

Psychological Well-being of Women with Metastatic Breast Cancer in an Innovative Supportive-Expressive Group in a Community Setting

M. O'Brien* # J. Harris# P. Hirsch* T. O'Brien ∅

**The Women's Psychotherapy Service Inc.*

#Griffith University

∅ University of Queensland

Brisbane, Australia



**Queensland
Government**

Queensland Health

Overview

From Research to Practice:

Presenting outcomes from evaluation of a small clinical service in Brisbane, Australia

Aim: To evaluate the effect of a long term supportive-expressive group intervention, delivered in a modified manner (telephone and face to face), in terms of improvement in positive and negative affect, and intrusive and avoidant symptoms in a group of 21 women with advanced breast cancer.

Efficacy of Groups for Cancer & HIV

- Evidence for efficacy of group interventions to improve QOL, psychological well-being and coping strategies
- Demonstrated effect on certain aspects of physiological functioning - immune activity, neuro endocrine function (not yet survival)
- 7 RCTs evaluated psychosocial effects of group interventions (most long term semi-structured SEGTS) with adults with advanced disease (most breast cancer)

Efficacy of Groups cont.

Most interventions aimed at improving QOL - social support, coping skills, communication with physicians

Some aimed at improving physical symptoms, functional status, survival, immunologic or endocrine moderators

Few - adherence to treatment, utilisation patterns of treatment

Efficacy of Groups cont.

Outcomes:

- Participants fared better than controls on emotional distress, coping, pain and fatigue
- Benefits more pronounced for those with greater distress or higher pain at baseline*

Group for Women with Advanced Breast Cancer

- Therapists approached to be part of multi site RCT, replication trial, Melbourne (David Kissane)
- Trial subsequently offered in Melbourne only, at multiple sites

Background

- In 1999 began as a clinical service, as a weekly face to face supportive-expressive group, based in Brisbane, Queensland led by two Group Therapists (Bron Beacham, Mary O'Brien; since 2004 Mary O'Brien, Pia Hirsch)
- In 2001 introduced audio teleconferencing, combined with face to face delivery, to offer Group throughout Queensland

The Australian Context

Incidence:

- Breast Cancer – leading cause of cancer death in women
- 11,500 women diagnosed each year
- 2600 deaths per year
- 1500 diagnosed or develop metastatic breast cancer each year

The Australian Context

Distribution:

- 30% of women aged 40 and over live in rural and remote areas of Australia
- 41% of women diagnosed with breast cancer in Queensland live in a rural area (rural defined as not 'capital city' or 'metropolitan centre')



PAPUA NEW GUINEA

Coral Sea
PACIFIC OCEAN

Gulf of Carpentaria

Gilbert

CORAL SEA ISLANDS TERRITORY (AUS.)

NORTHERN TERRITORY

AUSTRALIA

QUEENSLAND

SOUTH

AUSTRALIA

NEW SOUTH WALES

The Model

- Slow open group, largely unstructured
- Two Group Psychotherapists
- Supportive-expressive group therapy SEGT
- One hour per week
- Face to face delivery combined with audio teleconferencing within the same group
- Only open to women with advanced (metastatic) breast cancer
- Encourage contact outside the group
- Monthly Group for Partners & Families led by two other Group Psychotherapists

Method: Participants

Inclusion Criteria

- Diagnosis of metastatic breast cancer
- Reasonable expectation of being able to participate in Group for 12 months

Final sample (N=21)

Data was removed (N=13) for the following reasons:

- 7 women died prior to completing the final (12 month) questionnaire
- 3 women died within 6 months of completing the final questionnaire
- 1 women was too ill to complete final questionnaire
- 2 women withdrew from the group prior to completing the final questionnaire

Method: Participants

Descriptive of final sample (N=21)

