



MyBCC Survivorship Study

Psychosocial Aspect

Assoc Prof Dr Ng Chong Guan (*MBBS, MPM, MSc, PhD*)
Department of Psychological Medicine
University Malaya

To measure:

1. The level of depression
2. The level of anxiety
3. The level of distress
4. Their association with:
 - Perceived level of social support
 - Quality of life



Measurement tools:

- Hospital anxiety and depression scale (HADS)
- Multidimensional Scale of Perceived Social Support (MSPSS)
- Distress thermometer (DT)
- Quality of Life Questionnaire QLQ–C30, Version 3.0

Time points

- Baseline
- 6 months
- 12 months
- 3 years

Ng et al. *Health and Quality of Life Outcomes* (2015) 13:205
DOI 10.1186/s12955-015-0401-7

Health and Quality
of Life Outcomes

RESEARCH

Open Access



Anxiety, depression, perceived social support and quality of life in Malaysian breast cancer patients: a 1-year prospective study

Chong Guan Ng^{1*}, Salina Mohamed², Mee Hoong See³, Faizah Harun³, Maznah Dahlui⁴, Ahmad Hatim Sulaiman¹, Nor Zuraidda Zainal¹, Nur Aishah Taib³ and on behalf of the MyBCC Study group

Abstract

Background: Depression and anxiety are common psychiatric morbidity among breast cancer patient. There is a lack of study examining the correlation between depression, anxiety and quality of life (QoL) with perceived social support (PSS) among breast cancer patients. This study aims to study the level of depression, anxiety, QoL and PSS among Malaysian breast cancer women over a period of 12 months and their associations at baseline, 6 and 12 months.

Methods: It is a 12 months prospective cohort study. Two hundred and twenty one female patients were included in the study. They were assessed at the time of diagnosis, 6 months and 12 month using Hospital Anxiety and Depression Scale (HADS), Quality-of-Life Questionnaire (QLQ-C30), Version 3.0 of the EORTC Study Group and Multidimensional Scale of Perceived Social Support (MSPSS). The information of age, ethnicity, types of treatment, and staging of cancer were collected.

Results: The HADS anxiety and depression subscales scores of the subjects were relatively low. The level of anxiety reduced significantly at 6 and 12 months (Baseline – 6 months, $p = 0.002$; Baseline - 12 months, $p < 0.001$). There were no changes in the level of depression over the study period. The global status of QoL and MSPSS scores were relatively high. Correlation between the global status of QoL and MSPSS for the study subjects was positive (Spearman's $\rho = 0.31-0.36$). Global status of QoL and MSPSS scores were negatively correlated with anxiety and depression.

Conclusion: Malaysian breast cancer women had relatively better QoL with lower level of anxiety and depression. Perceived social support was an important factor for better QoL and low level of psychological distress. It reflects the importance of attention on activities that enhance and maintain the social support system for breast cancer patients.

Keywords: Breast cancer, Depression, Anxiety, Quality of life, Social support, Malaysia

Table 2 Quality of life, perceived social support, anxiety and depression among the study subjects (N= 221)

	Baseline mean (sd)	6 months mean (sd)	1 year mean (sd)	Baseline – 6 months <i>p</i> value ^a	Baseline – 12 months <i>p</i> value ^a
QLQ-C30					
Global health status/QoL	69.83 (17.23)	70.56 (16.61)	72.48 (15.68)	0.557	0.015
Functional scales					
Physical functioning	91.58 (13.87)	87.77 (15.02)	72.48 (15.68)	0.001	0.236
Role functioning	93.21 (14.18)	90.11 (19.03)	91.59 (15.65)	0.066	0.280
Emotional functioning	78.17 (20.44)	83.70 (21.53)	86.89 (16.99)	0.002	0.000
Cognitive functioning	89.44 (15.70)	86.26 (18.47)	89.44 (15.70)	0.060	1.000
Social functioning	91.18 (18.64)	92.49 (15.72)	94.47 (12.98)	0.448	0.029
QLQ-BR 23					
Functional scales					
Body image	92.61 (16.27)	91.39 (17.39)	94.85 (13.21)	0.575	0.151
Symptoms scales					
Breast symptoms	10.06 (14.39)	9.80 (14.53)	9.09 (12.92)	0.940	0.579
Arms symptoms	10.56 (18.30)	11.48 (18.09)	10.96 (16.70)	0.396	0.593
HADS					
Anxiety subscale	5.42 (3.68)	4.45 (3.39)	3.75 (3.11)	0.002	0.000
Depression subscale	3.90 (3.44)	3.91 (3.31)	3.60 (3.07)	0.932	0.428

Result

Table 3 Correlation between anxiety, depression and perceived social support with quality of life ($N = 221$)

