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REVIEW

New frontiers in couple-based interventions in cancer care: refining the prescription for spousal communication

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ABSTRACT

Background: The diagnosis and treatment of cancer is a life-altering experience that signals profound changes in a person's life. However, most people do not experience cancer in isolation or cope alone. Despite the fact that partners (i.e. spouses, significant others) provide emotional support and play a critical role in caregiving, cancer exacts a heavy toll on them and challenges their relationship with the patient by altering established communication patterns and roles. In recognition of this, a burgeoning literature involving couple-based interventions to improve patient and partner quality of life and adaptation has emerged. However, questions remain regarding how we can improve these interventions to exact greater impact on patient and partner outcomes.

Material and methods: A narrative review of the literature on couples' communication processes in cancer was conducted in order to describe knowledge gaps and directions for future research.

Results: Most couple-based interventions have included a communication skills training component because communication is an important process through which couples make sense of cancer, engage in social support, negotiate role changes and coordinate coping responses. However, scholars still know very little about what they should instruct couples to talk about, how often they should talk and when talking (or not talking) is beneficial (and for whom – the patient, partner, or both).

Conclusion: In order push this field forward, we need to develop a more nuanced view of couples' communication that acknowledges that there are multiple ways to talk, different aspects of the cancer experience to talk about, and preexisting communication patterns and preferences for different couples that may influence the utility of talk. Interventions that replace the unilateral and generic prescription to talk openly about cancer with targeted questions that prompt reflection on couples' unique strengths, preexisting communication patterns and support resources may thus help bolster the impact of couple-based interventions on patient and partner quality of life.

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The diagnosis and treatment of cancer is a life-altering experience that signals profound changes in a person's life. However, most people do not experience cancer in isolation. For adult cancer patients who are married or in a committed relationship, their relationship with their partner (spouse or significant other) is often their primary coping resource [1]. Research has also consistently demonstrated that being married or in a partnered relationship confers a substantial health benefit [2–4]. For example, a recent analysis of Surveillance, Epidemiology, and End Results (SEER) data for the 10 most common cancers found that even after adjusting for demographics, stage and treatment type, married individuals were 17% less likely to be diagnosed with metastatic disease, 53% more likely to opt for definitive treatment, and 20% less likely to die of cancer than their unmarried counterparts [5]. One explanation is that partners often serve in the role of primary caregiver and provide patients with emotional and practical support to facilitate treatment decision making, health and rehabilitation [6,7].

Even though having a partner appears beneficial for patients, cancer exacts a heavy toll on partners and couple relationships. Although many partners derive great satisfaction and meaning in their caregiving role [8], they also experience higher rates of anxiety and depression, weakened immune responses, a greater likelihood of long-term medical problems, and higher mortality rates than their non-caregiving counterparts [9]. Cancer also challenges couples' established communication patterns, roles and responsibilities [10,11]. Whereas some individuals report that cancer brought them closer together, others experience adjustment and communication challenges that fuel interpersonal conflict and can even lead to divorce [12–14].

Over the last few decades, researchers have recognized the need to view cancer in a relationship context and a burgeoning literature involving psychosocial interventions to improve couples' coping and quality of life (QOL) has emerged [15–20]. Here, we use the term 'couple-based' to refer to any intervention in which the two partners are seen together by a therapist, interventionist or health educator. In a meta-analysis, Badr and Krebs [15] found that couple-based interventions have had small but beneficial effects in improving multiple aspects of QOL for both cancer patients

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(g = 0.25–0.31) and their partners (g = 0.21–0.24). However, questions remain regarding ways to improve these interventions to exact greater impact on patient and partner outcomes. Most interventions include a communication skills training component because communication is an important process through which couples make sense of cancer, engage in social support, negotiate role changes and coordinate coping responses [1,21]. However, scholars still know very little about what topics they should instruct couples to talk about, how often couples should talk to facilitate adaptation, and when talking (or not talking) is beneficial for the patient and/or the partner [22]. Thus, one way to potentially strengthen the impact of couple-based interventions in cancer is to refine the prescription for communication. This narrative review seeks to advance our understanding of couples' communication processes in cancer by using a describing the current state of the literature, identifying key knowledge gaps, and positing new directions for future research.