- Mean Age: 50.46yrs ($SD = 6.44$; $R = 42.75 - 63.58$ yrs)
- Median time since diagnosis of breast cancer: 38 months ($M = 53.1$ mnths; $SD = 49.19$; $R = 1 - 171$ mnths)
- Median time since diagnosis of metastasis: 6 months ($M = 17$ mnths; $SD = 23.69$; $R = 1 - 106$ mnths)
- 81% married
- 71% no dependents
- 95% 10 years or more of education

Method: Participants

Attendance in 12 month period

- Average number of weekly groups **attended:**
 $M = 25.29$ groups
($SD = 9.14$; $R = 10 - 44$ groups)
- Average number of weekly groups attended **via telephone:**
 $M = 13.71$ groups
($SD = 12.55$; $R = 0 - 42$ groups)
- Average number of weekly groups attended **in person:**
 $M = 12.38$ groups
($SD = 11.33$; $R = 0 - 35$ groups)

Method: Apparatus

Affect Balance Scale Derogatis, 1980

(Positive and negative affect)

- 40 adjective self-report measure that assesses the degree to which positive (joy, contentment, vigour, and affection) and negative (depression, anxiety, guilt, and hostility) affects have been experienced in past 2 wks.
- 5 point scale: ranging from 0 = *never*, 4 = *always*

Impact of Event Scale Horowitz, Wilner, & Alvarez, 1979

(Stress Symptoms)

- 15 item self-report measure that assesses the occurrence of intrusive (7 items) and avoidant (8 items) symptoms as a result of a stressful event in past 2 wks.
- 4-point scale: ranging from 0 = *not at all*, 5 = *often*
- Intrusive scale (0-35); Avoidant scale (0-40)
- Widely used in the psycho-oncology literature as a measure of cancer-related anxiety

Method: Procedure

All of the women seeking membership of the group between August 2001 and September 2004 volunteered to be involved in the study.

Baseline measure

Prior to attending their first group meeting women completed a consent form and self report questionnaires (ABS & IES).

12 month measure

After twelve months of group membership women once again completed the self report questionnaires.

Baseline Overview

Affect Balance Scale

(Normative Data: non-clinical population, Derogatis, 1996)

- Low Levels of 'Vigour' (T-score = 35*; 7th percentile)
- High Levels of 'Depression' (T-score= 62*; 89th percentile)
- All other mood dimensions within 1SD of mean of normative population
*(T-score: $M=50$; $SD=10$)

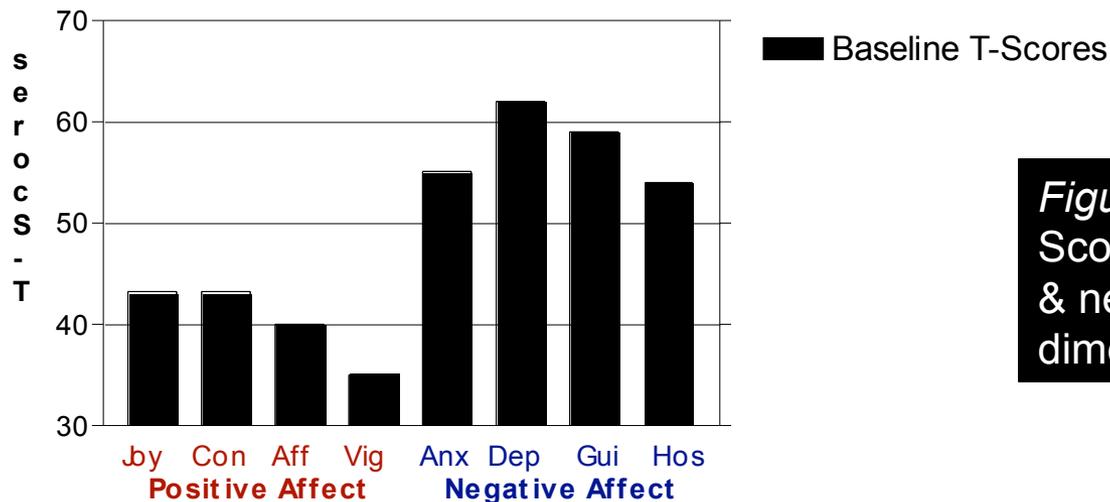


Figure 1. Baseline T-Scores of ABS positive & negative mood dimensions

Baseline Overview

Impact of Event Scale

(Normative data: general population, N=498, Briere & Elliot, 1998)

