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Stress, Emotion Regulation, and Well-Being among Canadian Faculty Members in Research-Intensive Universities

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Abstract: Existing research reveals the academic profession to be stressful and emotion-laden. Recent evidence further shows job-related stress and emotion regulation to impact faculty well-being and productivity. The present study recruited 414 Canadian faculty members from 13 English-speaking research-intensive universities. We examined the associations between perceived stressors, emotion regulation strategies, including reappraisal, suppression, adaptive upregulation of positive emotions, maladaptive downregulation of positive emotions, as well as adaptive and maladaptive downregulation of negative emotions, and well-being outcomes (emotional exhaustion, job satisfaction, quitting intentions, psychological maladjustment, and illness symptoms). Additionally, the study explored the moderating role of stress, gender, and years of experience in the link between emotion regulation and well-being as well as the interactions between adaptive and maladaptive emotion regulation strategies in predicting well-being. The results revealed that cognitive reappraisal was a health-beneficial strategy, whereas suppression and maladaptive strategies for downregulating positive and negative emotions were detrimental. Strategies previously defined as adaptive for downregulating negative emotions and upregulating positive emotions did not significantly predict well-being. In contrast, strategies for downregulating negative emotions previously defined as dysfunctional showed the strongest maladaptive associations with ill health. Practical implications and directions for future research are also discussed.

Keywords: post-secondary faculty; stress; emotion regulation; health; well-being

1. Introduction

Over the last few decades, academic employment has changed drastically as higher education institutions worldwide have experienced rapid growth in student numbers, internationalization, commercialization, major educational reforms, and accountability. Consequently, faculty¹ are expected to demonstrate exceptional performance in instruction, research, service, and administration while resources have remained static or decreased (Biron et al. 2008; McAlpine and Akerlind 2010; Ogbonna and Harris 2004; Rothmann and Barkhuizen 2008). Indeed, large-scale studies from around the globe consistently demonstrate that increased demands have contributed to alarmingly high levels of stress in post-secondary faculty (Biron et al. 2008; Catano et al. 2010; Kinman 2014; Tytherleigh et al. 2005; Winefield et al. 2003).

¹ The terms faculty, faculty members, post-secondary faculty, university teachers/professors/lecturers are used synonymously in the present paper.

Evidence further indicates that faculty members suffer from higher levels of stress compared to other university staff, professional occupations, and the general population (e.g., [Kinman 2014](#); [Tytherleigh et al. 2005](#); [Winefield et al. 2003](#)). Research also suggests that post-secondary occupational stressors contribute to psychological health problems such as burnout, depression and anxiety in faculty members ([Barkhuizen et al. 2014](#); [Biron et al. 2008](#); [Byrne et al. 2013](#); [Catano et al. 2010](#); [Kinman and Wray 2020](#)). For instance, high levels of burnout in post-secondary faculty members have been found to be comparable to that of schoolteachers and health care professionals ([Watts and Robertson 2011](#)). Moreover, post-secondary employment has been shown to elicit varied and intensive emotional experiences ranging from anger to contentment, with findings consistently showing faculty members' emotions to be inextricably linked to their occupational and identity development ([Berry and Cassidy 2013](#); [Hagenauer and Volet 2014a](#); [Martin and Lueckenhausen 2005](#); [Neumann 2006](#); [Ogbonna and Harris 2004](#); [Postareff and Lindblom-Ylänne 2011](#)) as well as their psychological health (e.g., [Pugliesi 1999](#); [Stupnisky et al. 2019a, 2019b](#); [Stupnisky et al. 2014](#); [Trigwell 2012](#); [Zhang and Zhang 2013](#); [Zhang and Zhu 2008](#)).

Despite research findings highlighting the emotional nature of academic work, the emotional experiences of post-secondary faculty members have been largely overlooked in faculty development research in favor of job performance and accountability outcomes ([Berry and Cassidy 2013](#); [Postareff and Lindblom-Ylänne 2011](#); [Zhang and Zhang 2013](#)). Evidence from the few studies conducted on emotion regulation in faculty members suggests that how they manage their emotions is linked not only to their well-being but also to their professional performance (e.g., [Hagenauer and Volet 2014b](#); [Regan et al. 2012](#)). Accordingly, more research is needed to explore the ways in which emotion regulation strategies relate to well-being outcomes in post-secondary faculty members.

To address this research gap, the current study aimed to extend previous research and explore the interplay between various emotion regulation strategies and well-being in post-secondary faculty members by way of large-scale quantitative analyses. In addition, we aimed to explore how stress impacts emotion regulation and how different emotion regulation strategies interact and how the impact of these strategies on well-being may be moderated by critical background variables, including gender, years of experience, and stress. It is anticipated that the findings from this study could contribute to a richer and more nuanced picture of emotion regulation strategies and their link to well-being in the higher education employment context, and provide valuable insights into optimal well-being interventions to support academics' productivity as well their physical and psychological health.

1.1. Emotion Regulation and Psychological Well-Being

Emotion regulation refers to “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” ([Gross 1998b](#), p. 275). There is strong research evidence to suggest that emotion regulation ability has important consequences for health and adaptive functioning, with studies further showing different forms of emotion regulation to yield significantly different affective, cognitive, and social outcomes ([Gross 2002](#); [Gross and Levenson 1993](#); [John and Gross 2004](#); for meta-analytical reviews, see [Aldao et al. 2010](#); [Webb et al. 2012](#)). Adaptive emotion regulation strategies are defined as strategies having negative associations with mental illness, whereas maladaptive strategies are defined as those associated with eliciting and maintaining psychological disorders ([Aldao and Nolen-Hoeksema 2010](#)).

Specifically, strategies such as problem-solving, cognitive reappraisal, and acceptance have been consistently shown to be connected with adaptive outcomes including lower stress levels and emotional well-being (e.g., [Goldin et al. 2008](#); [Gross 2002](#); [Scheibe and Zacher 2013](#)), optimal social and cognitive functioning (e.g., [Gross 2002](#); [Lopes et al. 2005](#); [Richards and Gross 1999](#)), and pain tolerance (e.g., [Hayes et al. 1999](#)). In contrast, converging evidence has shown that strategies such as suppression, avoidance, and rumination are generally linked to maladaptive outcomes such as negative emotions ([Gross 2002](#)), depression and anxiety ([Gross and Levenson 1993](#);

Mennin et al. 2007; Nolen-Hoeksema and Aldao 2011; Nolen-Hoeksema et al. 2008), poor social and cognitive functioning (Gross 2002), as well as eating disorders and substance abuse (Nolen-Hoeksema and Harrell 2002; Nolen-Hoeksema et al. 2007). Furthermore, previous research has found adaptive and maladaptive emotion regulation strategies to interact to predict well-being. For instance, Aldao and Nolen-Hoeksema (2012) found that adaptive strategies demonstrated a negative association with depression, anxiety, and alcohol problems only at high levels of maladaptive strategies.

Consistent with findings from the broader emotion regulation literature, findings from occupational settings indicate that emotion regulation can impact employees' performance, physical health, and psychological adjustment (e.g., Brackett et al. 2010; Grandey 2015; Lawrence et al. 2011; Quoidbach and Hansenne 2009). For example, a study of university employees (75%) and students (25%) found that savoring positive emotions (i.e., using emotion regulation strategies to prolong and maintain positive emotional experiences) was associated with greater positive affect and life satisfaction, whereas dampening positive emotions (i.e., downregulating) was linked to lower positive affect and life satisfaction (Quoidbach et al. 2010). Studies similarly show that K-12 teachers (secondary school) are better able to regulate their emotional states to experience higher levels of personal accomplishment, job satisfaction, and positive emotions (Brackett et al. 2010). Specifically, adaptive emotion regulation strategies (e.g., modifying the situation by being well-prepared for lessons and deploying attention by thinking positive thoughts) were shown to be more beneficial for K-12 teaching and learning outcomes (Sutton 2004). Cognitive reappraisal has similarly been found to correspond with lower emotional exhaustion in teachers (Tsouloupas et al. 2010) as well as greater positive emotions (Lee et al. 2016), student engagement, and classroom management efficacy (Sutton et al. 2009). Conversely, studies have shown suppression (e.g., of anger, frustration) and behavioral disengagement to contribute to greater burnout in teachers (Carson 2006; Chang 2009, 2013; Griffith et al. 1999; Tsouloupas et al. 2010).

Emotion Regulation and Well-Being in Faculty

The effects of emotion regulation strategies on well-being and performance found in the general public and occupational settings align directly with the growing body of research on emotion regulation in post-secondary faculty. Specifically, adaptive strategies such as effectively selecting the situation (e.g., not getting involved in the emotional issues of their students, Hagenauer and Volet 2014b) and adaptive cognitive change (e.g., changing their view of the instructor as transmitter to facilitator, Regan et al. 2012; acceptance through lowered self-expectations, Abouserie 1996; Hagenauer and Volet 2014b) have been linked to functional outcomes (e.g., lower stress and negative emotions of disappointment, frustration). Furthermore, cognitive change strategies involving humor have been inversely linked to faculty burnout (Ramsey et al. 2011; Tümkaya 2007). Moreover, effectively modifying the situation by communicating expected student behavior in class corresponded with fewer negative emotions in university teachers (Gates 2000) with planning and prioritizing also helping faculty members better manage stress (Devonport et al. 2008; Gillespie et al. 2001). Attention deployment (i.e., diverting attention from daily stressors through intellectual stimulation such as reading journals, attending conferences) and sharing emotions with friends and colleagues have also been found to help manage stress among university teaching staff (Abouserie 1996; Perlberg and Keinan 1986).

Concerning more maladaptive strategies, wishful thinking and denial have been shown to predict poorer levels of anxiety, depression, somatic symptoms, and job dissatisfaction in post-secondary faculty members (Kataoka et al. 2014; Mark and Smith 2012), with suppressing negative emotions similarly corresponding to maintaining and intensifying negative emotions (Hagenauer and Volet 2014b). Whereas a study of American professors (Mahoney et al. 2011) demonstrated that suppressing positive emotions was not detrimental for faculty members, other studies have shown maladaptive emotion regulation strategies of alcohol and drug use, as well as avoidance strategies (i.e., avoiding problems), to be linked to greater anxiety, depression, social dysfunction, illness symptoms, insomnia, and lower job satisfaction (Lease 1999; Kataoka et al. 2014; Mark and Smith 2012).

1.2. Gender Differences in Emotion Regulation

Gender role theorists suggest that women are more likely to engage in internally focused and passive strategies such as rumination, with men instead being more prone to regulating their emotions through suppression or avoidance (for a review, see [Tamres et al. 2002](#)). However, empirical studies have yielded less conclusive results ([Gross and John 2003](#); [McRae et al. 2008](#); [Zlomke and Hahn 2010](#)), with a meta-analysis by [Tamres et al. \(2002\)](#) suggesting that women report using a wider variety of both adaptive (e.g., seeking social support, acceptance and cognitive reappraisal) and maladaptive emotion regulation strategies (e.g., rumination) than men. Whereas [Gross and John \(2003\)](#) demonstrated that males engage in suppression of both positive and negative emotions more frequently than females, some studies do not find gender differences in this strategy (e.g., [Nolen-Hoeksema and Aldao 2011](#)). Studies of emotion regulation in the workplace have also produced inconsistent gender effects, with some showing female employees to perform more emotion regulation than males ([Grandey 2000](#); [Hochschild 1983](#); [Schaubroeck and Jones 2000](#); [Wharton and Erickson 1993](#)) and others showing no gender differences (e.g., [Bono and Vey 2005](#)). With respect to K-12 educators, [Chang \(2013\)](#) found female teachers to be more likely to engage in cognitive reappraisal than males who instead more frequently employed suppression. Concerning post-secondary educators, [Tümkiye \(2006\)](#) reported comparable frequencies for male and female university lecturers' humor coping styles, with [Hagenauer and Volet \(2014b\)](#) also finding no gender differences in university teachers' strategies for managing negative emotions (all participants emphasized the necessity of controlling, and occasionally suppressing, negative emotions). However, findings from [Ogbonna and Harris \(2004\)](#) showed female university lecturers to report more emotional labor (deep acting) than their male counterparts, suggesting potential gender differences among post-secondary faculty members in relation to specific emotion regulation strategies.

