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Gender role conflict and emotional approach coping in men with cancer

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The utility of emotional approach coping (EAC), or expressing and processing emotions, has been equivocal for men. Gender role conflict, or the negative cognitive, emotional and behavioural consequences associated with male gender role socialisation, likely shape coping responses and may negatively affect the efficacy of men's emotion-directed coping efforts and adjustment to cancer. Perceptions of receptiveness of one's interpersonal environment may be particularly important to the effectiveness of EAC. This study examined the relationships among EAC, gender role conflict, and distress in a group of 183 men with cancer. Structural equation modelling revealed that higher gender role conflict was associated with lower emotional expression, which in turn was associated with greater distress. Gender role conflict was not related to emotional processing. Higher gender role conflict also was associated directly with more distress. In subsequent analyses, social constraints and age were examined as possible moderators of EAC. Emotional expression was related to more psychological distress for those in highly constrained environments; and emotional processing was associated with more distress with younger age. Emotional expression may be particularly affected by social influences related to gender and social receptivity. More research is needed to better distinguish constructive and unconstructive emotional processing.

Keywords: emotional approach coping; cancer; masculinity; gender role conflict; social constraints

Introduction

The emotional experience of cancer is understudied in men, despite the fact that cancer remains the second leading cause of death for adult males in the United States, with nearly 24% of all male deaths attributable to malignant neoplasms (DHHS, 2007). Although, the psychosocial impact of cancer is experienced differently across patients, cancer diagnosis, and treatment have been associated with depression, psychological distress, and diminished quality of life in men (Eton & Lepore, 2002; Honda & Goodwin, 2004), however, the majority of cancer patients do not develop psychopathology from having cancer (Massie, 2004). Although, observational studies and intervention trials reveal that coping strategies aimed at expressing and processing emotions, or emotional approach coping (EAC), can facilitate positive adjustment in breast cancer populations

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(e.g. Giese-Davis et al., 2002; Manne, Ostroff, & Winkel, 2007; Stanton et al., 2000a), men have been grossly underrepresented in the research (Hoyt, 2006; Meyer & Mark, 1995). Further, findings in clinical and non-clinical samples regarding the utility of emotional expression and processing have been inconsistent for men. For instance, empirical findings for men have linked EAC to salutary outcomes such as reductions in depressive symptoms (Berghuis & Stanton, 2002), positive affect (Baker & Berenbaum, 2007), and lower report of sensory pain (Smith, Lumley, & Longo, 2002). At the same time EAC has been associated with poorer adjustment, including rumination, in a sample of younger healthy men (Stanton, Kirk, Cameron, & Danoff-Burg, 2000b). As indicated by Stanton et al. (in press), resolution of such inconsistencies will likely require consideration of the relevance of gender-related factors within the context of specific stressful events. Perhaps socialised gender norms or collective constructions of masculinity shape expectations regarding coping style, and thus negatively affect the efficacy of men's emotion-directed coping efforts and psychological adjustment to cancer (Rubin & Hoyt, in press). The primary goal of the present study was to examine the relationships among gender role conflict, EAC, and adjustment in men with cancer.

Gender role conflict is the negative cognitive, emotional and behavioural consequences associated with male gender role socialisation (O'Neil, Good, & Holmes, 1995). For instance, feeling torn between directing resources toward career success and practicing protective self-care behaviours might arise from adopting perceived social expectations for men related to achievement and power. Chronic illness, particularly illness that arouses feelings of helplessness and powerlessness, may be especially likely to evoke gender role conflict in men. Negative emotional states such as vulnerability, fear, or uncertainty associated with cancer are at odds with the masculine expectation to be strong, self-reliant and unemotional. Qualitative research regarding masculinity and cancer has demonstrated that various aspects of the cancer experience, including declines in physical function and vitality, are perceived as a threat to masculinity (Fergus, Gray, & Fitch, 2002). However, the effect of such threat perceptions on psychological distress and regulation of emotions related to the cancer experience have not been examined. Subscription to the proverbial adage, 'boys don't cry' may support adaptive regulation of emotion in a variety of contexts; however, restrictions on processes related to acknowledging, processing or expressing emotions are likely less adaptive in the context of coping with cancer diagnosis and treatment.