- Intrusive symptoms: 17.52 (8.76) (T-score = 60*; 85th percentile)
- Avoidant symptoms: 11.90 (11.88) (T-score= 57*; 75th percentile)
- So both stress symptoms approx **at** 1 SD above mean.

*(T-score: $M=50$; $SD=10$)

Comparison with baseline scores in other studies (Metastatic Breast Cancer)

- Classen et al. (2001): Intrusive 16.9 (9.9); Avoidant: 15.10 (10.1)
- Turner et al. (2005): Intrusive 7.62 (5.19); Avoidant: 7.50 (5.12)
(n=37 ≤55 years)

Comparison with published cut-offs

- Corcoran & Fisher, 2000: scores > 26 indicate moderate to severe stress symptoms

Current Study: Intrusive symptoms > 26 = 4 participants (19%)

Avoidant symptoms > 26 = 5 participants (24%)

12 Month Overview

Affect Balance Scale

(Normative Data: non-clinical population, Derogatis, 1996)

- Levels of positive affect dimensions increased & negative affect dimensions decreased
- Levels of 'Vigour' remained low (T-score = 38*; 12th percentile)
- Improved Levels of 'Depression' (T-score= 55*; 70th percentile)

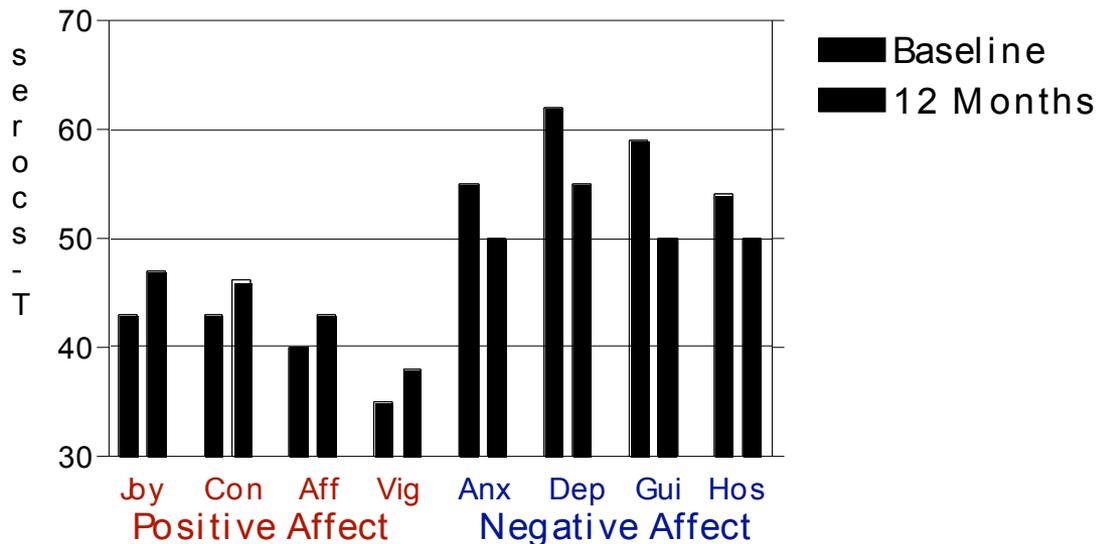


Figure 2. Baseline and 12 Month T-Scores of ABS positive & negative mood dimensions

12 Month Overview

Impact of Event Scale

(Normative data: general population, N=498, Briere & Elliot, 1998)

- Intrusive symptoms: 14.29 (9.05) (T-score = 58*; 80th percentile)
- Avoidant symptoms: 10.33 (8.35) (T-score= 56*; 74th percentile)
- Both stress symptoms remained at similar levels.

