .001$); behavioural avoidance ($r = .39$, $p < .001$) as well as lower levels of psychological health – increased loneliness ($r = .40$, $p < .001$) and reduced satisfaction with life ($r = −.24$, $p < .05$) as well as higher levels of stress ($r = .31$, $p < .001$), anxiety ($r = .34$, $p < .001$), and depression ($r = .37$, $p < .001$) (see Table 1).

The indirect effect of avoidance-based emotion regulation

To explore whether avoidance strategies indirectly explained the associations between emotion regulation self-efficacy and psychological health, we conducted three separate analyses, examining the indirect effect of perceived control over emotions (the predictor) via total avoidance strategies (the intermediary) on our measures of psychological health (the dependent variables). For ease of reporting and because of the high correlation between the cognitive and behavioural avoidance subscales $r = .86$, we used the total avoidance scores (CBAS-T) in all analyses of indirect effects. The CBAS Total score is often used as an indicator of general avoidance and is correlated with a range of convergent measures of avoidance and depressive symptoms (Ottenbreit & Dobson, 2004; Ottenbreit, Dobson, & Quigley, 2014). In the first and second analyses, we examined the indirect effect of avoidance on measures of loneliness and satisfaction with life. In the third analyses, we examined the indirect effect of avoidance on clinical symptoms (stress, anxiety, and depression).[2] This indirect effect is quantified as the product of the coefficients, *a* and

Table 2. Hierarchical regression predicting avoidance, well-being and clinical symptoms while controlling for alternative measures of implicit theories (Study 1, $N = 112$).

Dependent variable and step[5]	Step 1				Step 2				
	B	SE B	β	R^2	B	SE B	β	R^2 Total	R^2 Change
Cognitive Avoidance									
Fixed Emotion Beliefs (Implicit Theories)	0.78	0.25	0.29**	0.08**	0.04	0.36	0.02		
Fixed Emotion Beliefs (Self-Efficacy)					0.82	0.30	0.36	0.14**	0.06**
Behavioural Avoidance									
Fixed Emotion Beliefs (Implicit Theories)	1.0	0.33	0.28**	0.07**	−0.14	0.48	−0.04		
Fixed Emotion Beliefs (Self-Efficacy)					1.30	0.40	0.43**	0.16**	0.08**
Loneliness (ULS)									
Fixed Emotion Beliefs (Implicit Theories)	0.60	0.16	0.34**	0.11**	0.14	0.24	0.08		
Fixed Emotion Beliefs (Self-Efficacy)					0.51	0.20	0.34**	0.17**	0.05**
Life Satisfaction (SWLS)									
Fixed Emotion Beliefs (Implicit Theories)	−0.52	0.26	−0.19^	0.04^	−0.07	0.39	−0.03		
Fixed Emotion Beliefs (Self-Efficacy)					−0.50	0.32	−0.22	0.06^	0.02
Clinical Symptoms (DASS)									
Fixed Emotion Beliefs (Implicit Theories)	1.9	0.52	0.33**	0.11**	0.71	0.77	0.12		
Fixed Emotion Beliefs (Self-Efficacy)					1.3	0.65	0.28^	0.15^	0.04^

Notes: Results from hierarchical regression analyses reported above. Significance levels are based on two-tailed significance tests. Increments for variables entered at R^2 change significance levels are based upon F-tests for that step.
^$p < .05$, *$p < .01$, **$p < .001$.

b (see Figure 1 and 2). The direct effect, c', was also estimated but is not relevant when testing mediation or indirect effects (Hayes, 2009).[3] This indirect effect was tested for significance using the most recent version of the Preacher and Hayes (2008; Rucker, Preacher, Tormala, & Petty, 2011) SPSS PROCESS macros for indirect effects, which includes a bootstrap of 10,000 samples generating an empirically derived sampling distribution and confidence intervals to test for significance of the indirect effect. To evaluate the size of the indirect effects, Preacher and Kelley (2011) suggest the use of Kappa squared (κ^2) – a ratio of the indirect effect to the maximum possible effect permitted by the design and data. Kappa squared (κ^2) may vary between 0 (no indirect effect) to 1 (maximum possible indirect effect) and, they

suggest interpreting it like R^2 with 0.01, 0.09, and 0.25 representing small, medium, and large effects, respectively.

Results indicated that the indirect effect of emotion regulation self-efficacy via avoidance strategies was significant for both measures of well-being, with 95% confidence intervals excluding 0: loneliness (ab = .37, 95% CI = [.19, .59], $\kappa^2 = .26$); satisfaction with life (ab = −.24, 95% CI = [−.51, −.05], $\kappa^2 = .10$) (see Figure 1). The indirect effect of emotion regulation self-efficacy via avoidance strategies was also significant for clinical symptoms (ab = 1.3, 95% CI = [.76, 1.98], $\kappa^2 = .28$) (see Figure 1). These were large effects for loneliness and clinical symptoms and a medium effect for satisfaction with life according to standards for Kappa squared (Preacher & Kelley, 2011).
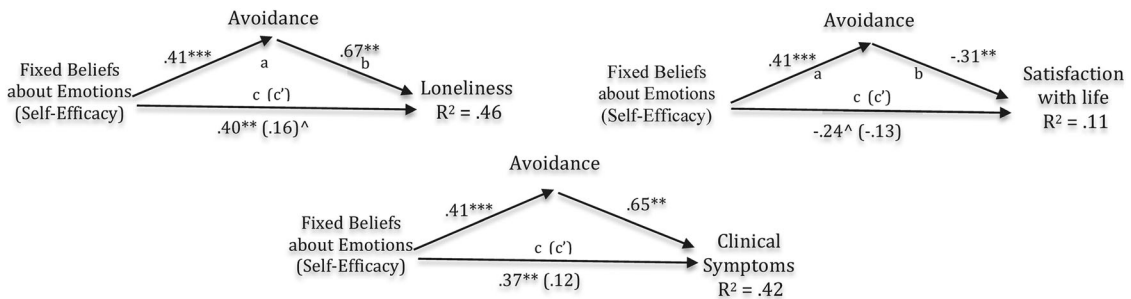

Figure 1. The indirect effect of entity theories of emotions on loneliness, satisfaction with life, and clinical symptoms via avoidance-based emotion regulation (Study 1).

Notes: The indirect of emotion beliefs on loneliness, life satisfaction and clinical symptoms via avoidance. Values are standardised coefficients. When controlling for cognitive and behavioural avoidance, the regression coefficient for the effect of implicit theories (in parentheses) decreases to non-significance for life satisfaction and clinical symptoms (stress, anxiety and depression), but remains significant for lonelines. ^$p = .05$, *$p = .01$, **$p = .001$.

Study 2: examining causal links between implicit theories and avoidance

Study 1 indicated that people's beliefs about their emotions were associated with avoidance-based emotion regulation strategies, which were in turn correlated with psychological health outcomes. Nonetheless, as with much of the research on emotion beliefs (De Castella et al., 2013, 2014; Kappes & Schikowski, 2013; Schroder et al., 2015; Tamir et al., 2007), the correlational nature of this study limits our understanding of the causal relationships between beliefs and outcomes. For example, although it is possible that people's emotion beliefs predispose them towards specific emotion regulation strategies, it is also possible that when people habitually use adaptive emotion regulation strategies, and experience greater success regulating their emotions, they come to hold more adaptive beliefs about emotional control.

To date, only three studies (Bigman et al., 2015; Kneeland et al., 2016a, 2016b) have sought to experimentally manipulate people's beliefs about emotional control. In one experimental study, Bigman et al. (2015) used a placebo drug to temporarily manipulate participants' beliefs about their emotion regulation self-efficacy. Participants were told either that the drug's side effects enhanced emotion regulation success (expected success condition), or that there were no additional side effects (control condition). They were then instructed to regulate their emotions while viewing a negative film clip, and to rate their emotional experience as well as their emotion regulation efforts. Results indicated that participants, who were led to expect emotion regulation to be more successful, were subsequently more successful in regulating their emotional reactions compared to the control condition. Other experiential research, however, has produced mixed results. In a recent study, Kneeland, Dovidio, Joormann, and Clark (2016) temporarily manipulated people's general implicit beliefs about emotions by having participants read and summarise a passage of text and fictitious data describing emotions as either "fixed" or "malleable". Participants then completed a negative mood induction by recalling and describing an upsetting personal memory before completing a state measure of emotion regulation (Cognitive Emotion Regulation Questionnaire, Garnefski, Kraaij, & Spinhoven, 2001). After the negative mood induction, people in the "emotions are fixed" condition (compared to the "emotions are malleable condition") were less inclined to use perspective taking when considering their upsetting memory, but actually report significantly reduced self-blame and greater acceptance regarding the upsetting event. There were also no significant differences between groups on other emotion regulation strategies (e.g. rumination, positive refocusing, reappraisal, or suppression).

