

Mood disturbance in community cancer support groups The role of emotional suppression and fighting spirit

Matthew J. Cordova*, Janine Giese-Davis, Mitch Golant, Carol Kronnenwetter,
Vickie Chang, Sarah McFarlin, David Spiegel

Stanford University School of Medicine, Stanford CA, USA

Abstract

Objective: In this cross-sectional study, we tested whether the coping styles of emotional suppression and fighting spirit were associated with mood disturbance in cancer patients participating in professionally led community-based support groups even when demographic, medical, and group support variables were taken into account. **Methods:** A heterogeneous sample of 121 cancer patients (71% female, 29% male) completed the Courtauld Emotional Control Scale (CECS), the Mini-Mental Adjustment to Cancer Scale (Mini-MAC), a measure of perceived group support, and the Profile of Mood States (POMS). **Results:** Con-

sistent with hypotheses, lower emotional suppression and greater adoption of a fighting spirit, in addition to older age and higher income, were associated with lower mood disturbance. Gender, time since diagnosis, presence of metastatic disease, time in the support group, perceived group support, cognitive avoidance, and fatalism were unrelated to mood disturbance. **Conclusion:** Expression of negative affect and an attitude of realistic optimism may enhance adjustment and reduce distress for cancer patients in support groups.

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Introduction

Lower emotional suppression [1,2], higher emotional expression (e.g., Ref. [3]), and the development and maintenance of a hopeful attitude toward illness [4–7] have been linked to lower distress in those with malignant disease. Many models of group support focus on facilitating emotional expression [8] and adopting a positive but realistic attitude toward one's disease and treatment [9–12]. Although a substantial minority of cancer survivors participate in peer or professionally led support groups [13], little is known about the determinants of emotional adjustment in this subpopulation. While emotion regulation and coping variables have been used to predict distress in participants in university-based research studies, these factors have not been evaluated in the context of ongoing community support group participation nor have they been determined to predict emotional well-

being above and beyond demographic and medical variables. The present study sought to extend prior research by evaluating whether emotional suppression and adoption of a fighting spirit were associated with mood disturbance, even when sociodemographic, medical, and group-related variables were accounted for in a heterogeneous sample of cancer patients participating in ongoing community support groups.

Emotional suppression, the attempt to control expression of negative affect [8], has been associated with greater emotional distress in those with cancer. Classen et al. [1] found that emotional suppression was associated with greater mood disturbance in women with advanced breast cancer, despite their tendency to underreport their distress. In a sample of recently diagnosed breast cancer patients, Watson et al. [2] found that suppression of negative emotion was linked to depression and anxiety. Conversely, attempts to cope through emotional expression were related to better quality of life, lower mood disturbance, and greater hope in women with early stage breast cancer [14]. These findings suggest that a less restrictive emotion regulation style may promote better adjustment to life-threatening illness.

* Corresponding author. VA Palo Alto Health Care System (116B), 3801 Miranda Avenue, Palo Alto, CA 94304, USA. Tel.: +1-650-493-5000x67915; fax: +1-650-852-3445.

E-mail address: matthew.cordova@med.va.gov (M.J. Cordova).

Fighting spirit [15,16], viewed as “an attitude of optimism in the face of a realistic appraisal of the illness” ([1, p. 434]), has been associated with better emotional adjustment in several cancer patient samples. Fighting spirit has been linked to lower depression, anxiety, and mood disturbance and better quality of life in a number of breast cancer studies [1,2,17–21]. Similarly, fighting spirit has also been linked to better adjustment to cervical cancer [22], gastrointestinal cancer [23], and mixed cancer [24] samples. Thus, a stance of realistic optimism may serve a protective effect in the face of a major health crisis.

Although some have found that both emotional suppression and adoption of a fighting spirit account for unique variance in cancer-related distress (e.g., Ref. [1]), it is unclear whether these coping strategies are related to adjustment when sociodemographic and medical variables are accounted for. Given that younger age [25], lower income [26,27], time since diagnosis [28], and more advanced disease [28–31] have all been linked with greater emotional impairment in those with cancer, it is important to take these factors into account when evaluating relationships between emotion regulation style, coping, and emotional well-being.

This cross-sectional study sought to test whether emotional suppression and fighting spirit were associated with emotional distress in a heterogeneous sample of individuals with cancer who were participating in community cancer support groups. We hypothesized that lower emotional suppression and coping characterized by greater use of fighting spirit would be associated with lower mood disturbance, even when demographic, medical, and group variables were taken into account.