Comparison with published cut-offs

- Corcoran & Fisher, 2000: scores > 26 indicate moderate to severe stress symptoms

Current Study: Intrusive symptoms > 26 = 2 participants

Avoidant symptoms > 26 = 1 participants

Inferential Statistics:

Affect Balance Scale: Positive Affect

Levels of Positive Affect (Affection, Joy, & Contentment) significantly higher at 12 months compared to baseline

3 x 2 repeated-measures ANOVA

- (Affection, Joy, Contentment) x (baseline, 12 months)
- main effect for time $F(1,20) = 4.78, p < .05, \eta^2 = .19$

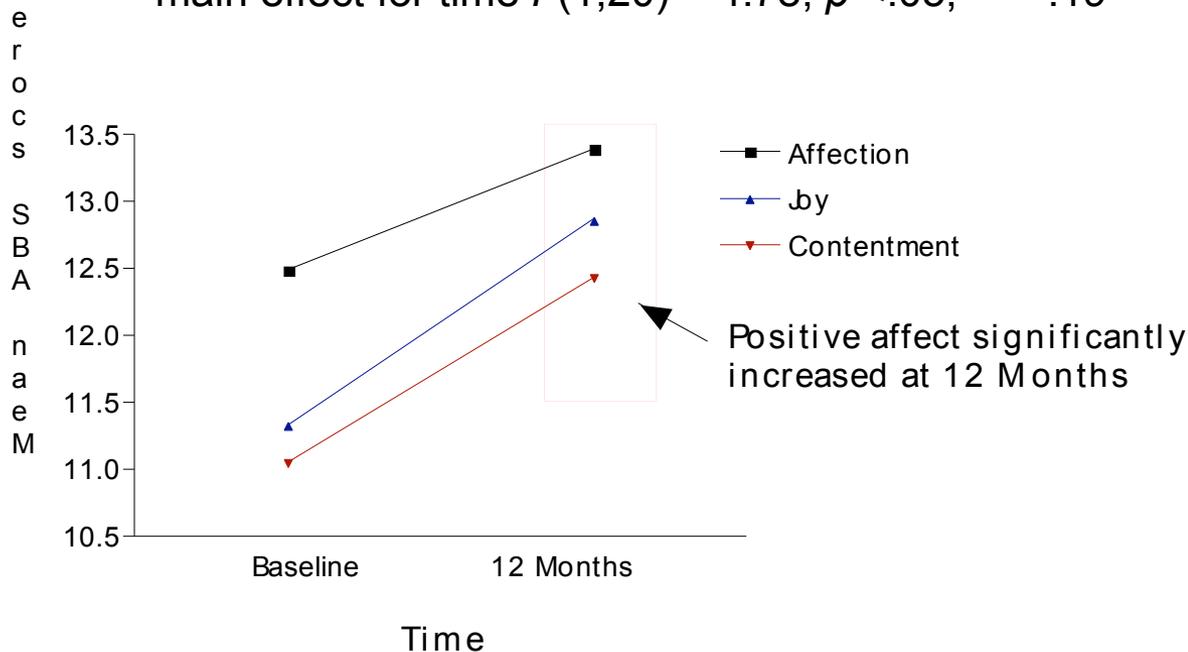


Figure 3. Mean raw scores for ABS positive dimensions of Affection, Joy, and Contentment at baseline and 12 Months.