In a third experimental study by the same authors, Kneeland et al. (2016b) examined how beliefs about emotions influenced spontaneous regulation of social anxiety. After completing the experimental manipulation of emotion beliefs, participants were given an anxiety-inducing impromptu speech task. Participants in the emotions-are-malleable condition reported spontaneously engaging in more cognitive reappraisal during the speech task, but reappraisal was not associated with reductions in negative affect. Findings from these three experimental studies indicate that it is indeed possible to manipulate people's beliefs about emotions. Emotion beliefs also appear to influence the selection of emotion regulation strategies, like reappraisal. However, the consequences these beliefs have for emotion regulation efforts remains unclear. Furthermore, no research to date has explicitly examined the links between perceived control over emotions and avoidance-based emotion regulation or its associations with psychological health.

In Study 2, we hoped to clarify the causal role of emotion beliefs by leading people to make stable internal attributions about emotional control (e.g. by manipulating people's emotion regulation self-efficacy) and then by assessing the impact of these beliefs. To do this, we provided fictitious feedback to people about the degree to which they could personally change or control their emotions. Discrepancies between general implicit theories and people's personal self-efficacy beliefs about their own abilities (De Castella & Byrne, 2015; De Castella et al., 2013, 2014) indicate that knowing that emotional control is possible is not the same as believing personally in one's ability to change. We sought to influence participants' beliefs about how much they personally could change or control their own emotions, rather than focusing on their beliefs about emotions in general. We did this by drawing on self-perception theory (Bem, 1972), which postulates that "individuals come to 'know' their own attitudes, emotions, and other internal states partially by inferring them from observations of their own overt behavior" (Bem, 1972,

p. 2). Our manipulation, presented in the form of an online survey, was therefore devised to provide fictitious feedback to participants about their ability to control their emotions relative to others.

In Study 2 we included additional measures of avoidance strategies. Given our findings in Study 1 for cognitive and behavioural avoidance, we were interested in whether these findings might also extend to *help-seeking* avoidance: differences in people's openness to, or avoidance of, psychotherapy. Research indicates that only a small number of people who are suffering from psychological difficulties actually seek psychotherapy, and treatment-avoiders often experience the highest levels of treatment anxieties (Kushner & Sher, 1989) as well as stigma concerns and fear of psychological distress (Deane & Chamberlain, 1994). Like behavioural avoidance, help-seeking avoidance is an anticipatory avoidance-based emotion regulation strategy that can prove harmful for long-term psychological health to the extent that it prevents people from seeking mental health services.

While there are many reasons why people might avoid seeking help – for example, they may wish to avoid discussing distressing or personal information (Vogel & Wester, 2003) or experiencing painful feelings (Komiya, Good, & Sherrod, 2000) – the most commonly cited reason for help-seeking avoidance is the stigma associated with seeking treatment (Corrigan, 2004; Corrigan & Penn, 1999, for a review). In Study 2, we were particularly interested in this third kind of help-seeking avoidance – avoidance and denial of mental health concerns in an effort to protect one's image, self-esteem, and self-worth (Corrigan, 2004). Entity beliefs and low self-efficacy beliefs often predict self-handicapping and other avoidance-based self-protective strategies in the event of setbacks and failures (De Castella & Byrne, 2015). We predicted that these findings would also extend to the realm of emotion regulation, with individuals being particularly prone to this kind of stigma-based help-seeking avoidance when they believed emotions were things that could not be controlled.

To date, there has been limited research on implicit theories and help-seeking, but entity beliefs are linked with a preference for medication over individual therapy as a hypothetical treatment (Schroder et al., 2015). In addition to these measures, and in an effort to go beyond self-report measures, we also assessed experiential avoidance behaviour – specifically, *avoidance of upsetting emotional stimuli*. We asked participants to indicate their willingness to complete four additional fictitious research studies at the end of the experiment and provided options that were either neutral or potentially distressing. We predicted that participants in the low regulatory self-efficacy (versus the high regulatory self-efficacy) condition would be more likely to endorse cognitive and behavioural avoidance intentions in daily life. We also predicted participants in the low regulatory self-efficacy condition would be more likely to avoid psychological help and would be more likely to avoid potentially distressing stimuli.

Methods

Participants

Participants were 101 people (63 females) recruited through Amazon MTurk. Participants were again offered 70 cents in exchange for completing a short online survey. To further improve the quality of responses, participation was restricted to Amazon Turk workers with "Masters Qualifications" – an even more stringent requirement for experience with and quality of work on Amazon Turk (Buhrmester et al., 2011). Study 2 data were collected more than 12 months after Study 1 to help reduce the likelihood of interference and overlap between participants across studies. Once again statistical power analyses were performed for sample size estimation using the software package, GPower (Erdfelder et al., 2016). Based on data from similar experimental research on emotion regulation self-efficacy (Bigman et al., 2015) and on implicit theories (Blackwell et al., 2007; Yeager, Miu, Powers, & Dweck, 2013) we expected between conditions effect sizes ranging from $d = .6$–1.0 (a medium to large effect by Cohen's (1988) standards). With a two-tailed test, an alpha = .05 and power = 0.8, the projected sample size needed to detect effects of this size (e.g. >.57), is approximately $N = 100$. Based on this analysis, data collection continued until we obtained a valid sample >100.

Participants ranged from 21 to 66 years of age ($M = 36.43$, $SD = 11.13$) and consisted of 77.2% White, 12.9% Asian, 7.9% Hispanic, 5% African-American, 1% Pacific Islander; 2% Native American/Alaskan; 2% other; and 8% indicated mixed ethnicities. Participants varied in educational backgrounds: 12.9% indicated their highest level of education consisted of high school or equivalent; 9.9% indicated they had attained vocational/technical training; 30.7% reported having some university education; 35.6% reported

completing university; 8.9% completed a masters programme; and, 2% completed a professional degree (Ph.D/MD/JD). In total 157 initial responses were collected, 12 of these were duplicate surveys or left mostly incomplete (missing data >10%) and were excluded from the analysis. Missing data were rare due to form validation settings (<1%), and were imputed with the overall mean for that variable. We again embedded items to screen out participants who were not reading the survey questions. Fifteen participants incorrectly answered these questions. Because the experimental manipulation required English language proficiency, we also excluded an additional six participants who indicated that English was not their first or primary spoken language. Finally, three items were embedded at the end of the survey as a manipulation check assessing participants' comprehension of the "emotional control survey" (i.e. "the emotional control survey was a measure of my ability to change my emotions"). Twenty-three participants failed one or more of the manipulation checks, and were removed from the analyses, reducing the final sample to 101 (63 females). There was no significant difference between conditions in screening items, attrition rates, or demographic variables.

Measures

Study 2 measures included the same emotion belief and avoidance scales as used in Study 1. In addition, we included two new measures of avoidance-based emotion regulation. All survey variables, data exclusions, and manipulations are reported in the text.

Beliefs about emotion[4]. Emotion beliefs were again assessed using the 4-item implicit theory scales provided in Study 1. Cronbach's alpha for the current study was .85. Scale means, reliabilities, and correlations for Study 2 can be found in Tables 2 and 3. For all dependent variables, the presentation order of scale items was randomised.

Avoidance-based emotion regulation. To examine whether our manipulation of implicit theories led to changes in avoidance-based emotion regulation, we developed a revised version of the CBAS (Ottenbreit & Dobson, 2004), that assessed the *intention* to use avoidance strategies. Instead of asking participants to "indicate how true, in general, each statement is for you … " we asked participants to think about

their behaviour "OVER THE NEXT MONTH" and indicate "how true you think each statement *will be* for you" (cf. Cruwys, Platow, Rieger, & Byrne, 2013). Each of the 31 scale items were revised to reflect behavioural intentions. For example, items like "rather than try new activities, I tend to stick with the things I know" now read, "rather than try new activities, I *will* stick with the things I know". Items like "I try not to think about problems in my personal relationships" now read, "*I'll* try not to think about problems in my personal relationships". Subscale scores were again calculated separately for cognitive and behavioural avoidance, using a 5-point Likert scale (1 = Not at all true for me, to 5 = Extremely true for me). Scores were averaged separately for cognitive and behavioural avoidance, with higher scores indicating a greater degree of avoidance. Internal reliabilities for the current study were $a = .95$ for Cognitive Avoidance Intentions and $a = .94$ for Behavioural Avoidance Intentions.

Avoidance of psychological help. To examine *avoidance of psychological help*, we used the Self-Stigma of Seeking Help Scale (SSOSH, Vogel, Wade, & Haake, 2006). Research indicates that along with age, gender, and distress, stigma concerns are among the strongest predictors of help-seeking behaviour (Deane & Chamberlain, 1994), and those who endorse these beliefs are less likely to seek treatment for themselves (Cooper, Corrigan, & Watson, 2003). The SSOSH is a 10-item scale that measures an individual's likelihood of seeking help from a psychologist or mental health professional and the individual's perceptions of help seeking as potentially stigmatising (e.g. "I would feel inadequate if I went to a therapist for psychological help"). Research indicates that the SSOSH uniquely predicts intent to seek psychological help and successfully differentiates those who seek psychological help from those who do not over a two-month period (Vogel et al., 2006). For these reasons, in the current study we used SSOSH as our measure of help-seeking avoidance. Participants were asked to rate each item on a 7-point Likert scale (1 = Strongly Disagree, to 7 = Strongly Agree). The internal reliability of this scale in the current study was $a = .93$.

