Advanced Breast Cancer Group

Emotional expression and resilience in a long term group for women with metastatic breast cancer

Mary O'Brien, Advanced Breast Cancer Group, Brisbane, Australia
Leigh Yong Li, Alberta Health Services Cancer Control, Tom Baker Cancer Centre, Calgary, Canada
Tom O'Brien, School of Medicine, The University of Queensland, Brisbane, Australia
Janine Giese-Davis, University of Calgary Department of Oncology, Psychosocial Division, Calgary, Canada

Queensland Government
Queensland Health

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- Explores relationship between emotional expression and resilience in a long term telephone group for women with metastatic breast cancer.
- Naturalistic study
- Supportive-expressive group therapy SEGT
- Community based group based in Brisbane
- Connects women by telephone and face to face in Queensland, Australia
- Established in 1999
- Slow open group with rolling recruitment over time
- 2 Therapists trained in group psychotherapy 30 years experience

Background - SEGT

SEGT has been shown in randomised controlled trials to

- ameliorate emotional distress (Classen et al., 2001; Goodwin et al., 2001; Spiegel, Bloom, & Yalom, 1981)
- improve coping (Spiegel et al., 1981)
- reduce pain and fatigue (Goodwin et al., 2001; Spiegel & Bloom, 1983; Spiegel et al., 1981)
- improve QOL, ameliorate and prevent DSM-IV depressive disorders, reduce hopelessness and trauma symptoms, and improve social functioning (Kissane et al., 2007)

after 12 months in group, despite deteriorating physical health over time.

Background to this study

Trends over time in this group:

- significant reduction in negative affect and increase in positive affect (ABS) (O'Brien et al., 2008)
- significant reduction in trauma symptoms (IES) after 12 months in group
- benefits gained after 12 months are maintained (trauma symptoms on IES) or further improved (negative affect on ABS) after 2 years in group
- physical health and functioning of women worsened over first year in group, but emotional, cognitive and social functioning remained resilient (EORTC-QLC30)
- women were significantly more likely to show 'fighting spirit' than avoidant attitudes, and hopelessness & helplessness were least likely coping response (MiniMAC)- unchanged over 12 months
- Social support (SPS) and family function (FAD) in normal range at entry

Understanding the mechanism of change

Hypotheses:

Talking about painful or difficult topics and emotions in group (e.g. own death, death of others in group) is therapeutic.

Conversely, avoidance of talking about painful or difficult topics and emotions in group (e.g. own death, death of others in group) is not therapeutic.

Method:

- audio transcripts (9 group sessions over a 9 month period)
- coded for emotional expression (Specific Affect Coding System-Breast Cancer)
- & topic discussions (Topic Coding Systems)
- correlated with changes in psychological wellbeing, QOL, and distress of participants (*n*=8)
- on standardised measures over the recording period and time in the group/time until death.

Analysis:

- slopes calculated for each measure & woman over 3 time points – Baseline, Time 2 and Time 3
- % time talking about topics and expressing emotions
- correlated with slopes (Spearmans correlation)

Correlations over .50 represent moderate effect size.

Topics coded: (positive, neutral and negative valences)*

- Group – group relations, health, emotional/mental health, death of group member
- Medicine – relations with doctors/staff, costs, treatment & scans, alternative therapies, cancer research/press
- Self – emotional/mental state, self image, religion & spirituality, physical health
- Family – family relations, physical health, emotional/mental state, death of family member
- Life – involuntary lifestyle changes, leisure/recreation, deliberate life reordering
- Friends – friends relations, physical health, emotional/mental state, death of friend
- Death – existential, death of self, religion & spirituality
- Work – work relations, general

Emotion coding:

- Positive affect – affection/caring, genuine interest, validation (towards other group members)
- Primary negative affect - sadness, fear, direct anger
- Frustration/Constrained anger
- Defensive affect—defensive, tension, tense humor, disgust, whining
- Hostile affect—contempt, domineering, belligerence, stonewalling
- Compassion—genuine interest, validation, affection
- High arousal/positive affect—genuine humor, excitement
- Neutral – below thresholds for specific affects coded or no affect

