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Clinical Correspondence

Meaning-centered group psychotherapy in cancer survivors: a feasibility study

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Dear Editor,

Introduction

Many cancer survivors experience psychological and social problems while encountering the limitations in their life that occur as a consequence of their disease [1]. Meaning-focused coping seems to be at the core of adequate adjustment to cancer; cancer patients who experience their life as meaningful are better adjusted, have better quality of life, and psychological functioning [2,3]. Several studies on existential interventions for patients with advanced cancer show promising results [4]. Meaning-centered group psychotherapy (MCGP) was designed to help patients to sustain or enhance a sense of meaning, peace, and purpose in their lives, despite the confrontation with death. A pilot randomized trial showed that MCGP is potentially beneficial for patients with advanced cancer on emotional and spiritual suffering [5].

This study focuses on cancer survivors, who have been treated for cancer with curative intent. Worldwide, there are no studies that have investigated meaning-centered therapy for cancer survivors. On the basis of outcomes of a focus group study with cancer survivors [6] and on the expertise of psychotherapists with expertise in this specific area, we adapted the MCGP manual to make it compliant for cancer survivors (MCGP-CS). The themes were kept the same as in the original manual, but the way they are addressed was changed; for example, in the MCGP, patients are asked to respond to questions like 'What would you consider a good or meaningful death?' In the MCGP-CS, they are asked to respond to questions like 'How can you carry on in life, despite these limitations?' We are planning to conduct a randomized controlled trial (RCT) investigating the cost-effectiveness of MCGP targeting cancer survivors (MCGP-CS). Before starting the RCT, we decided to test the adapted MCGP-CS manual and the research set up in a feasibility study. The goals of the present feasibility study are to examine (a) the recruitment strategy, (b) MCGP-CS compliance, (c) patient satisfaction with MCGP-CS, and (d) to test the outcome assessment procedures. Also, we wanted to obtain preliminary insight into the expected efficacy of the intervention.

Methods

Design

In this pilot study, participants were recruited during 6 months at the departments of Surgery, Clinical Oncology, and Clinical Genetics of Leiden University Medical Center. Eligible patients were recruited by a research nurse. The goal was to include 18–24 patients enabling three MCGP groups. After 3 months, the accrual was behind on schedule, because the face-to-face accrual appeared to be too time consuming and was only reaching a small amount of patients. We decided to extend recruitment with online advertisements and via a center for psychosocial care in Amsterdam. Outcome measures were administered before (T0) and after (T1) the intervention and at 3-months follow-up (T2). After the MCGP's were conducted, two expert meetings with the two group facilitators (psychologists) and two researchers (NS and IV) were organized to evaluate the intervention manual. The

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study protocol was approved by the Medical Ethics Committee of the Leiden University Medical Center. All patients gave written informed consent.

Setting and study sample

Inclusion criteria: a diagnosis of cancer in the last 5 years, treatment with curative intent, main treatment is completed (i.e. surgery, chemotherapy, and radiation), ability to attend all therapy sessions, need for psychological help/support for a psychosocial problem (e.g. anxiety, depression, coping issues, life questions, and meaning-making problems).
Exclusion criteria: severe cognitive impairment, current psychological treatment, and insufficient mastery of Dutch language. The criteria were ascertained during a telephone interview.

Meaning-centered group psychotherapy

Meaning-centered group psychotherapy is a group intervention with eight weekly sessions of 2 h. The main purpose of MCGP is to sustain or enhance a sense of meaning or purpose in the patient's life, to cope better with the consequences of cancer. Each session addresses a specific theme that is related to the concepts and sources of meaning (i.e. creativity, legacy, experience, and attitude). The MCGP manual was originally developed for advanced cancer patients [5,7]. In the present study, groups were planned to consist of 6–8 cancer survivors and led by two facilitators. The facilitators were psychologists with experience in treating psychosocial problems in oncology patients.

Outcome measures

The outcome assessment included items on socio-demographic variables and clinical characteristics (type of cancer, cancer treatment, and time since treatment). Patients could choose to complete the questionnaires online or via paper-and-pencil. At T1, participants evaluated the strengths and weaknesses of the group training that they received by filling out a patient satisfaction questionnaire, to rate the content, duration, and quality of the training and the trainers.