A central question is whether relatively low use of emotional processing and expression in men experiencing gender role conflict will play a salutary or detrimental role in psychological adjustment. Guidance in addressing this question comes from literature on coping through emotional approach, a construct developed by Stanton, Danoff-Burg, Cameron, and Ellis (1994) and Stanton et al. (2000a, b) in response to their discovery that widely accepted conceptualisations of emotion focused coping were confounded with distress and negative affect. Such operationalisations might falsely bias associations of emotion-directed coping efforts and contradict a functionalist perspective of emotion. Traditionally emotion-focused coping has been defined as efforts to manage emotions associated with stressful events (Folkman & Moskowitz, 2004). EAC is a more active, or approach oriented, strategy that involves two component constructs: processing (e.g. acknowledging, understanding) and expressing (e.g. communicating) emotions. In longitudinal studies, coping through emotional expression predicts decreased distress, improved quality of life, increased posttraumatic growth, and better adjustment in women with breast cancer (Manne et al., 2004; Stanton et al., 2000b). Coping by emotional processing has also been shown to be beneficial for women with breast cancer

(e.g. Manne et al., 2007), though it should be noted that in early work Stanton et al. (2000a) reported that emotional processing was associated with increased distress when controlling for emotional expression.

EAC has not been investigated in men with cancer, and research in other populations suggests that the influence of EAC on adjustment varies as a function of gender. In some undergraduate samples, EAC predicts enhanced adjustment under stressful circumstances for women, but poorer adjustment for men (Stanton et al., 2000b, 1994). However, in couples undergoing an infertility-related stressor (Berghuis & Stanton, 2002), EAC was adaptive for both women and men. More recent work has found greater benefit of EAC in male versus female college undergraduates (Baker & Berenbaum, 2007). The influence of gender role norms was not assessed in these studies.

Expectancies regarding consequences associated with emotional coping processes are thought to guide the manner in which emotions are expressed and/or processed (Shields, 2000). Receptiveness of the social environment to the use of EAC, or social constraints, has been identified as a factor that might contribute to its effectiveness (Lepore & Revenson, 2007). Although, men appear to use EAC to lesser extent than women, the person–environment interaction may be more influential on their EAC efforts. In a sample of individuals with cancer, Zakowski and colleagues (2003) found that social barriers to emotional expression were more strongly related to distress in men than in women. Further, intervention research has shown that men gain greater benefit from EAC interventions when experiencing lower levels of social support related to their cancer experience (Lepore & Helgeson, 1998; Zakowski, Ramati, Morton, Johnson & Flanigan, 2004); it may be that EAC is useful to the extent that men perceive their interpersonal environment as supportive and receptive.

This study aimed to examine the influence of gender role conflict on EAC and psychological adjustment to cancer in a sample of men with cancer, by testing a hypothesised model in which men who endorse more gender role conflict are likely to evidence lower EAC and more psychological distress. Further, EAC is hypothesised to mediate the relationship of gender role conflict and distress. Given the importance of social receptiveness to EAC, social constraints will be examined as a possible moderator of the EAC-distress relationship. It is expected that EAC will be related to less distress in the context of lower social constraints.

Male veterans comprised the sample for this study. In civilian samples, stress related to failures to adhere to traditional masculine gender roles has been associated with restricted emotional expression (Wong, Pituch, & Rochlen, 2006). Military training may foster adherence to traditional male gender norms, particularly those involving notions of stoicism and self-reliance, that can shape men's emotional and interpersonal behaviours long after they have left military service (Brooks, 1990). Thus, veterans may serve as a valuable reference group in which to examine processes related to gender role norms and EAC.

Method

Participants

Participants were men being treated for cancer at an outpatient oncology clinic at a veteran's hospital in a major metropolitan area in the southwestern U.S. Participants were not excluded by primary cancer site, disease stage or by treatment type, but were screened to exclude individuals with any cognitive debilitating co-morbidity.

Participants included 183 men who ranged in age from 31 to 94 years ($M = 67.5$, $SD = 10.7$). Socio-demographic variables are reported in Table 1. Men had Stage I (7%), Stage II (15%), Stage III (15%) and Stage IV (41%) cancers, though no staging information was available for 40 patients (~22%). Prostate cancer was the most prevalent form of cancer in the sample (28%), followed by lung (14%), colorectal (13%), blood/bone cancers (13%), gastrointestinal (7%), bladder and kidney (4%), head and neck cancer (2%), and other (9%). Nearly 25% of the sample had received their initial diagnosis within the 2 months prior to study entry, 10% in the prior 7 months to 1 year, 32% were diagnosed 1–5 years prior, and 33% were diagnosed more than 5 years prior. The majority of men had received adjuvant chemotherapy (54%) and over 40% had received radiation treatment. Participants had a mean number of 3.7 medical co-morbidities, with hypertension (42%), heart disease (21%), diabetes (16%) and COPD (7%) among the most common.