Behavioural avoidance of distressing stimuli. In addition to the self-report measures described above, we developed a *behavioural measure to assess*

Table 3. Cronbach's alphas, and Pearson product-moment correlations (Study 2, $N = 101$).

Variables	a	Correlations						
		1	2	3	4	5	6	7
Emotion Beliefs & Avoidance								
1. Fixed Beliefs about Emotions (Self-Efficacy)	.85	1	0.51**	0.57**	0.56**	0.17	0.25	−0.05
2. Cognitive Avoidance (CBAS-C)	.95	0.59**	1	0.86**	0.96**	0.46**	0.37**	−0.20
3. Behavioural Avoidance (CBAS-B)	.94	0.58**	0.86**	1	0.97**	0.47**	0.27*	−0.20
4. Total Avoidance (CBAS-T)	.97	0.61**	0.96**	0.97**	1	0.48**	0.33*	−0.20
5. Help Seeking Avoidance (SSOSH)	.93	0.41**	0.35*	0.43*	0.41**	1	0.29*	0.02
Control Measures								
6. Negative Affect (I-PANAS-SF)	.75	0.41*	0.26	0.28	0.28	0.47**	1	−0.17
7. Positive Affect (I-PANAS-SF)	.85	−0.31^	−0.19	−0.26	−0.24	−0.11	0.01	1

Notes: Correlation coefficients for the low self-efficacy condition are presented above the diagonal and correlations for the high self-efficacy condition are presented below the diagonal; CBAS = Cognitive–Behavioural Avoidance Scale; SSOSH = Self-Stigma of Seeking Help Scale. I-PANAS-SF = International Positive and Negative Affect Schedule Short Form.
$^p < .05$, $*p < .01$, $**p < .001$.

avoidance of potentially distressing stimuli. After completing the self-report portion of the survey, participants were given an opportunity to specify their interest in participating in a series of additional studies on emotion regulation:

> Before we finish, we're interested in whether you would like to participate in some additional research studies. Please indicate how interested you are in doing the studies below and include your email, and we will send you a link to these surveys when they become available.

Two of the studies presented where emotionally nonthreatening. For example, "this survey examines links between emotion regulation and perception. It assesses your ability to regulate your emotions while looking at a series of optical illusions. This survey will take approximately 15–20 min to complete". The other two studies were potentially distressing. For example

> the purpose of this survey is to examine emotional responses to the consequences of homelessness and drug addiction. It involves assessing your ability to regulate your emotions while looking at a series of images and videos documenting drug addiction and homelessness. This survey will take approximately 15–20 min to complete. Warning: some of the images and videos in this study may be distressing.

After reading each study description, participants were asked: "Are you interested in doing this survey?" Responses were rated on a 4-point Likert scale ranging from 1 (Definitely not) to 4 (Definitely yes). Item scores were then averaged to provide one measure of intent to participate in the combined neutral studies ($a = .92$), and one measure of intent to participate in the combined distressing studies ($a = .96$). Presentation order for the fictitious potential future studies was also randomised.

Control measure of affect. Because our manipulation was providing positive feedback to people in the high self-efficacy condition and negative feedback to people in the low self-efficacy condition, we controlled for changes in *affect*, which we saw as a potential confound. To do so, we included the 10-item state version of the International Positive and Negative Affect Schedule Short Form (I-PANAS-SF, Thompson, 2007). This brief scale is composed of two 5-item scales assessing "Positive Affect" (e.g. alert, inspired, determined, attentive, and active) and "Negative Affect" (e.g. upset, hostile, ashamed, nervous, and afraid). Participants were instructed to indicate to what extent they felt this way "RIGHT NOW that is, at the present moment". Each item was rated on a 5-point Likert scale ranging from 1 (very slightly or not at all) to 5 (extremely). Research with the I-PANAS-SF in qualitative and large cross-cultural studies indicates consistent independence between the two affect subscales; that the scale is reliable (a ranging from .72 to .80); and displays good convergent, criterion, and cross-cultural validity across a range of validation studies (Thompson, 2007). Reliabilities for the current study were $a = .75$ for negative affect and $a = .85$ for positive affect.

Procedure

Eligible participants were invited to participate in a 15–20-minute research study about "people's moods and emotions, and the way in which people deal with difficult emotions in daily life". Participants were told, "this is a multiple-choice survey where you may learn about how effective you are at controlling your emotions – it involves completing a series of multiple choice questions and providing some short answers". Upon reading the informed consent guidelines,

participants were randomly assigned to either a "low self-efficacy" ($n = 51$) or "high self-efficacy" ($n = 50$) condition.

Experimental manipulation. The manipulation took place in three parts: first, after beginning the study, all participants were told that they were completing an "Emotional Control Survey" designed to assess "how much control you have over your emotions". Participants were instructed to be "as honest as possible when completing these questions" and told, "there are no right or wrong answers". The emotional control survey consisted of 10 items, and participants were asked to indicate "whether the following statements are mostly true or mostly false for you". To manipulate participants' beliefs about emotional control, items were biased to promote acquiesce with either high or low emotion regulation self-efficacy (adapted from procedures used by Jetten, Spears, & Manstead, 1998). For example, in the low self-efficacy condition, items were worded to encourage endorsement with a perceived lack of control over emotions (e.g. "sometimes I can't control my emotions" and "I sometimes find myself in a 'bad mood' at work/school"). In the high self-efficacy condition, items were worded to encourage endorsement of a perceived high degree of control over emotions (e.g. "most of the time, I'm pretty good at controlling my emotions" and "I rarely have emotional outbursts at work/school"). We expected that participants' beliefs about their ability to control their emotions would be partially inferred from observing their own responses to these multiple-choice questions (Bem, 1972) and would substantiate the fictitious feedback provided at the end of the manipulation.

Second, we manipulated ease of retrieval in a recall task (Schwarz et al., 1991; Song & Schwarz, 2008) where participants were asked to provide "personal examples from the past six months where you feel that you successfully managed, changed, or controlled your emotions". They were asked to "do your best to provide one example in each of the spaces below" and were told, "when you've completed all the examples (or as many as you can), click the arrows below to move on to the next set of questions". In pilot testing ($n = 23$), the average number of spontaneously generated examples per participant was 4.43 and only one participant was able to provide 10 examples. Based on this information, we assumed it would be relatively easy for participants to recall up to 4 examples of successful emotion regulation over the last 6 months, but that providing more than 10 examples would be difficult. For the second segment of the manipulation, we therefore manipulated task difficulty by providing only four spaces for examples of successful emotion regulation in the high self-efficacy condition (an easy task) and a total of 14 spaces for examples in the low self-efficacy condition (a difficult task). Ease of retrieval and task difficulty manipulations have frequently been used to manipulate self-efficacy beliefs (Sanna, 1992; Schwarz et al., 1991), with easy tasks often leading participants to believe they have greater control and/or abilities. We anticipated that participants would interpret this difficulty with recall, as evidence of their difficulty controlling their emotions.

Third, after completing the Emotional Control Survey and providing personal examples of emotional control from their own lives, participants were then provided with fictitious performance feedback on their ability to control their emotions. Fictitious feedback manipulations have long been used to manipulate people's beliefs about their skills and abilities (Valins, 1966) and relative identification with social groups (Platow, Huo, Lim, Tapper, & Tyler, 2015). In the current study, we provided the following feedback in the high self-efficacy condition: "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." In the low self-efficacy condition, participants were told, "You may have substantial difficulty controlling your emotions. You have scored in the bottom 15% of people in our research on emotion regulation." Participants were also provided with an image of a bell curve, which visualised their relative ability to control their emotions (cf. Platow & van Knippenberg, 2001).

After completing the experimental manipulation, participants completed measures of emotion beliefs to examine the effects of our manipulation. They then completed three measures: self-report measures of avoidance intentions (CBAS); help-seeking avoidance; and a measure of positive and negative affect (PANAS). Before completing the survey, they were provided with a final behavioural measure of avoidance, assessing their interest in completing future emotion regulation studies (see measures section below). Finally, after completing the survey, participants were debriefed and informed about the experimental

nature of the study. They were also provided with information and research about implicit theories and emotion regulation and invited to contact the researcher for copies of the research articles or to learn more about the topic.

Results and discussion

Preliminary analyses

Prior to conducting our main analyses, all variables were examined for missing values, which were rare due to form validation measures (<1%), and were imputed with the overall mean for that variable. Means (M), SD, ranges, and between-subjects t-tests for all variables are presented in Table 3.

We first tested whether there were differences between conditions on measures of age, gender, education, or ethnicity. There were none; and there were no associations between these variables and participants' implicit theories. These variables are not discussed further. Next, because we were providing positive and negative feedback to participants, we examined whether the manipulation also led to differences in positive or negative affect (a potential confounding variable). Results indicated no differences between conditions in positive and negative affect.

