

Brief Report

A couples intervention for patients facing advanced cancer and their spouse caregivers: outcomes of a pilot study

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Abstract

Objective: The primary objective of this study was to evaluate the effectiveness of a couples intervention in improving marital functioning in advanced cancer patients and their spouse caregivers. A secondary objective was to determine its impact on other symptoms of psychosocial distress and its feasibility and acceptability as a clinical intervention.

Methods: Using a one-arm pre- and post-intervention prospective design, 16 couples were provided 8 weekly sessions of Emotionally Focused Couple Therapy, modified and manualized for the cancer population. Subjects' marital functioning (Revised Dyadic Adjustment Scale [RDAS]), symptoms of depression (Beck Depression Inventory-II [BDI-II]), and hopelessness (Beck Hopelessness Scale) were assessed through self-report at T0 (baseline), T1 (after four sessions), T2 (after eight sessions), and T3 (3 months post-intervention follow-up).

Results: RDAS scores improved from T0 to T2, with 87.5% of the couples showing some improvement (0.5–5 points) or significant improvement (>5 points) in marital functioning and 68.8% scoring in the non-distressed range (≥ 48 RDAS). At T3, 60% of the couples ($n = 15$) continued to score in the non-distressed range on the RDAS. BDI-II scores were significantly higher for patients than for caregivers. There was a significant reduction in the mean BDI-II score from T0 to T3 in all subjects ($n = 30$). This reduction was more significant for the patients ($n = 15$).

Conclusions: Providing support to couples at this challenging time may result in improved marital functioning and an opportunity for relational growth during end-stage cancer. This study serves as the first step in the development of an empirically validated intervention for couples.

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Keywords: metastatic cancer; advanced cancer; marital distress; end of life; psychosocial distress; couples intervention

Received: 9 July 2007
Revised: 5 November 2007
Accepted: 15 November 2007

Introduction

The emotional adjustment of cancer patients and their spouse caregivers may be profoundly affected by the presence of the disease [1]. Couples where one is facing advanced disease may commonly have adjustment difficulties resulting in the experience of less intimacy, mutual support and cohesion, and greater marital conflict, especially as the end of life approaches [2]. There is now an emerging research literature that highlights the need to identify and support couples most at risk for psychological distress during end-stage cancer [3–6].

Providing support to couples at this challenging time can result in a reduction of psychological pain

and psychosocial distress in both partners, and an opportunity to enhance the appreciation and significance of loved ones and to form deeper emotional connections [5,7–8]. A couples approach may also prepare the spouse caregiver for bereavement therapy, reducing the potential of future complicated grief and mental health difficulties [9]. However, despite advocacy for the development of couples interventions focused on the specific needs of the cancer patients and their spouses [4,6,10,11], there remain only five couple-based published reports for those facing advanced cancer (see McLean and Jones [6]).

The primary objective of this pilot study was to determine the effect of a couples intervention on

marital functioning. Our secondary objectives were to determine its impact on alleviating other symptoms of psychosocial distress, and its feasibility and acceptability as a clinical intervention.

Methods

Design

A prospective single group design was used; subjects were assessed at T0 (baseline), at T1 (after four couples sessions), at T2 (after eight sessions), and by mail at T3 (3 months post-intervention follow-up).

Subjects and recruitment

Study subjects were recruited at Princess Margaret Hospital (PMH), a large comprehensive cancer hospital, within the University Health Network, Toronto, Canada, over 44 weeks between March 2006 and January 2007. Patients aged ≥ 18 years with a diagnosis of metastatic cancer or recurrence of cancer were eligible for this study if they: (1) were fluent in English, (2) had a Karnofsky Performance Status [KPS; 12] rating of ≥ 70 , (3) had a Short Orientation-Memory-Concentration Test [13] score ≥ 20 (or ≤ 10 errors), (4) were married or had a partnership of ≥ 1 year, and (5) reported intermediate to moderate marital distress (score of 32–47 on the Revised Dyadic Adjustment Scale [RDAS; 14]). Spouse caregiver was defined as the significant partner identified by the patient as his or her primary source of physical and emotional support throughout the illness and confirmed by the spouse. Eligibility criteria for spouse caregivers were the same as those for the patient, with the exception of medical diagnosis and KPS [12]. Current subjects in couple therapy were excluded, as were those with one member with significant psychiatric problems (e.g. psychosis).