What we know about couples' communication in cancer

Theoretical perspectives

Manne and Badr reviewed several theoretical explanations for how talking about cancer might benefit patients and their partners [1]. In social cognitive models, emotional disclosures facilitate the cognitive processing and help to minimize intrusive thoughts. Going a step further, intimacy models posit that supportive responses to emotional disclosures are critical to enhancing perceptions of closeness or intimacy, which in turn facilitates both partner's cancer adaptation. Social support models emphasize communicating to identify and respond to one another's needs. Finally, in equity theories, spousal communication facilitates the coordination of roles and responsibilities and is used to express appreciation to restore balance in the relationship. Viewed together, these models suggest that the way in which couples talk about cancer as well as what they talk about is important.

Adaptive and maladaptive communication strategies

Among non-medically ill couples, research has identified a number of constructive and destructive communication methods that couples use to deal with stressors that are associated with psychological adjustment and marital satisfaction. Couples who deal with their problems with mutual discussion, expression of feelings, understanding of one another's views, negotiating solutions and resolving problems as a team report higher marital satisfaction [23]. A communication pattern where one partner pressures the other to talk about the issue whereas the other partner withdraws and becomes passive or defensive (a pattern they refer to as 'demand withdrawal') has also been associated with lower marital satisfaction [24]. Finally, couples who deal with their problems by avoiding discussion also report lower marital satisfaction [25].

In a longitudinal study of women with early stage breast cancer and their partners, Manne and colleagues [26] found that mutual constructive communication predicted lower psychological distress, and demand-withdraw communication and mutual avoidance predicted higher psychological distress for both patients and partners. The association between mutual constructive communication and patient psychological distress was stronger among patients reporting more physical impairment, suggesting communication may play a stronger role among patients dealing with more physical stress. In a cross-sectional study, researchers evaluated the effects of spousal communication patterns on patient and partner adjustment in the face of sexual dysfunction following treatment for prostate cancer [27]. They found that when patients had poor erectile function, their partners were more likely to report that the couple avoided open spousal discussions; this in turn was associated with partners' marital distress. They also found that patients and partners who reported high levels of mutual constructive communication reported greater marital adjustment – regardless of their own sexual satisfaction – and that greater sexual dissatisfaction was associated with poorer marital adjustment in patients and partners who reported low levels of mutual constructive communication. Thus, even though couples may be reluctant to engage in discussions about sexual problems, such discussions may help alleviate the negative impact that sexual problems have on prostate cancer patients' and their partners' marital adjustment.

Relationship maintenance strategies are another communication strategy that has received attention in cancer. Stafford and Canary [28] identified five relationship maintenance strategies: (1) positivity, or interacting with one's partner in a cheerful and optimistic manner; (2) openness, which refers to discussing and disclosing information about the relationship with one's partner; (3) assurances, which are messages of commitment and love; (4) social networks, which entails relying on or interacting with common relatives/friends; and (5) shared tasks, which involves engaging in everyday activities such as housework together. Badr and Carmack Taylor [29] applied this framework to how couples cope with lung cancer and found that, regardless of gender or social role (whether one was a patient or a spouse), individuals who engaged in the strategies of positivity, networks and shared tasks reported less distress within one month of treatment initiation (baseline). Six months later, the effects of providing more assurances to one's partner and experiencing a partners' increased reliance on social network members for support differed. Patients who provided more assurances to their partners reported slightly more distress over time. Conversely, partners who provided more assurances repotted slightly less distress over time. Patients reported more distress when their spouses relied more on common social networks. Spouses reported less distress when patients relied more on common social networks. Couples where both partners engaged in more frequent maintenance behaviors reported greater marital adjustment at baseline and over time. Together, these findings suggest that engaging in relationship maintenance strategies during the initial treatment period may help mold more resilient relationships and facilitate adjustment as lung cancer progresses. However, they also highlight the idea that patients and their partners may have different relationship maintenance needs.

What couples talk about when they talk about cancer: feelings

The disclosure of feelings and concerns is a topic that has received considerable research attention and is commonly advocated in couple-based interventions [30–33]. The idea that couples should talk about feelings is grounded in social cognitive models of stress and coping which posit that stressful events such as cancer are a threat because they challenge individuals' existing schemas about themselves and their relationships [33,34]. Successful adaptation involves actively assimilating or accommodating the illness into these schemas through cognitive processing, which involves efforts to perceive the illness as less harmful or threatening (e.g. acceptance, reappraisal), and social processing, which involves disclosing fears and concerns as a means of soliciting partner support and facilitating engagement in active coping strategies [35,36]. However, disclosing feelings to a partner can be challenging. Individuals often report 'holding back' or avoiding discussions about cancer-related thoughts and feelings [37–39] and this has been consistently associated with negative outcomes including lower QOL, diminished wellbeing, and relationship distress [40–43]. In contrast, findings on the benefits of emotional disclosure have been mixed. Some studies have found that it reduces distress and improves marital satisfaction; others have either found no effects or that effects are contingent on factors like cultural background, role (patient or partner), age or cancer type [37,44]. Thus, holding back appears to be damaging, but disclosing concerns may not necessarily be beneficial.

