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SHORT COMMUNICATION



Shame, guilt, and communication in lung cancer patients and their partners

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ABSTRACT

Lung cancer patients report the highest distress levels of all cancer groups. In addition to poor prognosis, the self-blame and stigma associated with smoking might partially account for that distress and prevent patients from requesting help and communicating with their partners. The present study used innovative methods to investigate potential links of shame and guilt in lung cancer recovery with distress and marital adjustment. A specific emphasis was an examination of the impact of shame on partner communication. Lung cancer patients ($n = 8$) and their partners ($n = 8$) completed questionnaires and interviews that were videotaped. We report descriptive statistics and Spearman correlations between shame and guilt, relationship talk, marital satisfaction, distress, and smoking status. We coded the interviews for nonverbal expressions of shame.

Greater self-reported shame was associated with decreased relationship-talk frequency and marital satisfaction, and with increased depression and smoking behaviour. Nonverbal shame behaviour also correlated with higher depression and increased smoking behaviour. Guilt results were more mixed. More recent smoking behaviour also correlated with higher depression. At a time when lung cancer patients often do not request help for distress, possibly because of shame, our preliminary study suggests that shame can also disrupt important partner relationships and might prevent patients from disclosing to physicians their need for psychosocial intervention and might increase their social isolation. Even if patients cannot verbally disclose their distress, nonverbal cues could potentially give clinicians an opportunity to intervene.

KEY WORDS

Lung cancer, shame, guilt, communication, relationships, smoking

1. INTRODUCTION

Compared with other cancer patients, patients with lung cancer report greater distress[1,2] and more unmet needs[3]. Greater distress could result from poor prognosis[2], feelings of responsibility for the cancer[4], or the impact of stigma from lung cancer's association with smoking[5].

Shame is a prototypical response to devaluation of the social self[6] and leads to hiding and nondisclosure because of overwhelming feelings of low self-worth. Higher levels of shame can increase depression[7] and levels of cortisol and proinflammatory cytokines[8]. Guilt can be an uncomfortable emotion, but it can often be resolved; in contrast, shame occurs "when a core aspect of the self is judged as defective, inferior or inadequate"[8] and can be extremely painful[9].

Clients who report not disclosing salient topics in psychotherapy also report less improvement and most often cite shame as the reason for nondisclosure[10]. Nondisclosure follows directly from shame; shame involves an urge to hide from others because of negative self-evaluation[9] and can potentially include nondisclosure to cancer physicians and partners about important needs. In contrast to nondisclosure, engagement in open, supportive communication increases marital satisfaction and reduces distress in cancer patients[11,12]. Because communication helps patients adapt to cancer, couples that communicate effectively, with more discussion about their relationship ("relationship talk"), can experience greater marital adjustment and less distress throughout the illness[12,13]. However, compared with other cancer patients, patients with lung cancer can experience more problems with communication[14].

In this population with high distress, poor prognosis, and smoking stigma leading to shame, we posited that partnered relationships provide a source of support that is more important for them than for other cancer patient groups. If shame disrupts the relationship, lung cancer patients will have

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even higher unmet needs. We therefore investigated whether higher self-reported and nonverbal shame were related to lower relationship talk and marital satisfaction and to higher distress, and whether more recent smoking behaviour exacerbated the cycle of shame and distress in lung cancer patients and their partners.

2. METHODS

2.1 Participants

Lung cancer patients (n = 8) and their partners (n = 8) were referred by health care providers. Eligible patients had been diagnosed with lung cancer, were beyond initial treatment, and were in a serious relationship (living together for 1 year or more) with a partner who was willing to participate.

2.2 Procedure

Patients and partners completed questionnaires and participated in a series of videotaped interviews, one of which involved the couple together. In the couples' interviews, we instructed participants to discuss the impact of cancer on their relationship for 15 minutes, without researchers present. Subsequently, the patients participated in 4 ten-minute autobiographical interviews that focused on their experience with shame, guilt, pride, and embarrassment during their cancer recovery. The individual interviews asked patients to visualize times when they felt those emotions during recovery, so as to understand proximal causes and the lived experience of patients with lung cancer. To supplement self-report, we coded the interviews for nonverbal expressions of shame in patients and partners. The Conjoint Health Research Ethics Board at the University of Calgary approved the study protocol.