Method

Participants

We recruited participants from two community agencies providing cancer support groups in California: The Wellness Community (TWC) and the Cancer Support Community (CSC). TWC, founded in 1982, is the largest U.S. community-based organization providing free psychological and emotional support for cancer patients and their families. Each week, TWC serves over 5000 participants in professionally facilitated groups nationally at 22 sites, with 670 participants across seven sites in California. In the present study, we recruited subjects from TWC Participant Groups: weekly 2-hour support groups consisting of 12 adult cancer patients with mixed diagnosis, gender, and age facilitated by a licensed psychotherapist (social worker, psychologist, or MFT). TWC support groups emphasize encouraging patients to become empowered to make active choices in their recovery, reducing unwanted aloneness, loss of control, and loss of hope. Behaviorally, participants focus on making changes in their lives that they view as important, developing a new attitude toward the illness,

active coping with the illness, and better partnering with their physician.

The CSC, founded in 1986 in San Francisco, California, offers free psychosocial and psychospiritual group support for people with cancer and their loved ones. Group leaders are licensed psychologists or social workers who have personal cancer experience. CSC groups include patients of mixed diagnosis, gender, and age. Groups meet weekly for 2 hours and are ongoing. Founded on Buddhist beliefs, CSC patient groups attempt to combat isolation and fear by encouraging people to talk about the emotional impact of the disease, their social support, medical interventions, alternative therapies, depression, anger, fear, isolation, death, life, religion, and treatment decisions. Compassion is a central theme in these groups. CSC also successfully works with minority and financially limited cancer patients helping them to connect with community resources.

Our eligibility criteria included the following: (a) participating in an ongoing patient support group at TWC or CSC; (b) ≥ 18 years old; and (c) able to read and understand English. Of 245 eligible individuals recruited for participation (TWC: $n=230$; CSC: $n=15$), 121 (49%) provided questionnaire packets with complete data. Comparisons between those who did ($n=121$) and did not ($n=124$) provide complete data, revealed no significant differences with respect to sociodemographic (age, gender, education, income, employment, marital status, race), disease (primary vs. metastatic, time since diagnosis), treatment (chemotherapy, radiation therapy, hormonal therapy), or group (site: TWC vs. CSC, time since joining the support group) variables.

Procedure

All procedures in this study were conducted with approval from the Stanford University human subjects review board. Participants were recruited from ongoing support groups at either TWC or the CSC for participation in a study of quality of life in individuals with cancer. During a 1-week period, we stopped all TWC support groups in the six California facilities 20 minutes early and asked participants to fill out questionnaires if they were willing. During this same period, CSC group participants were invited to participate. Eligible participants provided written informed consent and were asked to complete a packet of standardized, paper-and-pencil questionnaires. No monetary incentives were given for participation.

Measures

Sociodemographics, disease, and treatment

Participants provided sociodemographic (gender, marital status, education level, annual household income, employment status, ethnicity), disease (site of primary diagnosis, date of original diagnosis, diagnosis of metastatic disease), treatment (chemotherapy, radiation therapy, hormonal

therapy; no information was collected on surgical treatment), and support group (date of first participation) data on a general information form developed for this study.

Group rating form

Three questions were used to assess participants' support group experience: (1) "How supported do you feel in this group?"; (2) "How understood do you feel in this group?"; and (3) "How satisfied are you with how well this group meets your current needs as a cancer patient?" Participants rated these questions on a six-point Likert scale, from 0 = *not at all* to 5 = *intensely*. Responses to these three questions were highly intercorrelated (*r*s ranged from .54 to .64) and were therefore summed to derive an overall "group support" rating. The Cronbach's alpha for this three-item scale was .83.

Emotional suppression

The Courtauld Emotional Control Scale (CECS [32]) was designed to assess emotional suppression of anger, anxiety or fear, and sadness in cancer populations. Participants rate 21 items on a four-point scale, ranging from 1 = *almost never* to 4 = *almost always* for the extent to which they attempt to control expression of anger, anxiety, and depression. Items consist of an emotion stem (e.g., "When I feel unhappy...") and responses to be rated (e.g., "I refuse to say anything about it" or "I keep quiet" or "I bottle it up"). For this sample, the Cronbach's alpha for the CECS total score was .94.