Research also suggests that in some cases emotional disclosure to a partner is not sufficient to alleviate distress and may even exacerbate it. For example, Porter and colleagues [31] found that training couples coping with gastrointestinal cancer to talk about feelings improved marital quality but not significantly more than an attention-control group. Manne and colleagues [32] also found that partners of prostate cancer patients evidenced significant increases in distress following an intervention that sought to improve the couple's ability to openly share cancer-related feelings and concerns. The authors postulated that the open discussion of feelings may have made partners more attuned or aware of stressors/problems, which could have exacerbated their distress. Another possibility is that a mismatch occurred between the patient's need/desire to talk and the partner's ability to listen and process what was being said. In fact, studies have found that similarity in relational partners' preferences and patterns of talk, their perceptions of mutuality, and their ability to respond with reciprocal disclosures may be more important for alleviating distress than what is actually disclosed or how often disclosures occur [37,45,46]. Problems can also occur if both partners do not agree about how to feel or are not prepared to validate each other's feelings [47,48]. Given the state of the literature, unilaterally prescribing the open discussion of feelings without first addressing gaps in our understanding of the circumstances under which those disclosures can be harmful or beneficial, appears somewhat premature [49].

What we need to know about couples' communication in cancer

Motives for disclosing/holding back cancer-related concerns and factors that may influence disclosure

Even though talking about cancer can confer a variety of benefits including improving perceptions of closeness, enhancing the coordination of care, and strengthening patients' and partners' commitment to each other and their relationship [50], talking about cancer can be difficult. For example, one study found that almost 35% of breast cancer patients did not disclose to anyone their primary cancer-related concern [51]. Another study found that one-third of couples coping with lung cancer experienced difficulties talking about cancer [52]. Without outlets for expressing or sharing thoughts and feelings, patients may engage in avoidance coping instead of engaging in adaptive coping [53,54], so it is important to understand people's motivations and explanations for not talking.

A variety of explanations have been offered for why couples do not talk about cancer [22,52]. Foremost among these is the desire to protect or shield one's partner from distress, also known as protective buffering [55]. Protective buffering is usually done with the best of intentions; however, research has shown that it increases burden, decreases relationship satisfaction, and contributes to poor mental health in the person who is buffering, as well as the person whom the buffering was intended to protect [39]. Another reason why individuals may refrain from discussing cancer with their partners is that they perceive them as critical, unreceptive or uncomfortable with the topic. The objective social conditions and individuals' construal of those conditions that lead them to refrain from or modify their disclosure of cancer-related thoughts, feelings or concerns are known as social constraints; and research has shown that social constraints place individuals at higher risk for psychological and relationship distress [36].

In a similar vein, couples may have difficulty talking about topics that are more sensitive or upsetting. Supporting this idea, some cancer-related topics (e.g. symptom management) come up regularly and are discussed frequently by couples, whereas others (e.g. diagnosis, death, sexual problems), which are potentially more emotionally laden or stress producing are discussed less frequently, or avoided entirely [22,56,57]. Dispositional factors such as openness and contextual factors such as gender of the patient/partner, type and severity of illness, and treatment type may also impact disclosure [58]. Indeed, individuals who are more distressed, have more advanced disease and have poorer functioning report a greater need to talk and appear more likely to benefit from talking [33,37]. However, even though gender differences in distress have been documented in cancer [59,60] and it is possible that such differences may be due to gendered tendencies to solicit/provide support [61,62], research examining the effects of gender on disclosures in two-gender cancers (where the effects of gender and role can be disentangled) has not demonstrated substantial gender differences [37]. Studies in non-cancer samples have also shown that most partners respond to their loved one's distress with reassurance/problem solving regardless of gender [63], and that men and women are equally able to recognize their partner's stress and provide support when properly trained to do so [64,65]. Moreover, men are more likely to display more stress-related self-disclosure when they perceive the stress that they are experiencing is shared by their partner [66]. Thus, interventions that emphasize taking a shared or dyadic approach to cancer may be critical not only in facilitating both partners' adjustment but also for addressing potential gender differences in communication and their effects on the couple's coping and adjustment.