Measures:

Affect Balance Scale ABS: ↑positive affect ↓negative affect = improved wellbeing

Impact of Event Scale IES: ↑ scores = ↑ trauma/distress both intrusive and avoidant

Profile of Mood States POMS: ↑ negative mood states except vigour = poorer outcome

EORTC-QLC30*: ↑ functional/GHS = better functioning & QOL

↑symptoms/finances = more symptoms/problems

Mini MACS*: ↑ scores reflect greater tendency to specific coping style (fighting spirit, fatalism, helpless/hopeless, anxious preoccupation, cognitive avoidance)

Social Provisions Scale SPS: ↑ scores = higher levels of social support

Family Assessment Device FADS: ↓ scores = better family functioning

* cancer specific measures

Participants:

N = 9 women who participated in group between June 2010 to March 2011

Data from one woman excluded (no measures after 5 years in group)

Member	Age	Marital status	EBC* (yrs)	MBC* (yrs)	Group• (yrs)	Metastatic Sites	Died
#1	56	D	13.5	3	2.5	local, bone	-
#2	58	M	-	1.5	1	bone	08/2011◆
#3	54	M	-	3.5	3	bone, brain	02/2011◆
#4	70	M	5	2	2	liver	09/2011◆
#5	57	M	-	3.5	3.5	bone	01/2011◆
#6	69	M	13.5	6	0.2	lung, bone, brain	02/2013
#7	25	S	2	2	2	bone, liver, brain	01/2011◆
#8	67	M	17	7	0.3	bone	-

* time since diagnosis •time since joining group ◆died within recording period or soon after

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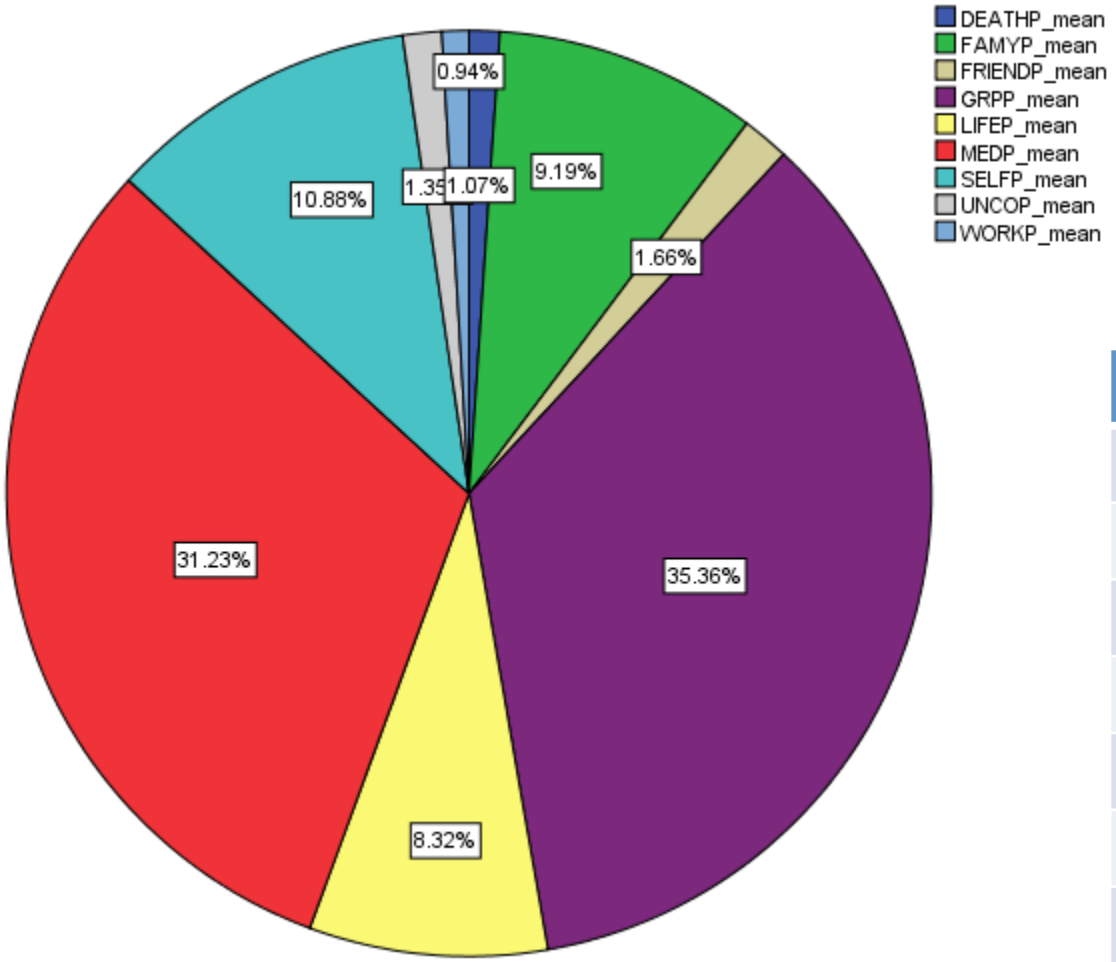


