Background

- Patients with lung cancer (34.6%) and their romantic partners (38.8%) exhibit significant psychological distress.1,2,3
- Mindfulness-based interventions including Loving Kindness and Gratitude exercises are effective in reducing emotional distress at the level of the couple.
- However, specific mechanisms of treatment remain unknown.
- Positive language use might be one mechanism driving efficacy.

Purpose

- Develop a positive language coding system to test potential mechanisms of treatment efficacy.

Participants

- Patients diagnosed with Stage IV Non-Small Cell Lung Cancer (NSCLC) and their romantic partner (cohabitating >6 mo).
- Participants were ≥18 years old and able to read and speak English.

Methods

- Couples participated in a 4 session “Heart 2 Heart” psychosocial mindfulness-based intervention.
- Participants were not instructed to use language with any specific valence.
- Audio was recorded from each session and professionally transcribed.
- Patient and caregiver language was extracted following two mindfulness exercises (Loving Kindness, Gratitude).

Categories of Positive Language

1. Use: each phrase was coded in one of the three categories of use: self, the couple, others, and the world.
2. Orientation: temporal context was coded as past, present or future.
3. Intensity: intensity of language was coded as either high (e.g. “absolutely thrilled”), moderate (e.g. “very grateful”), or low (e.g. “pleasant”).
4. Valence: language was coded as positive or resolution of negative (e.g. “less stressed”)
5. Content: if applicable, language was classified into any categories: Interpersonal (connected), Gratitude (thankful), Competence (accomplishment).
6. Shared Positive Language: if a patient and their spouse both use shared positive language or built upon each other’s ideas, this category was coded.

Positive Language Coding System

- Positive language coding manual was developed to categorize each instance of positive language across 6 categories.
- Extracted language was separately coded by four raters in batches.
- Raters met for 3 consensus group meetings to revise manual. Inner rater reliability was assessed to ensure consistent coding.

Positive Language Examples

Post Gratitude Meditation
"No, other than, like I said, bringing the attention to your different senses and the awareness—it makes you more aware of your surroundings. Blessings—like I said, the blessings you have for having that sense because there’s so many people who don’t have that. “—Patient

Post Loving Kindness Meditation
"I’m probably open enough to compassion—it has been worthwhile—well, has been a benefit from the exercise."—Caregiver

Acknowledgements

Esomsidima Azuike was supported by a training grant from the National Cancer Institute R25CA056452 (PI, Dr. Shine Chang).