Procedure

Clinic personnel approached qualified participants to participate in a study about 'men's experiences with cancer' during regularly scheduled office visits. Research staff provided information about the study to interested patients. Following an informed consent process, patients completed questionnaire assessments in clinic. Participants were entered into a drawing to receive gift certificates to a reputable local retailer.

Table 1. Participant demographics.

Demographic variable	
N	183
Mean age	67.5 (SD = 10.7)
Ethnicity	
White (non-Hispanic)	86.3%
Hispanic/Latino	6.0%
African American/Black	3.8%
Native American	2.2%
Other	1.7%
Education	
Less than high school	12.7%
High school grad	25.3%
Some post-high school	35.7%
College degree	26.4%
Modal income	$10,000–$20,000
Job status	
Full-time employment	6.6%
Part-time employment	11.0%
Student	1.0%
Retired	71.4%
Married/Significant relationship	67.2%
Have at least 1 child	81.4%

Note: A total of 30.1% of the sample reported income at the modal income range; average income range was $20,000–$30,000. Some participants endorsed multiple job status categories.

The Institutional Review Boards at the Phoenix Veteran Affairs Health Care System and Arizona State University approved study procedures, and written informed consent was obtained from all participants.

Measures

Gender role conflict

Gender role conflict refers to the state of internal conflict that arises from the negative consequences associated with the socialised masculine gender role (O'Neil, Good, & Holmes, 1995) and was measured using the Gender Role Conflict Scale (GRCS; O'Neil, Helms, Gable, David, & Wrightsman, 1986), a 37-item inventory using a 6-point response scale (1 = *strongly disagree*; 6 = *strongly agree*). The GRCS includes statements about one's personal gender-role attitudes, behaviours, and conflicts and includes four factors: success, power and competition (e.g. 'Winning is a measure of my value and personal worth.'); restrictive emotionality (e.g. I have difficulty expressing my tender feelings); restrictive affectionate behaviour between men (e.g. 'Affection with other men makes me tense.'); and conflict between work and family relations (e.g. 'I worry about failing and how it affects my doing well as a man.' In support of its constructed validity, positive correlations have been demonstrated with the GRCS to other measures of men's attitudes about masculinity (Good et al., 1995). Because the restrictive emotionality subscale of the GRCS (e.g. 'I do not like to show my emotions to other people.') has substantial conceptual overlap with EAC, this subscale score was not included in the computation of the total GRCS composite score. Mean scores with and without inclusion of items from the restrictive emotionality subscale were highly correlated in this sample ($r = 0.97$; $p < 0.001$). Cronbach's alpha = 0.93 for the composite score excluding restrictive emotionality items.

Emotional approach coping

Coping processes were measured using Stanton and colleague's (2000a, b) EAC scales, which consist of the 4-item emotional processing (e.g. 'I take time to figure out what I'm really feeling') and 4-item emotional expression (e.g. 'I feel free to express my emotions') scales. Participants were instructed to complete items specifically in reference to their cancer experience. Completed on a 4-point response scale (1 = *I don't do this at all*; 4 = *I do this a lot*), the items were added to the Brief COPE (Carver, Scheier, & Weintraub, 1989), a measure of several coping strategies. Both EAC scales have been shown to demonstrate sound internal consistency and predictive validity (Stanton et al., 2000b). In the current study, Cronbach's alpha was 0.75 for emotional processing and 0.85 for emotional expression.

Psychological distress

Indicators of distress were cancer-specific intrusive thoughts, depressive symptoms and negative affect.

Cancer-specific intrusive thoughts were measured with the impact of events scale – Intrusion subscale (Horowitz, 1987). The intrusion scale has frequently been used to measure cancer-specific distress (e.g. Lepore & Helgeson, 1998). As in previous research, the 7-item scale was slightly modified to be relevant to a cancer context (e.g. had thoughts about cancer when you did not mean to; pictures or thoughts about cancer came into your mind when trying to fall asleep). Respondents indicated how frequently in the past week

(1 = *not at all*; 5 = *often*) they experienced such thoughts. In the present study, the internal consistency was 0.89.

