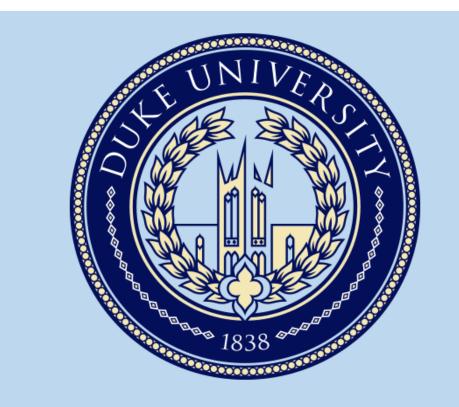


Exploring the Correlation between Tone and Affect Language and Quality of Life among Patients with Advanced Cancer and their Partners



Adunoluwa Akinola¹, Dr. Laura Porter² University of North Carolina, Chapel Hill¹, Duke University²

Introduction

The Psychological Impact of an Advanced Cancer Diagnosis

- An advanced cancer diagnosis can be psychologically devastating for patients and their families
- Individuals diagnosed often grapple with diminished ability to participate in their lives and their intimate relationships, with changes in their relationship dynamics.

Couples' Communication

- The psychological impacts of the diagnosis can be mitigated by open and effective communication about the cancer diagnosis between partners, but some couples report difficulty with this.
- Thus, this study investigates the quality of couples' communication and its correlation to quality-of-life measures with more objectivity.

Hypotheses

- Partners with more negative tone and negative affect will have more negative quality of life outcomes.
- Partners with more positive tone and positive affect will have more negative quality of life outcomes.

Methods

Participants

- Patients: n = 85 (57.6% female, age range: 32-79, 92% white, 100% non-Hispanic) all with Stage III-IV lung, breast, GI or GU cancer.
- Partners n = 76 (57.7% male, age range: 31-82, 87.22% white, 98% non-Hispanic).

Procedure

- Participants were recruited from the Duke Cancer Institute based on inclusion criteria: advanced cancer, married or in a committed relationship, at least age 18 and able to speak/read English.
- Surveys measured quality-of-life in patients and partners
- 10-min recording of a conversation about cancer was made and transcribed for analysis with Linguistic Inquiry and Word Count (LIWC).

Results

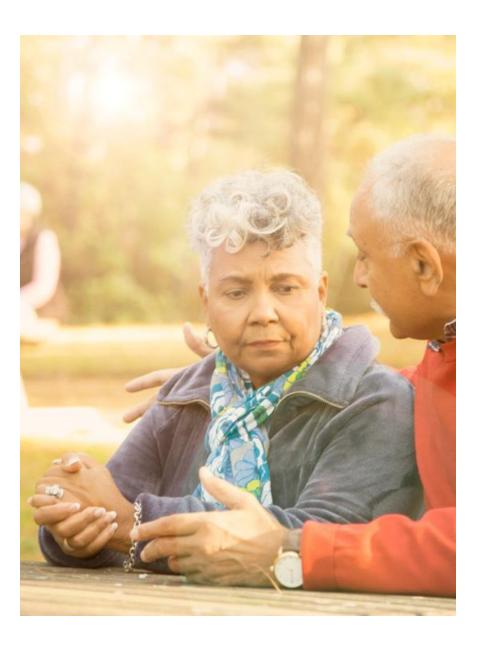
Tone and Affect: Differences by Gender

• No significant differences in positive or negative emotion or tone were found between patients and caregivers based on gender or role (patient or caregiver).

Tone, Affect, and Quality of life Measures

Correlation Coefficients: LIWC Variables and Quality of Life Measures R²-value P-value							
	tone_pos	tone_neg	emo_pos	emo_neg	emo_anx	emo_anger	emo_sad
positive affect	0.13	-0.062	0.04	-0.09	-0.02	-0.03	-0.02
	0.09	0.43	0.59	0.25	0.79	0.67	0.81
negative affect	0.08	0.04	0.04	0.06	0.07	0.06	0.00
	0.33	0.59	0.56	0.43	0.36	0.42	0.96
HADS depression scale	0.01	-0.04	-0.03	0.03	0.00	-0.05	-0.16
	0.46	0.63	0.70	0.70	0.92	0.54	0.05
HADS anxiety scale	0.06	-0.04	0.00	-0.04	0.00	-0.3	-0.06
	0.46	0.63	0.92	0.62	0.98	0.71	0.43
Patient QUAL-E preparation scale	-0.01	0.07	0.00	0.06	0.01	0.05	-0.09
	0.90	0.52	0.93	0.59	0.91	0.63	0.41
Patient QUAL-E completion scale	0.14	-0.24	0.11	-0.28	-0.18	-0.00	-0.24
	0.22	0.028	0.29	0.01	0.097	0.97	0.02
Partner QUAL-E preparation scale	0.04	-0.03	-0.06	0.10	0.17	0.11	-0.12
	0.74	0.79	0.62	0.39	0.13	0.32	0.28
Partner QUAL-E completion scale	-0.13 0.27	0.08 0.5	-0.21 0.06	-0.04 0.73	0.08 0.50	0.03 0.79	-0.09
Relationship Satisfaction	0.07	-0.00	0.07	0.05	-0.02	-0.14	0.08
	0.37	0.98	0.40	0.52	0.80	0.07	0.29





Discussion

Findings

- The only significant associations found between the tone and emotion variables and the quality-of-life measures were:
 - Between sad emotion words and HADS depression scale (negative association)
 - Between sad emotion words and Patient QUAL-E scale (negative association)
 - Negative Tone, negative emotion, and sad emotion words each had significant (negative) association with Patient QUAL-E scores.

Limitation:

• LIWC is rudimentary, counting and categorizing words without full cultural meaning, context, or nuance accounted for.

Future Directions and Significance

• Understanding the mechanisms behind the associations found between words and self reported quality-of-life in this population can lead to better informed psychological interventions for those facing terminal illness and their families.



References