1.3. Gender Differences in Occupational Well-Being

Empirical studies of gender differences in well-being in occupational settings have similarly produced inconsistent results. Whereas some studies show female employees to report higher burnout than males (e.g., [Antoniou et al. 2006](#)), others show higher burnout among men (e.g., [Brake et al. 2003](#)) or no gender differences (e.g., [Arvidsson et al. 2016](#)). Similarly, while some studies did not find gender differences in turnover intentions ([Sicherman 1996](#); [Weisberg and Kirschenbaum 1993](#)), other studies show women to have higher average turnover rates than men (e.g., [Lee 2012](#); [Light and Ureta 1992](#)). Studies on post-secondary faculty well-being have also produced mixed gender effects, with two systematic reviews on faculty burnout ([Sabagh et al. 2018](#); [Watts and Robertson 2011](#)) showing some studies report no gender differences ([Blix et al. 1994](#); [Byrne et al. 2013](#); [Gonzalez and Bernard 2006](#); [Rothmann and Barkhuizen 2008](#)) and others demonstrating higher emotional exhaustion for females ([Byrne 1991](#); [Ghorpade et al. 2007, 2011](#); [Hall et al. 2019](#); [Lackritz 2004](#); [Tümkiye 2007](#)). With respect to psychological and physical strain, findings similarly show higher levels for female relative to male faculty members ([Catano et al. 2010](#); [Winefield et al. 2008](#)).

Concerning job satisfaction in faculty, gender findings are mixed. A national study of Australian university employees, including faculty members (44%), found that men reported lower job satisfaction than women ([Winefield et al. 2003](#)). Nonetheless, other studies conducted with faculty members in the U.S. ([Sabharwal and Corley 2009](#)) and Canada ([Catano et al. 2010](#)), as well as internationally ([Okpara et al. 2005](#)), have found that male faculty members enjoy higher levels of overall job satisfaction relative to their female counterparts. As for quitting intentions, some findings suggest gender effects on turnover through mediating factors such as research and teaching productivity, tenure status, and job satisfaction (e.g., [Gander 1999](#); [Perna 2001](#)). A study by [Smart \(1990\)](#) with U.S. faculty members further demonstrated that tenured men were more likely to consider leaving a position than tenured women, whereas other findings suggest that female faculty members have higher intentions to quit (e.g., due to poor quality working relationships, insufficient research support, unequal advancement opportunities; [Blix et al. 1994](#); [Callister 2006](#); [Xu 2008](#); [Zhou and Volkwein 2004](#)).

1.4. Years of Experience, Emotion Regulation, and Well-Being

Empirical evidence further suggests that length of service (i.e., experience) is associated with emotion regulation strategies in educational settings. Whereas some studies of school teachers report no differences in emotion regulation based on years of experience (e.g., [Stoeber and Rennert 2008](#); [Van Dick and Wagner 2001](#)), others show less experienced teachers to seek more social support from supervisors, friends, and role models, and be more likely to use physical exercise, avoidant coping, and substance use than their more experienced colleagues ([Griva and Joekes 2003](#); [Pascual et al. 2003](#); [Rahimi et al. 2017](#); [Seidman and Zager 1991](#)). Conversely, more experienced teachers report using more meditation, deep breathing, and cognitive reappraisal to cope with stress ([Beers 2012](#); [Seidman and Zager 1991](#)). Emerging evidence from post-secondary educators further indicates that early career university teachers experience their careers as more emotional in nature ([Hagenauer and Volet 2014a](#)) and also report greater emotional labor ([Berry and Cassidy 2013](#)). With respect to effects of years of service on teacher well-being, research with K-12 teachers in Australia ([Australian Education Union AEU](#); [Watt and Richardson 2007](#)), the U.S. ([Boyd et al. 2008](#); [DeAngelis and Presley 2011](#)), Canada ([Karsenti and Collin 2013](#); [Martin et al. 2012](#); [Wang and Hall 2019](#); [Wang et al. 2015](#)), and Greece ([Antoniou et al. 2006](#)) consistently suggest that early career teachers (i.e., within the first five years) have higher quitting intentions and actual turnover than their more experienced counterparts. Findings also suggest that faculty members with less than 10 years of experience may be more prone to exhaustion than their more experienced colleagues ([Blix et al. 1994](#); [Gonzalez and Bernard 2006](#)).

1.5. Occupational Stress and Emotion Regulation

Findings from research with educators also show stress levels to impact emotion regulation. For instance, research with Chinese primary school teachers found emotional job demands to be associated with greater use of both adaptive and maladaptive strategies (e.g., cognitive reappraisal and suppression; [Yin et al. 2016](#)). Studies with U.S. university employees similarly show stress due to interpersonal mistreatment to be linked to higher levels of emotional labor (surface acting; [Adams and Webster 2013](#)) as well as both positive emotion regulation strategies (e.g., problem solving, humor, perspective taking, cognitive reframing) and dysfunctional strategies (e.g., avoidance, withdrawal, distraction, suppression; [Diefendorff et al. 2008](#)).

1.6. The Present Study

Despite the established significance of emotion regulation and stress for well-being in educators, there is a paucity of research examining these topics among post-secondary faculty members. The present empirical study addressed the role of emotion regulation in faculty well-being in the following ways. First, contrary to existing studies that have typically examined limited emotion regulation strategies, this study explored six types of strategies informed by the Process Model of emotion regulation ([Gross 1998a, 1998b](#)) including cognitive reappraisal, expressive suppression, adaptive upregulation of positive emotions, maladaptive downregulation of positive emotions, as well as adaptive and maladaptive downregulation of negative emotions. Second, this research assessed varied well-being indicators including affective outcomes (burnout, job satisfaction, turnover intentions), physical ill health (e.g., headache, back pain), and psychological ill health ([Horn et al. 2004](#); [Zacher and Schmitt 2016](#)). Third, this research examined potential moderating effects of other strategies as well as gender, years of experience, and stress on how emotion regulation strategies impact faculty well-being. Finally, this study explored the underexamined impact of perceived stressors on emotion regulation strategies to address the role of unique academic employment stressors on faculty well-being.

2. Study Hypotheses

Hypothesis 1 (H1). *Emotion Regulation and Faculty Well-Being.*

Hypothesis 1a (H1a). *Emotion regulation strategies previously found to be adaptive (i.e., cognitive reappraisal, adaptive upregulation of positive emotions, and adaptive downregulation of negative emotions) were expected to predict greater job satisfaction and lower burnout, quitting intentions, psychological maladjustment, and physical symptoms.*

Hypothesis 1b (H1b). *Conversely, strategies often found to be maladaptive (i.e., suppression and maladaptive downregulation of positive and negative emotions) were expected to predict lower job satisfaction and greater burnout, intentions to quit, and physical and psychological health issues.*

Hypotheses 1a and 1b were based on theoretically proposed relations between emotion regulation and well-being (Gross 1998a, 1998b) as well as empirical findings showing adaptive emotion regulation strategies to predict better well-being and maladaptive strategies to correspond with impaired well-being (for reviews, see Aldao et al. 2010; Koole 2009; Webb et al. 2012).

Hypothesis 1c (H1c). *Building on empirical evidence showing the effects of adaptive emotion regulation strategies to be moderated by the use of maladaptive strategies (e.g., Joormann and D’Avanzato 2010), we also expected that maladaptive strategies would be associated with poorer well-being for those who were also lower in adaptive strategies.*

Hypothesis 2 (H2). *Gender, Emotion Regulation, and Well-Being.*

Hypothesis 2a (H2a). *Following from the broader emotion regulation literature (Nolen-Hoeksema and Aldao 2011; Tamres et al. 2002) and research in occupational settings (e.g., Grandey 2000; Wharton and Erickson 1993), we expected that female faculty members would report using both adaptive and maladaptive strategies more frequently than their male counterparts.*

Hypothesis 2b (H2b). *We also hypothesized that gender would impact faculty well-being in such a way that males would enjoy higher levels of overall well-being.*

Hypothesis 2c (H2c). *We further anticipated that gender would moderate the association between emotion regulation and well-being, with the effects being more impactful in the expected directions for women. This hypothesis was based on research showing women to use emotion regulation strategies more frequently than men (Grandey 2000; Nolen-Hoeksema and Aldao 2011; Tamres et al. 2002; Wharton and Erickson 1993).*

Hypothesis 3 (H3). *Experience, Emotion Regulation, and Well-Being.*

Hypothesis 3a (H3a). *Based on existing findings (e.g., Berry and Cassidy 2013), we hypothesized that less experienced faculty members would engage in more maladaptive strategies.*

Hypothesis 3b (H3b). *Similarly, drawing on existing research (e.g., Berry and Cassidy 2013), we hypothesized that less experienced faculty would experience lower well-being compared to more senior colleagues.*

Hypothesis 3c (H3c). *We further expected that the well-being effects of emotion regulation strategies would be moderated by years of experience such that maladaptive emotion regulation would be more detrimental for less experienced faculty members. This hypothesis is consistent with studies showing the effects of emotion regulation strategies to be moderated by years of experience among K-12 teachers (e.g., Rahimi et al. 2017).*

Hypothesis 4 (H4). *Stress, Emotion Regulation, and Faculty Well-Being.*

Hypothesis 4a (H4a). *We hypothesized that stress would predict more frequent use of adaptive and maladaptive emotion regulation strategies and have a weaker relationship with adaptive emotion regulation than maladaptive*

strategies. This hypothesis is based on the rationale that greater stress could have already elicited more adaptive emotion regulation that, in turn, reduced subsequent stress levels, thereby contributing to a weaker association between stress and adaptive emotion regulation when assessed cross-sectionally in this study.

Hypothesis 4b (H4b). Consistent with the Job Demands–Resources (JD–R) model (Bakker and Demerouti 2007) and previous faculty research showing job-related stress to impair faculty well-being (e.g., Barkhuizen et al. 2014; Catano et al. 2010; Salimzadeh et al. 2017; Shen et al. 2014; Watts and Robertson 2011), it was further expected that faculty members who report more stressors would also report poorer levels of well-being.

Hypothesis 4c (H4c). Finally, it was hypothesized that the beneficial impact of adaptive strategies on well-being should be stronger when perceived stressors are low, and conversely, the detrimental effect of maladaptive strategies on well-being should be stronger when perceived stressors are higher.

3. Materials and Methods

3.1. Participants and Procedures

A total of 6100 faculty members engaged in full-time teaching and/or research in 13 Canadian research-intensive universities (members of U15 group²) were contacted by email to complete a web-based, anonymous questionnaire administered via the SurveyMonkey website. Participants were purposefully recruited from the research-intensive universities as faculty members employed in more research activity universities are tasked with a wider range of work requirements (e.g., research, teaching, service, supervision responsibilities) and thus experience emotions specific to more domains (Stupnisky et al. 2019a). As evidenced by Perry et al. (1997), institution type impacts the emotions experienced and may, in turn, affect the emotional regulation responses employed and thereby the adjustment profile of faculty. Medical faculty members were excluded as these professionals are typically tasked with other responsibilities beyond teaching and research such as hospital appointments and clinical practice (Le Blanc et al. 2001; Watts and Robertson 2011).

The questionnaire included demographics items (age, gender, years of experience, tenure status, and discipline) and measures assessing perceived stressors, emotion regulation, and well-being. Of the 585 faculty members who completed the survey, a final sample size of 414 was retained after screening the data for univariate and multivariate outliers (male: 54.20%; female: 45.80%; 6.80% response rate). Participants included faculty members from multiple disciplines including social sciences (38%), humanities (16.50%), natural sciences (20.90%), applied sciences (14%), formal sciences (9.00%), and interdisciplinary units (1.70%). The participating faculty members included tenured (74.30%), tenure-track (19.40%), and non-tenure track (6.30%) faculty members ranked as assistant professors (19.60%), associate professors (41.40%), full professors (35.10%), and others (3.90%). The mean years of experience as a faculty member was 16.37 years ($SD = 10.00$).