Depressive symptoms were measured with the abbreviated Centre for Epidemiologic Studies Depression Scale (CES-D; Andresen, Malmgren, Carter, & Patrick, 1994), a 10-item depression-screening questionnaire. The abbreviated CES-D has been validated against the full 20-item CES-D in a sample of more than 4000 community-residing elderly adults (Andresen et al., 1994). Sample items include, 'I felt hopeful about the future' (reverse coded) and 'I felt depressed.' In the present study, Cronbach's alpha = 0.76.

Negative affect was measured with the negative affect scale of the Positive and Negative Affect Schedule (PANAS-NA; Watson, Clark, & Tellegen, 1988). Patients rated how much they felt each of the 10 negative mood states (e.g. afraid, hostile, nervous) in the past week. Ratings are on a 5-point scale (0 = *very slightly or not at all*; 5 = *extremely*). The PANAS has demonstrated high internal consistency in previous research and has a Cronbach's alpha of 0.84 to 0.90 as well as a test–retest reliability ranging from 0.42–0.72 within an 8-week retest interval (Watson & Pennebaker, 1989). In this study, internal consistency was 0.85.

Social constraints

The social constraints scale, developed by Lepore and Ituarte (1999) assesses participants' perceived inadequacy of social support resulting in reluctance to communicate thoughts and feelings. This 15-item questionnaire asks participants to think about the past week and evaluate their relationship with their spouse or others on a 4-point Likert scale ranging from 1 (never) to 4 (often). Sample items are: 'How often in the past week has your spouse changed the subject when you tried to discuss your illness?,' and 'How often did they make you feel as though you had to keep feelings about your cancer to yourself, because they made him/her feel uncomfortable?'

Two forms of the SCS were used in the present study, one asking about constraints from patients' spouse or partner and one asking about constraints from other people in their lives (i.e. friends or family members). Because the two scales were highly correlated ($r = 0.59$, $p < 0.001$), the mean of the two constraint scores were used in all analyses to reflect average constraint, as in previous research with cancer patients (Zakowski et al., 2004). For the 58 men who had no current spouse or partner, only the 'constraints from others' score was used. Previous research on the SCS has shown internal consistency coefficients of 0.88 to 0.92 (Lepore & Ituarte, 1999). Internal reliability coefficients in the present study ranged from 0.86 to 0.94 for the two forms.

Health status and demographics

Participants self-reported their age, level of education, income, employment status, family composition and ethnicity. In addition, disease information including primary cancer type and stage, secondary cancer site(s), time since diagnosis, treatment history, and co-morbidities were obtained by medical record review.

Results

The data analysis proceeded in three steps. First, demographic and clinical characteristics were examined and covariates to be included in model testing were identified. Then, the fit of the proposed specified structural equation model was tested. Finally, separate

regression analyses were conducted to detect hypothesised moderation of relationships among the variables. Model testing and analyses including latent variables were conducted using Mplus statistical software (Version 3.01; Muthén & Muthén, 2004), and correlations and tests of interactions were conducted using SPSS (Version 15.0; SPSS, 2005).

Descriptives and selection of covariates

Descriptive information and correlations among primary study variables are shown in Table 2. As shown in the table, participants' CES-D scores averaged 10.58 (range = 0–27, SD = 4.59). The majority of the sample (57.5%) reported depressive symptoms above the clinical cut-off score (≥10). Further, levels of negative affect and cancer-related intrusive thoughts were consistent with previous research with cancer patients (e.g. Roberts, Lepore, & Helgeson, 2006; Voogt et al., 2005). Relationships between study variables and potential covariates were first assessed. These included age, education, marital status, cancer stage, cancer type, time since diagnosis and co-morbidities. Of these, age was the only variable related to endogenous study variables, and so was used as a covariate in the tested model: Age was negatively related to emotional expression ($r = -0.17$, $p < 0.05$), emotional processing ($r = -0.18$, $p < 0.05$), cancer-related intrusions ($r = -0.30$, $p < 0.01$), depressive symptoms ($r = -0.25$, $p < 0.01$), and negative affect ($r = -0.30$, $p < 0.001$). That is, older men utilised less emotional expression and processing, and reported less cancer-related intrusions, depressive symptoms and negative affect.

Measurement model of psychological distress

Preliminary analyses tested the relationships among measures of psychological distress (i.e. PANAS-NA, cancer-related intrusions, CES-D) to determine the presence of a single common underlying psychological distress variable. Confirmatory factor analysis utilising maximum likelihood estimation was conducted to test whether a single common factor model of psychological distress adequately accounted for observed correlations among the measures.