Primary outcome measures on meaning making

The *Dutch Personal Meaning Profile* comprises five subscales: religion, dedication to life, fairness of life, goal-orientedness, and relationships [8].

The *Dutch Post Traumatic Growth Inventory* is for measuring posttraumatic growth and comprises five scales: relationships, viewing new possibilities, personal strength, spirituality, and appreciation of life [9].

The *Ryff's Scale Of Psychological Well-Being* assesses a person's level of positive functioning and well-being and comprises six scales: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self acceptance [10].

Secondary outcome measures

Secondary outcome measures were the 30-item European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (EORTC QLQ-C30), the 14-item Hospital Anxiety and Depression Scale (anxiety and depression), the 20-item Dutch Beck Hopelessness Scale (hopelessness), the 10-item Life Orientation Test-Revised (optimism), and the 40-item Dutch Mental Adjustment to Cancer Questionnaire (adjustment to cancer).

Statistical analyses

Descriptive statistics were generated for the range of background and outcome variables. Free-text responses were used as illustrations for the quantitative data. Paired sample t-tests were used to analyze differences between patients before and after intervention and between patients before intervention and at 3-months follow-up. Effect sizes were calculated regarding differences between outcome measures at T1 versus T0 and at T2 versus T0, by Cohen's d. Statistical analyses were performed with the Statistical Package for the Social Sciences 20.0.

Results

Recruitment

After 6 months, 11 (2 male and 9 female) participants were recruited and two MCGP-CS groups were conducted, one in Amsterdam ($N=4$) and one in Leiden ($N=7$). The mean age was 52 years, seven participants were in a relationship,

Table 1. Patient satisfaction with meaning-centered group psychotherapy

N = 10	**Totally agree**	**Agree a little**	**Mixed feelings**
The session themes were useful	80%	20%	—
The discussion topics were understandable	90%	10%	—
Discussing meaning making was useful for me	60%	40%	—
The workbook was easy to work with	40%	40%	20%
The homework assignments were helpful	60%	40%	—
This group training was very useful for me	60%	20%	20%
The facilitators were reliable	100%	—	—
I felt acknowledged by the facilitators	100%	—	—
The facilitators were experts	100%	—	—
There was enough room to tell my story	90%	10%	—
It was pleasant to share my experiences with others	100%	—	—
I have learned from the experiences of others	100%	—	—

There were no scores in the categories 'disagree a little' and 'totally disagree', these categories are therefore not included in this table.

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Table 2. Changes in primary and secondary outcome measures