3.2. Study Measures

Questionnaire measures consisted of published self-report scales assessing faculty members' perceived stressors, emotion regulation, emotional exhaustion, job satisfaction, quitting intentions, physical symptoms, and psychological maladjustment. The survey consisted of 76 items and required approximately 20 min to complete. Composite measures for each variable were created by taking the average across constituent items, with descriptive statistics for each scale presented in Table 1.

² The U15 group of Canadian Universities is an association of 15 Canadian public research-intensive universities including, University of Alberta, University of British Columbia, University of Calgary, Dalhousie University, University of Manitoba, McGill University, McMaster University, University of Ottawa, Queen's University, University of Saskatchewan, University of Toronto, University of Waterloo, University of Western Ontario, Laval University, and University of Montreal.

Table 1. Psychometric Properties of Study Variables.

Variable	<i>M</i>	<i>SD</i>	α	Items	Range	
					Min	Max
Perceived stressors	3.44	0.76	0.90	8	1.13	5.00
Emotion regulation (ERQ)						
Cognitive reappraisal	4.92	0.92	0.83	6	1.17	7.00
Expressive suppression	3.60	1.28	0.81	4	1.00	6.75
Emotion regulation (ERP-R)						
Adaptive upregulating positive emotions	4.03	0.93	0.80	7	1.00	6.14
Maladaptive downregulating positive emotions	3.54	0.85	0.71	7	1.14	5.57
Adaptive downregulating negative emotions	4.10	0.82	0.53	5	1.40	6.00
Maladaptive downregulating negative emotions	2.78	1.19	0.80	4	1.00	5.75
Well-being						
Burnout	3.28	1.28	0.91	9	1.00	6.44
Job satisfaction	3.86	0.78	0.86	5	1.00	5.00
Quitting intentions	1.66	0.70	0.80	3	1.00	3.67
Psychological maladjustment	1.91	0.37	0.86	12	1.00	3.17
Illness symptoms	1.50	0.49	0.65	6	1.00	3.00

3.2.1. Perceived Stressors

The short version of the job demands subscale of Health and Safety Executive Management Standards Indicator Tool (HSE-MS IT, [Health and Safety Executive \[HSE\] 2006](#)) was used to assess faculty members' perceived stressors (sample item: "I have unachievable deadlines"). The scale included eight Likert-type items. Participants rated each item on a five-point scale (1 = never, 5 = always).

3.2.2. Emotion Regulation: Reappraisal and Suppression

The 10-item Emotion Regulation Questionnaire (ERQ; [Gross and John 2003](#)) was used as a validated measure of emotion regulation strategies reflecting cognitive reappraisal (six items; e.g., "When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm") and expressive suppression (four items; e.g., "I control my emotions by not expressing them"). The items were rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

3.2.3. Emotion Regulation: Profile-Revised Questionnaire

A modified version of the Emotion Regulation Profile-Revised (ERP-R; [Nelis et al. 2011](#)) developed for this study was used to assess individuals' typical emotion regulation behaviors. The ERP-R is a vignette-based instrument assessing individuals' typical ability to regulate both positive and negative emotions ([Nelis et al. 2011](#)). The scale included four emotion-eliciting scenarios, each followed by four adaptive and four maladaptive strategies totaling 32 items (eight items per subscale) measured on a 7-point Likert scale (1 = never, 7 = always). The scenarios assessed two positive emotions of high arousal (joy) and low arousal (contentment), and two negative emotions of high arousal (fear) and low arousal (sadness). The original scenarios were modified to reflect emotion-inducing situations related to academic work and scale items were modified to reflect strategies from the Process Model of ER (situation modification, attention deployment, cognitive reappraisal, and response modulation; [Gross 1998b](#)).

Participants were asked to report the frequency with which they used four adaptive strategies for upregulating positive emotions including two items each for situation modification (e.g., "You decide to take the rest of the day off and treat yourself (e.g., coffee, meal, champagne) to celebrate this positive news"), attention deployment (e.g., "You try to enjoy the moment and put everything else out of your mind"), cognitive change (e.g., "Over the following days you think back on the hours spent on the application: the quality of your ideas and hard work paid off"), and response modulation (e.g., "Over the following days you excitedly share the good news with friends and colleagues").

Four maladaptive strategies for downregulating positive emotions were also assessed including two items each for situation modification (e.g., "You don't give yourself any time off or rest and you undertake another uncompleted task right away"), attention deployment (e.g., "You're satisfied with having finished the task but can't help noticing negative aspects about it (e.g., typos, omissions, etc.) that could make you look unprofessional"), cognitive change (e.g., "Even though others are congratulating you for your hard work, you can't help thinking that you probably got just lucky and remember the times you were not successful"), and response modulation (i.e., suppression; e.g., "You try to downplay your excitement in front of colleagues to not look overly proud").

Adaptive strategies for downregulating negative emotions were also assessed with respect to four strategies including two items each for situation modification (e.g., "You address the reviewers' points as best as you can and try to respectfully appeal the rejection decision to the journal editor"), attention deployment (e.g., "You review previous positive course evaluations to help yourself relax"), cognitive change (e.g., "You focus on the silver lining: the reviews will improve your next submission"), and response modulation (e.g., "You confide in your colleagues, telling them of your thoughts and seeking support and/or advice").

Maladaptive strategies for downregulating negative emotions were assessed using two items for each of the four strategies of situation modification (e.g., "You increase scores for all students on the mid-term exam on the hopes of less negative evaluations"), attention deployment (e.g., "You spend

several hours or days thinking about possible negative evaluations, and begin to feel overwhelmed by anxiety”), cognitive change (e.g., “You blame yourself and/or start to question whether or not you have what it takes to be successful in academia”), and response modulation (e.g., “You consume alcohol or medication, or other substances to stop thinking about it”).

Prior to computing composite scores for the ERP-R subscales, we conducted skewness tests and Exploratory Factor Analyses (EFAs) to systematically identify the strongest scale items for analysis. Skewness tests demonstrated five items to be >1 in skewness that were removed from subsequent analyses³. We ran EFAs by applying Principal Component (PC) analysis and Varimax rotation for each of the 8-item subscales separately. Following Nelis et al. (2011), an item was judged to belong to a factor if its loading was > 0.40 (if two items were equal to or above 0.40, it was allocated to the factor with the highest saturation). Poor factor loadings were observed for one item assessing adaptive upregulation of positive emotions (treating oneself) and one item for maladaptive downregulation of positive emotions (immediately undertake new work task); these items were removed from subsequent analyses. Two items for adaptive downregulation of negative emotions were also removed; one for demonstrating poor factor loading (appealing a manuscript rejection decision) and one for a poor loading as a maladaptive item (distraction with unrelated task).

The EFA results indicated two factors underlying the items assessing regulation of positive emotions (explaining 42.88% of total variance). The seven remaining items assessing adaptive upregulation of positive emotions demonstrated acceptable internal consistency (factor loadings = 0.53–0.80) as did the remaining seven items for maladaptive downregulation of positive emotions (factor loadings = 0.42–0.70). Similarly, the EFA results indicated two factors underlying negative emotion regulation items (explaining 50.13% of total variance). While the remaining four items assessing maladaptive downregulation of negative emotions demonstrated acceptable internal consistency (factor loadings = 0.73–0.84), items assessing adaptive downregulation of negative emotions showed poorer internal consistency ($\alpha = 0.53$; factor loadings = 0.52–0.67). Composite scores were created for each factor based on the mean of the corresponding items, with higher scores indicating greater use of the emotion regulation strategy.

3.2.4. Burnout: Emotional Exhaustion

Faculty members’ feelings of burnout were assessed using a modified version of the nine-item, seven-point emotional exhaustion subscale of the Maslach Burnout Inventory Human Services (MBI-HSS; Maslach and Jackson 1996; e.g., replacing “people” with “students, colleagues, and administrative staff”). The subscale included items such as “I am emotionally drained from my work” (1 = never, 7 = every day). The emotional exhaustion subscale was selected as an indicator of occupational burnout based on recent research with school teachers and post-secondary faculty members showing this subscale to demonstrate substantially higher internal reliability than the other subscales (i.e., depersonalization and personal accomplishment; Frisby et al. 2015; Wang et al. 2015).

3.2.5. Job Satisfaction

Job satisfaction was assessed using the five-item, seven-point scale developed by Moè et al. (2010). Participants were asked to report the extent to which they were satisfied with their job by responding to items such as “In most ways my job is close to my ideal” and “I am satisfied with my job” (1 = strongly disagree, 5 = strongly agree).

³ In total, 66% of people answered “never” to: “You consume alcohol or medication, or other substances to stop thinking about it.”, 85% to: “You ask the editor to reconsider the decision by explaining, for example, how much you need this paper to be published.”, 63% to: “You increase scores for all students on the mid-term exam on the hopes of less negative evaluations.”, 84% to: “On the days leading up to the end of the semester evaluations, you consume alcohol, medication, or other substances more than usual to help reduce your anxiety.”, and 56% to: “You review previous positive course evaluations to help yourself relax”.

3.2.6. Quitting Intentions

To measure intentions to quit, participants completed the three-item scale developed by Mobley et al. (1978) with items such as “I think about quitting my faculty position” (1 = never, 5 = constantly).

3.2.7. Psychological Maladjustment

Psychological maladjustment was assessed using the 12-item, four-point General Health Questionnaire (GHQ-12) developed by Goldberg and Williams (1988). The GHQ-12 has been recommended (see Banks et al. 1980) as a validated instrument to identify mental illness (i.e., psychological strain) in occupational studies. The questionnaire focused on the inability to carry out normal functions with items such as “Have you recently been able to concentrate on whatever you are doing?” (1 = more so than usual, 4 = much less than usual), and the appearance of new and distressing phenomena with items such as “Have you recently been losing confidence in yourself?” (1 = not at all, 4 = much more than usual).

3.2.8. Physical Illness Symptoms

To assess faculty members’ perceived frequency of physical illness symptoms including headaches, sleep problems, muscle tension, stomach pain, heart pounding, and poor appetite, a six-item, five-point scale adapted from Cohen and Hoberman (1983) was used. The scale included items such as “During the last week, how much were you bothered by heart pounding or racing?” (1 = not at all, 5 = five or more times).

4. Results

4.1. Preliminary Analyses

The data were screened for univariate and multivariate outliers using SPSS (IBM Corporation 2016) (2.5 SD above/below the mean; Meyers et al. 2017) with 14 cases removed based on Mahalanobis distance tests ($\alpha = 0.001$ (Tabachnick et al. 2013)). Initial zero-order correlations were also conducted and are outlined in Table 2. Years of experience was retained as a covariate as it correlated negatively with stress, emotion regulation strategies, exhaustion, as well as physical and psychological ill health, and was positively associated with suppression and job satisfaction. Moreover, gender was included as a covariate based on *t*-tests (see Table 3) showing females to report greater stress, $t(404) = -3.63$, $p < 0.001$, exhaustion, $t(404) = -3.87$, $p < 0.001$, illness symptoms, $t(404) = -4.86$, $p < 0.001$. as well as more frequent adaptive upregulation of positive emotions, $t(404) = -5.08$, $p < 0.001$, adaptive downregulation of negative emotions $t(404) = -4.90$, $p < 0.001$, maladaptive downregulation of negative emotions, $t(404) = -4.06$, $p < 0.001$, and cognitive reappraisal, $t(404) = -2.01$, $p = 0.045$. Conversely, male faculty members reported more frequent use of expressive suppression, $t(404) = 6.42$, $p < 0.001$.

4.2. Main Analyses

4.2.1. Emotion Regulation Strategy Effects

To evaluate the independent effects of emotion regulation strategies, we conducted hierarchical regressions, using SPSS (IBM Corporation 2016), including the two background variables (i.e., gender and years of experience) as covariates in the first step, followed by the adaptive and maladaptive emotion regulation strategies in the second step (see Table 4). The results showed that adaptive upregulation of positive emotions and adaptive downregulation of negative emotions were not significant predictors of our well-being measures.

