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Gender and age differences in emotion regulation strategies and their relationship to depressive symptoms

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ABSTRACT

We examined differences between men and women, and between young, middle and older age adults in emotion regulation strategies (rumination, suppression, reappraisal, problem-solving, acceptance, social support) and the relationships between these strategies and depressive symptoms. Women were more likely than men to report using several different emotion regulation strategies, and these gender differences were significant even after statistically controlling for gender differences in depressive symptoms. Use of most strategies decreased with age, with two exceptions: (1) use of suppression increased with age for women but not for men and (2) use of acceptance did not decrease with age for women. Use of *maladaptive* strategies was associated with more depressive symptoms in all age groups and both genders, yet, the use of *adaptive* strategies generally was not related to lower levels depressive symptoms across groups.

1. Introduction

The strategies people use to regulate their emotions are the focus of a great deal of recent theoretical and empirical work, and a number of specific strategies have been argued to be generally adaptive or maladaptive (see reviews in Gross & Thompson, 2007; Kring & Sloan, 2010). A recent meta-analysis showed that rumination and suppression were correlated with greater symptoms of depression, anxiety, substance use, eating disorders with moderate to strong effect sizes across dozens of studies (Aldao, Nolen-Hoeksema, & Schweizer, 2010). In contrast, positive reappraisal, problem-solving and acceptance were negatively related to psychopathology, albeit weakly and somewhat inconsistently.

One question not addressed by the Aldao et al. (2010) meta-analysis is whether there are gender differences in adaptive or maladaptive strategies and their relationships to depressive symptoms. Thoits (1991, 1994) found that women use a wider variety of both adaptive and maladaptive coping strategies than men do. Similarly, a meta-analysis found significant gender differences in 11 of 17 coping strategies, with women reporting more use of all strategies than men (Tamres, Janicki, & Helgeson, 2002), including rumination, seeking social support, positive self-talk (or reappraisal), active coping and suppression.

Tamres et al. (2002) noted, however, that women may have reported more use of coping strategies because they were experiencing more stress than men. They addressed this issue by testing whether gender differences in stressor appraisal moderated the gender difference in strategies. They found that for active coping, avoidance, positive reappraisal, and self-blame, women reported using the strategy more than men only in studies in which women appraised the stressor as more severe than men did, suggesting that gender differences in these strategies could be the result of gender differences in stressor appraisal. In contrast, the gender differences in rumination and social support seeking were not moderated by stressor appraisal. Although this analysis is informative, Tamres et al. (2002) were not able to directly control for gender differences in stressor appraisal when examining gender differences in strategy use. A goal of the current study is to examine whether gender differences in an array of emotion regulation strategies can be accounted for by gender differences in distress, specifically in depressive symptoms.

If women do use both more adaptive and maladaptive strategies than men, might their use of adaptive strategies mitigate the negative effects of their use of maladaptive strategies? Aldao et al. (2010) found that adaptive strategies were only weakly related to depressive symptoms, while maladaptive strategies were robustly related to depressive symptoms. This suggests that, although women may use adaptive strategies more than men, this does not help prevent distress; in contrast, women's use of maladaptive strategies more than men puts them at increased risk for distress. The present study examined whether the pattern of maladaptive strategies being more strongly related to depressive symptoms than adaptive strategies was consistent across gender.

The vast majority of the adult studies in the meta-analysis by Aldao et al. (2010) were conducted with college students, also

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raising the question of whether the trends found are consistent across adult age groups. Carstensen (1993) and Carstensen, Fung, and Charles (2003) argued that, as we age, we put more emphasis on emotion regulation and get better at it (see also Blanchard-Fields, 2007). Older adults believe they are better at regulating their emotions than younger adults (Lawton, 2001). Some studies have found that older adults endorse using positive reappraisal (e.g., "I try to look at the situation in a different light") more than younger adults (Blanchard-Fields, Mienaltowski, & Baldi, 2007; John & Gross, 2004), and at least one study found that positive reappraisal reduced subjective distress and physiological arousal in a laboratory paradigm more in older adults (60s) than in middle (40s) or younger (20s) adults (Shiota & Levenson, 2009). Other studies have found that, while younger adults endorse primarily active problem-solving approaches to salient problems, older adults tend to endorse both problem-solving and emotion regulation responses, suggesting they have a wider repertoire of regulation strategies (Blanchard-Fields, Chen, & Norris, 1997; Blanchard-Fields et al., 2007).

The emotion regulation processes endorsed by older adults, however, tend to be more "passive" than those endorsed by younger adults, and include avoidance, suppression, or withdrawal (Blanchard-Fields, Stein, & Watson, 2004; Blanchard-Fields et al., 1997). Such strategies may protect older adults from aversive emotional arousal and help them maintain energy and concentration (Consedine, Magai, & Bonanno, 2002). The Aldao et al. (2010) meta-analysis, however, found that these strategies are consistently related to psychopathology (Aldao et al., 2010). Again, the studies in that meta-analysis were done primarily in younger adults, raising the question of whether such relationships would be found in older adults.