Fighting spirit

The Mini-Mental Adjustment to Cancer Scale (Mini-MAC [33–35]) was developed to measure cancer patients' cognitive and behavioral responses to diagnosis and treatment. The 29-item Mini-MAC [35] yields five subscales: Fighting Spirit (e.g., I see my illness as a challenge), Helpless/Hopeless (e.g., I feel like giving up), Anxious Preoccupation (e.g., It is a devastating feeling), Cognitive Avoidance (e.g., I deliberately push all thoughts of cancer out of my mind), and Fatalism (e.g., I've put myself in the hands of God). The Fighting Spirit and Helpless/Hopeless subscales were highly negatively correlated, $r = -.40$, $P < .001$. Consistent with the scale authors' recommendations and with the approach used by Classen et al. [1], we combined the two into one subscale and labeled the resulting scale Fighting Spirit. Anxious Preoccupation was not included in our analyses because of its conceptual similarity to our dependent variable of mood disturbance [1]. We did elect to include the other two subscales (Cognitive Avoidance and Fatalism) in our analyses. In this sample, Cronbach's alphas were .82 for Fighting Spirit, .77 for Cognitive Avoidance, and .52 for Fatalism.

Mood disturbance

We used the Profile of Mood States (POMS [36]) as our dependent variable. The POMS is a frequently used and

well-validated adjective rating scale designed to measure various affective states. Participants rate 65 adjectives (e.g., angry, sad, tense, clear headed) describing their moods over the past week using a five-point Likert scale ranging from 0 = *not at all* to 4 = *extremely*. Six subscales (Tension–Anxiety, Depression–Dejection, Anger–Hostility, Vigor–Activity, Fatigue–Inertia, and Confusion–Bewilderment) are combined to yield a Total Mood Disturbance (TMD) score. Internal consistencies of the six POMS subscales have ranged from .87 to .95 [36]. For this sample, the Cronbach's alpha for the TMD score was .94.

Statistical analyses

Simultaneous multiple regression analysis was used to identify the relative effects of emotional suppression, fighting spirit and other coping variables, demographic, medical,

Table 1
Descriptive statistics for demographic, medical, and psychosocial characteristics ($n = 121$)

Characteristic	%	<i>M</i>	S.D.	Range
Demographic				
Age		55.2	11.3	28–81
Female	71.1			
Currently married	56.2			
≥ College education	66.1			
Household income US\$40,000 ≤ ^a	62.0			
Currently employed	43.8			
Caucasian	81.0			
Months in group		13.5	16.4	0–84
Medical				
Primary diagnosis				
Breast	26.4			
Lymphoma/leukemia	10.7			
GI	10.7			
Ovarian	9.9			
Prostate	9.1			
Lung	7.4			
Sarcoma	5.8			
Head and neck	5.0			
Uterine/cervical	3.3			
Brain	3.3			
Testicular	1.7			
Other	6.6			
Months since first diagnosis		32.5	43.7	2–271
Have metastatic disease	43.0			
Had chemotherapy	62.8			
Had radiation therapy	42.1			
Had hormonal therapy	24.0			
Coping/Group support				
CECS emotional suppression		46.1	11.9	25–80
Mini-MAC fighting spirit		19.9	2.7	12–24
Mini-MAC cognitive avoidance		8.9	2.6	4–16
Mini-MAC fatalism		15.8	2.6	9–20
Group support		11.9	2.5	0–15
Distress				
POMS TMD		37.7	35.1	–16–130

^a Coded as: <US\$20,000 (18.2%), US\$20,000–\$39,999 (19.8%), US\$40,000–\$59,999 (22.3%), US\$60,000–\$79,999 (10.7%), US\$80,000–\$99,999 (15.7%), and >US\$100,000 (13.2%).

Table 2
Intercorrelations among demographic, medical, group, and coping variables ($n=121$)

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	–										
2. Gender	.21*	–									
3. Income	–.05	.01	–								
4. Months in group	.23*	–.03	.05	–							
5. Months since diagnosis	–.02	–.06	–.04	.34***	–						
6. Metastasis	.06	–.04	.09	.19*	.40***	–					
7. CECS emotional suppression	–.03	.05	–.03	–.10	–.12	–.00	–				
8. Mini-MAC fighting spirit	–.17	.01	.11	–.10	–.16	–.10	–.22*	–			
9. Mini-MAC cognitive avoidance	.09	–.09	–.02	.23*	.13	.18	.11	–.04	–		
10. Mini-MAC fatalism	–.01	–.03	.11	–.02	–.04	–.07	–.19*	.25**	.09	–	
11. Group support	.11	–.10	–.00	.13	.03	–.05	–.13	.01	.05	.20*	–

Gender was coded as 1 = female, 2 = male. Metastasis was coded as 1 = no, 2 = yes.