2.3 Measures

Participants completed questionnaires that assessed demographics, medical and smoking status, depression [Center for Epidemiologic Studies–Depression Scale (CES-D)[15]], relationship talk (Relationship Talk Scale[14], which assesses the frequency of various forms of relationship talk and the corresponding satisfaction level with each form), marital satisfaction [Locke–Wallace Marital Adjustment Test (LWMAT)[16]], and state Shame and Guilt [State Shame and Guilt Scale (SSGS)[17]]. The Cronbach alpha demonstrated good consistency for all scales (scoring above 0.70), except for the LWMAT (α = 0.54).

We coded shame using a hardware–software system that samples from keyboard macros for each code at 30 times per second (see Giese–Davis *et al.,* 2005[18], for a general description). At least 2 investigators coded each videotape. Each coding was required to achieve a kappa of 0.60 or greater, or the tape was consensus-coded to maintain coding thresholds (81% of tapes passed a 0.60 kappa, 19% of tapes were consensus-coded).

We used the Keltner coding guidelines for shame[19], including gaze down [action unit (AU) 64] when it co-occurred with head movement down (AU 54) for at least 1 s, but not longer than 10 s. We used the mean percentage of time that patients expressed shame during the marital discussion and the four interviews; for partners, only the marital discussion was used.

2.4 Data Analysis

The goal of this preliminary study was to examine whether a larger study could inform lung cancer interventions. To examine hypothesized trends, we present nonparametric Spearman correlations as estimates of effect size (without p values), using the convention that an effect size of 0.20 is small, 0.50 is moderate, and 0.80 is large.

3. RESULTS

Patients were 65 years of age on average, and men constituted 63% of the sample. All participants were white and had completed at least their high school education. The average length of the spousal relationship was 36 years. Most of the patients had non-small-cell lung cancer (75%); other diagnoses were small-cell lung cancer and mesothelioma (Table I).

The mean CES-D score for the patients (16.75 ± 8.72) was above the clinical cut-off (score of 16) for significant depression; the mean CES-D score for the partners did not reach cut-off (11.50 ± 8.72). The mean marital satisfaction score for patients (121.13 ± 20.88) and partners (112.63 ± 36.55) did not indicate relationship distress (a score below 100 indicates distress).

As predicted for patients, greater SSGS Shame (r = –0.93) and Guilt (r = –0.78) were strongly associated with lower relationship-talk frequency (Table II). Partners did not demonstrate the same relationships between Shame (r = –0.01) and Guilt (r = 0.31) and relationship-talk frequency.

For patients, greater SSGS Shame was moderately associated with lower marital satisfaction (LWMAT), r = –0.61; however, for partners, greater SSGS Guilt was moderately associated with lower marital satisfaction (r = –0.49).

As predicted, greater SSGS Shame and Guilt were associated with greater symptoms of depression for all participants, with strong associations for patients (r = 0.87 and 0.84) and moderate associations for partners (r = 0.67 and 0.51).

Self-reported Shame, but not Guilt, had a smaller association with smoking status for patients (r = –0.34) and partners (r = –0.25). However, depres-

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TABLE I Demographic, medical, and study variables for patients and partners