Topics	Percentage
Group	35.36%
Medicine	31.23%
Self	10.88%
Family	9.19%
Life	8.32%
Friend	1.66%
Uncodable	1.35%
Death	1.07%
Work	0.94%

Results: Topics

Strong positive correlation between
Average % time spent talking about death across topics
(self, group, family, friends)
and
Intrusion (IES, $\rho = 0.913$, $p = 0.002$)*
Fighting Spirit (MiniMAC, $\rho = 0.761$, $p = 0.028$)
Cognitive avoidance (MiniMAC, $\rho = 0.736$, $p = 0.038$)*

i.e. as intrusiveness of illness increased over time, women tried not to think about it, but continued to adopt a positive yet realistic attitude

*contrary to hypotheses and usual trend over first 12 months in group

Results Topics continued:

Strong negative correlation between

Average % time spent talking about Relationships across topics (family, group, friends, doctors)

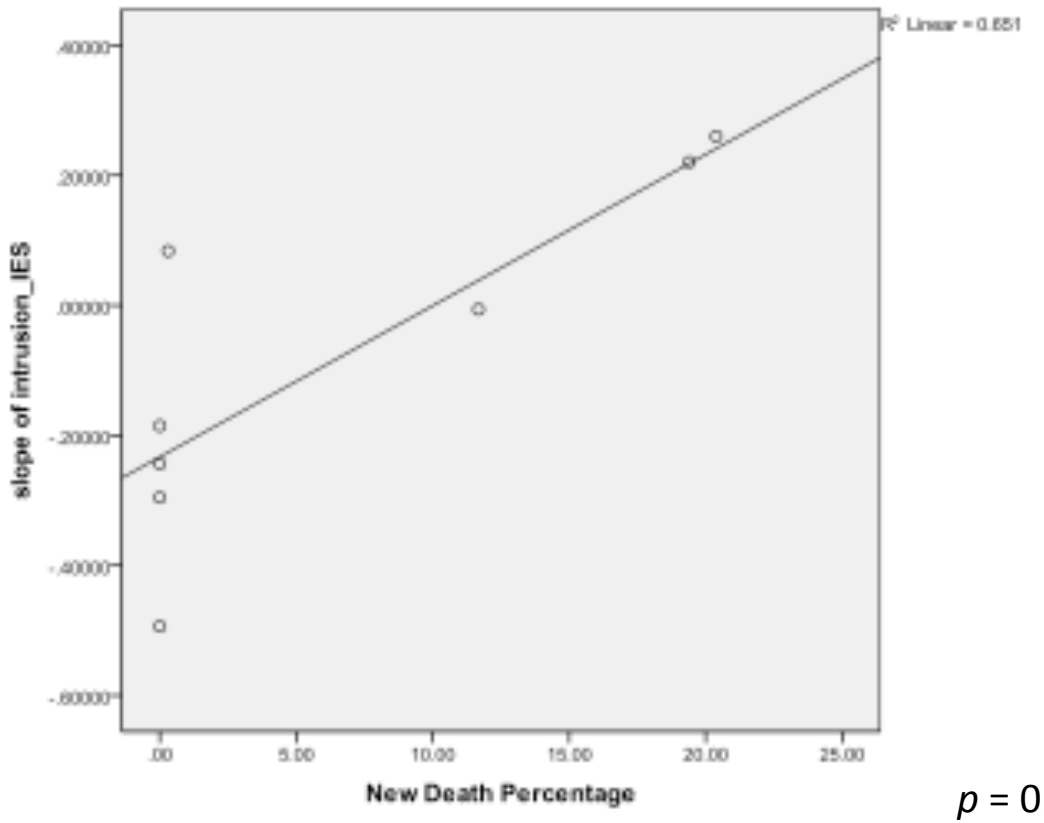
and

Intrusion (IES, $\rho = -0.738$, $p = 0.037$)

i.e. as women talked more about their relationships with other group members, family, friends, doctors etc., intrusiveness of illness decreased over time

Emotional expression and Resilience

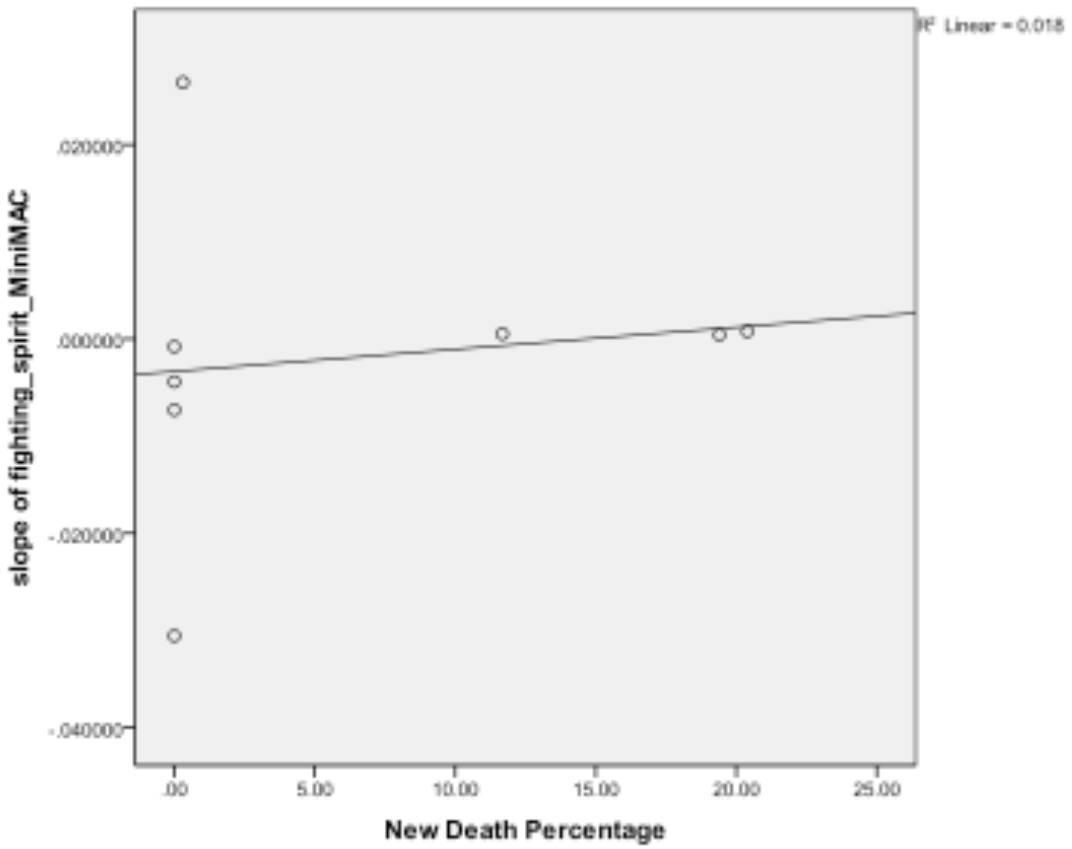
The slope of Intrusion is correlated with Death



