

Cohort Profile

16th October 2017



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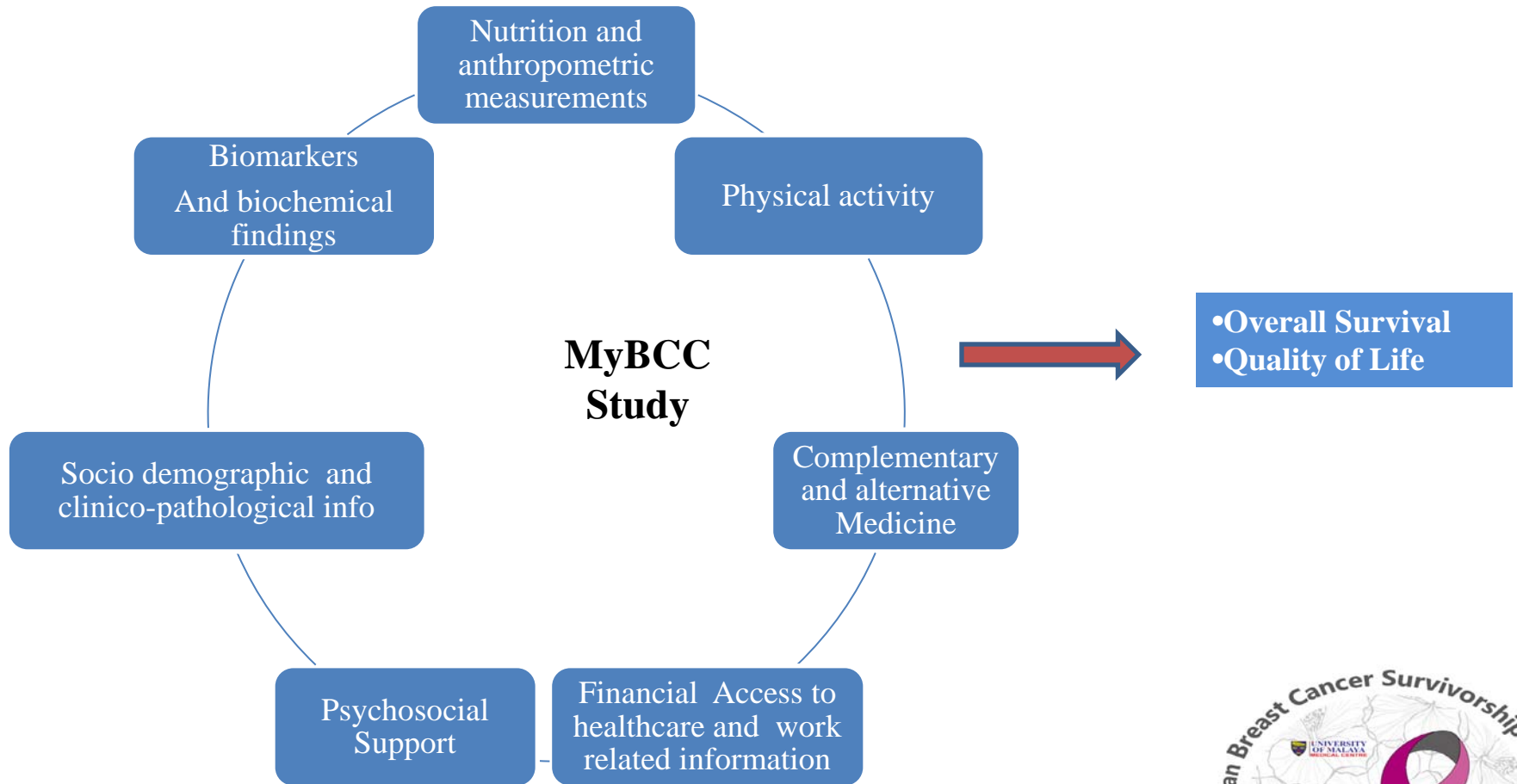
Why was the cohort set up?