Effects of the manipulation on emotion beliefs

To examine whether the manipulation led to significant differences in participants' beliefs about emotions we conducted an analysis of variance (ANOVA), examining the effect of the manipulation on the different belief measures: implicit theories of emotion and emotion regulation self-efficacy. Results indicated a significant difference between conditions on participants' beliefs about emotions. This was true both for their implicit theories about emotions (M_{LowSE} = 13.49, SD = 4.98; M_{HighSE} = 9.72, SD = 3.94), $F(99)$ = 17.7 $p < .001$, $\eta_p^2 = .15$) and for their self-efficacy beliefs about their personal inability to control their emotions (M_{LowSE} = 12.76, SD = 4.9; M_{HighSE} = 9.14, SD = 4.81), $F(99)$ = 11.59 $p < .001$, $\eta_p^2 = .14$). Higher scores denote a greater perceived lack of control over emotions. These data indicate that the manipulation did lead to significant differences between conditions in participants' beliefs about emotions. This effect extended not just to their personal emotion regulation self-efficacy beliefs but also to their general implicit theories of emotion.

Emotion regulation self-efficacy and avoidance intentions

To test whether our manipulation led to increased avoidance intentions, we conducted an ANOVA to examine the effect of the manipulation on all our avoidance measures (see Table 4). As predicted, the manipulation led to significant differences in cognitive and behavioural avoidance, with participants in the low self-efficacy condition reporting greater total avoidance intentions (M_{LowSE} = 2.38, SD = 0.87; M_{HighSE} = 1.82, SD = 0.77), $F(99)$ = 11.71 $p < .001$, d = .68). Results also indicated that participants in the low self-efficacy condition, compared with the high self-efficacy condition, reported significantly greater likelihood of *avoiding* psychological help (M_{LowSE} = 3.31, SD = 1.2; M_{HighSE} = 2.81, SD = 1.24), $F(99)$ = 4.26 $p < .05$, d = .41) (see Figure 2).

Table 4. Experimental effects on avoidance and other outcomes by condition (Study 2, N = 101).

Variables	Low self-efficacy (n = 51) M (SD)	High self-efficacy (n = 50) M (SD)	Range	F(99)	p	95% CI	Cohen's d
Implicit Theories & Avoidance							
1. Fixed Beliefs about Emotions (Self-Efficacy)	12.76 (4.89)	9.14 (4.21)	4–28	15.98	<.001	[1.83, 5.42]	.81
2. Cognitive Avoidance Intentions (CBAS-C)	2.14 (0.86)	1.65 (0.77)	1–5	9.06	.003	[.17, .81]	.60
3. Behavioural Avoidance Intentions (CBAS-B)	2.62 (0.94)	1.99 (0.83)	1–5	12.76	<.001	[.28, .99]	.71
4. Total Avoidance Intentions (CBAS-T)	2.38 (0.87)	1.82 (0.77)	1–5	11.71	<.001	[.24, .89]	.68
5. Avoidance of Psychological Help (SSOSH)	3.31 (1.20)	2.81 (1.24)	1–5	4.26	.04	[.19, .96]	.41
6. Avoidance of Distressing Studies	2.91 (1.12)	2.34 (1.12)	1–4	6.53	.01	[.13, 1.01]	.51
7. Avoidance of Neutral Studies	2.38 (1.11)	2.04 (1.02)	1–4	2.57	.11	[−.08, .77]	.32
Control Measures							
8. Fixed Beliefs about Emotions (Implicit Theories)	13.49 (4.99)	9.72 (3.94)	4–28	17.70	<.001	[1.99, 5.55]	.84
9. Negative Affect (I-PANAS-SF)	6.53 (2.34)	5.82 (1.70)	5–25	1.74	.09	[−.10, 1.52]	.34
10. Positive Affect (I-PANAS-SF)	14.39 (5.15)	15.60 (5.02)	5–25	−1.19	.24	[−3.21, 0.80]	−.24

Notes: Means (and standard deviations) for each condition. F-tests, p-values, confidence intervals for the difference between conditions and measures of effect size (Cohen's d).

Emotion regulation self-efficacy and avoidance of potentially distressing emotional stimuli

To test whether our manipulation actually led to changes in behavioural avoidance of distressing emotional stimuli, we conducted a 2 (condition: low self-efficacy vs. high self-efficacy) × 2 (study type: distressing vs. neutral) mixed-ANOVA with condition as the between-subjects factor and study type interest as the within-subject variable. As predicted, the analysis yielded a significant main effect for condition, $F(1, 99) = 5.10$, $p = .026$, indicating that people in the low self-efficacy condition were significantly more likely to avoid both kinds of fictitious emotion regulation studies than participants in the high self-efficacy condition ($M_{LowSE} = 2.65$, SD = 1.1, $M_{HighSE} = 2.20$, SD = 1.1). There was also a significant within-subject main effect for study type, $F(1, 99) = 24.85$, $p < .001$. Across conditions, participants were significantly more likely to avoid the potentially distressing research studies

($M_{Distressing} = 2.63$, SD = 1.15, $M_{Neutral} = 2.21$, SD = 1.08). There was no significant interaction between conditions and study type, ($F(1, 99) = 1.90$, $p = .17$). Examining the conditions separately using between-subjects t-tests, results indicated there were no significant differences between conditions in participants' interest in the neutral studies (see Table 3). However, people in the low self-efficacy condition did report significantly less interest in participating in the potentially distressing studies. Overall, these findings indicate that when people believe they cannot change or control their emotions, they are more likely to avoid not only stimuli that could be distressing, but any stimuli that requires them to regulate their emotions.

General discussion

The primary aim of the current studies was to examine links between beliefs about emotions and avoidance-
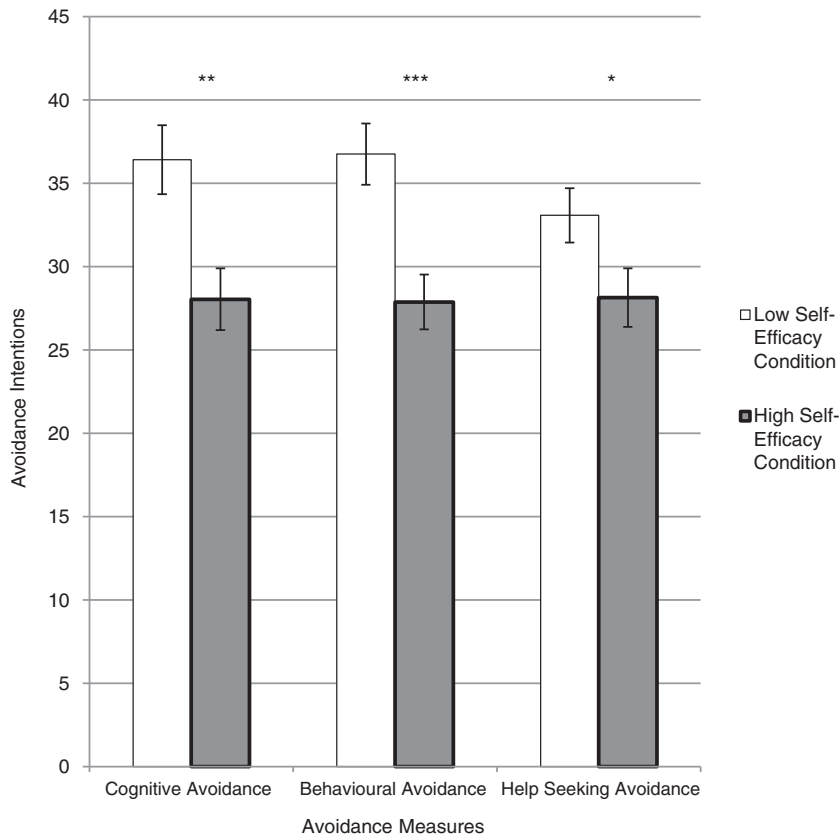

Figure 2. Experimental effect of the self-efficacy manipulation of on avoidance-based emotion regulation intentions.

Notes: Results from Study 2: The effect of the manipulation on self-reported avoidance intentions. Participants in the low regulatory self-efficacy condition reported increased intentions to engage in avoidance-based emotion regulation strategies over the next month and reported being more likely to avoid seeking psychological help. *$p < .05$, **$p < .01$, ***$p < .001$.

based emotion regulation. In a cross-sectional study (Study 1), people who believed they could not control their emotions were more likely to report using cognitive and behavioural avoidance strategies in daily life. Avoidance strategies, in turn, indirectly explained the associations between emotion beliefs and psychological health. In an experimental study (Study 2), we tested the causal relationship between emotion beliefs and avoidance-based emotion regulation by manipulating people's beliefs about their emotions. Compared to people in the high self-efficacy condition, when people were led to believe that they had difficulty controlling their emotions (low self-efficacy condition), they endorsed significantly greater intentions to use cognitive and behavioural avoidance-based strategies over the next month. They also reported greater intentions to avoid psychological help for emotional difficulties. Finally, people in the low self-efficacy condition avoided opportunities to participate in future emotion regulation research studies. These findings indicate that people's regulatory self-efficacy beliefs influence how they seek to regulate their emotions in daily life. When emotions are seen as uncontrollable, people are inclined towards maladaptive avoidance-based strategies, reduced likelihood of seeking psychological help, and are more likely to avoid opportunities to practice emotion regulation strategies.