p = 0.002

Emotional expression and Resilience

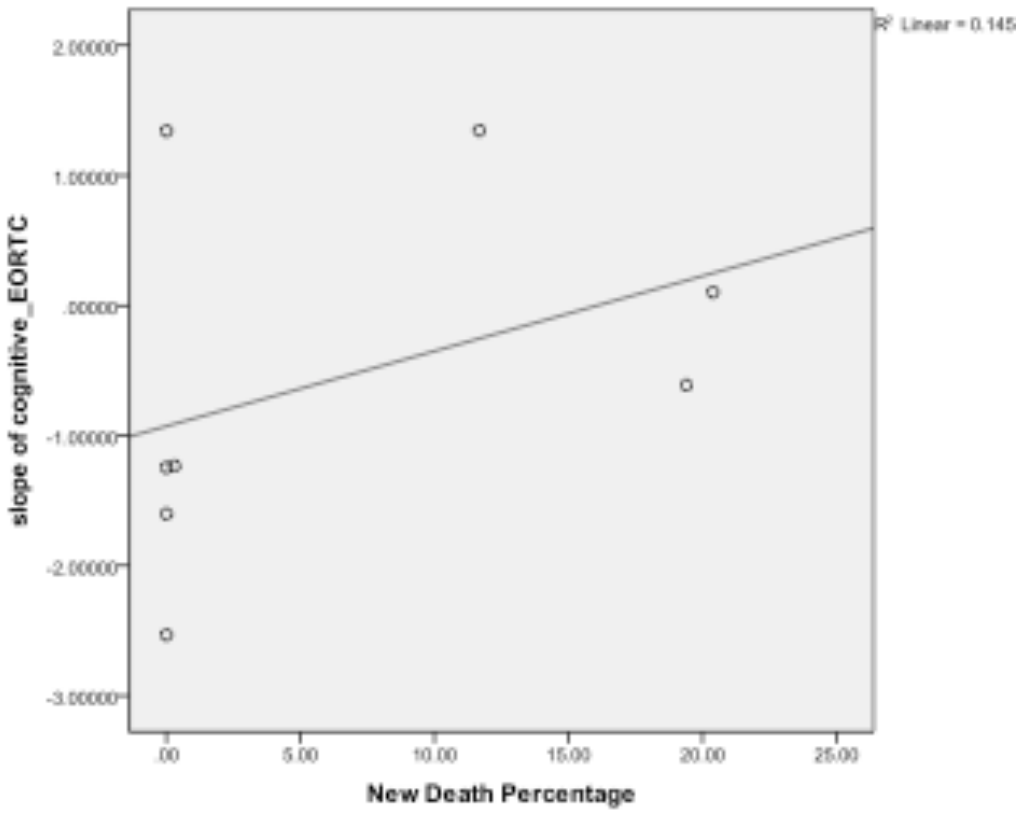
The slope of Fighting Spirit is correlated with Death



