

# Affective Expressions and Mental Health Outcomes Among Couples Coping with Cancer



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REGAIN: Bass Connections in Brain & Society

## Background

There are differences between the experiences of patients and partners coping with cancer. How each emotionally copes with their experience may be encoded in how they talk with each other about cancer-related concerns. Our study is novel in that it explores how emotions displayed in couples' conversations correlate with psychological distress.

## In this Study...

We watched 10 minute recorded conversations between cancer patients and their partners in which they discussed a cancer-related topic. We used these videos to observe and code for affect expressed during cancer-focused conversations to examine their associations with **psychological distress**. We utilized a multi-level modeling system to examine the relationships between roles (patient/partner), categories of affect (listed on the right), and psychological distress.

## Measures We Used

- HADS** (Hospital Anxiety and Depression Scale) is a frequently used self-rating scale developed to assess psychological distress in non-psychiatric patients. It consists of two subscales, Anxiety and Depression.
- RATS** (Relational Affective Topography System) is a three-step coding system that is used to rate an individual spouse's emotional expressions as he or she is interacting with his or her partner during a cancer-related discussion.

## Results: Multi-level Modeling

The aim of the study was tested using two-level mixed-effect models (spouses nested within couples), which were estimated using Stata. Specifically, four separate models were estimated where psychological distress was the dependent variable with role (patient vs. partner), affective expression, and the interaction between the two as the independent variables.

	hads_total	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
posjoin_avg		-1.304586	1.706112	-0.76	0.444	-4.648505	2.039333
	1.role	1.567535	2.685716	0.58	0.559	-3.696371	6.831441
role#c.posjoin_avg							
	1	-.2022158	2.198593	-0.09	0.927	-4.511379	4.106947
_cons		12.60878	1.919525	6.57	0.000	8.846579	16.37098

**Positive joining emotions:** reference the other partner and implies some sort of directionality (Warmth, Appreciation, Kindness).

	hads_total	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
hardneg_avg		4.416414	1.482031	2.98	0.003	1.511687	7.321142
	1.role	2.846033	1.370476	2.08	0.038	.1599489	5.532117
role#c.hardneg_avg							
	1	-3.161696	1.891818	-1.67	0.095	-6.86959	.5461984
_cons		8.883839	1.154576	7.69	0.000	6.620912	11.14677

**Hard negative emotions:** associated with power and being in control. It serves to function in obtaining goals related to the relationship regardless of the other partner's emotional processes and wants (Anger, Disgust, Frustration, Outrage).

	hads_total	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
posind_avg		-3.739633	1.769437	-2.11	0.035	-7.207666	-.2715992
	1.role	-1.607062	2.383691	-0.67	0.500	-6.27901	3.064886
role#c.posind_avg							
	1	2.25643	2.229462	1.01	0.311	-2.113235	6.626094
_cons		15.14223	1.993076	7.60	0.000	11.23587	19.04859

**Positive individuating emotions:** omit the other partner and can serve as stand-alone emotions (Happiness, Enthusiasm, Amusement, Satisfaction).

	hads_total	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
softneg_avg		1.684524	1.450813	1.16	0.246	-1.159017	4.528065
	1.role	1.344856	1.496516	0.90	0.369	-1.588261	4.277973
role#c.softneg_avg							
	1	.0020373	1.969289	0.00	0.999	-3.857698	3.861773
_cons		10.21331	1.26355	8.08	0.000	7.736797	12.68982

**Soft negative emotions:** reflect and communicate distress in the relationship, which ultimately function to bring the partners closer together (Sadness, Fearfulness, Loneliness, Guilt, Vulnerability).

## Findings and Conclusions

For both patients and partners:

- Expression of positive individuating affect was associated with less psychological distress.
- Expression of hard negative affect was associated with greater psychological distress.
- Positive joining and soft negative affective expressions were not significantly associated with psychological distress