Time point: Baseline

	HADS				MSPSS						Total	
	Anxiety subscale		Depression subscale		Significant other		Family		Friends			
	<i>R</i>	<i>pr</i> ¹	<i>r</i>	<i>pr</i> ¹	<i>r</i>	<i>pr</i> ²	<i>r</i>	<i>pr</i> ²	<i>r</i>	<i>pr</i> ²	<i>r</i>	<i>pr</i> ²
QLQ-C30												
Global health status/QoL	−0.28**	−0.29**	−0.22**	−0.21**	0.27**	0.29	0.26**	0.24**	0.28**	0.25**	0.31**	0.30**
HADS												
Anxiety subscale	-	-	-	-	−0.08	-	−0.074	-	−0.15*	-	−0.12	-
Depression subscale	-	-	-	-	−0.13*	-	−0.09	-	−0.19*	-	−0.17*	-
Time point: 6 months												
QLQ-C30												
Global health status/QoL	-.286**	−0.24**	−0.32**	−0.28	0.31**	0.24**	0.28**	0.21**	0.35**	0.27**	0.36**	0.27**
HADS												
Anxiety subscale	-	-	-	-	−0.13	-	−0.11	-	−0.19*	-	−0.16*	-
Depression subscale	-	-	-	-	−0.17*	-	−0.12	-	−0.20*	-	−0.18*	-
Time point: 12 months												
QLQ-C30												
Global health status/QoL	−0.38**	−0.31**	−0.38**	−0.27**	0.29**	0.23**	0.27**	0.17*	0.25**	0.17*	0.31**	0.22**
HADS												
Anxiety subscale	-	-	-	-	−0.32**	-	−0.35**	-	−0.30**	-	−0.35**	-
Depression subscale	-	-	-	-	−0.38**	-	−0.41**	-	−0.35**	-	−0.40**	-

“The findings in the current study reflect the importance of work in improving the caregiver system for breast cancer patients. **Care giver support group**, educational program, and other activities that will enhance the social support system are likely to benefit the care giver and indirectly improve the QoL among the breast cancer patients.”



RESEARCH ARTICLE

Perceived distress and its association with depression and anxiety in breast cancer patients

Chong Guan Ng^{1*}, Salina Mohamed², Kiran Kaur³, Ahmad Hatim Sulaiman¹, Nor Zuraida Zainal¹, Nur Aishah Taib³, MyBCC Study group

Results

50.2%, 51.6% and 40.3% of patients had perceived high level of distress at baseline, 6 months and 1 year after diagnosis. Those with high perceived level of distress had significant higher anxiety scores even after adjusted for the underlying depressive scores

(Adjusted OR at baseline = 1.28, 95% CI = 1.13–1.44, adjusted OR at 6 months = 1.27, 95% CI = 1.11–1.45; adjusted OR at 12 months = 1.51, 95% CI = 1.29–1.76). There were no significant differences in the depressive scores between the subjects with either low or high distress level. There was reduction in perceived level of distress, anxiety and depression scores at 12 months after the diagnosis. The decrease of distress was positively correlated with the reduction of anxiety scores but not the changes of depressive scores ($r' = 0.25$).

Table 2. The comparison of anxiety and depression scores between breast cancer patients with high or low perceived level of distress (N = 211).

Time point: Baseline

	Distress score, mean (sd)		Adjusted OR	95% CI	<i>p</i>
	4 and above	Less than 4			
Anxiety score	6.76 (4.01)	4.06 (2.72)	1.28	1.13–1.44	< 0.01
Depression score	4.75 (3.92)	3.05 (2.64)	1.00	0.89–1.12	0.96

Time point: 6 months

	Distress score, mean (sd)		Adjusted OR	95% CI	<i>p</i>
	4 and above	Less than 4			
Anxiety score	5.96 (3.25)	3.38 (3.09)	1.27	1.11–1.45	< 0.01
Depression score	4.99 (3.62)	3.14 (2.85)	1.04	0.91–1.18	0.60

Time point: 1 year

	Distress score, mean (sd)		Adjusted OR	95% CI	<i>p</i>
	4 and above	Less than 4			
Anxiety score	5.44 (3.18)	2.63 (2.50)	1.51	1.29–1.76	< 0.01
Depression score	4.55 (2.98)	3.06 (2.93)	0.92	0.80–1.06	0.24

CONCLUSION

12

- Anxiety is a more significant psychological state that contributed to the feeling of distress in breast cancer as compared with depression.
- Screening for anxiety, early identification and therapy for maintaining the psychological well-being of breast cancer patients

IN THE PIPELINE

13

- To analyse the 3 years dataset
 - The changes in depression, anxiety, distress
 - The association with perceived social support and QoL



Thank You



PTM