Inferential Statistics:

Affect Balance Scale: Negative Affect

Levels of Negative Affect (Anxiety, Depression, Hostility, Guilt) significantly reduced at 12 months compared to baseline

4 x 2 repeated-measures ANOVA

- (Anxiety, Depression, Hostility, Guilt) x (baseline, 12 months)
- Main effect for time $F(1,20) = 10.22, p < .01, \eta^2 = .33$

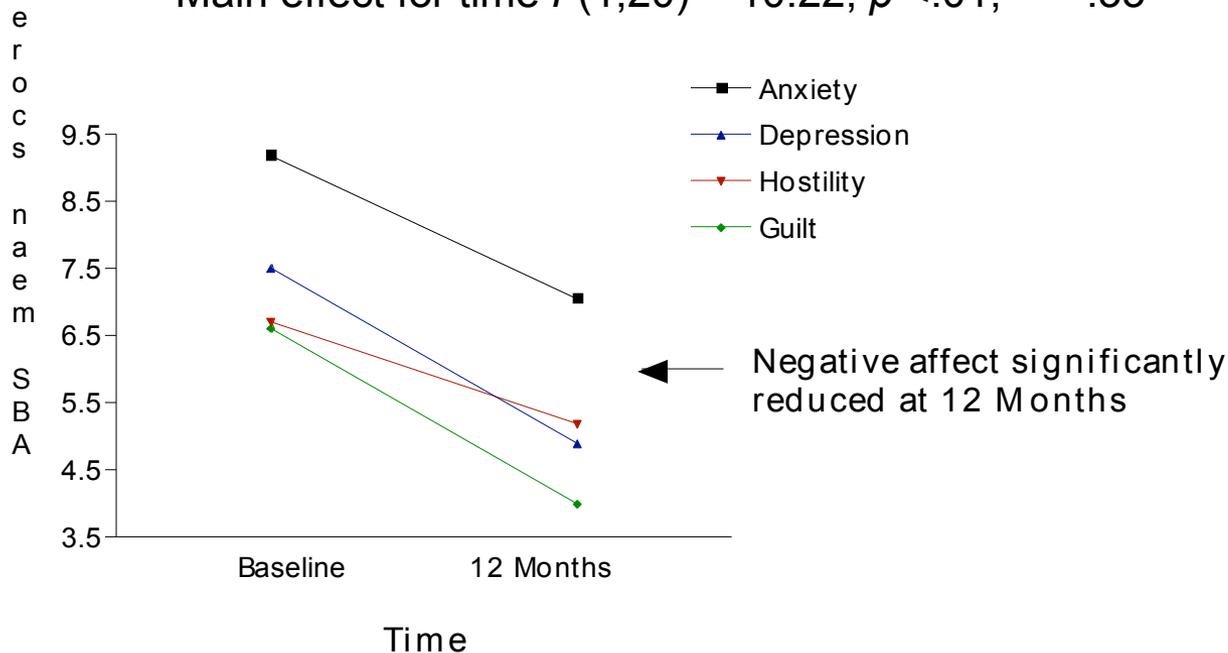


Figure 4. Mean raw scores for ABS negative dimensions of Anxiety, Depression, Guilt and Hostility at baseline and 12 Months.

Inferential Statistics: Impact of Event Scale

Stress symptoms did not significantly improve at 12 months (relative to baseline)

2 x 2 repeated-measures ANOVA

- (Intrusion, Avoidance) x (baseline, 12 months)
- While mean IES scores were reduced at 12 months (relative to baseline), this effect was not significant, $F(1,20) = 2.79$, $p = .11$, $\eta^2 = .12$

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– Across time periods, levels of intrusion were significantly higher than levels of avoidance, $F(1,20) = 12.42$, $p = .002$, $\eta^2 = .38$