Procedures

Staff members (nurses, physicians, psychiatrists, psychologists, social workers) of the Department of Psychosocial Oncology and Palliative Care (POPC) at PMH served as a referral source for the study. They identified eligible patients (i.e. patients who reported marital problems) attending outpatient clinics in the hospital, determined if they had an eligible spouse caregiver, advised them of the study, and obtained their permission to be referred to an Emotionally Focused Couple Therapy (EFT)-trained clinician for a written and verbal explanation of the study.

Intervention

After informed consent procedures and baseline assessments, participating couples began the inter-

vention. The intervention was adapted from EFT [15]. EFT is a short-term (8–20 sessions) manualized intervention designed for distressed couples, which is well supported by empirical outcome studies [16]. We modified and manualized EFT for the advanced cancer population and their spouse caregivers to address particular issues that challenge such couples [17]. The intervention was delivered by EFT-trained clinicians (two psychologists and one doctoral candidate). All sessions occurred in clinical offices of the POPC program with the exception of one couple being seen while the patient was an inpatient, and at home for the final session. Our primary goals for this pilot EFT-intervention study were to facilitate relational reparation, to increase mutual understanding, emotional engagement, and attachment security, to change habitual and distressing patterns of interaction, and to enhance a sense of meaning, and existential well-being in cancer patients and their spouse caregivers at the end of life.

Measures

- (1) *Medical and demographic data* were extracted from the patient's medical record using a brief demographic questionnaire.
- (2) *Marital functioning* was measured using the RDAS [14,18], a standardized 14-item self-report measure of marital functioning and relationship quality. The RDAS consists of three subscales: the Dyadic Consensus Subscale, the Dyadic Satisfaction Subscale, and the Dyadic Cohesion Subscale, which are summed to obtain an overall marital functioning score. Scores range from 0 to 69, with higher scores (≥ 48) reflecting better marital functioning.
- (3) *Depression* was measured with the Beck Depression Inventory-II [BDI-II;19], a 21-item self-report measure to assess depressive symptoms. Scores range from 0 to 63, with higher scores (> 15) reflecting depressive symptomatology.
- (4) *Hopelessness* was measured with the Beck Hopelessness Scale [BHS;20], a 20-item true/false scale, measuring feelings of hopelessness and negative expectancies. Scores range from 0 to 20, with higher scores (> 8) reflecting increased hopelessness.
- (5) *Satisfaction and benefit* from the couples intervention were measured with the Satisfaction and Benefit Questionnaire (SBQ), developed by our research team to determine each partner's satisfaction and benefit from the couples EFT intervention. Total scores range from 15 to 75, with higher scores reflecting

Table 1. Characteristics of study patients

Couple	Patient sex	Age (years)	Type of cancer	Years since diagnosis	Recurrence?	Active cancer treatment?	KPS score, week 0, baseline (T0)
1	M	40	Leukemia	3	Yes	Yes	80
2	F	37	Gastrointestinal	2	Yes	Yes	90
3	F	47	Breast	5	No	Yes	65
4	M	43	Head/neck	1	No	No	70
5	F	30	Gynecological	1	No	Yes	70
6	F	40	Breast	1	No	Yes	80
7	M	61	Gastrointestinal	1	Yes	Yes	70
8	M	60	Leukemia	5	Yes	Yes	60
9	F	48	Head/neck	1	Yes	Yes	90
10	M	56	Head/neck	1	No	Yes	50
11	M	46	Central nervous system	5	No	Yes	80
12	M	69	Head/neck	2	Yes	Yes	60
13	F	59	Breast	2	No	Yes	90
14	F	42	Breast	3	Yes	Yes	50
15	F	61	Gynecological	4	Yes	No	80
16	F	31	Breast	4	No	Yes	90
Mean or %	F = 56.25%	48.1		2.6	Yes = 50%	Yes = 87.50%	73.4
SD		11.65		1.59			13.75

KPS, Karnofsky Performance Status Scale; SD, standard deviation.

greater satisfaction and benefit from the intervention.

