

UNIVERSITI TEKNOLOGI MARA

**IMPACT OF ANAEMIA AND
FATIGUE ON QUALITY OF LIFE OF
BREAST CANCER PATIENTS
UNDERGOING CHEMOTHERAPY**

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Background: Anaemia and fatigue are vital issues experienced by cancer patients undergoing chemotherapy. Higher incidence of anaemia and fatigue in cancer patients resulted in poor Quality of life (QOL). Currently, there is limited and inadequate data about the impact of anaemia and fatigue on QOL in patients diagnosed with breast cancer and the available data are only from few studies mostly conducted in the primary care centre. Our investigation focuses on the impact of anaemia and fatigue on QOL among breast cancer patients and the association between anaemia and fatigue severity and their associated risk factors. In addition, our study aimed to evaluate the treatment used to treat both medical issues. **Methods:** This was a longitudinal prospective observational study recruited 120 anaemic and 172 fatigue breast cancer patients. Anaemic respondents filled functional assessment cancer therapy (FACT-An) and fatigue patients filled in functional assessment of chronic illness therapy (FACIT-F) with brief fatigue inventory (BFI) scale. A repeated measured ANOVA, one way repeated MANOVA, chi square and multiple, linear regressions were performed to find correlations among the various variables. **Results:** The mean of total average haemoglobin (Hb) level of all three follow ups was 10.34 ± 0.73 g / dL, and for QOL was 96.37 ± 16.15 . QOL was affected negatively by anaemia and fatigue severity and QOL curves declined significantly from 1st follow up to 3rd follow up ($P < 0.001$). In addition, a significant association was found between anaemia and fatigue severity and cancer stage, number of chemotherapy regimens, chemotherapy dose delay, docetaxel & cyclophosphamide (TC), Adriamycin & cyclophosphamide (AC), docetaxel, age, marital status, body mass index (BMI) and alcohol consumers. A repeated measured ANOVA revealed a significant relationship between Hb levels and QOL scores along the three follow ups for anaemic patients, and between BFI levels and QOL scores along the two follow ups for fatigue patients. In addition, one-way repeated measured MANOVA indicated a significant association between anti-anaemic & anti-fatigue treatments and dependent variables (Hb level, and QOL scores) for anaemic part and (BFI and QOL scores) for fatigue part. However, this association was not sufficient to improve Hb levels, QOL scores or reduce BFI scores or palliate anaemia and fatigue severity significantly. **Conclusion:** It was found from our observations that QOL are affected negatively by anaemia and fatigue severity. Strong correlation was found between anaemia and fatigue severity and demographic data, cancer data, and chemotherapy data (body mass index, race, stage of cancer, chemotherapy dose delay, number of chemotherapy medications). Healthcare providers and oncologists should be aware of anaemia and fatigue in patients diagnosed with cancer. Their intervention could improve QOL. Hence it is crucial to consider developing guidelines for treatment of both anaemia and fatigue which is not available currently and improve the QOL for the wellbeing of the cancer patient.

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