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Lung Cancer Patients Find Support with Mindful Interventions

- I. Introduction
 - A. Patients and their spouses tend to be overwhelmed by cancer diagnosis and are at risk of experiencing psychological and spiritual distress.
 - a. Spouses largely have their spiritual concerns unmet.
 - B. Spouses' spiritual well-being is associated with improve quality of life for themselves and the patient.
 - C. Psychospiritual distress have important cancer care implications.
 - a. Depression results in worse survival rates with those battling cancer.
- II. Purpose
 - A. Primary goal is to examine the feasibility of implementing a study of couple-based meditation via videoconference delivery.
 - B. Seek to address knowledge gaps and meet the needs of couples coping with metastatic NSCLC through intervention that integrates meditation training, emotional sharing, and communication exercises.
- III. Methods
 - A. Participants
 - a. Stage IV non-small cell lung cancer (NSCLC).
 - b. Currently receiving treatment.
 - c. Had an Eastern Cooperative Oncology Group (ECOG) performance status of less than or equal to 2.
 - d. Have a romantic partner they have resided with for at least 6 months.
 - e. At least 18 years old.
 - f. English speaking.
 - g. Provide inform consent.
 - B. Research Design
 - a. Randomized controlled trial.
 - b. Compare the couple-based meditation (CBM) intervention with a supportive-expressive (SE) control group and usual care (UC) control group.
 - c. Couples were randomized to either the CBM, SE, or UC group by adaptive randomization called minimization.
 - C. Completion
 - a. Patients and spouses in the CBM group attended one session per week for 4 weeks. All sessions were administered via Facetime by a master's-licensed psychological counselor intern (LPC-I).
 - i. Session 1: Couples received an overview of the program and introduced to mindfulness meditation techniques.

- ii. Session 2: Couples participated in two meditations that focused on the couple's interconnectedness and their feelings of compassion for themselves and each other.
- iii. Session 3: Couples reflect on things, events, and people for which they are grateful via gratitude meditation followed by mindful sharing.
- iv. Session 4: Influenced by the value-based living process of Acceptance Commitment Therapy. Couples answer the question, "What do you want your life to stand for?"
- b. SE sessions were modeled after the social support intervention.
 - i. Sessions 1 and 2: Focused on discussing cancer-related concerns (ex: caregiver issues, physical functioning concerns, mortality)
 - ii. Sessions 3 and 4: Focused on concerns that are not cancer-specific (ex: family relationships, life goals, retirement).
- c. UC group received usual care as provided by their health care team.

IV. Results

A. Depressive Symptoms at 3-month follow up:

- a. Patient
 - i. Significant positive difference in CMB and UC groups.
 - ii. Significant positive difference in CMB and SE groups.
 - iii.
- b. Spouse
 - i. Significant positive difference in CMB and UC groups.
 - ii. Medium positive difference in CMB and SE groups.

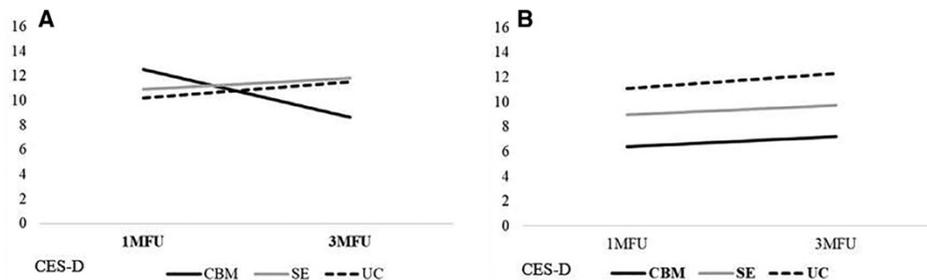


Figure 2. Least square means for patients and spouses for depressive symptoms. **(A):** Patients. **(B):** Spouses. The patient model controlled for baseline level of the CES-D, age, sex, Eastern Cooperative Oncology Group performance status and brain metastases; the spouse model controlled for baseline level of the CES-D, age, and sex. Higher scores denote worse symptoms. Abbreviations: 1MFU, 1-month follow-up; 3MFU, 3-month follow-up; CMB, couple-based meditation; SE, supportive-expressive; UC, usual care; CES-D, Center for Epidemiologic Studies Depression Scale.