Statistical analyses

Descriptive analyses were conducted to examine the demographic characteristics of the subjects and medical data of the patients. A three-way repeated measures analysis of variance (ANOVA) was used to examine effects of time, sex, age, and patient and spouse caregiver status on the total mean RDAS score, BDI-II, and BHS scores. Subjects were nested within a couple. A couple was considered a random effect, and time period was a repeated measure for each subject. *Post hoc* analyses were conducted using the Tukey–Kramer test. In addition, a two-way repeated measures ANOVA for the three subscales of the RDAS was run to examine whether certain aspects of the marital relationship were more amenable to change. A minimum level of significance of 0.05 was used for all analyses.

Results

A total of 17 potential patients and their spouse caregivers were identified by POPC staff as suitable to participate. All of them met eligibility criteria and 16 (94%) couples agreed to participate. Subjects were largely English speaking (88%), highly educated (97% > college or postgraduate education), with a mean age of 48.1 years (SD = 11.6, range 31–69). Couples were married for an average of 16 years (SD = 14.6, range 1–48 vs. 3–48) and had a mean of 1.6 children (SD = 1.4, range 0–4). Nine (28%) subjects were

involved in concurrent individual therapy at the time of study enrolment, and 10 (31%) were currently on an antidepressant medication. Three (9%) subjects changed antidepressant medication during the intervention. Patient characteristics and medical information are reported in Table 1.

At T2, there was 100% completion of questionnaire packages; at T3, the questionnaire completion rate was 94% ($n = 15$ couples).

Effectiveness of the pilot intervention

The means, standard deviations, mean differences, and sample sizes for the main study measures (RDAS, BDI-II, BHS) at T0–T3 are reported in Table 2.

Marital functioning, based on RDAS scores, improved significantly over time ($F_{(3,105)} = 8.19$, $P < 0.0001$). Estimated increases in total RDAS scores, based on least squares means are T0–T2, 7.28 (SE = 1.64, $P = 0.0001$); T0–T3, 6.94 (SE = 1.71, $P = 0.0006$); T1–T2, 4.88 (SE = 1.47, $P = 0.007$); and T1–T3, 4.54 (SE = 1.67, $P = 0.04$).

After averaging the total RDAS scores for the two subjects in each couple, we found that 87.5% of the couples showed some improvement (0.5–5 points) or significant improvement (> 5 points) and 68.8% ($n = 11$) of the couples fell into the non-distressed range (≥ 48) [14,18] at T2. This level of marital non-distress was maintained at T3 (3 months post-intervention) by 60% ($n = 9$) of the 15 remaining couples.

Results from the RDAS subscales analyses also demonstrated significant improvements for couples on all three RDAS subscales over time: Consensus

Table 2. Means, standard deviations, and sample sizes for measures at baseline (T0), T1 (after four sessions), T2 (after eight sessions), and T3 (3 months post-intervention follow-up)

Scale scores	T0 (n = 32)		T1 (n = 32)		T2 (n = 32)		T3 follow-up (n = 30)	
	CG ^a n = 16	PT ^b n = 16	CG ^a n = 16	PT ^b n = 16	CG ^a n = 16	PT ^b n = 16	CG ^a n = 15	PT ^b n = 15
Revised Dyadic Adjustment Scale	45.4 (6.87)	41.3 (9.1)	44.6 (9.7)	47.0 (9.3)	50.6 (8.5)	50.8 (8.6)	50.9 (7.6)	49.5 (10.4)
Beck Depression Inventory-II	10.6 (9.4)	19.6 (9.5)	12.1 (10.1)	19.0 (11.7)	10.4 (8.8)	16.4 (10.1)	8.4 (4.9)	14.1 (10.7)
Beck Hopelessness Scale	6.2 (4.1)	6.4 (5.1)	6.4 (4.6)	5.7 (4.5)	6.9 (4.8)	4.7 (4.4)	5.4 (4.8)	5.5 (5.3)

^aCG, spouse caregiver/partner; ^bPT, patient.