To evaluate model fit, four fit indices were computed: χ^2, root mean squared error of approximation (RMSEA), standardised root mean squared residual (SRMR), and the comparative fit index (CFI). The χ^2 statistic provides a global test of exact fit, where acceptable fit is indicated by a non-significant χ^2 (i.e. $p > 0.05$), with smaller χ^2 values (and larger p-values) indicating increasingly better fit to the data (Bollen, 1989).

Table 2. Correlations for study variables.

Variable	M	SD	1	2	3	4	5	6	7
1. Gender role conflict	2.69	0.94	–	−0.20**	0.00	0.19**	0.26**	0.29***	0.38***
2. Emotional expression	2.46	0.91		–	0.66***	0.05	−0.03	−0.01	−0.08
3. Emotional processing	2.41	0.81			–	0.27**	0.19**	0.23**	0.19*
4. Intrusions	1.52	0.63				–	0.36***	0.47***	0.47***
5. CES-D	10.58	4.59					–	0.61***	0.35***
6. Negative affect	18.29	6.94						–	0.45***
7. Social constraints	1.67	0.57							–

Note: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

The RMSEA provides an estimate of the average size of the residual, adjusted for degrees of freedom. The SRMR is another index of global fit and is a measure of the *non-fit* of a model. For these absolute indices (RMSEA and SRMR), lower values indicate better fit. The CFI is an index of relative fit as compared to the null model. Higher values indicate better fit and range from 0 to 1. The following have been identified as cut points for these indices when defining a *good* fit: RMSEA below 0.05, SRMR below 0.05, and CFI of 0.95 or greater (see Hu & Bentler, 1999; Millsap, 2002). RMSEA and SRMR values between 0.05 and 0.08 have been regarded as indicative of a model with a *fair* fit to the data (Browne & Curdeck, 1993). Finally, the CFI is a measure of how well the model fits in comparison to the null model. This index provides an estimate of how much the model is improved compared to the null model; values of greater than or equal to 0.95 are considered a good fit of the model (see Hu & Bentler, 1999; Millsap, 2002). The model fit the data adequately, $\chi^2(1) = 0.173$, $p = 0.678$; CFI = 1.00; RMSEA = 0.000; SRMR = 0.015. Factor loadings for the PANAS-NA, cancer-related intrusions, and CES-D were 0.90, 0.51, and 0.69, respectively. Thus, a single common factor model of distress was supported.

Test of hypothesised structural equation model

Structural equation modelling was conducted to test the hypothesised relationships among the variables. Given the correlation pattern and theoretical relationship among EAC processes, the disturbance terms for emotional processing and emotional expression were allowed to correlate. Although, there is empirical justification to examine these two facets of EAC individually (Stanton et al., 2000b), there is no established or hypothesised causal or temporal precedence.

As seen in Figure 1, a test of the hypothesised model revealed a non-significant chi-square, $\chi^2(8) = 7.29$, $p = 0.506$, suggesting an adequate fit to the data. Observation of additional fit indices further suggested a good fit to the data, RMSEA = 0.000 (CI: 0.00–0.098); SRMR = 0.027; CFI = 1.00. The structural equation model revealed that higher gender role conflict was associated with lower emotional expression, which in turn was associated with greater distress. Higher gender role conflict also was associated directly with more distress. Given that a non-significant zero-order correlation was

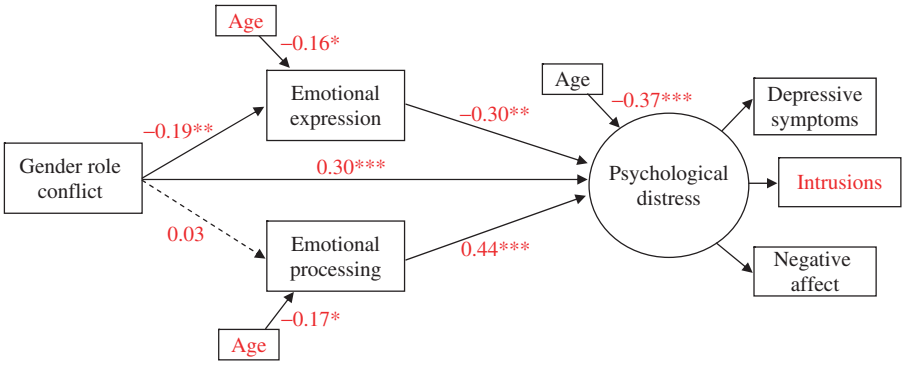

Figure 1. Test of the hypothesised model.
Notes: All estimates reflect values from the completely standardised solution. Disturbance terms for emotional expression and emotional processing were allowed to correlate, though this is not depicted in the figure. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