Finally, there are a number of other plausible reasons why couples may avoid or hold back from discussing cancer-related discussions that deserve greater research attention. These include the desire to maintain hope, optimism and a sense of normalcy, and the desire to preserve valued identities and patterns of relating. For example, if a couple has a long established problem-focused pattern of addressing shared stressors, deviating from that pattern may in itself cause distress [49]. It is also important to keep in mind that even though talking with a partner can serve as a direct means of soliciting social support, the need to ask for support in close, long-term relationships may be the exception rather than the rule and actually indicate a breakdown of the unspoken and shared routines through which couples usually cope [67]. More research is therefore needed to understand how patients' and partners' appraisals of the cancer experience, their relationships, and each other's capacity to provide helpful information or support influence their desire to talk [68]. Research is also needed to clarify the circumstances under which disclosure and avoidance can either be harmful or beneficial.

Other topics of discussion besides feelings

Great variability exists in the topics couples can discuss when they talk about cancer. Couples can talk about health-related issues (e.g. symptoms/functional problems, treatment decisions, coordination of care, prognosis), psychological/behavioral processes (e.g. thoughts/feelings, wants/needs, plans, behaviors), and social/interpersonal processes (e.g. role changes, sexual problems, social/family relationships and support) [69]. However, most research on couples' communication in cancer has centered on emotional disclosures. Linking different topics to outcomes is important for the development of targeted couple-based interventions. However, this currently presents a challenge because the measures used in cancer to assess couples' communication primarily tap global perceptions of how the couple is communicating (e.g. 'We say anything we want to', 'I take time to express my emotions') or abstract perceptions of how the couple talks about cancer (e.g. 'I seldom discuss cancer with my spouse' or 'My partner and I had difficulty talking about the cancer and what might happen') [1,22]. When measures ask general questions about how well a couple communicates they are likely to be tapping into cultural and relational schemas (e.g. marital satisfaction) rather than actual communication patterns [70], resulting in an undesirable overlap between predictor variables and outcomes. Similarly, asking people to make global generalizations about their cancer-related discussions is likely to yield an inaccurate portrait of those discussions. In fact, research shows that individuals who say they are open in response to global or evaluative questions will go on to reveal withholding or communicating with caution when asked about particular cancer-related topics [71,72]. Thus, more work is needed to refine the measures used to assess couples' communication in cancer.

Beyond the issue of measurement, there are several topics of discussion that are worthy of greater attention and investigation in the cancer literature. Indeed, even though the experience of cancer may fuel a desire to talk with one's partner, the emotional, functional and relationship changes that occur as a result of that experience may make patients and partners unsure about how to effectively communicate. Under such circumstances, shifting the focus away from cancer and onto the couples' relationship by talking together about it (e.g. how good it is, relationship memories and how the couple addressed challenges together in the past, and future plans) may help to remind couples of the strengths and resources that they have to deal with the disease [73,74]. Likewise, the use of humor may help couples to maintain a sense of normalcy, alleviate tensions, provide a needed distraction from emotionally laden issues, and even facilitate the discussion of difficult or sensitive topics [75]. Under conditions where disclosure to a partner becomes challenging or problematic, individuals may reap some benefits from disclosing to a neutral third-party or through practicing expressive writing [76,77]. Likewise, talking about medical facts and negotiating symptom management/treatment issues can be important ways that couples reassert a sense of control over an otherwise uncontrollable situation and accommodate illness into their everyday routines. Indirect methods of communicating such as showing affection through physical touch, having everyday conversations that are not about cancer (e.g. 'How was your day?'), and spending time together engaging in shared activities may also provide a more comfortable context for illness-related issues to spontaneously arise. They may also help to normalize new illness routines and their implications for the couple. More research is thus needed to refine the measurement of communication, identify alternative topics of communication besides the disclosure of feelings, and to clarify the associations between these different topics and patient and partner outcomes.

How couples communicate dyadic coping

On a related note, it is well established that the way that couples view cancer and coordinate their coping responses plays an important role in their adaptation [1]. Communal coping involves appraising a stressor as 'our' issue (shared appraisal) rather than 'yours' or 'mine' (individual appraisal) and taking collaborative, 'we'-based actions to address it [66,78]. Although studies suggest that having a communal coping orientation promotes psychological and marital adjustment [79,80], very little is known about how communal coping is actually communicated or unfolds during couples' discussions about cancer. A growing body of research suggests that, unlike self-reports of coping which are vulnerable to social desirability and other cognitive biases, speech particles like pronouns are more impervious to conscious choice [81] and may serve as an 'implicit' measure of coping focus [82]. For example, some studies have demonstrated associations between the use of first-person plural pronouns (e.g. we, ours), known as 'we-talk' and marital satisfaction, positive emotional behavior and effective problem solving [83–85].