Variable	*Value for*	
	Patients	*Partners*
Participants (*n*)	8	8
Sex [*n* (%)]		
Men	5 (62.5)	3 (37.5)
Women	3 (37.5)	5 (62.5)
Mean age (years)	65.28±9.82	65.79±8.26
Ethnicity [*n* (%)]		
White	8 (100)	8 (100)
Education [*n* (%)]		
Less than high school	0 (0.0)	2 (25.0)
High school diploma	4 (50.0)	3 (37.5)
Some college	0 (0.0)	1 (12.5)
College or bachelor's degree	4 (50.0)	2 (25.0)
Employment status [*n* (%)]		
Unemployed or retired	4 (50.0)	4 (50.0)
Employed part-time	1 (12.5)	1 (12.5)
Employed full-time	3 (37.5)	3 (37.5)
Mean length of relationship (years)	36.16±18.15	
Smoking history [*n* (%)]		
Current smoker	2 (25.0)	3 (37.5)
Quit smoking		
<12 Months ago	2 (25.0)	0 (0.0)
>12 Months ago	2 (25.0)	2 (25.0)
Never-smoker	2 (25.0)	3 (37.5)
Mean CES-D score	16.75±8.72	11.50±8.72
Mean relationship-talk frequency	3.50±0.93	2.75±0.71
Mean LWMAT score	121.13±20.88	
Mean SSGS Shame score	6.86±3.33	7.00±4.04
Mean SSGS Guilt score	8.71±5.47	8.00±3.74
Mean coded shame score	2.37±1.92	1.75±3.38
Lung cancer type [*n* (%)]		
Non-small-cell	6 (75.0)	
Stage		
I	1 (16.7)	
II	2 (33.3)	
IV	3 (50.0)	
Small-cell	1 (12.5)	
Stage		
Limited	0 (0.0)	
Extensive	1 (100.0)	
Mesothelioma	1 (12.5)	
Mean time since diagnosis (years)	1.77±1.22	
Treatments received [*n* (%)]		
Surgery	3 (37.5)	
Chemotherapy	2 (25.0)	
Radiation	3 (37.5)	
Other	2 (25.0)	
No treatment	1 (12.5)	

CES-D = Center for Epidemiologic Studies–Depression Scale; LWMAT = Locke–Wallace Marital Adjustment Test; SSGS = State Shame and Guilt Scale.

sion was moderately correlated with smoking status for patients and partners ($r = –0.44$); current smokers reported the highest mean depression ratings, descending in linear fashion to never-smokers (who reported the lowest mean ratings).

For patients, shame coded from videotapes strongly correlated with smoking status ($r = –0.63$, Figure 1) and somewhat correlated with symptoms of depression ($r = 0.29$). Patients who were current smokers expressed the highest percentage of coded shame, which descended in linear fashion to never-smokers and to those who had quit more than a year earlier (who expressed similarly little shame). For partners, coded shame was more variable, although it followed a similar, but weaker, pattern (Figure 1). Coded shame for partners was, however, correlated with greater relationship-talk frequency ($r = 0.33$) and lower marital satisfaction ($r = –0.37$).

4. DISCUSSION

Our lung cancer study is the first to link shame and guilt with couples' communication and symptoms of depression, and to assess nonverbal expressions of shame. Findings indicate that increased self-reported Shame is associated with lower levels of couples' communication and marital satisfaction and with greater distress. The associations are stronger for patients than partners. Links between guilt and the foregoing variables are less clear, but stronger for partners than for patients. Shame, nondisclosure, or hiding from one's partner can potentially exacerbate distress and marital alienation at a time when patients and partners most need support.

Nonverbal expression of shame was strongly related to smoking status for patients (less so for partners). Partners reporting more guilt also expressed more shame. Those results are promising for disentangling ways in which smoking status, depression, and shame might affect disclosure and couples' communication. Nonverbal assessment of shame cues can be crucial for researchers and clinicians. Feelings of shame can be destructive, and the nondisclosure that follows from shame can disrupt accurate reporting of medical and psychological symptoms and couples' communication. Nonverbal coding overcomes several problems associated with self-report, including the need to be aware of emotions, the ability to differentiate similar emotions, and a willingness to report specific emotions[20].