Table 2. Zero-Order Correlations among Study Variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Stress	1											
2. Cognitive reappraisal	−0.12 *	1										
3. Expressive suppression	−0.04	−0.13 **	1									
4. Adaptive upreg. positive emotions	0.14 **	0.17 **	−0.27 **	1								
5. Maladaptive downreg. positive emotions	0.33 **	−0.11 *	0.32 **	0.05	1							
6. Adaptive downreg. negative emotions	0.09	0.21 **	−0.32 **	0.44 **	0.03	1						
7. Maladaptive downreg. negative emotions	0.26 **	−0.16 **	0.06	0.16 **	0.60 **	0.15 **	1					
8. Emotional exhaustion	0.58 **	−0.16 **	0.02	0.01	0.33 **	0.00	0.40 **	1				
9. Job satisfaction	−0.30 **	0.18 **	−0.05	0.03	−0.21 **	0.01	−0.25 **	−0.53 **	1			
10. Quitting intentions	0.14 **	−0.14 **	0.00	−0.05	0.13 **	0.04	0.17 **	0.37 **	−0.51 **	1		
11. Psychological maladjustment	0.41 **	−0.21 **	0.18 **	0.00	0.32 **	−0.06	0.37 **	0.60 **	−0.49 **	0.44 **	1	
12. Illness symptoms	0.47 **	−0.14 **	0.03	0.05	0.20 **	0.04	0.31 **	0.60 **	−0.33 **	0.20 **	0.54 **	1
13. Years of experience	−0.16 **	0.07	0.14 **	−0.10 *	−0.16 **	−0.27 **	−0.30 **	−0.13 **	0.13 **	−0.04	−0.12 *	−0.10 *

* $p \leq 0.05$. ** $p \leq 0.01$.**Table 3.** Gender Differences in Emotion Regulation Strategies, Stress, and well-being.

	Male			Female			95% CI for Mean Difference	t	df
	M	SD	n	M	SD	n			
Stress	3.30	0.79	220	3.57	0.70	186	−0.42, −0.12	−3.63	404
Cognitive reappraisal	4.83	0.87	220	5.02	0.97	186	−0.36, −0.00	−2.01	404
Expressive suppression	3.95	1.22	220	3.17	1.21	186	0.54, 1.02	6.42	404
Adaptive upregulation of positive emotions	3.82	0.97	220	4.28	0.82	186	−0.64, −0.28	−5.08	404
Maladaptive downregulation of positive emotions	3.55	0.86	220	3.51	0.85	186	−0.12, 0.22	0.58	404
Adaptive downregulation of negative emotions	3.92	0.85	220	4.32	0.74	186	−0.55, −0.23	−4.90	404
Maladaptive downregulation of negative emotions	2.57	1.12	220	3.04	1.23	186	−0.70, −0.24	−4.06	404
Emotional exhaustion	3.05	1.26	220	3.53	1.23	186	−0.72, −0.24	−3.87	404
Job satisfaction	3.91	0.78	220	3.80	0.76	186	−0.05, 0.25	1.34	404
Quitting intentions	1.63	0.66	220	1.69	0.74	186	−0.19, 0.08	−0.85	404
Psychological maladjustment	1.88	0.37	220	1.94	0.38	186	−0.13, 0.01	−1.64	404
Illness symptoms	1.39	0.42	220	1.62	0.51	186	−0.31, −0.13	−4.86	404

Table 4. Hierarchical multiple Regression Analyses.

Predictor	Burnout		Job Satisfaction		Quitting Intentions		Psychological Maladjustment		Illness Symptoms	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	0.05 **		0.02 *		0.00		0.02 *		0.06 **	
Gender		0.17 **		−0.05		0.04		0.06		0.22 **
Years of experience		−0.11 *		0.11 *		−0.03		−0.11 *		−0.08
Step 2	0.17 **		0.08 **		0.05 **		0.17 **		0.09 **	
Gender		0.17 **		−0.06		0.03		0.09		0.22 **
Years of experience		−0.00		0.05		0.04		−0.04		0.00
Reappraisal		−0.11 *		0.13 **		−0.13 **		−0.14 **		−0.12 *
Expressive suppression		−0.03		−0.00		−0.03		0.13 **		0.06
Adaptive upregulation of positive emotions		−0.04		0.04		−0.10		0.03		−0.00
Maladaptive downregulation of positive emotions		0.20 **		−0.09		0.08		0.11		0.04
Adaptive downregulation of negative emotions		−0.05		0.02		0.09		−0.08		0.01
Maladaptive downregulation of negative emotions		0.24 **		−0.17 **		0.11		0.26 **		0.23 **
Total R^2	0.22 **		0.10 **		0.05 **		0.19 **		0.15 **	

Note. Step two includes predictors from the previous step. Gender: 1 = male, 2 = female. * $p \leq 0.05$. ** $p \leq 0.01$.

Maladaptive strategies for downregulation of positive emotions, $p = 0.001$ and maladaptive downregulation of negative emotions, $p < 0.001$, predicted higher burnout levels. Additionally, cognitive reappraisal predicted lower burnout, $p = 0.020$. Maladaptive strategies for downregulation of negative emotions, $p = 0.007$, also predicted lower job satisfaction in faculty, with cognitive reappraisal predicting greater job satisfaction, $p = 0.009$. Concerning faculty members' intentions to quit, only cognitive reappraisal predicted lower turnover intentions, $p = 0.013$. Expressive suppression, $p = 0.013$, and maladaptive strategies for downregulation of negative emotions, $p < 0.001$, further predicted higher levels of psychological maladjustment, with cognitive reappraisal predicting lower psychological health issues, $p = 0.003$. Finally, maladaptive downregulation of negative emotions predicted more illness symptoms, $p < 0.001$, and cognitive reappraisal predicted lower physical ill health, $p = 0.017$.

4.2.2. Stress Effects

To assess the main effects of stress on emotion regulation strategies and well-being, we conducted linear regression analyses using SPSS (IBM Corporation 2016; see Table 5). The results showed that stress was not a significant predictor of adaptive downregulation of negative emotions or expression suppression. However, stress predicted more frequent use of adaptive upregulation of positive emotions, $p = 0.003$, as well as maladaptive downregulation of positive emotions, $p < 0.001$, and negative emotions, $p < 0.001$, and less frequent use of cognitive reappraisal, $p = 0.012$. Stress additionally predicted higher levels of burnout, $p < 0.001$, turnover intentions, $p = 0.006$, as well as physical, $p < 0.001$, and psychological health issues, $p < 0.001$, as well as lower job satisfaction, $p < 0.001$.

4.2.3. Moderation Analyses

To evaluate our moderation hypotheses, moderation analyses were conducted using the PROCESS moderation macro (v3.0; Hayes 2017) for SPSS (IBM Corporation 2016). As outlined in Hayes (2017), PROCESS is a versatile computational tool for reliably estimating moderation models. The current analyses employed PROCESS Model 1 using 5000 bootstrap resamples to yield 95% confidence intervals (CIs) for the conditional effects of emotion regulation on well-being. A significant interaction term ($p < 0.05$) that significantly improved the regression model, would indicate that gender, years of experience, and stress moderated the relationship between emotion regulation and well-being or emotion regulation strategies interacted in predicting well-being.

Table 5. Main Effects of Stress on Emotion regulation Strategies and well-being.

Independent Variable	Dependent Variable	B	SE B	t	p	LLCI	ULCI
Stress	Cognitive reappraisal	−0.12	0.04	−2.52	0.012	−0.20	−0.02
	Expressive suppression	−0.04	0.06	−0.73	0.467	−0.17	0.09
	Adaptive upregulation of positive emotions	0.14	0.04	2.94	0.003	0.04	0.22
	Maladaptive downregulation of positive emotions	0.33	0.04	7.20	0.000	0.21	0.36
	Adaptive downregulation of negative emotions	0.09	0.04	1.80	0.073	−0.00	0.15
	Maladaptive downregulation of negative emotions	0.26	0.06	5.52	0.000	0.20	0.42
	Emotional exhaustion	0.58	0.05	14.55	0.000	0.64	0.84
	Job satisfaction	−0.30	0.04	−6.26	0.000	−0.30	−0.16
	Quitting intentions	0.14	0.03	2.78	0.006	0.03	0.16
	Psychological maladjustment	0.41	0.02	9.17	0.000	0.12	0.19
	Illness symptoms	0.47	0.02	10.69	0.000	0.18	0.27

To evaluate Hypothesis 1c, we used adaptive emotion regulation strategies (i.e., cognitive reappraisal, adaptive upregulation of positive emotions, adaptive downregulation of negative emotions) as the independent variables and maladaptive strategies (i.e., expressive suppression, maladaptive downregulation of positive and negative emotions) as moderators on the dependent variables, controlling for gender and experience. To evaluate Hypotheses 2c and 3c, we used emotion regulation strategies as the independent variables and gender and experience as moderators on five dependent variables. To evaluate Hypothesis 4c, we used adaptive and maladaptive emotion regulation strategies

as independent variables and stress as moderator on the dependent variables, controlling for gender and experience. The moderation results are presented in Tables 6 and 7.

As for interactive relationships between emotion regulation strategies, suppression interacted with adaptive upregulation of positive emotions in predicting faculty burnout ($p = 0.039$; see Table 6). More specifically, suppression contributed to higher burnout in faculty members with less frequent use of adaptive upregulation of positive emotions (see Figure 1 for ± 1 SD simple slopes). Moreover, maladaptive strategies for downregulation of negative emotions interacted with adaptive strategies for upregulation of positive emotions in predicting burnout (see Table 6; $p = 0.053$). Maladaptive downregulation of negative emotions was more detrimental for burnout in faculty members with less frequent use of adaptive upregulation of positive emotions. Furthermore, simple slope testing (see Figure 2) suggested that maladaptive downregulation of negative emotions contributed to greater burnout in faculty members who less frequently employ adaptive upregulation of positive emotions.

Concerning the moderating role of gender, gender significantly interacted with adaptive upregulation of positive emotions ($p < 0.001$) and cognitive reappraisal ($p = 0.024$) in predicting physical illness symptoms (see Table 6). Specifically, these strategies were more beneficial for physical health in female faculty members than their male counterparts. Moreover, simple slope testing (see Figures 3 and 4) revealed that female faculty members who more frequently employed adaptive upregulation of positive emotions and reappraisal enjoyed higher levels of physical health than males. Similarly, gender significantly interacted with maladaptive strategies for downregulation of positive emotions ($p < 0.001$) and suppression ($p < 0.001$) in predicting burnout (see Table 7). More precisely, these strategies were more detrimental for burnout in females relative to males. Simple slope testing (see Figures 5 and 6) revealed that female faculty members who more frequently used maladaptive downregulation of positive emotions and suppression experienced greater burnout than their male colleagues.

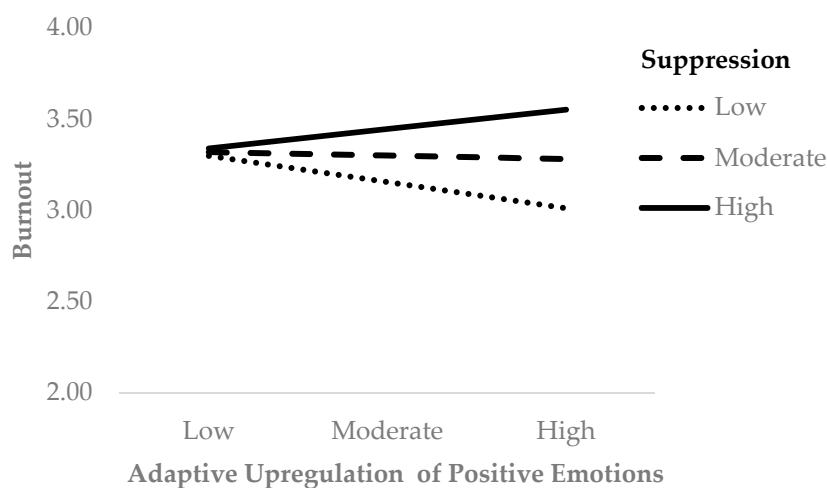


Figure 1. Adaptive upregulation of positive emotions predicting burnout as a function of suppression.

