

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

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

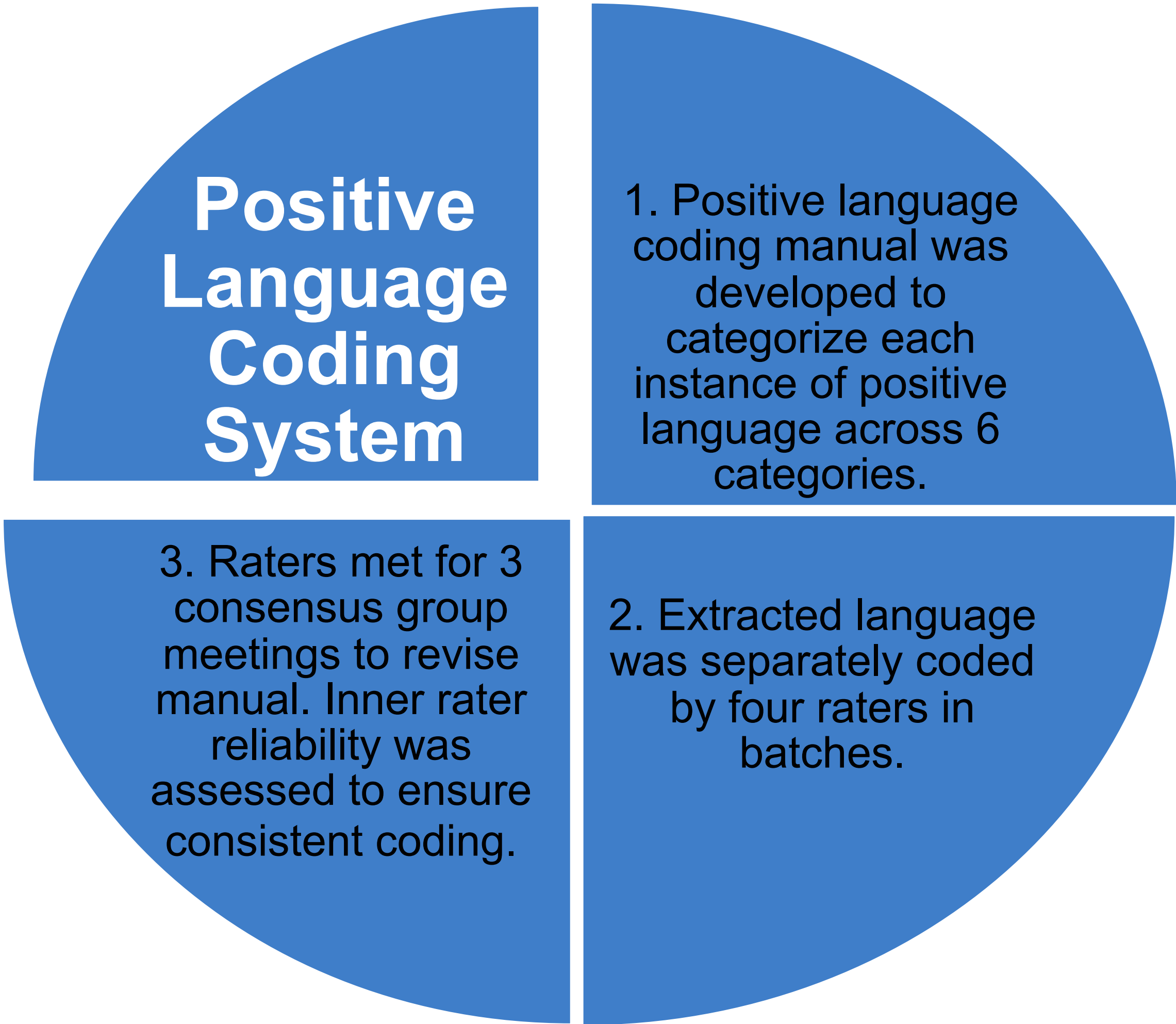
Methods

- 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 professional 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



Acknowledgements

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