* $P < .05$.

** $P < .01$.

*** $P < .001$.

and group support variables on mood disturbance. The POMS TMD score was used as the dependent variable. Independent variables were selected based on the research reviewed above and included the CECS Total Score, the Mini-MAC subscales of Fighting Spirit, Cognitive Avoidance, and Fatalism, age, gender, income, time in the support group, time since diagnosis, whether or not there was metastatic disease, and perceived group support. Analyses used the Statistical Package for the Social Sciences [37]. All statistical tests were two-tailed and statistical significance for all analyses was set at .05.

Results

Table 1 shows the descriptive statistics for emotional suppression, fighting spirit and other coping styles, demographic, medical, group support, and distress variables. Level of mood disturbance in our sample was similar to that of other cancer patient samples (e.g., Refs. [1,6]). Table 2 shows intercorrelations among the independent variables. Several significant relationships emerged, but the

strength of these relationships did not suggest multicollinearity. Emotional suppression and fighting spirit were inversely correlated ($r = -.22$, $P < .05$). Fatalism was negatively associated with emotional suppression ($r = -.19$, $P < .05$) and positively associated with fighting spirit ($r = .25$, $P < .01$). Perceived group support was positively associated with fatalism ($r = .20$, $P < .05$).

Results of simultaneous multiple regression analysis predicting mood disturbance indicated that emotional suppression and fighting spirit were significantly associated with mood disturbance even when taking demographic, medical, group support, and other coping styles into account (see Table 3). The combination of independent variables accounted for 35% of the variance in POMS TMD scores, $F(11,109) = 5.27$, $P < .001$. Consistent with the hypotheses, lower mood disturbance was associated with lower emotional suppression ($\beta = .17$, $P < .05$), greater fighting spirit ($\beta = -.41$, $P < .001$), older age ($\beta = -.17$, $P < .05$), and higher income ($\beta = -.26$, $P < .001$). However, other coping variables (Cognitive Avoidance, Fatalism), demographic and medical variables (gender, time since diagnosis, metastatic status), and group support variables (time in support group, group support) were not significantly associated with mood disturbance.

Table 3
Simultaneous regression analyses predicting POMS TMD ($n=121$)

Predictor	β	t
Age	–.17	–2.04*
Gender	–.04	–.52
Income	–.26	–3.26***
Months in group	.04	.48
Months since diagnosis	–.01	–.12
Metastasis	.06	.71
CECS emotional suppression	.17	2.03*
Mini-MAC fighting spirit	–.41	–4.88***
Mini-MAC cognitive avoidance	–.16	–1.90
Mini-MAC fatalism	.00	.00
Group support	–.04	–.43

Overall $F(11,109) = 5.27$, $P < .001$, $R^2 = .35$ (adjusted $R^2 = .28$).

* $P < .05$.

*** $P < .001$.

Discussion

We found that lower emotional suppression and greater fighting spirit were significantly associated with lower mood disturbance in a heterogeneous sample of cancer patients attending community support groups, even when important demographic, medical, and group support variables were taken into account. Emotion regulation and coping styles are increasingly implicated as important variables predicting better psychosocial adjustment in people with cancer and may mediate health outcomes (e.g., Refs. [3,38]). Understanding the importance of these psychological processes in the context of participants' demographic and medical profiles

and group support experience has implications for support group leaders' interventions. Prior studies suggest that emotional suppression and fighting spirit are not stable personality traits but rather are changeable through therapeutic intervention. Recently, we demonstrated that emotion regulation strategy can change as an outcome of group support for cancer: encouraging open expression of emotion in a group setting results in reduced suppression of affect [8]. There is also evidence that fighting spirit [39–41] and optimism [42] can be enhanced through group intervention. Our finding that emotion regulation and coping style remain important predictors of distress even in the midst of ongoing community cancer support may imply that community support group facilitators would do well to intervene to help participants make changes in these strategies.