observed between emotional expression and psychological distress (Table 2), yet a significant path coefficient was found in the final model, additional analyses were conducted to better elucidate these relationships. First, the final model described above was tested with the path coefficient between emotional processing and psychological distress fixed to zero. Then, the model was tested with the path between gender role conflict and psychological distress fixed to zero. Emotional expression remained significantly associated with psychological distress only in the latter case, suggesting that the variance unique to emotional expression (from emotional processing) is negatively associated with psychological distress.[1,2]

Although, the tested model provided an adequate fit to the data, the path from gender role conflict to emotional processing was non-significant. Also contrary to hypothesis, emotional processing was associated with higher distress. To further elucidate these relationships, social constraint was examined as a moderator of the relationship between EAC and distress.

Test of moderators

Ordinary least squares regression analyses were conducted to test hypotheses regarding moderation. The predictors (gender role conflict, emotional expression, emotional processing and age) were standardised to control for possible multicollinearity (Aiken & West, 1991). Interaction terms were created by calculating products of each predictor with the appropriate putative moderator (e.g. Emotional Expression × Social Constraints, Emotional Processing × Social Constraints, Emotional Expression × Age, etc.). Significant interaction effects were examined across three levels of the moderating variable: one SD above the mean, one SD below the mean and at the mean.

In separate hierarchical regressions predicting psychological distress, age, the EAC variables, and social constraints were entered first, then interaction terms were entered in block 2. As displayed in Table 3, a significant emotional expression by social constraints interaction was observed, accounting for 2% of the variance in each case. Emotional expression was related to more psychological distress for those in highly constrained environments (i.e. +1 SD); however, at low levels of constraints (i.e. −1 SD), emotional expression was related to lower distress. Social constraints did not moderate the relationship of emotional processing and distress; however, a significant emotional processing × age interaction was observed in which emotional processing was related to higher levels of distress with decreasing age.[3] This interaction accounted for 3.2% of the explained variance of distress. Age was not found to moderate the relationship of emotional expression and distress. Plots of significant interactions are displayed in Figure 2. The social constraints by age interaction term did not significantly relate to distress. Also, three-way interactions of age, social constraints and EAC were tested and were not found to be significant.[4]

Results suggest that internalisation of traditional masculine gender norms (i.e. gender role conflict) is related to lower use of coping through emotional expression, though no relationship was found for emotional processing. The final model showed that emotional expression was related to lower overall psychological distress, while emotional processing was related to higher distress. Of course, it's possible that additional equivalent models exist to represent these data; however, the model reflects the basic conceptual framework whereby cognitive constructions of the gendered self (masculine gender role conflict) precede emotion regulatory strategies (i.e. emotional expression) that, in turn, affect

Table 3. Hierarchical multiple regression analysis testing moderating effects of EAC processes.

Variable	*B*	SE B	β	ΔR^2
Block 1:				0.464
Age	−0.01	<0.01	−0.27***	
Emotional processing	0.10	0.04	0.19**	
Social constraints	0.36	0.06	0.51***	
Block 2:				0.060
Social constraints × Age	<0.01	<0.01	−0.06	
Emotional processing × Social constraints	0.09	0.07	0.09	
Emotional processing × Age	−0.01	<0.01	−0.16*	
Block 1:				0.441
Age	−0.01	<0.01	−0.31***	
Emotional expression	<0.01	<0.01	<0.01	
Social constraints	0.39	0.07	0.57***	
Block 2:				0.043
Social constraints × Age	<0.01	<0.01	−0.04	
Emotional expression × Social constraints	0.13	0.06	0.17*	
Emotional expression × Age	<0.01	<0.01	−0.04	

Notes: Regression coefficients reflect values at the end of Block 2, with all variables entered into the equation.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