- ❖ In Malaysia, there is marked **ethnic differences** in breast cancer **incidence, disease presentation, treatment patterns, and survival.**
- ❖ The age standardized incidence is **highest among the Chinese**, followed by the Indians and lastly the Malays.
- ❖ Furthermore, **Malay ethnicity** is associated with **higher risk of death** following breast cancer, even after accounting for demographic factors, tumor characteristics and treatment.
- ❖ Studies investigating the impact of mediating factors related to lifestyle on survival following diagnosis of breast cancer are scarce, particularly in Asia.

MyBCC Cohort was set up to determine the association between demographic, socio-economic status, lifestyle factors (dietary intake, physical activity), body composition, psychosocial factors, return to work, as well as complementary and alternative medicine use, and overall survival as well as Quality of Life (QoL) among multiethnic breast cancer survivors.

MyBCC Study- Multidisciplinary Approach



Malaysian Breast Cancer Survivor (MyBCC) Cohort Study



Principle Investigator : Professor Nur Aishah Mohd Taib

Core Members

1. Prof. Liam Murray (QUB)
2. Dr Marie Cantwell (QUB)
3. Prof. Nur Aishah Mohd Taib (UM)
4. Prof. Samsinah Hussain (UM)
5. Prof. Maznah Dahlui (UM)
6. A.P. Tin Tin Su (UM)
7. A.P. Nirmala Bhoo-Pathy (UM)
8. A.P. Ng Chong Guan (UM)
9. A.P. Hazreen Abdul Majid (UM)
10. A.P. Mohd Nahar Azmi Mohamed (UM)

Subprojects (6)

1. Nutrition

2. Physical Activity

3. Cost and Quality of Life

4. Psycho-social Support

5. Financial Access to Healthcare and Return to Work

6. Complementary and Alternative Medicine

Project leader

A.P. Hazreen Abdul Majid

A.P. Mohd Nahar Azmi Mohamed

Prof. Maznah Dahlui

A.P. Ng Chong Guan

A.P. Tin Tin Su

Prof. Samsinah Hussain

Who Is In The Cohort?



- ❖ The MyBCC is a **hospital based prospective cohort** study.
- ❖ Designed to recruit a **total of 1000 newly diagnosed patients with breast cancer** and managed in the University Malaya Medical Centre(UMMC) since February 2012.
- ❖ The UMMC is a tertiary academic hospital, which provides service to a **predominantly middle-class urban population**.
And participants are being followed up at 6 months, and 1, 3 and 5 years after the date of recruitment.

Who Is In The Cohort?