In a recent observational study in cancer, Badr and colleagues [69] examined how emotional disclosure and coping focus conveyed through natural language use affected the psychological and marital adjustment of 125 head and neck cancer patients and their partners. They found that patients who disclosed more negative emotion during a discussion about cancer in the laboratory reported more positive mood following the discussion ($p < 0.05$); however, no significant associations between emotion word use and patient/partner psychological and marital adjustment were found at a four-month follow-up. Rather, patients and partners reported more positive mood following the discussion when they used more we-talk, and less distress over time when their partners used more we-talk ($p < 0.01$). Findings suggest that the manner in which couples' discuss cancer, conceptualizing it as either a shared or individual problem has implications for both partners' adjustment. They also suggest that it might not be as important for a person to disclose emotions as it is to have a partner whom they see as instrumental to their coping process. Thus, rather than unilaterally encouraging patients and partners to talk about feelings as the best way to cope with cancer as a couple, it may be useful to explore how discussing other topics and engaging in indirect or implicit forms of communication can change appraisals, facilitate processing and provide comfort.

Conclusion and future directions

It is hoped that this brief review will facilitate a greater appreciation of the complexities of couples' communication in the context of cancer and stimulate both descriptive and intervention research. Currently, the standard prescription to talk openly does not specify how, when, how much, how often, or how long couples should talk, despite research showing that these are important considerations for whether cancer discussions provide comfort, create relationship problems or exacerbate distress. In order push this field forward, assessment measures need to be refined so we can clarify linkages between communication, coping and outcomes across the disease trajectory. We also need to develop a more nuanced view of couples' communication that acknowledges that there are multiple ways to talk, aspects of the cancer experience to talk about, and preexisting communication patterns and preferences that may influence the utility of talk for different couples. Indeed, successful adaptation may hinge on the ability of patients and partners to discern when to engage in or suppress disclosures and to develop flexibility regarding the discussion of certain topics in response to situational demands [86]. From this perspective, interventions that replace the generic prescription to talk openly with targeted questions that prompt reflection on individual couples' strengths, communication patterns and resources may help bolster the impact of couple-based interventions on patient and partner QOL.

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References

[1] Manne S, Badr H. Intimacy and relationship processes in couples' psychosocial adaptation to cancer. Cancer. 2008;112:2541–2555.
[2] Goodwin JS, Hunt WC, Key CR, et al. The effect of marital status on stage, treatment, and survival of cancer patients. JAMA. 1987;258:3125–3130.
[3] Lai H, Lai S, Krongrad A, et al. The effect of marital status on survival in late-stage cancer patients: an analysis based on surveillance, epidemiology, and end results (SEER) data, in the United States. Int J Behav Med. 1999;6:150–176.
[4] Langenbach MR, Schmidt J, Neumann J, et al. Delay in treatment of colorectal cancer: multifactorial problem. World J Surg. 2003;27:304–308.
[5] Aizer AA, Chen M-H, McCarthy EP, et al. Marital status and survival in patients with cancer. J Clin Oncol. 2013;31:3869–3876.
[6] Braun M, Mikulincer M, Rydall A, et al. Hidden morbidity in cancer: spouse caregivers. J Clin Oncol. 2007;25:4829–4834.
[7] Family Caregiver Alliance. FCA: Selected caregiver statistics; 2012 [cited 2016 August 1]. Available from: http://www.caregiver.org/caregiver/jsp/home.jsp.
[8] Kim Y, Carver C, Deci EL, et al. Adult attachment and psychological well-being in cancer-caregivers: the mediational role fo spouses' motives for caregiving. Health Psychol 2008;27(2suppl):S144–SS54.
[9] Applebaum AJ, Breitbart W. Care for the cancer caregiver: a systematic review. Palliat Support Care. 2013;11:231–252.
[10] Carlson L, Bultz B, Speca M, et al. Partners of cancer patients: part 1. Impact, adjustment, and coping across the illness trajectory. J Psychosoc Oncol. 2000;18:39–57.
[11] Manne S, Badr H. Intimate relationships and cancer. In: Sullivan K, Davila J, editors. Support processes in intimate relationships. New York (NY): Oxford University Press; 2010. p. 240–264.
[12] Karraker A, Latham K. In sickness and in health? Physical illness as a risk factor for marital dissolution in later life. J Health Soc Behav. 2015;56:420–435.
[13] Samios C, Pakenham KI, O'brien J. A dyadic and longitudinal investigation of adjustment in couples coping with multiple sclerosis. Ann Behav Med. 2014;49:74–83.
[14] Badr H, Herbert K, Reckson B, Rainey H, Sallam A, Gupta V. Unmet needs and relationship challenges of head and neck

cancer patients and their spouses. J Pychosoc Oncol. 2016;34:336–346.