Implications for research on emotion beliefs

These findings provide novel evidence for the causal role of emotion beliefs in influencing a range of different avoidance-based strategies. To date, only three studies have successfully manipulated people's beliefs about emotional control and demonstrated the impact of these beliefs on emotion regulation and experience (Bigman et al., 2015; Kneeland et al., 2016). Although research has demonstrated links between control beliefs and avoidance in educational settings (Blackwell et al., 2007; De Castella & Byrne, 2015; Robins & Pals, 2002), the current study represents an important step in extending this work to the field of emotion regulation.

Results from the current study indicate that when people believe they cannot control their emotions they are more likely to engage in avoidance-based emotion regulation. As an antecedent-focused, situation selection strategy, avoidance enables people to

intervene prior to an emotion-eliciting situation to influence the developmental course of an emotion before it has fully arisen (Gross & Thompson, 2007). Avoidance strategies may become the strategy of choice for individuals who perceive themselves incapable of regulating their emotions because they feel helpless in managing their emotions; because they perceive limited alternative strategies available to them; or because they lack self-efficacy for implementing other emotion regulation strategies. Emotion-eliciting situations may also be particularly frightening or worrisome for individuals who believe they cannot control their emotions which may be yet another reason for utilising avoidance. By examining the role of avoidance-based emotion regulation strategies, these findings begin to clarify existing relationship between perceived control over emotions and psychological health outcomes (De Castella & Byrne, 2015; Romero et al., 2014; Schleider, Abel, & Weisz, 2015; Tamir et al., 2007), by pointing to one potential mechanism (avoidance), which may explain how and why beliefs about emotion have such important social and psychological correlates.

In this study we examined links between emotion beliefs, emotion regulation strategies, and psychological health outcomes. Emotion goals, however, may also be an important additional intervening variable. Mastery, performance and avoidance goals are often highlighted as key mediating variables in research on implicit theories and achievement outcomes (Blackwell et al., 2007; see Dweck, 2000, for a review). Emotion goals refer to *desired emotion states* (Tamir, 2016). Although it is often assumed that people regulate their emotions to *feel good* and *avoid feeling bad*, there is considerable variation in what people want to feel, both across situations and across individuals (Tamir, 2009). For example, after experiencing a failure (Heimpel, Wood, Marshall, & Brown, 2002); when preparing for a confrontation (Tamir, Mitchell, & Gross, 2008); or when negotiating with a stranger (Tamir, Ford, & Ryan, 2013), participants are less motivated to feel positive emotions. It is possible, therefore, that motives and goals in emotion regulation serve as an important intervening variable between emotion beliefs and the implementation of emotion regulation strategies. Future research should examine associations between beliefs, goals, strategies, and outcomes in emotion regulation to better understand how emotion beliefs shape psychological health.

Implications for emotion regulation and psychological health

Beyond the implications these findings have for research on implicit theories and self-efficacy, results from the current study also have important implications for avoidant coping and psychological health. Although avoidance can, at times, be used skilfully as an emotion regulation strategy, reliance on avoidant coping is widely regarded as a maladaptive form of emotion regulation, one that is associated with procrastination, self-handicapping, and poor performance (Aspinwall & Taylor, 1992; De Castella & Byrne, 2015; Zuckerman, Kieffer, & Knee, 1998), as well as greater feelings of loneliness, inauthenticity, and disconnection (John & Gross, 2004), and lower overall well-being and satisfaction with life (Gross & John, 2003; John & Gross, 2004). Avoidance-based strategies also predict increased risk of anxiety and depression in non-clinical (Dickson, Ciesla, & Reilly, 2012; Gomez, 2016; Moulds, Kandris, Starr, & Wong, 2007; Ottenbreit & Dobson, 2004; Seiffge-Krenke & Klessinger, 2000) and in clinical (Kuyken & Brewin, 1994; Ottenbreit et al., 2014) samples. Given the many negative consequences of avoidance-based emotion regulation, it is puzzling why people so often rely on these strategies for regulating their emotions in daily life. Findings from these studies help clarify the role of emotion beliefs as antecedents to this kind of emotion regulation. They indicate that when people believe they have limited control over their emotions, they are more likely to turn to avoidance-based strategies to regulate them.

These findings also have important practical implications for psychological treatments and interventions. Research on implicit theories and self-efficacy beliefs has repeatedly demonstrated that simple interventions can have long-lasting effects (Aronson, Fried, & Good, 2002; Bandura, 1997; Blackwell et al., 2007; Good, Aronson, & Inzlicht, 2003). The current study succeeded in temporarily manipulating people's perceived control over their emotions. This indicates that it may be possible – through carefully crafted interventions – to bring about a more long-lasting shift in people's perceived emotion regulation self-efficacy. Developing interventions aimed at longer term belief-change promises to be fruitful area for future research and may have important implications for psychotherapy and clinical treatment (see De Castella et al., 2015). In addition to focusing on the role of avoidance-based strategies, the process model of emotion regulation (Gross, 1998b) identifies a wide range of emotion regulation strategies available to people at different stages in the emotion generation process. Given that many features of psychopathology arise from context-insensitive, poorly implemented, or inflexible strategies (Werner & Gross, 2009), an examination of the relationships between implicit theories and other forms of emotion regulation is also an area where further research is needed.

Results from the current studies indicate that in addition to influencing psychological health outcomes, emotion beliefs may also play an important role in promoting help seeking. In Study 2, participants who were led to believe they could not control their emotions were significantly more likely to report intentions to avoid psychological help. Research indicates that stigma, anxiety, and treatment fearfulness are significant predictors of treatment avoidance (Deane & Chamberlain, 1994; Kushner & Sher, 1989). Psychotherapy can be anxiety-provoking for many, and this may be particularly true for people who believe they cannot control their emotions. If patients more readily hold low self-efficacy beliefs about regulating their emotions – believing their emotional problems are fixed or stable rather than something treatable – this may help explain why many sufferers fail to seek treatment (Grant et al., 2005). To the extent that treatment ambivalence is associated with patients' beliefs about their emotions, or a desire to avoid exposure to their own emotions, strategies for explicitly targeting these beliefs may help motivate people to seek treatment and to see it through to completion.

Limitations and future directions

Despite making contributions to research on implicit theories, self-efficacy, and emotion regulation, several limitations should be noted.

First, the current studies explored implicit theories in diverse community samples through Amazon MTurk. These samples have been found to be at least equal in quality and superior in representation and diversity to traditional student samples (Buhrmester et al., 2011). MTurk is also increasingly used in clinical research and has been used to recruit clinical populations (Shapiro, Chandler, & Mueller, 2013). Nonetheless, MTurk samples like ours often struggle with attrition rates (Berinsky, Margolis, & Sances, 2016), demand characteristics, and user populations

assume participants must have regular computer and Internet access, and an understanding of the MTurk platform to qualify for studies. For this reason, it is important to acknowledge that certain populations (e.g. low income and older adults) may be underrepresented among MTurk users.

Second, we focused on examining links between emotion beliefs and avoidance-based emotion regulation in non-clinical samples. This is an important first step in understanding links between emotion beliefs and emotion regulation, however, given the important role avoidance plays in mental health (Hayes et al., 1996; Ottenbreit & Dobson, 2004) and findings that entity beliefs are more prevalent in clinical populations (De Castella et al., 2014), it will be important for future research to examine links between emotion beliefs and avoidance-based strategies in clinical samples. Research indicates that patients with social anxiety disorder hold stronger fixed entity beliefs about their emotions than healthy control subjects (De Castella et al., 2014) and these beliefs predict stress, anxiety, self-esteem, and negative affect in patients (De Castella et al., 2014). Furthermore, preliminary research indicates that changes in patients' beliefs about their emotions mediate CBT-treatment outcomes and predict treatment gains at 12-month follow-up (De Castella et al., 2015). Findings from the current research suggest that cognitive, behavioural, and help-seeking avoidance may be potent mediating variables in explaining links between emotion beliefs and clinical disorders; and may also help explain the role these beliefs play in treatment.