$p = 0.028$

Emotional expression and resilience

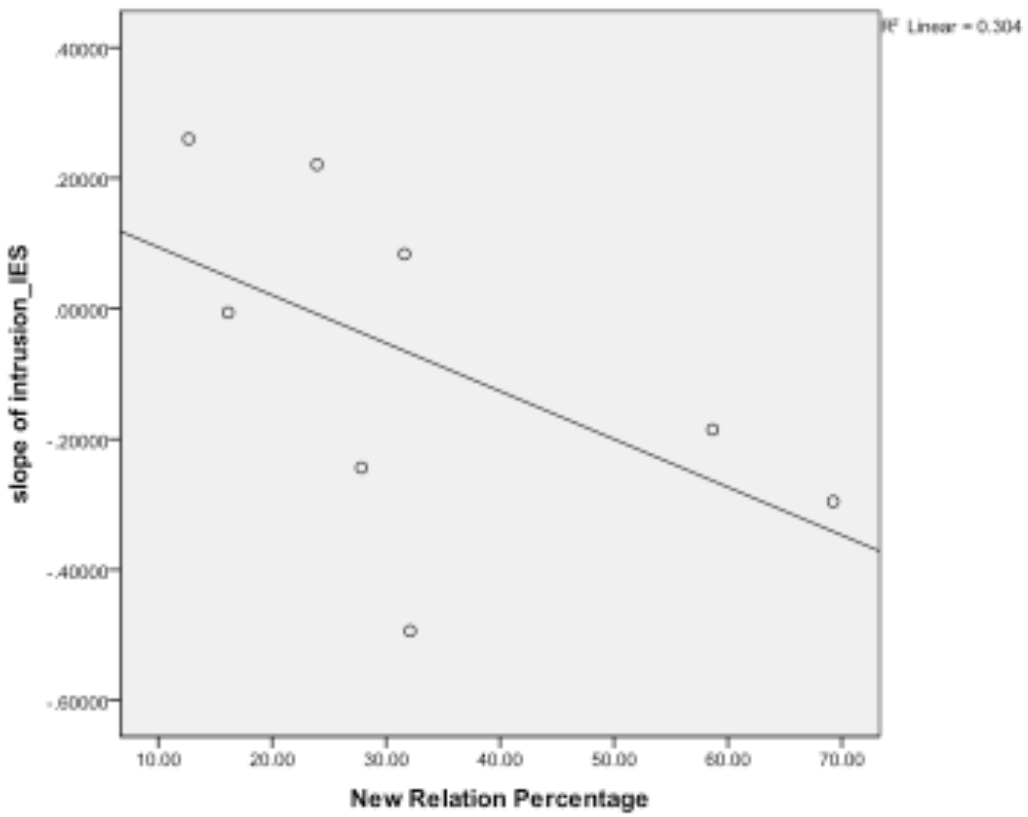
Slope of Cognitive Avoidance is correlated with Death



$p = 0.038$

Emotional expression and Resilience

The slope of Intrusion is correlated with Relationship



$p = 0.037$

Results: Emotional expression
Strong negative correlation between
Average % time expressing Constrained Anger
and
Depression (ABS, ρ = -0.786, *p* = 0.021)* and
Pain (EORTC, ρ = -0.810, *p* = 0.015) but a
Strong positive correlation with
Tension/Anxiety (POMS, ρ = 0.714, *p* = 0.047)

So the more Constrained Anger and Frustration was expressed, Depression and Pain decreased, but Tension/ Anxiety increased over time.

* Contrary to hypotheses

Results: Emotional expression
Strong positive correlation between
Average % time expressing Positive Affect/Compassion (interest, validation, affection, caring towards other group members)
and
Intrusion (IES, ρ = 0.762, *p* = 0.028)
Tension/Anxiety (POMS, ρ = 0.881, *p* = 0.004)
Total Mood Disturbance (POMS, ρ = 0.786, *p* = 0.021)

So as intrusiveness of illness, tension/anxiety and total mood disturbance increased, women expressed more affection and concern for other group members.

Discussion and Conclusion:

In general, we did not find strong support for our hypotheses.
In some instances, results were contrary to expectations.
Why?

1. How much due to this particular cohort of women, most of whom were in the last months of their life?
2. Some evidence that increased pain and psychological distress in last year of life, due to end stage disease, may confound outcomes on measures (Butler et al., 2003)
3. Counterintuitive findings point to the complexity of being able to explain change mechanisms within these groups

Limitations:

- Small sample size
- Topics/emotional expression not tracked over time*
- Coding emotional expression in audio rather than video recordings may diminish the capacity to detect complex emotions
- As these results are only correlations, we don't know the direction of the effects found e.g. does expressing constrained anger reduce depression or vice versa?
- Focusing on expressed emotion/topics does not capture reflective processes that may be occurring but are not articulated (silent members)
- Interventions by therapists and their effect not captured in this analysis

Emotional expression and Resilience

Where to from here?

- Look at valences of individual/restructured topics
- Comparison with other studies looking at last year of life