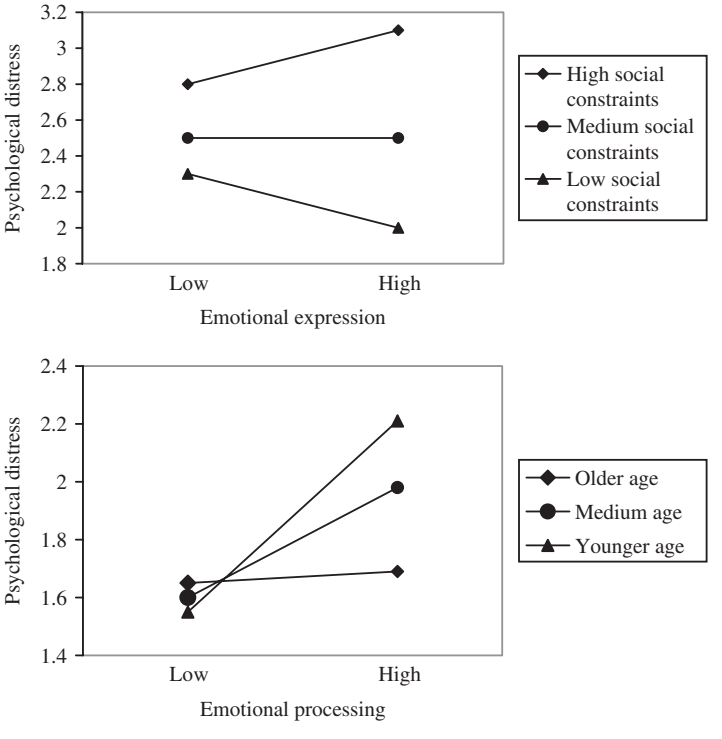

Figure 2. Social constraints and emotional expression (a), and emotional processing and age (b) interactions on psychological distress.

subjective indicators of distress. Test of possible moderators of these relationships found that emotional expression was related to lower distress in the context of less constrained relationships, and higher distress in a more constrained context. Also, age attenuated the relationship of emotional processing and distress, in which emotional processing was associated with higher distress for men at younger ages.

Discussion

Few studies have examined the emotion-directed coping efforts of men in the context of cancer, or the gender-related influences on coping. Results suggest that emotional expression and emotional processing are, in part, operating differently in men's coping attempts despite their relatively high correlation. Similar to coping processes examined in women with cancer, expressing emotions as a means of coping with cancer appear to be helpful for men. However, efforts to express emotions may be particularly subject to social influences in men. The tendency to express emotions may be dampened by internalisation of gender-related social expectations for men not to express emotions related to the cancer experience. The significant moderating effect of social constraints on distress highlights the influence of the social environment on expression. Efforts to express emotions related to the cancer experience may only prove beneficial within environments in which sharing emotions is explicitly supported. At high levels of social constraints, emotional expression appears to be less helpful and even distressing. It should be noted that the interaction accounted for only a small amount of the variance; however, universal recommendations for men to 'share their feelings' related to cancer may be misguided for some patients. As Lepore & Revenson (2007) discuss, constrained social relationship may attenuate the benefits of expression on adjustment by preventing the cognitive processing of events and fears related to cancer. Such failures at integration or accommodation of information related to cancer diagnosis, particularly in the time following diagnosis, may contribute to the maintenance of cancer-related distress over time. This may be particularly harmful for men who experience constraints across interpersonal domains or for men whose expectations regarding emotional expression differ from those in his social environment.

The finding that gender role conflict was not associated with emotional processing, and that emotional processing was related to higher distress, was unexpected and contrary to prior findings that have found a benefit of emotional processing in clinical samples (Berghuis & Stanton, 2002). Emotional processing involves focused attention on emotions related to the cancer experience, and thus has been identified as one form of repetitive thought. As Watkins (2008) indicates, such repetitive cognitive processes may not be inherently adaptive or maladaptive, but rather the constructiveness of emotional processing efforts likely depends on more qualitative attributes of the thoughts (i.e. thought valence, content). For instance, repeated attendance to negative emotional content without relief or change in threat appraisals would likely contribute to the maintenance of patterns of cognitive and emotional responding and distress (Ehlers & Clark, 2000; Ehlers, Michael, Chen, Payne, & Shan, 2006). Another possibility is that the relationship of emotional processing and adjustment to cancer is not linear. It may be that there is an optimal level of emotional processing that would promote better adjustment. Recent work has found a benefit of repressive coping, or directing attention away from negative emotions, in the regulation of emotion, promotion of resilience, and adjustment to life-disrupting negative events (Coifman, Bonanno, Ray, & Gross, 2007).