	Baseline, T0 mean (SD)	Post, T1 mean (SD)	Cohen's d	P value T1 versus T0	Follow up, T2 mean (SD)	Cohen's d	P value T2 versus T0
SPWB							
Psychological well-being							
Positive relations	5.1 (.4)	5.2 (.4)	−0.14	0.678	5.3 (.5)	−0.11	0.747
Autonomy	4.0 (.9)	4.3 (.5)	−0.74	0.044	4.3 (.9)	−1.14	0.008
Environmental mastery	4.5 (.4)	4.6 (.2)	−0.3	0.363	4.8 (.4)	−0.68	0.065
Personal growth	4.7 (.5)	5.1 (.3)	−0.93	0.017	5.1 (.3)	−0.91	0.021
Purpose in life	4.6 (.5)	4.7 (.4)	−0.43	0.204	4.7 (.5)	−0.35	0.300
Self acceptance	4.5 (.6)	4.6 (.4)	−0.21	0.520	4.7 (.5)	−0.55	0.118
Spiritual well-being							
Inner strength	4.4 (.7)	4.8 (.5)	−0.66	0.067	4.8 (.7)	−0.46	0.187
Higher power	3.6 (.4)	3.7 (.4)	−0.21	0.520	3.7 (.5)	−0.55	0.129
PMP							
Total score	66.2 (13.3)	71.4 (10.0)	−0.69	0.061	70.0 (10.3)	−0.68	0.084
Relation with God/ higher order	26.5 (12.4)	28.4 (11.4)	−0.34	0.309	25.6 (11.6)	−0.24	0.456
Dedication to life	68.9 (15.3)	76.2 (11.2)	−0.65	0.068	74.7 (10.8)	−0.61	0.090
Fairness of life	54.6 (17.6)	65.0 (15.9)	−0.98	0.013	64.3 (11.7)	−1.1	0.009
Goal-orientedness	72.8 (15.9)	79.4 (10.4)	−0.62	0.083	73.4 (14.0)	−0.26	0.430
Relations with others	82.1 (14.9)	82.1 (14.0)	0	1.00	85.3 (12.3)	−0.28	0.407
PTGI							
Total score	75.6 (15.2)	78.7 (19.1)	−0.36	0.289	76.1 (22.0)	−0.21	0.534
Relating to others	29.3 (6.7)	29.4 (6.4)	−0.02	0.945	27.9 (6.9)	0.13	0.682
New possibilities	17.2 (5.1)	17.0 (5.7)	0.05	0.874	16.3 (6.1)	0.05	0.886
Personal strength	13.8 (4.3)	15.7 (5.0)	−0.68	0.061	15.0 (5.3)	−0.54	0.128
Spiritual change	3.8 (1.9)	4.7 (2.3)	−0.49	0.159	4.6 (1.7)	−0.63	0.081
Appreciation of life	11.5 (3.2)	11.9 (3.5)	−0.23	0.479	12.3 (4.3)	−0.39	0.255
HADS							
Anxiety	6.7 (4.4)	4.7 (3.0)	0.63	0.079	4.1 (2.7)	0.89	0.024
Depression	2.9 (2.3)	1.3 (1.2)	0.82	0.127	4.4 (0.9)	−0.55	0.574
Total score	9.6 (6.2)	6.0 (3.9)		0.043	8.6 (2.7)		0.353
EORTC QLQ-C30							
Function scales							
Emotional function	71.7 (16.8)	84.2 (10.0)	0.95	0.015	83.3 (11.8)	0.89	0.023
Cognitive function	56.7 (23.8)	71.7 (19.3)	0.75	0.041	72.2 (20.4)	0.83	0.030
Social function	66.7 (19.2)	81.7 (21.4)	0.82	0.029	74.1 (18.8)	0.73	0.050
Symptom scales							
Fatigue	50.0 (21.1)	31.1 (17.2)	1.6	0.001	42.0 (24.1)	0.41	0.227
Nausea/vomiting	10.0 (16.1)	3.3 (10.5)	0.77	0.037	11.1 (16.7)	0.07	1.00
Pain	26.7 (28.5)	11.7 (22.3)	0.66	0.068	29.6 (21.7)	−0.11	0.729
Dyspnea	16.7 (23.6)	20.0 (28.1)	−0.11	0.726	14.8 (24.0)	0.11	0.729
Insomnia	40.0 (34.4)	23.3 (31.6)	0.71	0.052	25.9 (27.8)	0.47	0.179
Loss of appetite	10.0 (16.1)	3.3 (10.5)	0.47	0.168	3.7 (11.1)	0.48	0.169
Constipation	10.0 (22.5)	6.7 (14.1)	0.18	0.591	7.4 (14.7)	0.18	0.594
Diarrhea	13.3 (17.2)	3.3 (10.5)	0.62	0.081	22.2 (33.3)	-.018	0.594
Financial problems	20.0 (32.2)	10.0 (16.1)	0.44	0.193	18.5 (24.2)	0.18	0.594
MAC							
Fighting spirit	48.5 (4.1)	49.0 (5.4)	−0.15	0.647	49.9 (5.6)	−0.3	0.368
Helpless/hopeless	10.3 (2.8)	8.6 (1.6)	0.68	0.060	9.7 (3.3)	0.21	0.531
Anxious preoccupation	24.1 (4.0)	23.1 (2.9)	0.25	0.443	22.2 (1.8)	0.63	0.082
Fatalism	18.8 (3.7)	17.6 (2.8)	0.37	0.269	17.3 (1.7)	0.24	0.466
Avoidance	1.3 (0.5)	1.6 (1.0)	−0.36	0.279	1.3 (0.5)	−0.18	0.594
LOT-R							
Optimism	15.6 (3.7)	16.3 (3.3)	−0.26	0.428	16.2 (2.7)	−0.17	0.616
Becks Hopelessness							
Total score	5.5 (4.6)	3.4 (1.8)	0.46	0.179	3.7 (3.3)	0.41	0.232