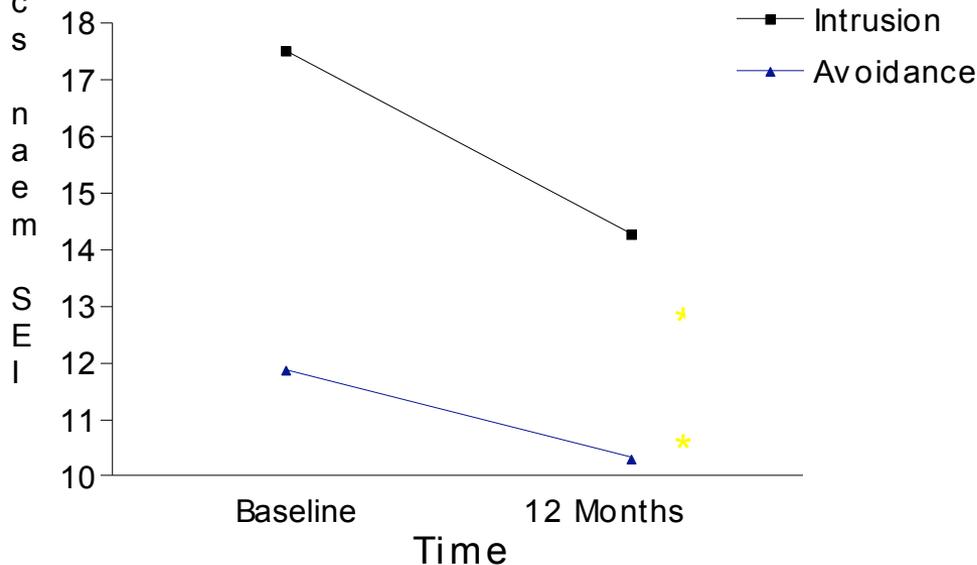


Figure 5. Mean raw scores for IES symptoms of intrusion and avoidance at baseline and 12 Months.

Inferential Statistics: Conclusion

Positive (Joy, Affection, Contentment) and Negative (Anxiety, Depression, Guilt, & Hostility) Affect significantly improved at 12 Months.

Levels of Depression dropped to within 1 standard deviation of mean

No significant improvement in Intrusive and Avoidant Stress responses at 12 months

Number of participants displaying moderate to severe stress symptoms dropped from 9 at baseline (43%) to 3 at 12 Months (14%)*

Analysis of Data at 2 years

N=15

ABS Positive Affect:

Levels of Contentment significantly higher at 24 months compared to baseline

1 way repeated-measures ANOVA

– $F(1,14) = 5.73, p = .03, \eta^2 = .29$

ABS Negative Affect:

Levels of Negative Affect (Anxiety, Depression, Hostility, Guilt) significantly reduced at 24 months compared to baseline

4 x 2 repeated-measures ANOVA

– (Anxiety, Depression, Hostility, Guilt) x (baseline, 24 months)

– Main effect for time $F(1,14) = 38.82, p < .000, \eta^2 = .74$

Analysis of Data at 2 years

N=15

Impact of Event Scale:

Stress symptoms were significantly reduced at 24 months (relative to baseline)

2 x 2 repeated-measures ANOVA

- (Intrusion, Avoidance) x (baseline, 24 months)
- Main effect for time $F(1, 14) = 7.69, p = .015, \eta^2 = .36$

Analysis of Data at 2 years

Conclusion

Contentment significantly increased

Negative affect (Anxiety, Depression, Hostility, Guilt) significantly reduced

Stress symptoms (Intrusion/Avoidance) significantly reduced

Conclusions

These findings suggest that a supportive-expressive group intervention, delivered in an innovative way within a community setting, may be an effective means of moderating the adverse effects of metastatic breast cancer.

Conclusions cont.

- Limitations – no control; women self select into group; benefits could be attributed to other factors – anti depressant medication, receipt of other treatments eg individual, group
- Comparable baseline scores to published studies, demonstrating clinical sample
- Comparable outcomes using innovative adaptation of intervention

Where to from here?

- Introduced new battery of self report questionnaires to assess outcomes – including cancer specific questionnaires EORTC QLQ-C30 and Mini-MACS (Mental Adjustment to Cancer Scale)
- Developed web site and piloting moderated internet forum
- Process measures?