The utility of emotional processing may be particularly vulnerable to age. In this study, the relationship of emotional processing to distress was stronger for younger men. One possibility is that younger men engage in less constructive forms of emotional processing that better resemble other repetitive thought processes such as worry or rumination. Both worry and rumination are considered to be maladaptive cognitive processes involving repetitive thoughts that are intrusive and aversive (e.g. Borkovec, Shadick, & Hopkins, 1991; Nolen-Hoeksema, 1991, 1996). More work examining the affective experience of emotional processing with the cognitive processes involved in repetitive thought is needed. A key difference in these constructs is that rumination and worry are thought to be involuntary, uncontrollable processes with little opportunity for repair of distress (Nolen-Hoeksema & Jackson, 2001), where emotional processing is an intentional process. Future studies might use momentary assessment modalities, such as daily diaries, to assess the involvement of rumination and worry in emotional processing efforts. Such studies would also allow for observation of emotional processing effortsspecific to emotions discordant with gender-socialised norms (e.g. depression, uncertainty). This study suggests that gender role conflict does not influence attempts at emotional processing, but provides little assessment of its potential influence on the emotional and/or cognitive content of such attempts. It may be important to understand how masculine norms act within the cancer context. Strict masculine norms may themselves provide a means of cognitive avoidance by making available a readily accessible and socially acceptable blueprint for emotional responding (e.g. anger, action), that when employed provides distraction from cancer-relevant negative emotions such as fear and vulnerability.

Several limitations should be considered when interpreting the results of this study. A cross-sectional design was used to test a theory of a process that may in fact change over time. This study also included a convenience sample of veterans, all of whom were receiving specialised health care services. As discussed, the use of veterans in this study has advantages; however, additional research with civilian men is needed to assess generalisability. In addition, although this study included a representative sample of veterans in terms of race, class and ethnicity, it did not fully examine the potential impact of these identity factors on outcomes or their intersections with gender-related constructs. Cultural influences regarding the influence of masculine norms on EAC need to be better understood. This study examined masculine gender role conflict; however, examination of additional masculinity constructs will better illuminate various aspects of masculine gender norms, particularly momentary measurement of behaviour that is consistent or divergent from traditional gender norms.

It should also be noted that the majority of men scored above the clinical cut-off score for depressive symptoms. The number of participants with advanced-stage disease may have influenced these higher rates, which is supported by results from one study that indicated that men with advanced disease were significantly more depressed than those with early-stage disease (Lintz et al., 2003). It is also possible that the high number of comorbidities in the sample also contributed to the elevated rate of depressive symptoms. It should also be noted that the sample in this study represented considerable variation in time since diagnosis. Differences in experiences across cancer sub-groups likely represent different emotional trajectories and the impact of gender role conflict on EAC should be examined in more homogenous samples in future research. Finally, all of the measures in the final model were based on self-report, introducing the possibility that correlations were due to a common response bias in the way that participants responded to each question. The use of self-report measures in this study relies on the assumption that individuals have

conscious awareness of their coping processes. At the same time, the EAC measure used in this study has been found to have reasonable interjudge reliability and predictive validity in prior work (Stanton et al., 2000a, b). Also, EAC, as construed, is predicated on the notion that such processes are intentional; intentionality is embedded in the scale items. Despite these limitations, these results inform our limited understanding of the impact of traditional masculine norms and EAC processes in men.

Results of this study provide support for one model of the relationships between masculine gender role conflict and the use of emotional approach processes as a means of coping with cancer. Emotional expression may in fact be a useful coping strategy for men coping with cancer within a socially receptive environment. At the same time, gender role conflict, which is driven by adoption of traditional masculine gender norms, may be limiting men's use of emotional expression as a means of coping, and may hamper adjustment to cancer. In addition, men, particularly younger men, may be engaging in less helpful forms of emotional processing, which in turn might be contributing to poorer adjustment and increased distress. More research is needed to identify the ways in which men might use emotional processing as a more adaptive coping mechanism. Greater validity in the measurement of emotional processing for men is crucial in understanding gender differences and in the design of psychosocial interventions; future interventions that alter maladaptive forms of emotional processing may be beneficial to men with cancer. Clearly, more work is needed regarding distinguishing emotional processing and rumination in men, perhaps by identifying intentional versus unintentional processes. Also, future work should consider the clinical implications of masculine gender norms, and particularly gender role conflict. Approaches that do not threaten masculinity yet challenge gender norms enough to allow for the expression of difficult emotions may be most beneficial to men with cancer.

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