Table 6. Moderation Analyses for adaptive Emotion Regulation Strategies.

Independent Variable	Dependent Variable	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>
Reappraisal × stress	Burnout	−0.00	0.05	−0.06	0.951	−0.11	0.10
	Job satisfaction	−0.00	0.03	−0.11	0.909	−0.07	0.06
	Quitting intentions	−0.01	0.04	−0.42	0.673	−0.09	0.06
	Psych. maladjustment	−0.00	0.02	−0.29	0.775	−0.04	0.03
	Illness symptoms	−0.01	0.02	−0.74	0.461	−0.05	0.02
Reappraisal × gender	Burnout	−0.17	0.12	−1.40	0.165	−0.42	0.07
	Job satisfaction	0.03	0.07	0.46	0.643	−0.11	0.18
	Quitting intentions	−0.07	0.07	−0.95	0.343	−0.21	0.07
	Psych. maladjustment	−0.02	0.04	−0.57	0.570	−0.09	0.05
	Illness symptoms	−0.10	0.04	−2.27	0.024 *	−0.19	−0.01
Reappraisal × experience	Burnout	0.04	0.06	0.60	0.546	−0.09	0.16
	Job satisfaction	0.02	0.04	0.49	0.622	−0.05	0.09
	Quitting intentions	0.02	0.03	0.52	0.600	−0.05	0.09
	Psych. maladjustment	0.01	0.02	0.80	0.425	−0.02	0.05
	Illness symptoms	0.04	0.02	1.75	0.080	−0.00	0.08
Reappraisal × suppression	Burnout	0.04	0.06	0.58	0.564	−0.09	0.16
	Job satisfaction	−0.00	0.04	−0.16	0.873	−0.08	0.07
	Quitting intentions	0.00	0.04	0.14	0.884	−0.07	0.08
	Psych. maladjustment	−0.00	0.02	−0.27	0.784	−0.04	0.03
	Illness symptoms	0.01	0.02	0.53	0.594	−0.03	0.05
Reappraisal × maladaptive downregulation of positive emotions	Burnout	0.04	0.05	0.81	0.421	−0.06	0.15
	Job satisfaction	0.00	0.03	0.00	0.994	−0.06	0.06
	Quitting intentions	0.00	0.03	0.00	0.996	−0.07	0.07
	Psych. maladjustment	−0.00	0.01	−0.32	0.751	−0.03	0.02
	Illness symptoms	0.00	0.02	0.39	0.697	−0.03	0.04
Reappraisal × maladaptive downregulation of negative emotions	Burnout	0.00	0.05	0.07	0.944	−0.10	0.11
	Job satisfaction	0.00	0.03	0.19	0.846	−0.05	0.07
	Quitting intentions	0.00	0.03	0.02	0.986	−0.07	0.07
	Psych. maladjustment	−0.01	0.01	−1.02	0.306	−0.04	0.01
	Illness symptoms	−0.02	0.02	−1.17	0.240	−0.06	0.01
Adaptive upregulation of positive emotions × stress	Burnout	0.03	0.05	0.73	0.468	−0.06	0.13
	Job satisfaction	−0.05	0.03	−1.50	0.134	−0.12	0.01
	Quitting intentions	0.02	0.03	0.58	0.560	−0.04	0.08
	Psych. maladjustment	0.00	0.01	0.37	0.709	−0.02	0.04
	Illness symptoms	0.03	0.02	1.63	0.105	−0.00	0.06
Adaptive upregulation of positive emotions × gender	Burnout	−0.25	0.14	−1.81	0.070	−0.53	0.02
	Job satisfaction	0.03	0.08	0.40	0.685	−0.13	0.20
	Quitting intentions	−0.05	0.08	−0.67	0.503	−0.21	0.10
	Psych. maladjustment	−0.02	0.04	−0.43	0.665	−0.10	0.06
	Illness symptoms	0.21	0.05	4.31	0.000 **	0.12	0.31

Table 6. Cont.

Independent Variable	Dependent Variable	B	SE B	t	p	LLCI	ULCI
Adaptive upregulation of positive emotions × experience	Burnout	0.11	0.06	1.81	0.072	−0.00	0.23
	Job satisfaction	0.01	0.03	0.39	0.694	−0.06	0.08
	Quitting intentions	−0.02	0.03	−0.70	0.481	−0.09	0.04
	Psych. maladjustment	0.02	0.02	0.97	0.331	−0.02	0.05
	Illness symptoms	0.01	0.02	0.56	0.572	−0.03	0.05
Adaptive upregulation of positive emotions × suppression	Burnout	0.12	0.06	2.07	0.039 *	0.00	0.24
	Job satisfaction	0.00	0.04	0.08	0.931	−0.08	0.08
	Quitting intentions	0.01	0.04	0.33	0.744	−0.06	0.08
	Psych. maladjustment	0.00	0.02	0.24	0.809	−0.03	0.04
	Illness symptoms	−0.00	0.02	−0.07	0.940	−0.04	0.04
Adaptive upregulation of positive emotions × maladaptive downregulation of positive emotions	Burnout	−0.00	0.06	−0.15	0.881	−0.12	0.10
	Job satisfaction	−0.05	0.04	−1.31	0.190	−0.12	0.02
	Quitting intentions	0.06	0.04	1.50	0.133	−0.02	0.14
	Psych. maladjustment	0.02	0.02	1.38	0.169	−0.00	0.05
	Illness symptoms	0.02	0.02	0.88	0.381	−0.02	0.05
Adaptive upregulation of positive emotions × maladaptive downregulation of negative emotions	Burnout	−0.12	0.06	−1.94	0.053 *	−0.25	0.00
	Job satisfaction	−0.01	0.04	−0.38	0.703	−0.09	0.06
	Quitting intentions	0.02	0.04	0.48	0.630	−0.06	0.10
	Psych. maladjustment	0.01	0.02	0.75	0.450	−0.02	0.05
	Illness symptoms	−0.01	0.02	−0.43	0.666	−0.06	0.04
Adaptive downregulation of negative emotions × stress	Burnout	0.09	0.06	1.46	0.143	−0.03	0.21
	Job satisfaction	−0.05	0.04	−1.25	0.211	−0.13	0.03
	Quitting intentions	0.04	0.03	1.33	0.182	−0.02	0.11
	Psych. maladjustment	0.02	0.02	0.99	0.321	−0.02	0.05
	Illness symptoms	0.02	0.02	1.02	0.310	−0.02	0.05
Adaptive downregulation of negative emotions × gender	Burnout	−0.04	0.13	−0.34	0.734	−0.30	0.21
	Job satisfaction	0.05	0.08	0.62	0.532	−0.11	0.20
	Quitting intentions	0.00	0.07	0.11	0.914	−0.14	0.15
	Psych. maladjustment	0.07	0.04	1.81	0.071	−0.00	0.14
	Illness symptoms	0.05	0.05	0.95	0.343	−0.05	0.14
Adaptive downregulation of negative emotions × experience	Burnout	0.08	0.06	1.37	0.172	−0.03	0.19
	Job satisfaction	−0.04	0.03	−1.14	0.256	−0.10	0.03
	Quitting intentions	0.02	0.03	0.51	0.608	−0.05	0.08
	Psych. maladjustment	0.01	0.01	0.71	0.477	−0.02	0.04
	Illness symptoms	0.00	0.02	0.07	0.945	−0.04	0.04
Adaptive downregulation of negative emotions × suppression	Burnout	0.11	0.07	1.69	0.091	−0.02	0.25
	Job satisfaction	−0.00	0.04	−0.16	0.869	−0.09	0.07
	Quitting intentions	0.02	0.04	0.64	0.522	−0.05	0.10
	Psych. maladjustment	0.02	0.02	1.07	0.286	−0.02	0.06
	Illness symptoms	0.02	0.02	0.91	0.361	−0.02	0.07

Table 6. Cont.

Independent Variable	Dependent Variable	B	SE B	t	p	LLCI	ULCI
Adaptive downregulation of negative emotions × maladaptive downregulation of positive emotions	Burnout	0.04	0.07	0.59	0.556	−0.10	0.18
	Job satisfaction	−0.00	0.04	−0.21	0.828	−0.08	0.06
	Quitting intentions	0.05	0.03	1.48	0.140	−0.02	0.11
	Psych. maladjustment	0.00	0.01	0.39	0.695	−0.02	0.04
	Illness symptoms	0.02	0.02	1.07	0.284	−0.02	0.06
Adaptive downregulation of negative emotions × maladaptive downregulation of negative emotions	Burnout	−0.01	0.06	−0.17	0.865	−0.14	0.12
	Job satisfaction	0.05	0.03	1.54	0.125	−0.01	0.12
	Quitting intentions	0.00	0.04	0.12	0.908	−0.07	0.08
	Psych. maladjustment	0.00	0.02	0.02	0.987	−0.04	0.04
	Illness symptoms	0.01	0.02	0.66	0.507	−0.03	0.06

* $p \leq 0.05$. ** $p \leq 0.01$.

Table 7. Moderation Analyses for maladaptive Emotion regulation Strategies.

Independent Variable	Dependent Variable	B	SE B	t	p	LLCI	ULCI
Suppression × stress	Burnout	−0.03	0.06	−0.63	0.530	−0.15	0.08
	Job satisfaction	0.00	0.04	0.19	0.850	−0.08	0.09
	Quitting intentions	−0.03	0.03	−0.90	0.370	−0.10	0.04
	Psych. maladjustment	−0.01	0.02	−0.77	0.441	−0.05	0.02
	Illness symptoms	−0.03	0.06	−0.63	0.530	−0.15	0.08
Suppression × gender	Burnout	0.53	0.13	4.15	0.000 **	0.28	0.79
	Job satisfaction	0.01	0.09	0.16	0.870	−0.15	0.18
	Quitting intentions	0.05	0.07	0.65	0.518	−0.10	0.19
	Psych. maladjustment	0.04	0.04	0.94	0.346	−0.04	0.12
	Illness symptoms	0.08	0.05	1.59	0.112	−0.02	0.18
Suppression × experience	Burnout	−0.02	0.07	−0.34	0.730	−0.16	0.11
	Job satisfaction	0.08	0.04	1.78	0.076	−0.00	0.17
	Quitting intentions	−0.04	0.04	−1.08	0.281	−0.12	0.03
	Psych. maladjustment	−0.02	0.02	−0.97	0.331	−0.06	0.02
	Illness symptoms	−0.03	0.02	−1.48	0.140	−0.08	0.01
Maladaptive downregulation of positive emotions × stress	Burnout	0.11	0.05	2.08	0.038 *	0.00	0.21
	Job satisfaction	−0.05	0.05	−0.99	0.323	−0.14	0.04
	Quitting intentions	0.03	0.03	0.90	0.370	−0.03	0.09
	Psych. maladjustment	−0.00	0.01	−0.43	0.667	−0.03	0.02
	Illness symptoms	0.03	0.02	1.35	0.177	−0.01	0.07

Table 7. Cont.