[15] Badr H, Krebs P. A systematic review and meta-analysis of psychosocial interventions for couples coping with cancer. Psychooncology. 2013;22:1688–1704.

[16] Collins AL, Love AW, Bloch S, et al. Cognitive existential couple therapy for newly diagnosed prostate cancer patients and their partners: a descriptive pilot study. Psychooncology. 2013;22:465–469.

[17] Kayser K, Scott J. Helping couples cope with women's cancers: an evidence-based approach for practitioners. New York (NY): Springer; 2008.

[18] Heinrichs N, Zimmermann T, Huber B, et al. Long-term effects of a couple-based intervention for couples coping with cancer. Int J Psychol. 2008;43:42.

[19] Badr H, Smith CB, Goldstein NE, et al. Dyadic psychosocial intervention for advanced lung cancer patients and their family caregivers: results of a randomized pilot trial. Cancer. 2015;121:150–158.

[20] Robinson-Smith G, Harmer C, Sheeran R, et al. Couples' coping after stroke: a pilot intervention study. Rehabil Nurs. 2015;41:218–229.

[21] Baucom DH, Porter LS, Kirby JS, et al. Couple-based interventions for medical problems. Behav Ther. 2012;43:61–76.

[22] Goldsmith DJ, Miller GA. Conceptualizing how couples talk about cancer. Health Commun. 2014;29:51–63.

[23] Heavey CL, Larson BM, Zumtobel DC, et al. The communication patterns questionnaire: the reliability and validity of a constructive communication subscale. J Marriage Family. 1996;58:796–800.

[24] Christensen A, Shenk JL. Communication, conflict, and psychological distance in nondistressed, clinic, and divorcing couples. J Consult Clin Psychol. 1991;59:458–463.

[25] Christensen A, Heavey CL. Gender and social structure in the demand/withdraw pattern of marital conflict. J Pers Soc Psychol. 1990;59:73–81.

[26] Manne S, Ostroff J, Norton T, et al. Cancer-related relationship communication in couples coping with early stage breast cancer. Psychooncology. 2006;15:234–247.

[27] Badr H, Carmack Taylor CL. Sexual dysfunction and spousal communication in couples coping with prostate cancer. Psychooncology. 2009;18:735–746.

[28] Stafford L, Canary D. Maintenance strategies and romantic relationship type, gender, and relational characteristics. J Soc Personal Relationships. 1991;8:217–242.

[29] Badr H, Carmack Taylor CL. Effects of relational maintenance on psychological distress and dyadic adjustment among couples coping with lung cancer. Health Psychol. 2008;27:616–627.

[30] Baucom DH, Porter LS, Kirby JS, et al. A couple-based intervention for female breast cancer. Psychooncology. 2009;18:276–283.

[31] Porter LS, Keefe FJ, Baucom DH, et al. Partner assisted emotional disclosure for patients with gastrointestinal cancer. Cancer. 2009;115:4326–4338.

[32] Manne S, Nelson C, Kissane D, et al. Intimacy enhancing psychological intervention for men diagnosed with prostate cancer and their partners: a pilot study. J Sex Med. 2011;8:1197–1209.

[33] McLean LM, Walton T, Rodin G, et al. A couple-based intervention for patients and caregivers facing end-stage cancer: outcomes of a randomized controlled trial. Psychooncology. 2011;22:28–38.

[34] Janoff-Bulman R. Assumptive worlds and the stress of traumatic events: applications of the schema construct. Soc Cogn. 1989;7:113–136.

[35] Kershaw TS, Mood DW, Newth G, et al. Longitudinal analysis of a model to predict quality of life in prostate cancer patients and their spouses. Ann Behav Med. 2008;36:117–128.

[36] Lepore SJ, Revenson TA. Social constraints on disclosure and adjustment to cancer. Soc Personal Psychol Compass. 2007;1:313–333.