B. Cancer-Related Stress Symptoms at 3-month follow up:

- a. Patient
 - i. Medium positive difference in CMB and UC groups.
 - ii. Medium positive difference in CMB and SE groups.
- b. Spouse
 - i. Small positive difference in CMB and UC groups.

ii. Small positive difference in CMB and SE groups.

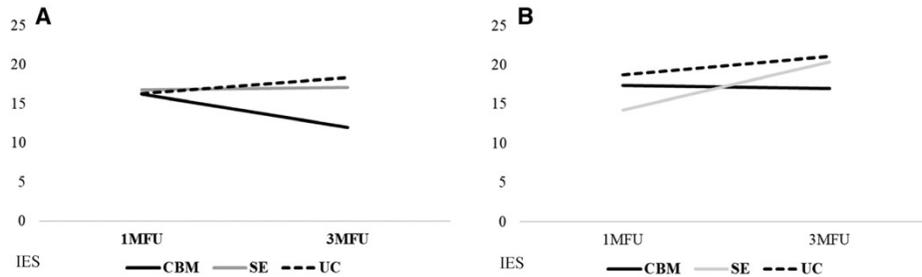


Figure 3. Least square means for patients and spouses for cancer-related stress symptoms. **(A):** Patients. **(B):** Spouses. The patient model controlled for baseline level of the IES, age, sex, Eastern Cooperative Oncology Group performance status and brain metastases; the spouse model controlled for baseline level of the IES, age and sex. Higher scores denote worse symptoms. Abbreviations: 1MFU, 1-month follow-up; 3MFU, 3-month follow-up; CBM, couple-based meditation; SE, supportive-expressive; UC, usual care; IES, Impact of Events Scale.

C. Spiritual Well-Being at 3-month follow up:

a. Patient

- i. Small positive difference in CMB and UC groups.
- ii. No difference in CMB and SE groups.

b. Spouse

- i. Significant positive difference in CMB and UC groups.
- ii. Small positive difference in CMB and SE groups.

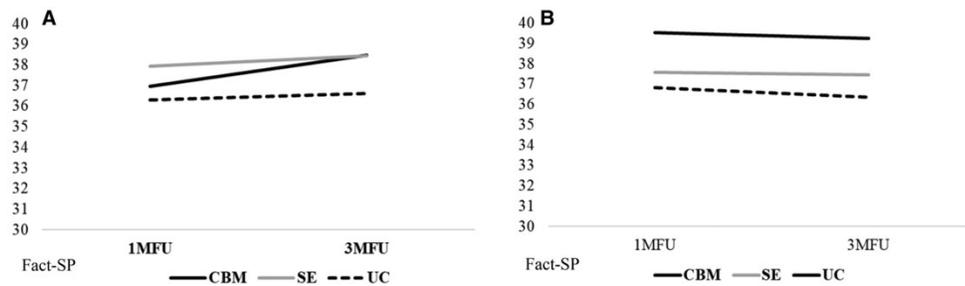


Figure 4. Least square means for patients and spouses for spiritual well-being. **(A):** Patients. **(B):** Spouses. The patient model controlled for baseline level of the FACT-SP, age, sex, Eastern Cooperative Oncology Group performance status and brain metastases; the spouse model controlled for baseline level of the FACT-SP, age, and sex. Higher scores denote better well-being. Abbreviations: 1MFU, 1-month follow-up; 3MFU, 3-month follow-up; CBM, couple-based meditation; SE, supportive-expressive; UC, usual care; FACT-SP, Functional Assessment of Cancer Therapy–Spiritual Well-Being Scale.

V. Conclusion

- A. Study is confident that couple-based therapy and videoconference delivery are acceptable for couples coping with metastatic lung cancer.
- B. Preliminary evidence shows that mindfulness-based intervention may be of value to managing psychological symptoms in palliative care setting.

Reference

Milbury, K., Li, Y., Durrani, S., Liao, Z., Tsao, A.S., Carmack, C., Cohen, L., & Bruera, E. (2020). A mindfulness-based intervention as a supportive care strategy for patients with metastatic non-small cell lung cancer and their spouses: Results of a three-arm pilot randomized controlled Trial. *The Oncologist*, 25(11), 1794–1802.