Independent Variable	Dependent Variable	B	SE B	t	p	LLCI	ULCI
Maladaptive downregulation of positive emotions × gender	Burnout	0.49	0.12	4.11	0.000 **	0.25	0.72
	Job satisfaction	−0.10	0.07	−1.22	0.224	−0.24	0.06
	Quitting intentions	0.06	0.07	0.89	0.373	−0.08	0.20
	Psych. maladjustment	0.01	0.03	0.40	0.688	−0.05	0.08
	Illness symptoms	0.03	0.04	0.71	0.476	−0.05	0.12
Maladaptive downregulation of positive emotions × experience	Burnout	−0.04	0.06	−0.66	0.512	−0.16	0.08
	Job satisfaction	0.07	0.04	1.66	0.097	−0.01	0.16
	Quitting intentions	−0.04	0.03	−1.14	0.255	−0.10	0.03
	Psych. maladjustment	0.01	0.01	0.86	0.389	−0.02	0.04
	Illness symptoms	−0.00	0.02	−0.53	0.598	−0.04	0.03
Maladaptive downregulation of negative emotions × stress	Burnout	0.05	0.05	0.87	0.382	−0.06	0.15
	Job satisfaction	−0.01	0.05	−0.27	0.789	−0.11	0.08
	Quitting intentions	0.04	0.04	1.11	0.268	−0.03	0.12
	Psych. maladjustment	−0.00	0.02	−0.22	0.824	−0.04	0.03
	Illness symptoms	0.05	0.02	2.57	0.010 **	0.01	0.09
Maladaptive downregulation of negative emotions × gender	Burnout	−0.08	0.12	−0.70	0.483	−0.32	0.15
	Job satisfaction	0.14	0.07	1.97	0.050 *	0.00	0.30
	Quitting intentions	−0.04	0.07	−0.56	0.572	−0.18	0.10
	Psych. maladjustment	−0.05	0.03	−1.64	0.101	−0.13	0.01
	Illness symptoms	0.01	0.05	0.31	0.757	−0.08	0.11
Maladaptive downregulation of negative emotions × experience	Burnout	0.08	0.06	1.31	0.191	−0.04	0.21
	Job satisfaction	−0.04	0.04	−1.06	0.292	−0.12	0.04
	Quitting intentions	0.00	0.04	0.08	0.939	−0.07	0.08
	Psych. maladjustment	0.03	0.02	2.05	0.01 *	0.00	0.07
	Illness symptoms	0.00	0.02	0.24	0.807	−0.04	0.06

* $p \leq 0.05$. ** $p \leq 0.01$.

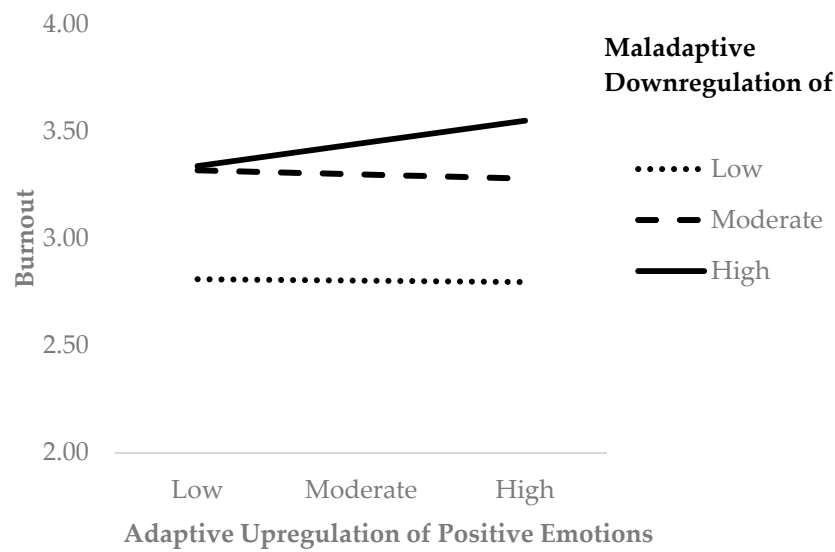


Figure 2. Adaptive upregulation of positive emotions predicting burnout as a function of maladaptive downregulation of negative emotions.

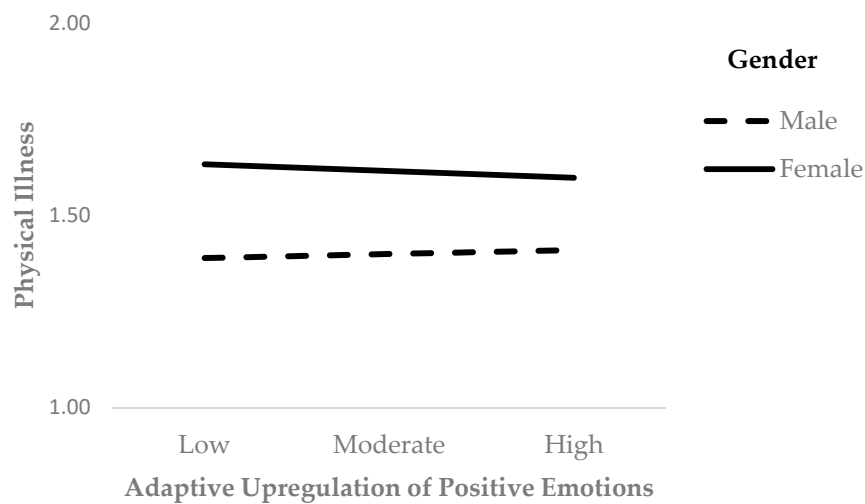


Figure 3. Adaptive upregulation of positive emotions predicting physical illness as a function of gender.

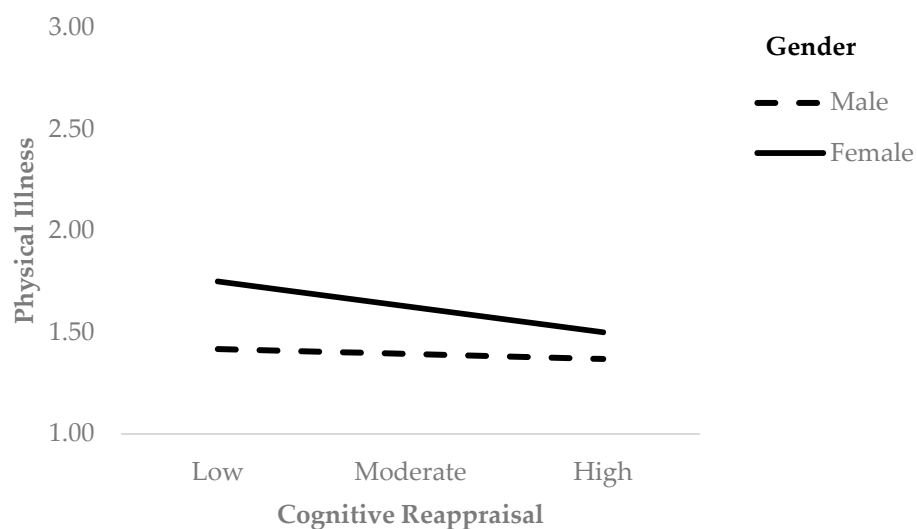


Figure 4. Cognitive reappraisal predicting physical illness as a function of gender.

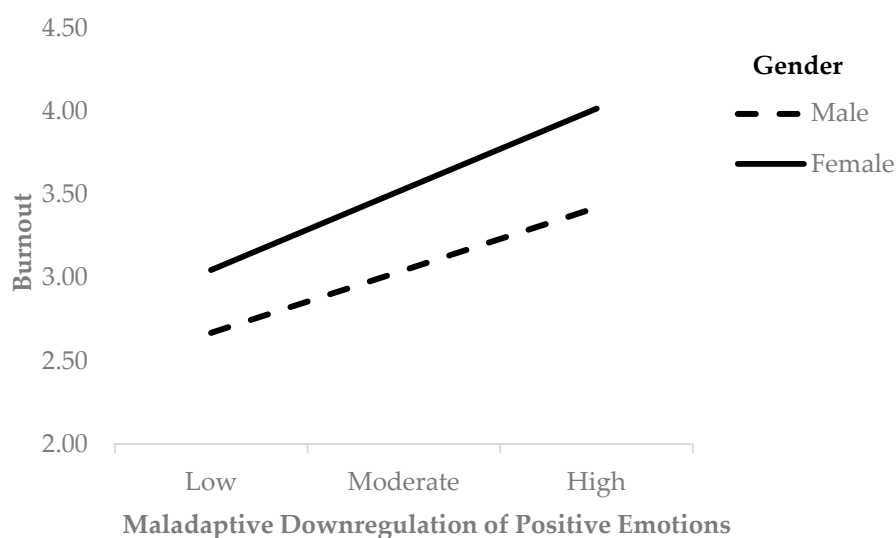


Figure 5. Maladaptive downregulation of positive emotions predicting burnout as a function of gender.

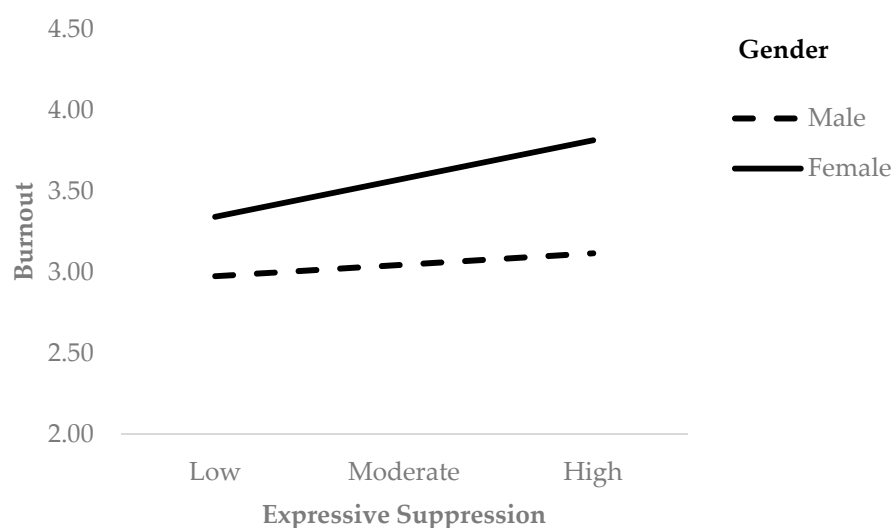


Figure 6. Expressive suppression predicting burnout as a function of gender.

Gender also significantly interacted with maladaptive strategies for downregulation of negative emotions in predicting job satisfaction ($p = 0.050$; see Table 7). Specifically, maladaptive downregulation of negative emotions was associated with lower job satisfaction in female faculty members as compared with males. Furthermore, simple slope testing (see Figure 7) revealed that female faculty members who more frequently used maladaptive downregulation of negative emotions were less satisfied with their job relative to males.

As for moderating role of years of experience, experience significantly interacted with maladaptive strategies for downregulation of negative emotions in predicting psychological maladjustment ($p = 0.041$; see Table 7). Specifically, more experienced faculty members who more frequently adopted maladaptive downregulation of negative emotions suffered from greater psychological health challenges than their less experienced colleagues. Simple slope testing (see Figure 8) revealed that more experienced faculty members who more frequently used maladaptive downregulation of negative emotions were more prone to psychological maladjustment than their less experienced peers.

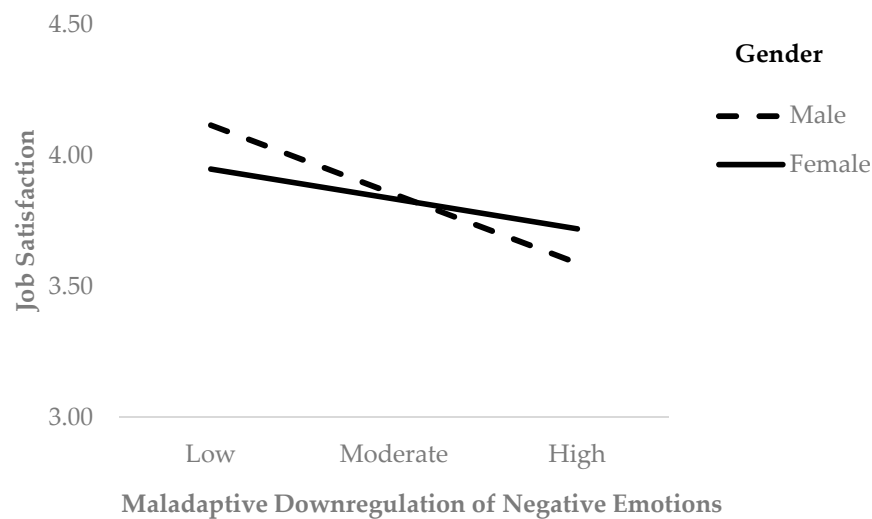


Figure 7. Maladaptive downregulation of negative emotions predicting job satisfaction as a function of gender.