Third, in the present research, when people were led to believe they could not control their emotions, they also reported being more likely to avoid psychological help. Help-seeking avoidance is a significant problem in many clinical populations with individuals often struggling for prolonged periods (often up to nine years) before finding appropriate specialist care (Wagner, Silove, Marnane, & Rouen, 2006). If patients hold fixed entity beliefs about their emotions – believing them to be stable qualities or personality traits rather than a treatable psychiatric disorder – this may help explain why many sufferers fail to seek treatment (Grant et al., 2005). Targeted interventions aimed at addressing these beliefs may therefore have potential not just in-treatment, but also for promoting help-seeking behaviour in the first place. To date, it is not clear to what extent low self-efficacy beliefs arise with repeated difficulty regulating

emotions, and to what extent they become self-fulfilling prophecies leading to maladaptive emotion regulation and clinical symptoms for patients. Further research is, therefore, also still needed to clarify the reciprocal relationship between emotion beliefs and emotion regulation, and to establish whether and how emotion beliefs might be changed in clinical populations – particularly where these beliefs may be more firmly held. Understanding what impact, if any, belief change has on maladaptive avoidance-based strategies across disorders, promises to be a valuable area for future research.

A fourth limitation relates to measurement. Much of the current research on implicit theories and self-efficacy beliefs has relied on self-report measures (see Dweck, 2000 for a review). These measures can be limited in a number of ways. For example, participants may have limited understanding and/or introspective ability, survey items and response scales may fail to capture important data, and/or participants' may be subject to response bias or demand characteristics. All of these are potential limitations of using online surveying programmes like Amazon Turk. A strength of the current study, however, was our ability to replicate the findings for the association between emotion regulation self-efficacy and avoidance-based strategies across studies and measures. In addition to using the self-report CBASs and measures of help-seeking, we found that our manipulation also influenced participants' avoidance of future research. In Study 2, participants in the low self-efficacy condition displayed significantly greater avoidance of future emotion regulation studies. These findings begin to move beyond self-reports by examining avoidance intentions and behaviour. Future research might seek to replicate these findings with other avoidance measures. Work in this field should also continue efforts to incorporate data from other sources – such as monitoring actual emotion regulation in response to distressing stimuli; examining the impact of perceived control over emotions on health and well-being outcomes over time and on help-seeking behaviour. Incorporating alternative measures – such as independent evaluations, psychophysiological assessments, and behavioural tasks – will also improve our understanding of the relationship between emotion beliefs and emotion regulation, and how these processes unfold in more naturalistic settings. In Study 1, our analysis of indirect effects was limited by sample size and by the cross-sectional nature of our study. Larger longitudinal research

studies would also offer benefits for clarifying and establishing the causal relationships between mediating variables; the relative importance of different mediators; how emotion regulation patterns change over time; and the impact this might have on emotion regulation habits, clinical treatments, and psychological health. For these reasons, longitudinal and intervention studies represent a much-needed area for future research in this field.

Despite these limitations, the current research makes several important contributions to research on implicit theories, self-efficacy, and emotion regulation. Consistent with existing research on perceived control over emotions (De Castella et al., 2013, 2014; Kappes & Schikowski, 2013; Schroder et al., 2015; Tamir et al., 2007; Veilleux et al., 2015), we found links between emotion beliefs and stress, anxiety, depression, and well-being (Study 1). Avoidance-based strategies also appeared to be a potential mediating variable between personal emotion beliefs and psychological health. In an experimental study (Study 2), we further demonstrated a causal link between emotion regulation self-efficacy and avoidance-based emotion regulation indicating that the beliefs people hold about their ability to change or control their emotions, do indeed have important consequences for emotion regulation, avoidance, and help-seeking behaviour.

Notes

1. Self-efficacy beliefs also predicted all outcomes independently (without including the implicit theories control measure).
2. In each of the three analyses (loneliness; satisfaction with life; and clinical symptoms) we used the summed total avoidance scale as the mediating variable and the summed total score for the DASS as the global indicator of clinical symptoms. We also conducted supplementary analyses with multiple mediators to examine the independent contribution of the behavioural and cognitive avoidance subscales. Cognitive and behavioural avoidance were both significant intervening variables in all models.
3. Baron and Kenny (1986) causal steps approach to mediation requires that the effects of X on Y (path c), X on M (path a), and M on Y (path b) are significant, as well as that the effect of X on Y controlling for M (path c′) is smaller than c by a non-trivial amount. However, mediation effects may still be observed in the absence of a significant total effect (path c) and/or a direct effect (path c′).
4. Once again we included measures of general implicit theories of emotion (Tamir et al., 2007), and personal beliefs (De Castella et al., 2013). An analysis of the specificity of

measures indicated that consistent with Study 1 and with previous research comparing general and personal measures (De Castella & Byrne, 2015; De Castella et al., 2013, 2014), people's theories about *their own* emotions uniquely predicted all dependent variables over and above general implicit theories.
5. For all variables analyses were repeated using only the emotion regulation self-efficacy measure to examine whether efficacy beliefs predicted outcomes independently (without including the implicit theories control measure). Regulatory self-efficacy beliefs explained significant variance on all variables: Cognitive Avoidance $R^2 = .14$, $p < .001$; Behavioural Avoidance $R^2 = .16$, $p < .001$; Loneliness $R^2 = .16$, $p < .001$; Life Satisfaction $R^2 = .06$, $p < .01$; Clinical Symptoms (DASS) $R^2 = .14$, $p < .001$.

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References

Aldoa, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217–237.

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38(2), 113–125. doi:10.1006/jesp.2001.1491

Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, 63(6), 989–1003. doi:10.1037/0022-3514.63.6.989

Bandura, A. (1983). Self-efficacy determinants of anticipated fears and calamities. *Journal of Personality and Social Psychology*, 45(2), 464–469.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman & Company.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. doi:10.1146/annurev.psych.52.1.1

Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child Development*, 74(3), 769–782. PMID:12795389.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. doi:10.1037/0022-3514.51

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1–62). New York, NY: Academic Press.

Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy*, 42(10), 1129–1148. doi:10.1016/j.brat.2003.08.008

Benight, C. C., Shoji, K., James, L. E., Waldrep, E. E., Delahanty, D. L., & Cieslak, R. (2015). Trauma coping self-efficacy: A context-specific self-efficacy measure for traumatic stress. *Psychological Trauma: Theory, Research, Practice, and Policy*, 7(6), 591–599. doi:10.1037/tra0000045

Berinsky, A. J., Margolis, M. F., & Sances, M. W. (2016). Separating the shirkers from the workers? Making sure respondents pay attention on self-administered surveys. *American Journal of Political Science*, 58(3), 739–753. doi:10.1111/ajps.12081

Berman, E. S. (2006). The relationship between eating self-efficacy and eating disorder symptoms in a non-clinical sample. *Eating Behaviors*, 7(1), 79–90. doi:10.1016/j.eatbeh.2005.07.004

Bigman, Y. E., Mauss, I. B., Gross, J. J., & Tamir, M. (2015). Yes I can: Expected success promotes actual success in emotion regulation. *Cognition and Emotion*, 1–8. doi:10.1080/02699931.2015.1067188

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78, 246–263. doi:10.1111/j.1467-8624.2007.00995.x

Blalock, J. A., & Joiner, T. E.Jr. (2000). Interaction of cognitive avoidance coping and stress in predicting depression/anxiety. *Cognitive Therapy and Research*, 24(1), 47–65. doi:10.1023/A:1005450908245

Blascovich, J. (2008). Challenge and threat. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 431–445). New York, NY: Psychology Press.

Brown, T. A., Chorpita, B. F., Korotitsch, W., & Barlow, D. H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. *Behaviour Research and Therapy*, 35(1), 79–89.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk *Perspectives on Psychological Science*, 6(1), 3–5. doi:10.1177/1745691610393980

Cabello, R., & Fernández-Berrocal, P. (2015). Implicit theories and ability emotional intelligence. *Frontiers in Psychology*, 6. doi:10.3389/fpsyg.2015.00700

Caprara, G. V., Di Giunta, L., Eisenberg, N., Gerbino, M., Pastorelli, C., & Tramontano, C. (2008). Assessing regulatory emotional self-efficacy in three countries. *Psychological Assessment*, 20(3), 227–237. doi:10.1037/1040-3590.20.3.227

Caprara, G. V., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G. M., Barbaranelli, C., & Bandura, A. (2008). Longitudinal analysis of the role of perceived self-efficacy for self-regulated learning in academic continuance and achievement. *Journal of Educational Psychology*, 100(3), 525–534. doi:10.1037/0022-0663.100.3.525

Carvalho, J. P., & Hopko, D. R. (2011). Behavioral theory of depression: Reinforcement as a mediating variable between avoidance and depression. *Journal of Behavior Therapy and Experimental Psychiatry*, 42, 154–162. doi:10.1016/j.jbtep.2010.10.001

Catanzaro, S. J., & Mearns, J. (1999). Mood-related expectancy, emotional experience, and coping behavior. In I. Kirsch (Ed.), *Expectancy, experience and behavior* (pp. 67–91). Washington, DC: American Psychological Association.

Chiu, C., Dweck, C. S., Tong, J. Y.-y., & Fu, H.-y. (1997). Implicit theories and conceptions of morality. *Journal of Personality and Social Psychology*, 73, 923–940. doi: 10.1037/0022-3514.73.5.923

Chiu, C., Hong, Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology*, 73(1), 19–30. doi:10.1037/0022-3514.73.1.19

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Cooper, A. E., Corrigan, P. W., & Watson, A. C. (2003). Mental illness stigma and care seeking. *Journal of Nervous and Mental Disease*, 191, 339–341.