If older adults are more effective at emotion regulation than younger adults, this would help explain why rates of emotional problems such as depressive symptoms decline with age (Charles, Reynolds, & Gatz, 2001; Fiske, Wetherell, & Gatz, 2009). On the other hand, declines in depressive symptoms with age could cause older adults to report fewer maladaptive and more adaptive emotion regulation strategies than younger adults. In other words, age differences in emotion regulation strategies could be attributable to age differences in depressive symptoms. This possibility was examined in this study.

In summary, the goals of the present study were to examine gender and age differences in (a) the self-reported use of adaptive and maladaptive emotion regulation strategies, controlling for levels of depressive symptoms, and (b) the relationships of adaptive and maladaptive emotion regulation strategies to depressive symptoms. We examined the two maladaptive strategies that Aldao et al. (2010) found to be strongly related to depressive symptoms: rumination and suppression. We also examined the adaptive strategies included in the Aldao et al. (2010) meta-analysis: problem-solving, positive reappraisal, and acceptance. We additionally examined the use of social support as a strategy, because it is relevant across the life span (Carstensen, 1993) and Tamres et al. (2002) showed a strong gender difference in this strategy in their meta-analysis.

2. Methods

2.1. Participants

Participants were recruited through random-digit dialing of residential telephone numbers in the San Francisco Bay area of California. Individuals between the ages of 25 and 35 years, 45 and 55 years, or 65 and 75 years were recruited to represent samples of young, middle-aged, and older adults. Only one adult per household was recruited. Of the 1789 individuals initially contacted, 1312 agreed to participate; among the 25–35 year-olds, there were 254 women and 237 men; among the 45–55 year olds, there were 272 women and 252 men; among the 65–75 year-olds there were 164 women and 133 men. 70% of the sample identified as Caucasian, 9.2% as Hispanic, 8% as African American, 6.3% as Asian or Pacific Islander, and the remaining 6.5% as either other or did not identify their ethnicity.

The 12-month prevalence of major depressive disorder, based on the *Structured Clinical Interview Diagnosis for DSM* (SCID; First, Spitzer, Gibbon, & Williams, 1997), administered by clinically trained interviewers, was as follows: younger women, 11.4%; middle-age women, 9.9%; older women, 8.5%; younger men, 8.0%; middle-age men, 11.1%; older men, 5.3% (for more information on depression diagnoses in this sample, see Nolen-Hoeksema, 2000).

2.2. Measures

The *Beck Depression Inventory – Short Form* (BDI-SF; Beck & Beck, 1972) was our primary measure of depressive symptoms for these analyses. It includes 13 items assessing cognitive, affective, and somatic symptoms of depression in the past week. Internal consistency was good ($\alpha = .83$).

The 22-item *Ruminative Responses Scale* (RRS; Nolen-Hoeksema & Morrow, 1991) is a widely used assessment of the tendency to think perseveratively about one's distress and its causes and consequences (e.g., "What am I doing to deserve this") without engaging in problem-solving. Internal consistency was good ($\alpha = .90$).

COPE Inventory – Short Version (Carver, 1997) is a shorter version of the original COPE inventory (Carver, Scheier, & Weintraub, 1989). Four subscales of two items each were used. Active coping assesses problem-solving attempts to change a stressful situation (e.g., "I have been taking action to try to make the situation better."). Acceptance assesses the tendency to accept that a stressful event has happened (e.g., "I've been accepting the reality of the fact that these stressful things have happened."). Reappraisal (or positive reframing) assesses the tendency to positively reappraise the stressful event (e.g., "I've been trying to see things in a different light to make them more positive."). Support assesses the use of positive emotional support (e.g., "I've been getting emotional support from others."). The internal consistency for these scales ranged from .53 to .79. Because at the time this study was conducted (mid 1990s), there was no widely used measure of emotional, thought, and expressive suppression, we created a four-item subscale assessing all aspects of *suppression* (i.e., expressive, thought, and emotional). Internal consistency was good ($\alpha = .76$).

3. Results

A univariate analysis of variance (ANOVA) with BDI symptoms as the dependent variable and gender and age group as the independent variables yielded a significant effect of gender ($F[1, 1306] = 10.86$, $p = 0.001$, $\eta_p^2 = 0.008$) and age group ($F[2, 1306] = 5.60$, $p = 0.004$, $\eta_p^2 = 0.008$), but no significant gender by age interaction ($F[2, 1306] = 0.79$, *ns*, $\eta_p^2 = 0.001$). Women had higher depressive symptoms than men, and depressive symptoms decreased with age, with significant differences between the older age group and the middle age and younger age groups (p's < 0.001); the difference between the middle age group and the youngest age group was significant at $p < 0.05$; see Table 1.

3.1. Gender and age group differences in strategies

We predicted gender and age differences in the use of strategies. Because some of the strategies were correlated with each