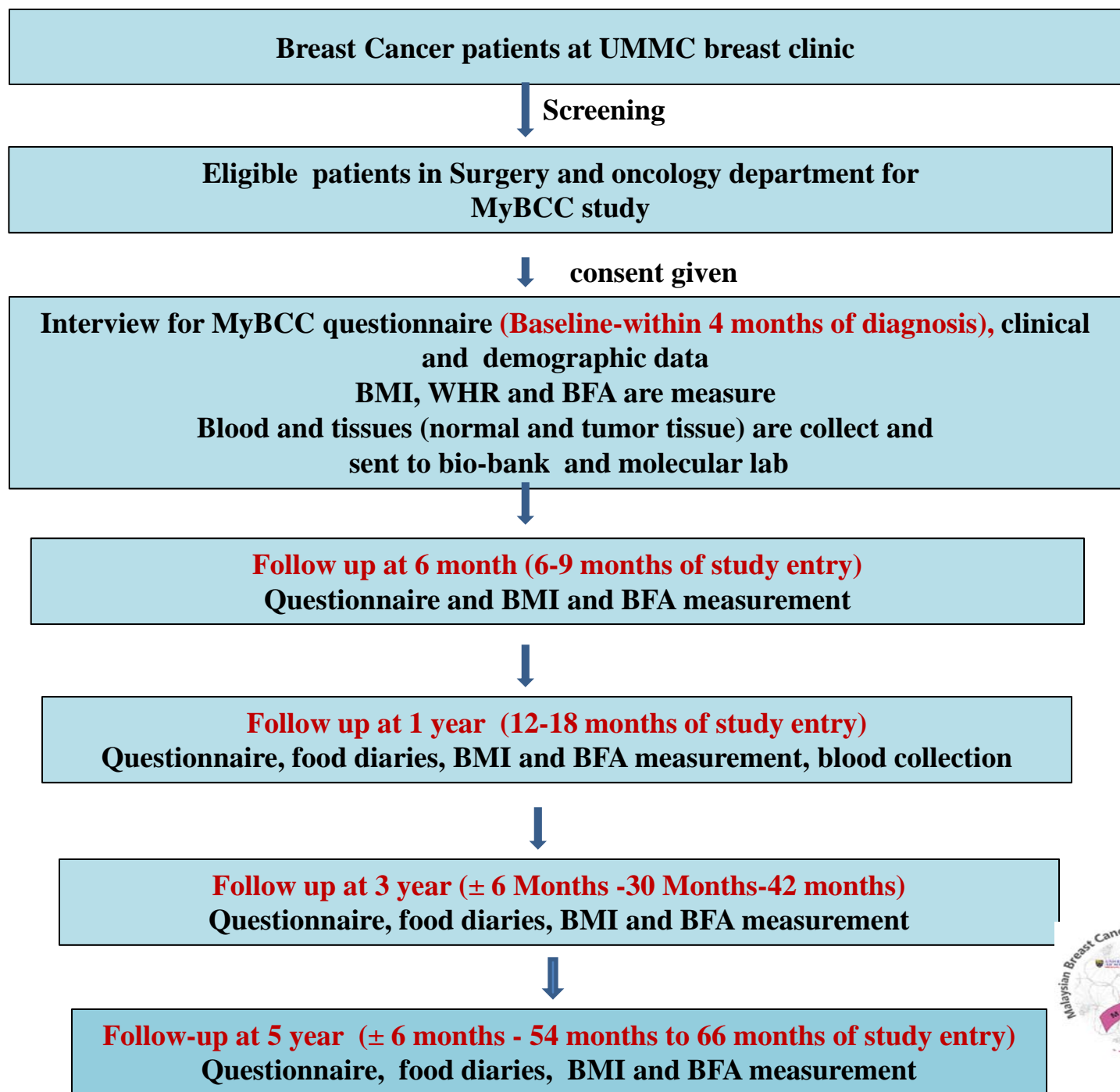
Inclusion Criteria

- All women who are newly diagnosed with primary breast cancer in (UMMC):
 - Aged 18 years and above
 - Within 4 months of diagnosis
 - TNM stage 0- IV breast cancer.
 - Malaysian and able to converse either in Malay, English, Mandarin, or Tamil.

Exclusion Criteria

- Patients with prior history of any other cancer.
- Patients whose attending physician certifies them as unfit due to other prevailing medical condition
- Bedridden at time of recruitment .

Flow Chart Of Overall Study Design



Measurement domains and data collection time points

Theme	Instruments	Baseline	6 Months	1 Year	3 Years	5 Years
Demographic and socioeconomic characteristics	- Socio-demographic -Social- Economy background (Questionnaire)	× ×	 ×			
Quality of Life	- European Organization for Research and Treatment of Cancer Core quality of Life questionnaire (EORTC QLQ-C30) - European Organization for Research and Treatment of Cancer Breast Cancer Quality of Life Questionnaire (QLQ-BR23)	× ×	× ×	× ×	× ×	× ×
Body weight and Nutrition	- Anthropometric measurement (BMI, WHR) - Food diary and mini food album	×	×	× ×	× ×	× ×
Physical Activity	- Global Physical Activity Questionnaire (GPAQ)	×	×	×	×	×
Complementary and alternative Medicine (CAM)	- CAM questionnaire	×	×	×	×	×
Psychosocial factors	- Hospital Anxiety and depression Score (HADS) & - Distress Thermometer (Questionnaire)	× ×	× ×	× ×	× ×	× ×
Work related factors	- Return to work self-efficacy scale (RTW-SE) - Readiness for return to work scale	× ×	× ×	× ×	× ×	× ×
Clinical, histological and biological factors	- Clinical registry and Biobank (Blood and tissues)	× ×	×	× × (only blood)	× 8	×