$F_{(3,44)} = 4.25$, $P = 0.01$; Satisfaction $F_{(3,44)} = 4.90$, $P = 0.005$; Cohesion $F_{(3,44)} = 7.47$, $P = 0.0004$.

BDI-II scores did not differ overall across time or by sex, but were significantly higher for patients than for caregivers ($F_{(1,105)} = 13.50$, $P = 0.0004$). In addition, there was a significant reduction of 3.07 points in the mean score from T0 to T3 in all subjects. (95%CI = 0.07–6.07; $P = 0.0454$; $t = 2.09$, d.f. = 29). For patients ($n = 15$), this reduction was more dramatic: 4.67 points (95%CI = 0.62–8.71; $P = 0.0268$; $t = 2.47$, d.f. = 14).

The mean BHS scores were not clinically or statistically significant over time; patients and caregivers scored below the clinically significant cutoff of 8 [20] at all time points.

The average number of sessions delivered was 11.56 sessions (SD = 4.30, range 8–22). Additional sessions were provided based on couple and clinical evaluation of benefit; all questionnaire packages were given at the four times outlined in the pilot study protocol. The total number of sessions did not statistically influence the range of RDAS scores or RDAS total scores over time.

Intervention evaluation by subjects

The mean total score for the SBQ administered after sessions 4, 8, and 20 was 53.8 (SD = 7.0, range 35.5–62.6). The majority of couples endorsed a moderately high level of satisfaction and benefit from the intervention and reported finding the therapeutic setting a safe place to express their feelings, have them validated by a neutral party, and hear and better understand their partner.

Discussion

The modified EFT intervention tested in this pilot study was directed at improving marital functioning in couples facing advanced cancer and the end of life. Significant positive effects were found in couples' marital functioning (RDAS total and subscale scores). The degree of improvement in marital functioning is favorably comparable to reported randomized controlled trials of EFT in a variety of non-cancer populations [16], as well as

other interventions reported for the end-stage cancer population [6].

There was a significant improvement in symptoms of depression in subjects over time (T0–T3) and this improvement was greatest for patients. It is possible that couples felt relieved by the opportunity to express their feelings in a neutral couple-based therapeutic environment; spouse caregivers' relatively lower mean total depression scores over all time periods may have resulted in less room for measurable improvement in this small sample. Low levels of hopelessness were reported by both patients and caregivers at all time points, suggesting that there may have been little room for measurable improvement in this outcome.

Feasibility of the study was established through the successful recruitment of 16 couples over 44 weeks, and their attendance at a mean of 11.56 (SD = 4.30) sessions. All couples completed the eight-session intervention, and completion of self-report measures was 100% at T2, and 93.5% ($n = 15$ couples) at T3. The fact that we were able to recruit and retain couples where one partner faced advanced cancer, with no attrition by T2, was encouraging in terms of the feasibility of future research in this area. The RDAS proved an appropriate and effective measure of marital functioning in this pilot study with a non-random sample.

Attention to the continuum of psychological suffering in distressed couples where one is facing metastatic or recurrent cancer is a humane component of end of life care. These results should be interpreted with caution due to the small sample and lack of a control group, and require confirmation in a larger randomized controlled trial.

Post-intervention events

One subject committed suicide 6 months after termination of the eight sessions of the couples intervention, and 13 weeks after post-intervention by mailed questionnaire package. This subject had a number of pre-existing complex comorbid factors. She had been followed weekly in individual therapy by a psychiatrist for several years before

the couples intervention, during the intervention, and following, including time to death. One couple divorced after the intervention, but both partners reported that the intervention assisted in an amicable separation and in movement toward independent living.

Acknowledgements

We are grateful to the patients and their spouse caregivers for their participation and contribution to this study. We would also like to thank the members of the Psychosocial Oncology and Palliative Care Program for their assistance in the referral process. We extend appreciation to members of the Palliative and Supportive Care Research Group for their contributions and support of this project and to the Department of Statistics, University of Toronto. Finally, we thank University Health Network (UHN) Allied Health, which contributed funding for this project.

Role of the funding source: UHN Allied Health contributed funding for this study; however, it had no role in the study design, data collection, analysis, interpretation of the findings, or the writing of this article.

Conflict of interest statement: No conflict of interest declared.

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