Figure 8. Maladaptive downregulation of negative emotions predicting psychological maladjustment as a function of years of experience.

Regarding the moderating role of perceived stressors, stress significantly interacted with maladaptive downregulation of positive emotions in predicting burnout ($p = 0.038$) and with maladaptive downregulation of negative emotions in predicting illness symptoms ($p = 0.010$; see Table 7). More specifically, the detrimental impact of maladaptive downregulation of positive emotions on burnout and of maladaptive downregulation of negative emotions on physical illness were more detrimental among faculty members with higher levels of perceived stressors. Furthermore, simple slope testing revealed that faculty members with greater maladaptive downregulation of positive and negative emotions, accompanied by higher levels of perceived stressors, reported the highest level of burnout and illness symptoms, respectively (see Figures 9 and 10).

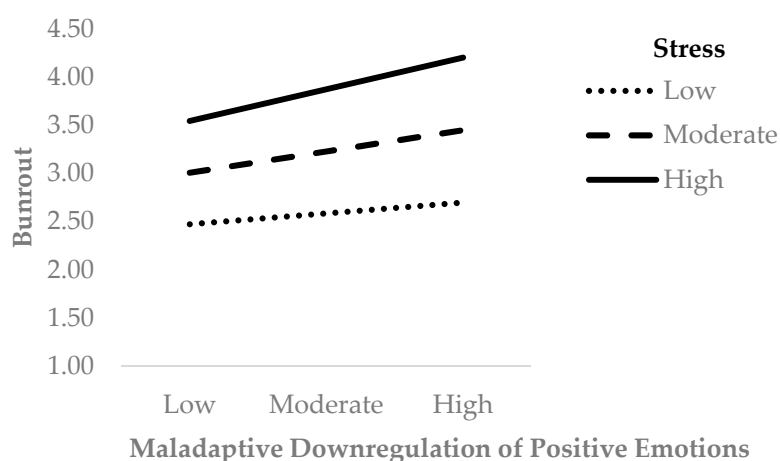


Figure 9. Maladaptive downregulation of positive emotions predicting burnout as a function of stress.

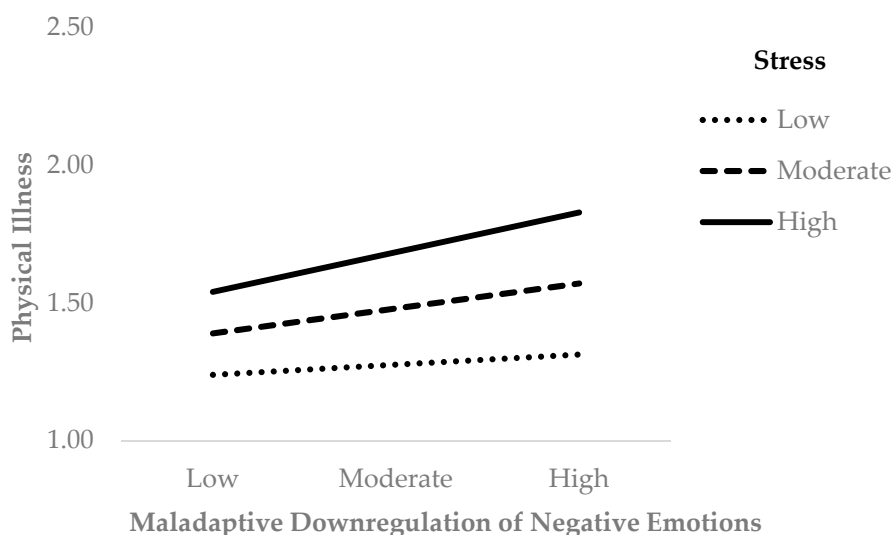


Figure 10. Maladaptive downregulation of negative emotions predicting physical illness as a function of stress.

5. General Discussion

Faculty members experience emotion-laden interactions in their day-to-day work as they encounter a variety of emotional demands. Strong empirical evidence from studies of post-secondary faculty members indicates that stress and the emotional demands of academic life compromise the personal and professional competencies of academics (Byrne et al. 2013; Catano et al. 2010; Kinman and Wray 2020; Watts and Robertson 2011). However, emotion regulation and its consequences for well-being remain under-researched among post-secondary faculty members. The present study expands the existing research on faculty emotion regulation and addressed these gaps in the literature by exploring the relationship between several emotion regulation strategies and well-being outcomes among higher education faculty members with a sample recruited from multiple research-intensive institutions. Furthermore, the study explored ways in which gender, experience, and stress impact well-being and emotion regulation strategies and how strategies interact with these background variables and other emotion regulation strategies in predicting well-being. Our findings provide important clues as to the associations between emotions regulation and well-being as well as the relative strength of emotion regulation strategies in predicting varied well-being outcomes.

5.1. Study Hypotheses

5.1.1. Emotion Regulation and Faculty Well-Being

With respect to the hypothesized effects of adaptive and maladaptive emotion regulation strategies on faculty well-being, our results provided partial empirical support for Hypotheses 1a and 1b. Hypothesis 1a asserted that faculty members' use of adaptive strategies should positively predict job satisfaction, and negatively predict burnout, quitting intentions, and physical and psychological health issues. This hypothesis was only partially supported because results of the analyses showed that adaptive upregulation of positive emotions and adaptive downregulation of negative emotions were not significant predictors of any of the five measures of well-being. These findings are thus contrary to prior studies that linked these strategies to favorable well-being outcomes such as reduced negative emotions (Larsen and Prizmic 2004; Shiota 2006) as well as greater happiness, life satisfaction, positive emotions, and self-esteem (Aldao and Nolen-Hoeksema 2010; Bryant 2003; Jose et al. 2012; Quoidbach et al. 2010; Wood et al. 2003). However, these results may have been due to lower internal reliability for specific measures (e.g., $\alpha = 0.53$ for adaptive downregulation of negative emotions), suggesting that future research exploring other strategies for upregulating behaviors for positive emotions and downregulating responses for negative emotions may produce stronger results.

Concerning cognitive reappraisal, as anticipated, use of this strategy was an important predictor of greater job satisfaction as well as lower burnout, turnover intentions, and physical and psychological health challenges. These findings are consistent with prior research highlighting the benefits of cognitive reappraisal in schoolteachers (Jiang et al. 2016; Lee et al. 2016; Tsouloupas et al. 2010) as well as post-secondary faculty members (Ramsey et al. 2011; Regan et al. 2012; Tümkaya 2007). Additionally, these findings extend prior research by demonstrating the health benefits of cognitive reappraisal with respect to a broader range of well-being indicators among academics. These findings further indicate that reappraisal might be a health-beneficial emotion regulation strategy that may contribute to faculty job satisfaction and retention as well as physical and psychological health.

With respect to the hypothesized effects of maladaptive strategies (i.e., suppression and maladaptive downregulation of positive and negative emotions), our findings provided partial empirical support for Hypothesis 1b. As anticipated, maladaptive downregulation of negative emotions predicted lower job satisfaction as well as greater burnout and poorer physical as well as psychological health. Additionally, as expected, maladaptive downregulation of positive emotions was an important predictor of faculty burnout with suppression also being a significant predictor of psychological maladjustment. Faculty who reported more frequent maladaptive downregulation of positive emotions and suppression also reported higher burnout and psychological maladjustment, respectively. These findings are consistent with studies showing adverse effects of maladaptive emotion regulation in general (Gross 2002, 2015; Gross and Levenson 1993; Peña-Sarrionandia et al. 2015) and specifically among post-secondary faculty members (Berry and Cassidy 2013; Hagenauer and Volet 2014b; Kataoka et al. 2014; Mark and Smith 2012; Ogbonna and Harris 2004).

We also found that maladaptive emotion regulation strategies were more strongly associated with ill health than adaptive strategies. Specifically, maladaptive strategies for downregulation of negative emotions were the strongest predictor of well-being, with burnout and maladjustment being the most strongly predicted well-being measures, respectively. Overall, this finding suggests that the use of maladaptive strategies might play a more critical role in faculty ill health than the non-use of adaptive strategies. The finding that adaptive strategies played a smaller role in faculty ill health is consistent with prior research showing maladaptive strategies (i.e., suppression, rumination) to be stronger predictors of mental illness (i.e., depression, anxiety, substance abuse) than adaptive strategies (e.g., Aldao and Nolen-Hoeksema 2010, 2012; Aldao et al. 2010). As Aldao and Nolen-Hoeksema (2010) argue, one explanation for the stronger association of maladaptive strategies with ill health may be that the more frequently individuals use maladaptive strategies, the more quickly these strategies become

their default way of regulating emotions, leading to lower use of adaptive strategies, which, in turn, result in weaker associations with health outcomes.

Although Hypothesis 1c suggested that maladaptive emotion regulation strategies would interfere with the effects of adaptive strategies, this hypothesis was only partially supported. Suppression and maladaptive strategies for downregulation of negative emotions interacted with adaptive upregulation of positive emotions in predicting faculty burnout. Suppression and maladaptive downregulation of negative emotions were more detrimental to burnout for faculty members who used adaptive upregulation of positive emotions less frequently. A similar conclusion was reached by Joormann and D'Avanzato (2010) who found the maladaptive strategy of rumination to narrow attentional focus and interfere with one's ability to shift attention away from negative stimuli.

5.1.2. Gender, Emotion Regulation, and Well-Being

Our results provide partial support for Hypothesis 2a in showing female faculty members to report using both adaptive and maladaptive emotion regulation strategies more frequently than their male colleagues. Specifically, females reported more frequent use of cognitive reappraisal, adaptive upregulation of positive emotions, and adaptive downregulation of negative emotions. These findings are consistent with research showing women to report more adaptive emotion regulation strategies (Nolen-Hoeksema 2012; Nolen-Hoeksema and Aldao 2011; Tamres et al. 2002). However, our study also found women to report more frequent use of maladaptive strategies for downregulation of negative emotions. In contrast, males reported greater expressive suppression, a finding that aligns with Gross and John (2003) but contradicts previous research showing no gender differences in suppression levels (e.g., Nolen-Hoeksema and Aldao 2011).

With respect to the hypothesized gender differences in well-being, our findings provide partial support for Hypothesis 2b in showing female faculty members to report greater burnout and illness symptoms, consistent with prior research on gender differences among faculty members (e.g., Byrne et al. 2013; Catano et al. 2010; Ghorpade et al. 2007, 2011; Lackritz 2004). Nonetheless, our findings did not show any gender effects on job satisfaction, turnover intentions, and psychological health. These results are consistent with studies that did not find gender differences in faculty well-being (e.g., Platsidou and Diamantopoulou 2009; Sharma and Sehrawat 2014; Toker 2011; Winefield et al. 2003); however, they do not align with faculty research showing gender differences in job satisfaction (e.g., Catano et al. 2010; Okpara et al. 2005; Sabharwal and Corley 2009), intentions to quit (Blix et al. 1994; Callister 2006; Xu 2008; Zhou and Volkwein 2004), and strain (Catano et al. 2010; Winefield et al. 2008).

Although these results may suggest that female faculty members may be less effective than their male counterparts in utilizing effective coping resources to deal with academic demands, this interpretation is unlikely given that female faculty members tend to use adaptive emotion regulation strategies more frequently. One explanation for this paradoxical finding might be that female faculty members also used maladaptive strategies for downregulation of negative emotions more frequently than their male colleagues, with the detrimental effects of these maladaptive strategies being stronger than the beneficial effects of adaptive strategies. Another explanation involves the fact that female faculty members experience substantial additional challenges relative to their male counterparts. Research consistently shows female academics to report higher work-life conflict (Catano et al. 2010; Kinman and Wray 2013; Weinrib et al. 2013), greater effort-reward imbalance (Catano et al. 2010), less research support (Xu 2008), lower likelihood of promotion (Winkler 2000), more frequent harassment (Cassidy et al. 2014; Lampman 2012; Taylor 2012), and more family obligations than their male colleagues (i.e., housework, childcare, care for elders; Misra et al. 2012). Accordingly, it is possible that these additional challenges may be contributing to persistently lower levels of well-being for female faculty members relative to their male colleagues.