[37] Hagedoorn M, Puterman E, Sanderman R, et al. Is self-disclosure in couples coping with cancer associated with improvement in depressive symptoms? Health Psychol. 2011;30:753.

[38] Cordova MJ, Cunningham LLC, Carlson CR, et al. Social constraints, cognitive processing, and adjustment to breast cancer. J Consult Clin Psychol. 2001;69:706–711.

[39] Langer SL, Brown JD, Syrjala KL. Intrapersonal and interpersonal consequences of protective buffering among cancer patients and caregivers. Cancer. 2009;115:4311–4325.

[40] Manne S, Myers S, Ozga M, et al. Holding back sharing concerns, dispositional emotional expressivity, perceived unsupportive responses, and distress among women newly-diagnosed with gynecological cancers. Gen Hosp Psychiatry. 2014;36:81–87.

[41] Porter L, Keefe F, Hurwitz H, et al. Disclosure between patients with gastrointestinal cancer and their spouses. Psychooncology. 2005;14:1030–1042.

[42] Figueiredo M, Fries E, Ingram K. The role of disclosure patterns and unsupportive social interactions in the well-being of breast cancer patients. Psychooncology. 2004;13:96–105.

[43] Bartley EJ, Edmond SN, Wren AA, et al. Holding back moderates the association between health symptoms and social well-being in patients undergoing hematopoietic stem cell transplantation. J Pain Symptom Manage. 2014;48:374–384.

[44] Goldsmith DJ, Miller LE, Caughlin JP. Openness and avoidance in couples communicating about cancer. Commun Yearbook. 2007;31:62.

[45] Hilton B. Family communication patterns in coping with early breast cancer. West J Nurs Res. 1994;16:366–388.

[46] Reynolds JS, Perrin NA. Mismatches in social support and psychosocial adjustment to breast cancer. Health Psychol. 2004;23:425–430.

[47] Dagan M, Sanderman R, Hoff C, et al. The interplay between partners' responsiveness and patients' need for emotional expression in couples coping with cancer. J Behav Med. 2014;37:828–838.

[48] Cano A, Leong LE, Williams AM, et al. Correlates and consequences of the disclosure of pain-related distress to one's spouse. Pain. 2012;153:2441–2447.

[49] Goldsmith DJ, Miller GA. Should I tell you how I feel? A mixed method analysis of couples' talk about cancer. J Appl Commun Res. 2015;43:273–293.

[50] Goldsmith DJ, Miller LE, Caughlin JP. Openness and avoidance in couples communicating about cancer. Ann Int Commun Assoc. 2007;31:62–115.

[51] Kornblith A, Regan M, Kim Y, et al. Cancer-related communication between female patients and male partners scale: a pilot study. Psychooncology. 2006;15:780–794.

[52] Badr H, Carmack Taylor C. Social constraints and spousal communication in lung cancer. Psychooncology. 2006;15:673–683.

[53] Clark LF. Stress and the cognitive-conversational benefits of social interaction. J Soc Clin Psychol. 1993;12:25–55.

[54] Horowitz MJ, Stress response syndromes. 2nd ed. Northvale (NJ): Jason Aronson Press; 1986.

[55] Hagedoorn M, Kuijer RG, Buunk BP, et al. Marital satisfaction in patients with cancer: does support from intimate partners benefit those who need it the most? Health Psychol. 2000;19:274–282.

[56] Boehmer U, Clark JA. Communication about prostate cancer between men and their wives. J Fam Pract. 2001;50:226–231.

[57] Yu Y, Sherman KA. Communication avoidance, coping and psychological distress of women with breast cancer. J Behav Med. 2015;38:565–577.

[58] Munro H, Scott SE, King A, et al. Patterns and predictors of disclosure of a diagnosis of cancer. Psychooncology. 2015;24:508–514.

[59] Northouse LL, Mood D, Templin T, et al. Couples' patterns of adjustment to colon cancer. Soc Sci Med. 2000;50:271–284.

[60] Hagedoorn M, Sanderman R, Bolks HN, et al. Distress in couples coping with cancer: a meta-analysis and critical review of role and gender effects. Psychol Bull. 2008;134:1.

[61] Allen SM. Gender differences in spousal caregiving and unmet need for care. J Gerontol. 1994;49:S187–SS95.

[62] Rosario M, Shinn M, Morch H, et al. Gender differences in coping and social supports: Testing socialization and role constraint theories. J Community Psychol. 1988;16:55–69.

[63] Epstein NB, Baucom DH. Enhanced cognitive-behavioral therapy for couples: A contextual approach. Washington (DC): American Psychological Association; 2002.