Consistent with prior studies (e.g., Refs. [1–3]), we found that emotional suppression was associated with mood disturbance. Attempts to suppress or control negative affect may contribute to emotional distress in a number of ways. While a suppressive emotion regulation style may be adaptive in some acute circumstances [43], it may be problematic as a rigid or chronic mode of affect management. Expression of primary negative emotions, such as fear, sadness, or anger, may provide opportunity for catharsis, restructuring of thoughts and meanings regarding a situation, and elicitation of support [44]. Attempts to suppress distressing thoughts or emotions may have a paradoxical effect, resulting in an increase in physiological arousal [45] and intrusion of upsetting material [46]. Given hypotheses that dysregulated emotional expression may be linked with greater cancer incidence and disease progression [38], group interventions that focus on facilitating emotional expression and enhancing flexibility in emotion regulation style may be particularly important.

Also in line with previous research, we found that greater fighting spirit was linked to better emotional adjustment. The often-found inverse association between fighting spirit and distress may be mediated by coping [4,47]. Those who adopt a more optimistic outlook regarding their disease may employ more active engagement-oriented coping strategies as they face multiple stressors related to their diagnosis, symptoms, and treatment, enabling them to take important steps in reducing distressing aspects of their experience. Findings regarding the importance of fighting spirit to cancer outcomes have been equivocal. Fighting spirit has been associated with cancer survival in some studies [48,49], but not in others [50]. Given that development and maintenance of hope and optimism are often stressed in group interventions for cancer patients, continued research on the importance of fighting spirit to emotional and physical health is warranted.

On the surface, expression of negative affect and a stance of realistic optimism may seem somewhat contrary. Indeed, cancer patients commonly report the dilemma of trying to cope with intense feelings of fear, anxiety, sadness, and

anger while at the same time being strongly encouraged by family, friends, and health care providers to “stay positive” and “look on the bright side.” However, the fighting spirit construct is not viewed as maintaining a rigid focus on “the positive” but rather as a style of facing difficult feelings and situations directly while at the same time maintaining hope. This can involve accepting strong negative emotions associated with threat processing, but moving on to restructure the view of the threat and find other aspects of the situation that are less overwhelming [51]. Our finding that higher fighting spirit was associated with less emotional suppression is consistent with this view.

We found significant inverse relationships between both age and income and emotional distress, as have previous studies [25–27]. Patients who were younger and who had lower household income reported greater mood disturbance. Those for whom cancer is less developmentally or life-phase appropriate and who have fewer financial resources to offset the multiple stressors involved with diagnosis and treatment may experience greater emotional upheaval.

Several limitations of the present study are apparent. First, given the cross-sectional design and correlational data, readers are cautioned against drawing causal conclusions based on these findings. For instance, it is possible that patients experiencing lower mood disturbance are more able to adopt an optimistic attitude or feel less of a need to suppress negative affect. Second, the nature of our sample may raise questions regarding the generalizability of these findings. Individuals choosing to participate in support groups may differ in important ways from the general population of cancer patients. Further, it is possible that those choosing to participate specifically in the TWC and CSC style of group support may differ from the larger population of cancer patients participating on other kinds of community support groups. The group experience itself could have influenced the observed relationships, although the “dose” of therapy as measured by number of months in group was not significantly related to our measures of emotional suppression or fighting spirit (see Table 2). Third, it should be noted that self-report measures of emotion regulation have been critiqued for their potential contamination with negative affectivity [14]. However, in previous studies, the CECS has shown independence from measures of emotional distress [52]. Future studies may seek to employ behavioral observation/coding methodology to assess emotion regulation style [53].

Our study extends prior research by examining a community-based heterogeneous cancer patient sample. The majority of previous studies examining links between emotional suppression and adjustment to cancer have involved women with breast cancer (e.g., Ref. [2]). While our sample was predominantly female (71%), it was heterogeneous with respect to gender and cancer site. No differences were found between men and women in emotional suppression or mood disturbance. Given the small cell sizes, differences across cancer sites in distress or affect regulation style could not be

assessed. Further, in contrast to university-based research studies, our sample was drawn from ongoing community-based support groups. Although the majority of our sample was Caucasian (81%) and well educated (66% with at least a college education), it may better reflect the larger population of cancer patients participating in support groups in California. A better understanding of factors influencing distress in community-based cancer populations will facilitate further development of accessible effective cancer support services on a broader scale. This study suggests that groups in the community that encourage preparing for the worst while hoping for the best may reduce the distress of cancer patients.

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