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist*, 59, 614–625.

Corrigan, P., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist*, 54, 765–776.

Cruwys, T., Platow, M. J., Rieger, E., & Byrne, D. G. (2013). The development and validation of the Dieting Intentions Scale (DIS). *Psychological Assessment*, 25(1), 264–278. doi:10.1037/a0030547

De Castella, K., & Byrne, D. (2015). My intelligence may be more malleable than yours: The revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement. *European Journal of Psychology of Education*, 30(3), 245–267. doi:10.1007/s10212-015-0244-y

De Castella, K., Goldin, P., Jazaieri, H., Heimberg, R. G., Dweck, C. S., & Gross, J. J. (2015). Emotion beliefs and cognitive behavioural therapy for social anxiety disorder. *Cognitive Behaviour Therapy*, 44(2), 128–141. doi:10.1080/16506073.2014.974665

De Castella, K., Goldin, P., Jazaieri, H., Ziv, M., Dweck, C. S., & Gross, J. J. (2013). Beliefs about emotion: Links to emotion regulation, well-being, and psychological distress. *Basic and Applied Social Psychology*, 35, 497–505. doi:10.1080/01973533.2013.840632

De Castella, K., Goldin, P., Jazaieri, H., Ziv, M., Heimberg, R. G., & Gross, J. J. (2014). Emotion beliefs in social anxiety disorder: Associations with stress, anxiety, and well-being. *Australian Journal of Psychology*, 66, 139–148. doi:10.1111/ajpy.12053

Deane, F. P., & Chamberlain, K. (1994). Treatment fearfulness and distress as predictors of professional psychological help-seeking. *British Journal of Guidance & Counselling*, 22(2), 207–217. doi:10.1080/03069889408260315

Dickson, K. S., Ciesla, J. A., & Reilly, L. C. (2012). Rumination, worry, cognitive avoidance, and behavioral avoidance: Examination of temporal effects. *Behavior Therapy*, 43(3), 629–640. doi:10.1016/j.beth.2011.11.002

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71–75. doi:10.1207/s15327752jpa4901_13

Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. New York, NY: Taylor & Francis Group.

Erdfelder, E., Faul, F., & Buchner, A. (2016). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments & Computers*, 28(1), 1–11. doi:10.3758/BF03203630

Erdley, C., Cain, K., Loomis, C., Dumas-Hines, F., & Dweck, C. S. (1997). Relations among children's social goals, implicit personality theories, and responses to social failure. *Developmental Psychology*, 33(2), 263–272.

Fergus, T. A., Bardeen, J. R., & Orcutt, K. (2013). Experiential avoidance and negative emotional experiences: The moderating role of expectancies about emotion regulation strategies. *Cognitive Therapy and Research*, 37(2), 352–362. doi:10.1007/s10608-012-9469-0

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences*, 30(8), 1311–1327. doi:10.1016/S0191-8869(00)00113-6

Gomez, R. (2016). Locus of control and avoidant coping: Direct, interactional and mediational effects on maladjustment in adolescents. *Personality and Individual Differences*, 24(3), 325–334.

Good, C., Aronson, J., & Inzlicht, M. (2003). Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *Journal of Applied Developmental Psychology*, 24, 645–662. doi:10.1016/j.appdev.2003.09.002

Grant, B. F., Hasin, D. S., Blanco, C., Stinson, F. S., Chou, S. P., Goldstein, R. B., … Huang, B. (2005). The epidemiology of social anxiety disorder in the United States. *The Journal of Clinical Psychiatry*, 66(11), 1351–1361. PMID:16420070.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41–54.

Gross, J. J. (1998a). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, 74, 224–237. doi:10.1037/h0022639

Gross, J. J. (1998b). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271–299.

Gross, J. J. (2002). Emotion regulation: Affective, cognitive and social consequences. *Psychophysiology*, 39, 281–291.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1–26. doi:10.1080/1047840X.2014.940781

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. doi:10.1037/0022-3514.85.2.348

Gross, J. J., & Levenson, R. W. (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, 106(1), 95–103.

Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). New York, NY: Guilford Press.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. doi:10.1080/03637750903310360

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152–1168.

Hays, R. D., & DiMatteo, M. R. (1987). A short-form measure of loneliness. *Journal of Personality Assessment*, 51(1), 69–81. doi:10.1207/s15327752jpa5101_6

Heimpel, S. A., Wood, J. V., Marshall, M. A., & Brown, J. D. (2002). Do people with low self-esteem really want to feel better? Self-esteem differences in motivation to repair negative mood. *Journal of Personality and Social Psychology*, 82(1), 128–147.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 44(2), 227–239. doi:10.1348/014466505X29657

Higgins, N. C., Bailey, S. J., LaChapelle, D. L., Harman, K., & Hadjistavropoulos, T. (2014). Coping styles, pain expressiveness, and implicit theories of chronic pain. *Journal of Psychology: Interdisciplinary and Applied*, 14, 1–14. doi:10.1080/00223980.2014.977759

Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review*, 17, 63–84. doi:10.1016/j.edurev.2015.11.002

Jamieson, J. P., Mendes, W. B., & Nock, M. K. (2013). Improving acute stress responses. *Current Directions in Psychological Science*, 22(1), 51–56. doi:10.1177/0963721412461500

Jetten, J., Spears, R., & Manstead, A. S. R. (1998). Distinctiveness threat and prototypicality: Combined effects on intergroup discrimination and collective self-esteem. *European Journal of Social Psychology*, 27(6), 635–657. 3.0.CO;2-#">doi:10.1002/(SICI)1099-0992(199711/12)27:6<635::AID-EJSP835>3.0.CO;2-#

John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72(6), 1301–1334.

Kadden, R. M., & Litt, M. D. (2011). The role of self-efficacy in the treatment of substance use disorders. *Addictive Behaviors*, 36(12), 1120–1126. doi:10.1016/j.addbeh.2011.07.032

Kappes, A., & Schikowski, A. (2013). Implicit theories of emotion shape regulation of negative affect. *Cognition and Emotion*, 27(5), 952–960. doi:10.1080/02699931.2012.753415

Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy*, 44(9), 1301–1320. doi:10.1016/j.brat.2005.10.003

Kneeland, E. T., Dovidio, J. F., Joormann, J., & Clark, M. S. (2016). Emotion malleability beliefs, emotion regulation, and psychopathology: Integrating affective and clinical science. *Clinical Psychology Review*, 45, 81–88. doi:10.1016/j.cpr.2016.03.008

Kneeland, E. T., Nolen-Hoeksema, S., Dovidio, J. F., & Gruber, J. (2016a). Beliefs about emotion's malleability influence state emotion regulation. *Motivation and Emotion*, 40, 740–749. doi:10.1007/s11031-016-9566-6

Kneeland, E. T., Nolen-Hoeksema, S., Dovidio, J. F., & Gruber, J. (2016b). Emotion malleability beliefs influence the spontaneous regulation of social anxiety. *Cognitive Therapy and Research*, 40(4), 496–509.

Knee, C. R., Nanayakkara, A., Vietor, N. A., Neighbors, C., & Patrick, H. (2001). Implicit theories of relationships: Who cares if romantic partners are less than ideal? *Personality and Social Psychology Bulletin*, 27(7), 808–819. doi:10.1177/0146167201277004

Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes towards

seeking psychological help. *Journal of Counseling Psychology*, *47*, 138–143.

Kushner, M. G., & Sher, K. J. (1989). Fear of psychological treatment and its relation to mental health service avoidance. *Professional Psychology: Research and Practice*, *20*(4), 251–257. doi:10.1037/0735-7028.20.4.251

Kuyken, W., & Brewin, C. R. (1994). Stress and coping in depressed women. *Cognitive Therapy and Research*, *18*(5), 403–412. doi:10.1007/BF02357751

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck depression and anxiety inventories. *Behaviour Research and Therapy*, *33*(3), 335–343.

Maddux, J. E., & Meier, L. J. (2015). Self-efficacy and depression. In J. E. Maddux & L. J. Meier (Eds.), *Self-Efficacy, adaptation, and adjustment* (pp. 143–169). New York, NY: Springer US.

Mennin, D. S., & Fresco, D. M. (2015). Advancing emotion regulation perspectives on psychopathology: The challenge of distress disorders. *Psychological Inquiry*, *26*(1), 80–92. doi:10.1080/1047840X.2015.969624

Moe, K. O., & Zeiss, A. M. (1982). Measuring self-efficacy expectations for social skills: A methodological inquiry. *Cognitive Therapy and Research*, *6*(2), 191–205. doi:10.1007/BF01183892

Moritz, S. E., Feltz, D. L., Fahrbach, K. R., & Mack, D. E. (2000). The relation of self-efficacy measures to sport performance: A meta-analytic review. *Research Quarterly for Exercise and Sport*, *71*(3), 280–294. doi:10.1080/02701367.2000.10608908

Moulds, M. L., Kandris, E., Starr, S., & Wong, A. C. (2007). The relationship between rumination, avoidance and depression in a non-clinical sample. *Behaviour Research and Therapy*, *45*, 251–261. doi:10.1016/j.brat.2006.03.003

Ommundsen, Y. (2001). Self-handicapping strategies in physical education classes: The influence of implicit theories of the nature of ability and achievement goal orientations. *Psychology of Sport and Exercise*, *2*(3), 139–156.