What has been measured until 28/9/2017

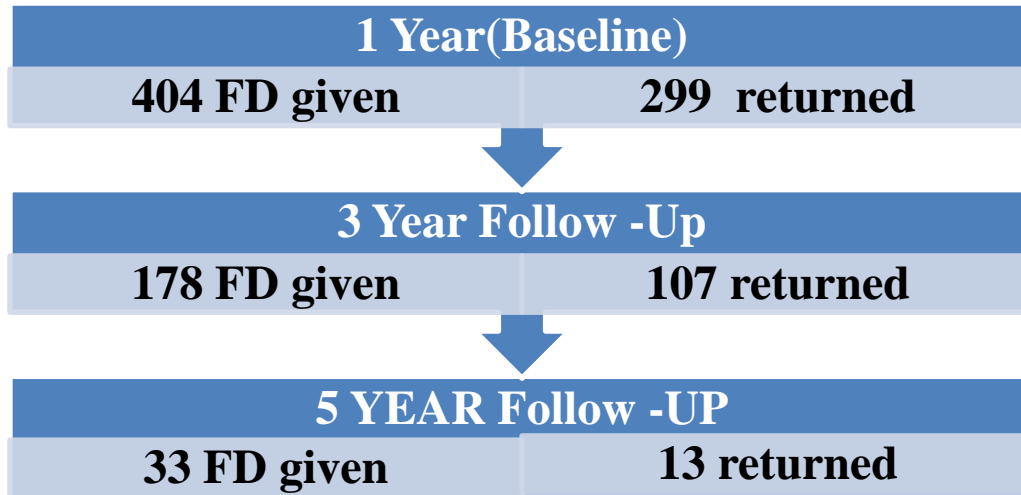
TIMELINE	COMPLETED	PENDING	NOT DONE	DEFAULTED
BASELINE STATUS	725	-	-	-
6 MONTHS FOLLOW-UP STATUS	465	76	162	28
1 YEAR FOLLOW UP STATUS	431	136	109	49
3 YEAR FOLLOW UP STATUS	193	356	87	89
5 YEAR FOLLOW UP STATUS	39	577	-	109

Our Response Rate is 73%

What has been measured



Food Dairy Information (5.10.2017)



Biobank

- Plasma, serum, urine and tumor tissue.

Molecular Lab (CDL)

- Cholesterol, HDL, LDL, Ca, Mg, PTH

What has been found?



Socio demographic and some preliminary finding at baseline

Variable	Provided variable data at baseline, n	Baseline n (%)
Age (Mean, SD)	725	56.17 ±11.5
Ethnicity	725	
Malay		240 (33.1%)
Chinese		337 (46.5%)
Indian		142 (19.6%)
Others		6 (0.8%)
Education	684	
No formal education		16 (2.3%)
Primary		162 (23.7%)
Secondary		317 (43.7%)
College/University		162 (23.7%)
Unknown		27 (3.9%)
Occupational status	725	
Working		275 (37.9%)
Not working		402 (55.4%)
Unknown		48 (6.6 %)

What has been found?



Variable	Provided variable data at baseline, n	Baseline n (%)
Stage	650	
Stage 0		61(8.4%)
Stage 1		160 (22.1%)
Stage 2		252 (34.8%)
Stage 3		133 (18.3%)
Stage 4		38 (5.2%)
BMI (Mean, SD)	610	26.4 ±5.62
Life Status	725	
Alive		673(92.8%)
Deceased		44 (6.1%)
Unknown		8 (1.1%)
Recurrence (725)		
Yes		8(1.4%)
No		707 (97.5%)
Unknown		8 (1.1%)

What has been found?