[64] Bodenmann G, Hilpert P, Nussbeck FW, et al. Enhancement of couples' communication and dyadic coping by a self-directed approach: a randomized controlled trial. J Consult Clin Psychol. 2014;82:580.

[65] Bodenmann G, Bradbury TN, Pihet S. Relative contributions of treatment-related changes in communication skills and dyadic coping skills to the longitudinal course of marriage in the framework of marital distress prevention. J Div Remarr. 2008;50:1–21.

[66] Bodenmann G, Randall AK. Common factors in the enhancement of dyadic coping. Behav Ther. 2012;43:88.

[67] Coyne JC, Ellard JH, Smith DAF, Social support, interdependence, and the dilemmas of helping. In: Sarason BR, Sarason IG, Pierce GR, editors. Social support: an interactional view. New York (NY): Wiley; 1990. p. 129–149.

[68] Badr H, Acitelli LK. Re-thinking dyadic coping in the context of chronic illness. Curr Opin Psychol. 2017;13:44–48.

[69] Badr H, Milbury K, Majeed N, et al. Natural language use and couples' adjustment to head and neck cancer. Health Psychol. 2016;35:1069–1080.

[70] Afifi T, Caughlin J, Afifi W, The dark side (and light side) of avoidance and secrets. In: Spitzberg B, Cupach W, editors. The dark side (and light side) of interpersonal communication. 2nd ed. Mahwah (NJ): Lawrence Erlbaum Associates; 2007. p. 61–92.

[71] Caughlin JP, Mikucki-Enyart SL, Middleton AV, et al. Being open without talking about it: A rhetorical/normative approach to understanding topic avoidance in families after a lung cancer diagnosis. Commun Monographs. 2011;78:409–436.

[72] Goldsmith DJ, Domann-Scholz K. The meanings of “open communication” among couples coping with a cardiac event. J Commun. 2013;63:266–286.

[73] Badr H, Acitelli LK. Dyadic adjustment in chronic illness: does relationship talk matter? J Fam Psychol. 2005;19:465–469.

[74] Badr H, Acitelli LK, Carmack Taylor CL. Does talking about their relationship affect couples’ marital and psychological adjustment to lung cancer? J Cancer Surviv. 2008;2:53–64.

[75] Roaldsen BL, Sørlie T, Lorem GF. Cancer survivors’ experiences of humour while navigating through challenging landscapes–a socio-narrative approach. Scand J Caring Sci. 2015;29:724–733.

[76] Langer SL, Kelly TH, Storer BE, et al. Expressive talking among caregivers of hematopoietic stem cell transplant survivors: acceptability and concurrent subjective, objective, and physiologic indicators of emotion. J Psychosoc Oncol. 2012;30:294–315.

[77] Pennebaker J. Writing about emotional experiences as a therapeutic process. Psychol Sci. 1997;8:162–166.

[78] Berg CA, Upchurch R. A developmental-contextual model of couples coping with chronic illness across the adult life span. Psychol Bull. 2007;133:920–954.

[79] Badr H, Carmack C, Kashy D, et al. Dyadic coping in metastatic breast cancer. Health Psychol. 2010;29:169–180.

[80] Heinrichs N, Zimmermann T, Huber B, et al. Cancer distress reduction with a couple-based skills training: a randomized controlled trial. Ann Behav Med. 2012;43:239–252.

[81] Pennebaker JW, Mehl MR, Niederhoffer KG. Psychological aspects of natural language use: our words, our selves. Annu Rev Psychol. 2003;54:547–577.

[82] Rohrbaugh M, Shoham V, Skoyen J, et al. We-talk, communal coping, and cessation success in a couple-focused intervention for health-compromised smokers. Fam Process. 2012;51:107–121.

[83] Seider BH, Hirschberger G, Nelson KL, et al. We can work it out: age differences in relational pronouns, physiology, and behavior in marital conflict. Psychol Aging. 2009;24:604–613.

[84] Williams-Baucom KJ, Atkins DC, Sevier M, et al. “You” and “I” need to talk about “us”: Linguistic patterns in marital interactions. Pers Relationship. 2010;17:41–56.

[85] Simmons RA, Gordon PC, Chambless DL. Pronouns in marital interaction what do “You” and “I” say about marital health? Psychol Sci. 2005;16:932–936.

[86] Aldao A. The future of emotion regulation research: capturing context. Perspect Psychol Sci. 2013;8:155–172.