Ottenbreit, N. D., & Dobson, K. S. (2004). Avoidance and depression: The construction of the cognitive-behavioral avoidance scale. *Behaviour Research and Therapy*, *42*, 293–313. doi:10.1016/s0005-7967(03)00140-2

Ottenbreit, N. D., Dobson, K. S., & Quigley, L. (2014). A psychometric evaluation of the cognitive-behavioral avoidance scale in women with major depressive disorder. *Journal of Psychopathology and Behavioral Assessment*, *36*, 591–599. doi:10.1007/s10862-014-9416-3

Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effects: A self-efficacy analysis. *Journal of Personality and Social Psychology*, *58*(3), 472–486.

Page, A. C., Hooke, G. R., & Morrison, D. L. (2007). Psychometric properties of the depression anxiety stress scales (DASS) in depressed clinical samples. *British Journal of Clinical Psychology*, *46*(3), 283–297. doi:10.1348/014466506×158996

Penley, J. A., Tomaka, J., & Wiebe, J. S. (2002). The association of coping to physical and psychological health outcomes: A meta-analytic review. *Journal of Behavioral Medicine*, *25*, 551–603. doi:10.1023/A:1020641400589

Pinto, A. M., Heinberg, L. J., Coughlin, J. W., Fava, J. L., & Guarda, A. S. (2008). The eating disorder recovery self-efficacy questionnaire (EDRSQ): change with treatment and prediction of outcome. *Eating Behaviors*, *9*(2), 143–153. doi:10.1016/j.eatbeh.2007.07.001

Platow, M. J., Huo, Y. J., Lim, L., Tapper, H., & Tyler, T. R. (2015). Social identification predicts desires and expectations for voice. *Social Justice Research*, *28*(4), 526–549. doi:10.1007/s11211-015-0254-6

Platow, M. J., & van Knippenberg, D. (2001). A social identity analysis of leadership endorsement: The effects of leader ingroup prototypicality and distributive intergroup fairness. *Personality and Social Psychology Bulletin*, *27*(11), 1508–1519. doi:10.1177/01461672012711011

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. doi:10.3758/BRM.40.3.879

Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, *16*(2), 93–115. doi:10.1037/a0022658

Robins, R. W., & Pals, J. L. (2002). Implicit self-theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and Identity*, *1*, 313–336.

Romero, C., Master, A., Paunesku, D., Dweck, C. S., & Gross, J. J. (2014). Academic and emotional functioning in middle school: The role of implicit theories. *Emotion*, *14*(2), 227–234. doi:10.1037/a0035490

Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, *5*(6), 359–371. doi:10.1111/j.1751-9004.2011.00355.x

Russell, D. (1996). UCLA Loneliness Scale (version 3): reliability, validity, and factor structure. *Journal of Personality Assessment*, *66*(1), 20–40. doi:10.1207/s15327752jpa6601_2

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, *39*(3), 472–480. doi:10.1037/0022-3514.39.3.472

Sanna, L. (1992). Self-efficacy theory: Implications for social facilitation and social loafing. *Journal of Personality and Social Psychology*, *62*(5), 774–786. doi:10.1037/0022-3514.62.5.774

Schleider, J. L., Abel, M. R., & Weisz, J. R. (2015). Implicit theories and youth mental health problems: A random-effects meta-analysis. *Clinical Psychology Review*, *35*, 1–9. doi:10.1016/j.cpr.2014.11.001

Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2015). The role of implicit theories in mental health symptoms, emotion regulation, and hypothetical treatment choices in college students. *Cognitive Therapy and Research*, *39*(2), 120–139. doi:10.1007/s10608-014-9652-6

Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, *61*(2), 195. doi:10.1037/0022-3514.61.2.195

Seiffge-Krenke, I., & Klessinger, N. (2000). Long-term effects of avoidant coping on adolescents' depressive symptoms. *Journal of Youth and Adolescence*, *29*(6), 617–630. doi:10.1023/A:1026440304695

Shapiro, D. N., Chandler, J., & Mueller, P. A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, *1*(2), 213–220. doi:10.1177/2167702612469015

Song, H., & Schwarz, N. (2008). If it's hard to read, it's hard to do: Processing fluency affects effort prediction and motivation. *Psychological Science*, *19*, 986–988. doi:10.1111/j.1467-9280.2008.02189.x

Suls, J., & Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: A meta-analysis. *Health Psychology*, *4*(3), 249–288.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Boston, MA: Pearson Education.

Tahmassian, K., & Moghadam, N. J. (2011). Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students. *Iranian Journal of Psychiatry and Behavioral Sciences*, *5*(2), 91–98. PMC3939966.

Tamir, M. (2009). What Do people want to feel and Why?. *Current Directions in Psychological Science*, *18*(2), 101–105.

Tamir, M. (2016). Why do people regulate their emotions? A taxonomy of motives in emotion regulation. *Personality and Social Psychology Review*, *20*(3), 199–222.

Tamir, M., Ford, B., & Ryan, E. (2013). Nonconscious goals can shape what people want to feel. *Journal of Experimental Social Psychology*, *49*(2), 292–297.

Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of Personality and Social Psychology*, *92*, 731–744. doi:10.1037/0022-3514.92.4.731

Tamir, M., Mitchell, C., & Gross, J. J. (2008). Hedonic and instrumental motives in anger regulation. *Psychological Science*, *19*, 324–328.

Thompson, E. R. (2007). Development and validation of an Internationally Reliable Short-Form of the Positive and Negative Affect Schedule (PANAS). *Journal of Cross-Cultural Psychology*, *38*(2), 227–242. doi:10.1177/0022022106297301

Tran, T. D., Tran, T., & Fisher, J. (2013). Validation of the Depression Anxiety Stress Scales (DASS) 21 as a screening instrument for depression and anxiety in a rural community-based cohort of northern Vietnamese women. *BMC Psychiatry*, *13*, 24–27. doi:10.1186/1471-244x-13-24

Valins, S. (1966). Cognitive effects of false heart-rate feedback. *Journal of Personality and Social Psychology*, *4*(4), 400–408. doi:10.1037/h0023791

Valois, R. F., Zullig, K. J., Kammermann, S. K., & Kershner, S. (2013). Relationships between adolescent sexual risk behaviors and emotional self-efficacy. *American Journal of Sexuality Education*, *8*(1-2), 36–55. doi:10.1080/15546128.2013.790224

Veilleux, J. C., Salomaa, A. C., Shaver, J. A., Zielinski, M. J., & Pollert, G. A. (2015). Multidimensional assessment of beliefs about emotion. *Assessment*, *22*(1), 86–100. doi:10.1177/1073191114534883

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology*, *53*(3), 325–337. doi:10.1037/0022-0167.53.3.325

Vogel, D. L., & Wester, S. R. (2003). To seek help or not to seek help: The risk of self-disclosure. *Journal of Counseling Psychology*, *50*, 351–361.

Wagner, R., Silove, D., Marnane, C., & Rouen, D. (2006). Delays in referral of patients with social phobia, panic disorder and generalized anxiety disorder attending a specialist anxiety clinic. *Journal of Anxiety Disorders*, *20*, 363–371. doi:10.1016/j.janxdis.2005.02.003

Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, *138*, 775–808. doi:10.1037/a0027600

Wegner, D. M., Schneider, D. J., Carter, S. R., & White, T. L. (1987). Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology*, *53*(1), 5–13.PMID: 3612492.

Werner, K. H., & Gross, J. J. (2009). Emotion regulation and psychopathology: A conceptual framework. In A. M. Kring & D. M. Sloan (Eds.), *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment* (pp. 13). New York, NY: Guilford Press.

Wua, C., & Yao, G. (2008). Psychometric analysis of the short-form UCLA Loneliness Scale (ULS-8) in Taiwanese undergraduate students. *Personality and Individual Differences*, *44*(8), 1762–1771. doi:10.1016/j.paid.2008.02.003

Yeager, D. S., Miu, A. S., Powers, J., & Dweck, C. S. (2013). Implicit theories of personality and attributions of hostile intent: A meta-analysis, an experiment, and a longitudinal intervention. *Child Development*, *84*(5), 1651–1667. doi:10.1111/cdev.12062

Zuckerman, M., Kieffer, S. C., & Knee, C. R. (1998). Consequences of self-handicapping: Effects on coping, academic performance, and adjustment. *Journal of Personality and Social Psychology*, *74*(6), 1619–1628. doi:10.1037/0022-3514.74.6.1619