Finally, although it was hypothesized that gender would moderate the effects of emotion regulation strategies on well-being (Hypothesis 2c), this hypothesis was only partially supported. Specifically,

gender significantly interacted with: (a) adaptive upregulation of positive emotions and reappraisal in predicting physical health, (b) suppression and maladaptive downregulation of positive emotions in predicting faculty burnout, and (c) maladaptive downregulation of negative emotions in predicting job satisfaction. These findings imply that the beneficial effects of adaptive upregulation of positive emotions and reappraisal were greater for women than men. Conversely, the detrimental effects of suppression and maladaptive downregulation of positive emotions on burnout, as well as the detrimental effects of maladaptive downregulation of negative emotions on job satisfaction, were also greater for female faculty members. These findings are consistent with the results of a meta-analysis by [Webb et al. \(2012\)](#) who found that gender moderated the effectiveness of emotion regulation.

One possible reason for why female faculty members demonstrated greater effects of emotion regulation may be that women assume the primary responsibility for the “psychological” management of the home ([Ehrensaft 1990](#)) and, as partners and mothers, are primary providers of emotional support for their significant others and children in addition to their occupational responsibilities ([Hochschild 1983](#); [Wharton and Erickson 1993](#)). As a result, women are typically required to perform emotion regulation more frequently, and thus are more likely to experience both the positive and negative consequences of these strategies more often than men. Another explanation may be that male faculty members are likely to benefit from other supports (e.g., their partner’s performance of physical household labor, emotional caring, and higher salaries and promotion opportunities; [Blix et al. 1994](#); [Wharton and Erickson 1993](#); [Xu 2008](#)) and are thus not required to use emotion regulation as often.

An additional explanation for this finding may be that female academics are expected to perform tasks that require emotional labor ([Bellas 1999](#)). Specifically, female academics typically spend more time teaching and receive extra service requests (e.g., student advising, committee work) and are culturally expected to be nurturing and caring for students (e.g., by empathetically listening to their problems; [Bellas 1999](#); [Larson 2008](#); [Winkler 2000](#)). This, in turn, requires substantial emotional labor that is not acknowledged as a valued skill nor remunerated as part of their job description or performance evaluations. Emotional labor, in turn, has been shown to be a key stressor associated with impaired well-being (e.g., burnout, psychological distress) in post-secondary faculty members ([Constanti and Gibbs 2004](#); [Ogbonna and Harris 2004](#); [Pugliesi 1999](#); [Zhang and Zhu 2008](#)).

5.1.3. Experience, Emotion Regulation, and Well-Being

With respect to the hypothesized effects of years of faculty experience on emotion regulation strategy use, our findings provide partial support for Hypothesis 3a. Years of experience was shown to be negatively associated with maladaptive downregulation of positive and negative emotions such that less experienced faculty members more frequently engaged in maladaptive strategies to downregulate their positive and negative emotions. Adaptive upregulation of positive emotions and adaptive downregulation of negative emotions were also negatively associated with years of experience indicating that less experienced faculty members also adopted these beneficial strategies more frequently than their more experienced colleagues. These findings are consistent with studies showing less experienced K-12 teachers to engage more frequently in adaptive emotion regulation strategies (i.e., seeking social support) than their more experienced peers ([Griva and Joeke 2003](#); [Pascual et al. 2003](#)).

Nonetheless, these results are not consistent with studies showing more experienced K-12 teachers to report more frequent use of adaptive emotion regulation strategies (i.e., meditation, deep breathing exercises, and cognitive reappraisal; [Beers 2012](#); [Seidman and Zager 1991](#)). Unlike studies that found more experienced teachers to report greater cognitive reappraisal (e.g., [Beers 2012](#)), years of experience was not associated with cognitive reappraisal in this study. More experienced faculty members were also found to adopt suppression more frequently than early career faculty members, a finding contrary to those reported by [Berry and Cassidy \(2013\)](#), who found early career university lecturers to report more frequent use of suppression relative to their more senior peers.

Similarly, the present findings provide partial support for Hypothesis 3b in showing years of experience to be negatively associated with burnout as well as physical and psychological ill health, and positively linked to job satisfaction. As anticipated, early career faculty members reported lower levels of well-being relative to their more experienced colleagues. These results corroborate findings from prior studies that reported lower levels of well-being for early career school teachers (e.g., [Karsenti and Collin 2013](#); [Martin et al. 2012](#); [Wang and Hall 2019](#)) as well as post-secondary faculty members ([Blix et al. 1994](#); [Gonzalez and Bernard 2006](#)). A possible explanation as to why more junior faculty members experience poorer well-being could be challenges due to job insecurity, namely lack of tenure. This interpretation is consistent with previous studies that show pre-tenure faculty members to report higher levels of stress compared to their tenured colleagues (e.g., [Greene et al. 2008](#)), with stress being a significant predictor of impaired well-being in pre-tenure faculty members ([Catano et al. 2010](#); [Greene et al. 2008](#)).

As for moderating role of years of experience (Hypothesis 3c), the hypothesis that maladaptive emotion regulation strategies would be more detrimental for less experienced faculty members' well-being was not supported. However, unanticipated findings did show maladaptive downregulation of negative emotions to differentially impact psychological health. For more experienced faculty, more frequent use of maladaptive downregulation of negative emotions was associated with poorer well-being compared to those with less frequent use of this strategy. Potential reasons for this finding may be prolonged exposure to repeated failures simply as a function of years of experience (e.g., more manuscript rejections, more unfavorable teaching evaluations) or that some stressors may become more frequent with experience. For instance, more senior faculty members typically assume demanding administrative roles in addition to their teaching and research obligations that can contribute to work overload and maladaptive coping ([Scheibe and Zacher 2013](#)).

5.1.4. Stress, Emotion Regulation, and Faculty Well-Being

With respect to the hypothesized effects of stress on emotion regulation strategy use, our findings provide partial empirical support for Hypothesis 4a. Contrary to our predictions, stress was not a predictor of suppression and adaptive downregulation of negative emotions. However, faculty members who reported more perceived stressors did report greater use of adaptive upregulation of positive emotions, maladaptive downregulation of positive and negative emotions, and also less frequent use of cognitive reappraisal, underscoring the importance of faculty stress in adoption of emotion regulation strategies. These findings imply that a faculty member who encounters greater job stress is generally more likely to employ maladaptive emotion regulation strategies that lead to poorer well-being. At the same time, if a faculty member can maintain adaptive emotion regulatory behavior in face of stress, this may ultimately act as a buffer against the negative consequences of stress.

Moreover, the results of this study provide clear empirical support for Hypothesis 4b in showing faculty members who reported greater perceived stressors to also report poorer levels of burnout, quitting intentions, physical illness, psychological maladjustment, and job satisfaction. Consistent with the job demands component of the Job Demands-Resources model (JD-R; [Bakker and Demerouti 2007](#)) and previous findings for post-secondary faculty members internationally (e.g., [Blix et al. 1994](#); [Catano et al. 2010](#); [Shen et al. 2014](#)), the present results support the assertion that Canadian post-secondary faculty members are likely to experience impaired well-being as a result of higher levels of stress. Finally, this study contributes to research on faculty emotion regulation and well-being by exploring the moderating role of stress. Consistent with existing research (e.g., [Richardson 2017](#)), we hypothesized that adaptive strategies would protect against stress whereas maladaptive strategies would impair well-being under high stress. However, the interaction between stress and adaptive strategies was not significantly associated with our well-being measures, possibly due to faculty members who engage in adaptive strategies being less impacted by stress due to having already utilized these strategies. However, as anticipated, the interaction between maladaptive downregulation of positive emotions and stress did predict burnout, with the interaction between maladaptive

downregulation of negative emotions and stress also predicting physical illness. These findings suggest that burnout and physical illness are more negatively affected by maladaptive emotion regulation at times of high stress than at times of low stress.

5.2. Limitations, Implications and Directions for Future Research

The present study has multiple limitations that leave ample room for future research to refine our findings. First, our cross-sectional design did not allow for modeling relationships between emotion regulation strategies and well-being outcomes over time and did not allow for causal inferences concerning directionality of relationships. Future longitudinal research should explore how emotion regulation changes over time and how these changes impact faculty well-being. Second, as tenured faculty members were notably overrepresented in our study (74.30%), future replications are needed to differentiate between faculty members in terms of rank and tenure-track status (e.g., tenure-track vs. contingent faculty). Third, the study relied exclusively on self-report measures that may be influenced by shared method variance (Podsakoff et al. 2003) and reporting biases (Robinson and Clore 2002; Spector 2006), warranting that future research employ more objective measures such as observations and physiological markers of emotion regulation and well-being (Pekrun and Bühner 2014).

Fourth, as our study assessed a limited number of emotion regulation strategies, future research could examine more strategy types such as those informed by the Process Model of positive emotion regulation (Quoidbach et al. 2015; e.g., positive mental time travel, capitalizing). An additional limitation is lower internal reliability for our measures of physical illness symptoms ($\alpha = 0.65$) and adaptive downregulation of negative emotions ($\alpha = 0.53$) that highlight the need for further investigation with more reliable, larger-scale measures. Finally, as our recruitment protocols focused on research-intensive universities at which teaching loads are low relative to other post-secondary institutions, our results may not generalize to faculty members at other institution types (i.e., teaching, doctoral, comprehensive, metropolitan, regional, etc.). Despite these limitations, this study provided an exploratory snapshot of the associations between adaptive and maladaptive emotion regulation strategies and well-being, the impact of stress on emotion regulation, as well as the moderating roles of background variables that can be further investigated with longitudinal qualitative methodologies (e.g., to assess causality of relations) and supplemental measures (beyond self-report).

These limitations notwithstanding, the present findings bear important implications for post-secondary institutions with respect to training and better supporting the resilience in their faculties. Given our findings on the role of stress in faculty adjustment, greater consideration of best practices to improve academic work environments for mitigating job-related stress is required. For instance, higher education institutions are encouraged to reduce excessive demands (e.g., teaching demands, research pressures), provide greater supports (e.g., teaching assistants, research officers), and facilitate balance between academic responsibilities (e.g., course releases for research). Additionally, faculty development programs for improving well-being could incorporate discussions of the prevalence and consequences of stress and offer stress management training and mental health resources (e.g., counseling) to ensure faculty members are equipped with stress management techniques.

The well-being and performance of post-secondary faculty members are critical to both the higher education sector and society, with our findings also showing faculty members' emotion regulation strategies significantly to correlate with their well-being. Consistent with previous research, our findings indicate the benefits of cognitive reappraisal as well as the detrimental effects of suppression and maladaptive emotion regulation strategies. Further, maladaptive strategies for downregulation of negative emotions were most disadvantageous for faculty members in posing the greatest risk to psychological health. These findings suggest that maladaptive emotion regulation strategies may be a good target for interventions and prevention efforts, in addition to training faculty members to more adaptively regulate their emotions. Specifically, faculty development programs could explore practical ways to encourage cognitive reappraisal while discouraging use of suppression and maladaptive strategies (e.g., role playing reactions to poor teaching evaluations or a manuscript rejection).

Our findings also highlight the importance of considering faculty members' stress levels when inquiring as to their use of emotion regulation strategies. More specifically, it is expected that enhancing adaptive emotion regulation among faculty members with greater perceived stress may especially facilitate their ability to adapt effectively and maintain their well-being levels. Finally, the nonsignificant associations between well-being and adaptive emotion regulation strategies suggest that faculty development efforts should seek to identify other strategies for upregulating positive emotions (e.g., mindfulness attention; Killingsworth and Gilbert 2010) as well as downregulation strategies for negative emotions (e.g., help/support seeking, acceptance) that are protective of faculty well-being to ensure that more effective strategies are targeted in intervention programs.

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