

# **Improving the Quality of Life in Breast Cancer Survivors through Regular Dragon Boat Paddling**

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## **Acknowledgment**

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## **Introduction**

Breast cancer patients were taught to avoid regular strenuous exercise after breast cancer surgery. However, study proved that upper body exercise would be beneficial for people who had been treated for breast cancer <sup>1</sup>. In 1996, with the support of Dr. Don McKenzie, the first boat of breast cancer survivors began paddling at the University of British Columbia. The results were amazing! The women found they were fitter, healthier and happier. They loved the camaraderie and support of their fellow paddlers and had regained control of their lives. The study proved that BCSs can lead a full and active life after treatment for breast cancer as a result of improving the quality of life <sup>2</sup>.

## **Background**

Breast Cancer is the number one female cancer in Hong Kong<sup>3</sup>. Evidence showed that exercise for breast cancer survivors in decreasing recurrence and improve breast cancer related mortality <sup>4</sup>. The Dragons Abreast Hong Kong 香港乳龍 (DAHK) founded in 2006. The DAHK aims to promote a positive approach to breast cancer treatment and to encourage a healthy attitude and lifestyle post-recovery through participation in the sport of Dragon Boat, canoe and other sport activities and through participating in and/or arranging local and overseas Dragon Boat racing regattas and other sport competitions. Members of DAHK include breast cancer survivors, family members, friends, healthcare workers and supporters. The team organizes two 2-hour dragon boat paddling training per week from March to November each year. Other outdoor exercise, such as hiking, land training would be held in Winter.

## **Aims of the study**

This study aims to (1) evaluate physical activity-related quality of life (PAQOL) in breast cancer survivors, (2) define the impact on regular physical activity to physical and psychological health in breast cancer survivors and (3) identify the correlation of regular physical activity to overall quality of life in breast cancer survivors.

## **Literature Review**

After cancer treatment, it is desirable to maintain or regain a high quality of life (QoL). It is proved that physical activity improves quality of life (QoL). Active women who engaged in greater amounts of moderate and vigorous activity reported better physical activity quality of life (PAQoL) than inactive women <sup>5</sup>. Improvement in physical activity or physical performance yields a positive change in QoL of breast cancer patients <sup>6</sup>.

Healthy behaviors, including engagement in exercise, proper diet, especially comprehensive lifestyle behavior interventions, should be valued in improving HRQOL of BCS <sup>7, 8</sup>.

## **Methodology**

BCS members joined any training sessions during the study period were invited to participate in this study. They were asked to fill out the questionnaire anonymously during the one-month study period. The questionnaire consists of two parts: Part I is to collect the demographic data, e.g., age, exercise pattern. Part II is the EORTC QLQ-C30, they are 4-point LiKert Scale questions, from ‘Not at all’ to ‘Very much’, it is used to measure the quality of life.



## **Data Analysis**

A total of 32 questionnaires was received. The response rate was 100% (n=32). The Female: Male ratio was 31: 1, 74% of them (n=23) aged over 50, 46% of them (n=15) diagnosed of breast cancer for less than 5 years,

42% of them (n=12) did not have any physical activity before joining the team. Yoga/ Chi Kung/ Tai Chi were most common activities (non-vigorous aerobic exercise) on the remaining 20 study subjects. The average exercise time was 146 minutes/ week.

69% (n=20) of them joined the DAHK for less than 2 years. 68% (n=19) of them with 100% attendance, i.e.: 240 minutes/ week

As a result, after participating in the regular dragon boat paddling training, the average time of doing exercise for BCS was increasing from 146 minutes/ week to 310 minutes/ week.

Among the 30 questions, it was found that there were statistically significant in the following questions:

	<b>Item</b>	<b>Pearson Correlation</b>
1	Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?	0.020*
9	Have you had pain?	0.013*
12	Have you felt weak?	0.029*
22	Did you worry?	0.045*
23	Did you feel irritable?	0.028*
24	Did you feel depressed?	0.031*
28	Has your physical condition or medical treatment caused you financial difficulties?	0.046*
30	How would you rate your overall quality of life during the past week?	0.009*

## **Conclusion**

Dragon Boat Paddling is a vigorous aerobic with team effort exercise. The DAHK organizes 2 dragon boat paddling training sessions per week, each with 120 minutes. This meets the American Cancer Society recommendation - to engage in at least 150 minutes

of moderate exercise per week or 75 minutes of vigorous aerobic exercise per week with inclusion of strength training exercises at least 2 days per week.

This study showed that organized dragon boat paddling training encouraged BCS to perform physical activities regularly. Regular physical activities improved the physical health and psychological health, as a result of improving the overall quality of life.

To conclude, this study showed that DAHK achieved its mission, i.e., to promote a healthy attitude and lifestyle to DAHK breast cancer survivors through actively participation in the sport of Dragon Boat Paddling.



## References

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