Clearly our results should be interpreted with caution. The small number of participants accrued to this pilot study limits the immediate applicability of our findings. Furthermore, the high degree of relationship satisfaction exhibited by our cohort might have reflected their long length of marriage. The resulting effect sizes could have been attenuated from those that might have been obtained in a more diverse sample. Nevertheless, our findings warrant further

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TABLE II Spearman correlations for patients (n = 8, boldface type) and partners (n = 8, regular type)

	SSGS Shame	*SSGS Guilt*	*Coded shame*	*RTF*[a]	*LWMAT*	*CES-D*	*Smoking status*[b]
SSGS Shame	—	0.77	0.27	–0.01	–0.16	0.67	–0.25
SSGS Guilt	**0.77**	—	0.62	0.31	–0.49	0.51	–0.12
Coded shame	**0.30**	**0.36**	—	0.33	–0.37	0.02	–0.13
RTF[a]	**–0.93**	**–0.78**	**–0.10**	—	0.17	0.08	–0.17
LWMAT	**–0.61**	**–0.15**	**–0.01**	**0.43**	—	0.00	–0.57
CES-D	**0.87**	**0.84**	**0.29**	**–0.58**	**–0.67**	—	–0.44
Smoking status[b]	**–0.34**	**–0.02**	**–0.63**	**0.05**	**0.68**	**–0.44**	—

[a] Relationship-talk frequency score from the RTF.
[b] Current smoker, quit <1 year ago, quit >1 year ago, never-smoker.
SSGS = State Shame and Guilt Scale; RTF = Relationship Talk Scale; LWMAT = Locke–Wallace Marital Adjustment Test; CES-D = Center for Epidemiologic Studies–Depression Scale.

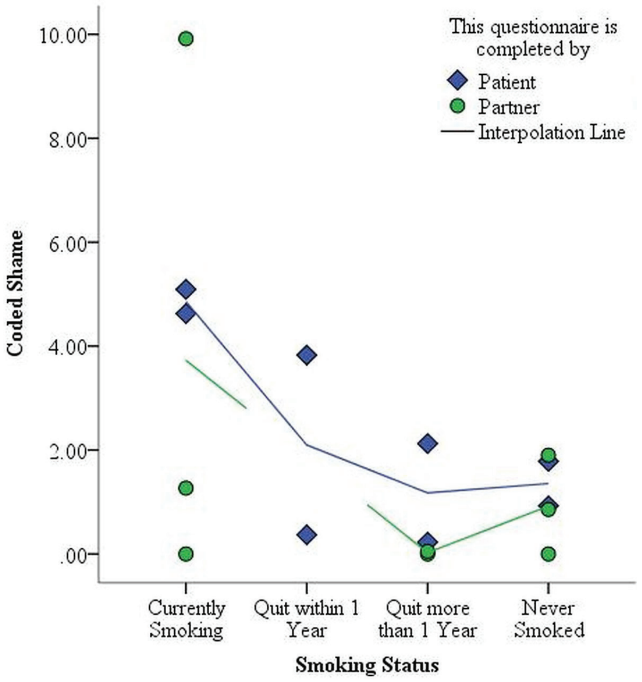


FIGURE 1 *Associations between mean percentage time expressing shame (coded from videotapes) by smoking status for patients and partners. Shame was coded for patients based on mean percentage of aggregated interview time during a 15-minute couples' interview and four 10-minute interviews on shame, guilt, pride, and embarrassment, and for partners, on the couples' interview only.*

study. Future research should test the hypotheses generated here in a larger, more diverse sample. Future studies could examine how health care professionals might be taught to recognize shame cues to better facilitate appropriate referral for lung cancer patients. To determine whether shame and guilt are important aspects of the uniquely high distress levels found in lung cancer patients, comparisons with other cancer groups are important. Only LoConte and colleagues[4] have explored differences in those emotions in patients with lung, breast, and prostate cancers. Researchers found no differences in shame and guilt; however, lung cancer patients reported the highest levels of perceived cancer stigma. Our results suggest that a focus on the couple is important. Interventions that aim to help couples effectively recognize and respond to each other's needs might reduce the distress experienced by lung cancer patients. Couples' support is crucial for lung cancer patients who report the highest levels of distress and unmet psychological needs, and who do not seek help, possibly because of shame.

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6. CONFLICT OF INTEREST DISCLOSURES

The authors have no financial conflicts of interest to declare.

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