❑ Publications:

1. Islam T, Bhoo-Pathy N, Su TT, Majid HA, Nahar AM, Ng CG, Dahlui M, Hussain S, Cantwell M, Murray L, Taib NA; MyBCC study group. "The Malaysian Breast Cancer Survivorship Cohort (MyBCC): a study protocol." BMJ Open. 2015;5(10):e008643.
2. Islam T, Dahlui M, Majid HA, Nahar AM, Mohd Taib NA, Su TT; MyBCC study group. "Factors associated with return to work of breast cancer survivors: a systematic review". BMC Public Health. 2014;14 Suppl 3:S8.
3. Ng, C. G., Mohamed, S., See, M. H., Harun, F., Dahlui, M., Sulaiman, A. H., Zainal, N. Z., Taib, N. A., My, B. C. C. Study group et al. "Anxiety, depression, perceived social support and quality of life in Malaysian breast cancer patients: a 1-year prospective study. Health Qual Life Outcomes. 2015;13(1):205.

What has been found?



4. Ng, C. G., Mohamed, S., Kaur, K., Sulaiman, A. H., Zainal, N. Z., Taib, N. A., My, B. C. C. Study group. “Perceived distress and its association with depression and anxiety in breast cancer patients.” (*ISI-Indexed*)
5. Majid HA , Majid, H. A., Keow, L. P., Islam, T., Su, T. T., Cantwell, M., Taib, N. A., My, B. C. C. Study Group et al (2017), “Nutritional status of breast cancer survivors one year after diagnosis: A preliminary analysis from the Malaysian Breast Cancer Survivorship Cohort (MyBCC) study”. Journal of the Academy of Nutrition and Dietetics (in press) (*ISI-Indexed*)
6. Aina Farhana Zulkipli, Tania Islam, Maznah Dahlui,, Hazreen Abdul Majid, Samsinah Hussain, Nur Aishah Mohd Taib et al; “Use of Complementary and Alternative Medicine among the Newly Diagnosed Breast Cancer Patients in Malaysia- An early report from MyBCC study; Integrative Cancer therapies” (*ISI Indexed Accepted September 2017*)

What Are The Main Strengths And Weaknesses?

Strengths of the MyBCC study include the novelty and uniqueness of the project

❖ To the best of our knowledge, this is the **first study in a multiethnic Asian setting** to determine the association between socio-demographic and lifestyle factors on overall survival and Quality of Life (QoL) in breast cancer survivors.

❖ Our study can provide **imminent insights** into association between patient's nutrition, BMI, body composition, physical, mental and socioeconomic status, on their quality of life and overall survival. We will also be able to assess the **influence of ethnicity** on these associations

Strength of The Study



- ❖ **Novelty of our study** :None of the return to work (RTW) paper has included lifestyle modification factors like diet, physical activity. In our cohort we explore RTW with lifestyle factors
- ❖ Our study provides long-term storage of patient's blood, serum, plasma, urine and tissues in the **UMMC Biobank for future research.**
- ❖ Our cohort Biobank follows **firmly international standards**

Weakness of the Study



- ❖ Our cohort comprising mostly of **urban residents attending a tertiary hospital**, our findings may not necessarily reflect the overall situation of breast cancer survivors in Malaysia.
- ❖ Another limitation is that we will be using a **three-day food diary** that depends on the respondent's full co-operation
- ❖ Our study based on single hospital based cohort so the **recruitment is slow**.

Key Message



- ❖ The MyBCC is a **multidisciplinary** breast cancer survivors study.
- ❖ This **multi-ethnic cohort** is providing a **wide range of information** on **extensive number of exposures, outcomes and covariates** of breast cancer survivors among the major ethnic groups in Malaysia
- ❖ The MyBCC cohort is **relatively small breast cancer survivors cohort**, nevertheless, it will **shed light on multi-ethnic Southeast Asian/Malaysian survivor's** socio-economic factors, lifestyles, body composition, psychosocial, work related factors and impact of these factors on survival as well as quality of life.
- ❖ Specific proposal for **collaboration** are welcomed.



Thank you