SPWB, Scale of Psychological Well-Being; PMP, Personal Meaning Profile; PTGI, Post Traumatic Growth Inventory; HADS, Hospital Anxiety and Depression Scale; EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30; MAC, Mental Adjustment to Cancer Questionnaire.

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four were single, eight participants were diagnosed with breast cancer, three with colorectal cancer, and the average time since treatment was 16 months.

Compliance and patient satisfaction

The compliance rate of the MCGP sessions was good; all 11 patients finished the intervention. One patient missed one session. Ten patients completed a 12-item questionnaire on satisfaction with MCGP-CS post-intervention. Six patients reported to be 'very satisfied', three patients were 'satisfied', and one patient had 'mixed feelings' (Table 1). In total, nine patients indicated that they would recommend this intervention to others (one was not sure) and almost all patients were satisfied with the number of sessions and the duration of the sessions. One patient found that the sessions were too short. Two patients stated that they had preferred more sessions. Quotes from the free-text responses illustrate these findings:

> 'This training gave me new insights, a nice experience with meaningful conversations. I would not want to miss it.'

> 'I feel that the end of the training came a little bit too soon. But I do believe I can go on with what I've learned.'

Evaluation by psychotherapists

In the expert meetings, the facilitators expressed that they were in general positive about the intervention manual. Most of their comments concerned the use of language. On the basis of the facilitators' experiences during this pilot study, the intervention manual was further adapted regarding the structure, order of topics, and rephrasing of expressions. Also, a short introspective exercise was added as a start of every exercise in the intervention manual.

Outcome evaluation

All patients preferred to complete the outcome measures online. Total scales and subscales could be calculated for 11 patients at baseline, 10 patients after the intervention (T1), and 9 patients at 3-months follow-up (T2). On several outcome measures, patients scored better posttreatment and/or at follow-up, with small, medium, and large effect sizes (Table 2). Of course, these results should be handled with caution, because of the small sample size in this pilot study.

Discussion and conclusion

The results of this feasibility study indicated that MCPG-CS is feasible and possibly effective. Patient satisfaction and compliance was high. The majority of the patients responded positively to the intervention and stated that they were very satisfied. All participants preferred to complete the outcome measures online. Participant's comments about the workbook and comments from the group facilitators on the intervention manual were processed.

The recruitment strategy appeared to be insufficient: during the inclusion period of 6 months, in total 11 patients were included instead of the planned 18–24. To ensure a better inclusion rate during the planned RCT, we decided to approach patients via multiple hospitals and advertisements in the public media.

In this feasibility study, we found improvements after the intervention in the expected direction regarding some aspects of meaning making, psychological distress, and quality of life, with medium to large effect sizes. The information from this feasibility study was valuable enabling further optimizing MCPG-CS.

Strengths and limitations

On the basis of the results of this uncontrolled study with a small sample size, no conclusions about the efficacy of MCGP can be drawn. Also, the majority of the samples were breast cancer patients, which might have caused a trend for this group that is known to respond well to psychotherapy. However, these preliminary findings are encouraging for starting an RCT. The study design and sample were suitable to predict problems that can undermine an evaluation on a large scale. The feasibility study was useful for examining key uncertainties in preparation of an RCT.

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Key points

- We adjusted the meaning-centered group psy chotherapy (MCGP) manual for advanced cancer patients, to make it applicable for cancer survivors.
- We performed the adjusted MCGP twice, 11 cancer survivors participated.
- This feasibility study proved good acceptability, compliance, client satisfaction, and recruitment strategies of MCGP in a cancer survivor population.
- Improvements among participants after intervention were measured.
- MCGP seems beneficial for cancer survivors, but a randomized controlled trial on cost-effectiveness is warranted.

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