

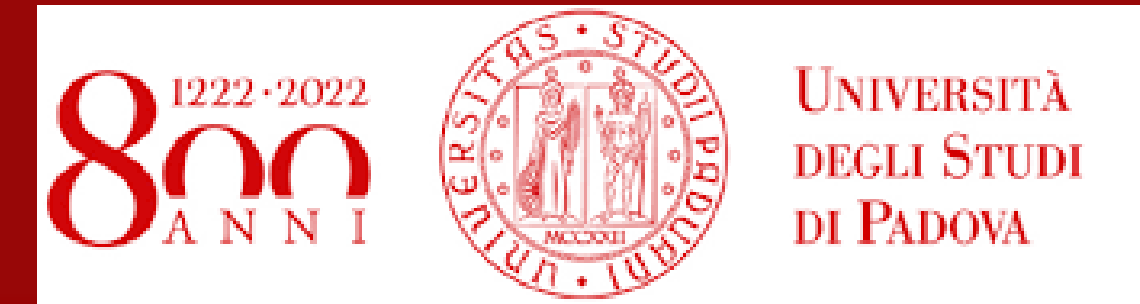
Keep calm and keep rowing: the psychophysical effects of Dragon Boat program in breast cancer women survivors

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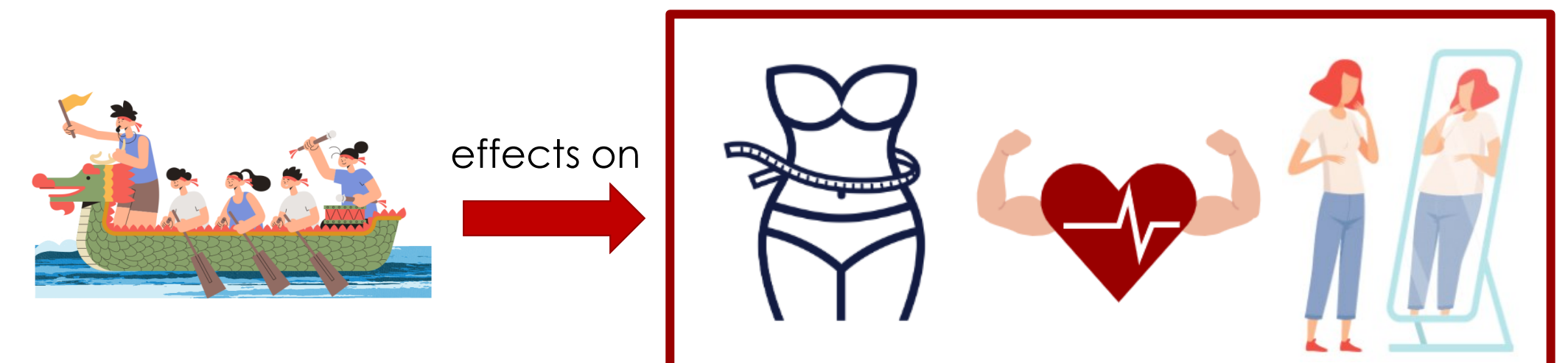
INTRODUCTION

Breast cancer is the most prevalent cancer, but the survivor rate is high thanks to early diagnosis and new therapies. In this scenario, **physical exercise** has been accepted as a **safe and effective** coadjuvant treatment capable of improving patients' quality of life. Among the different types of physical exercise, the **Dragon Boat (DB)** discipline has become more popular in recent years among women with breast cancer thanks to its **psychophysical benefits**.



AIM

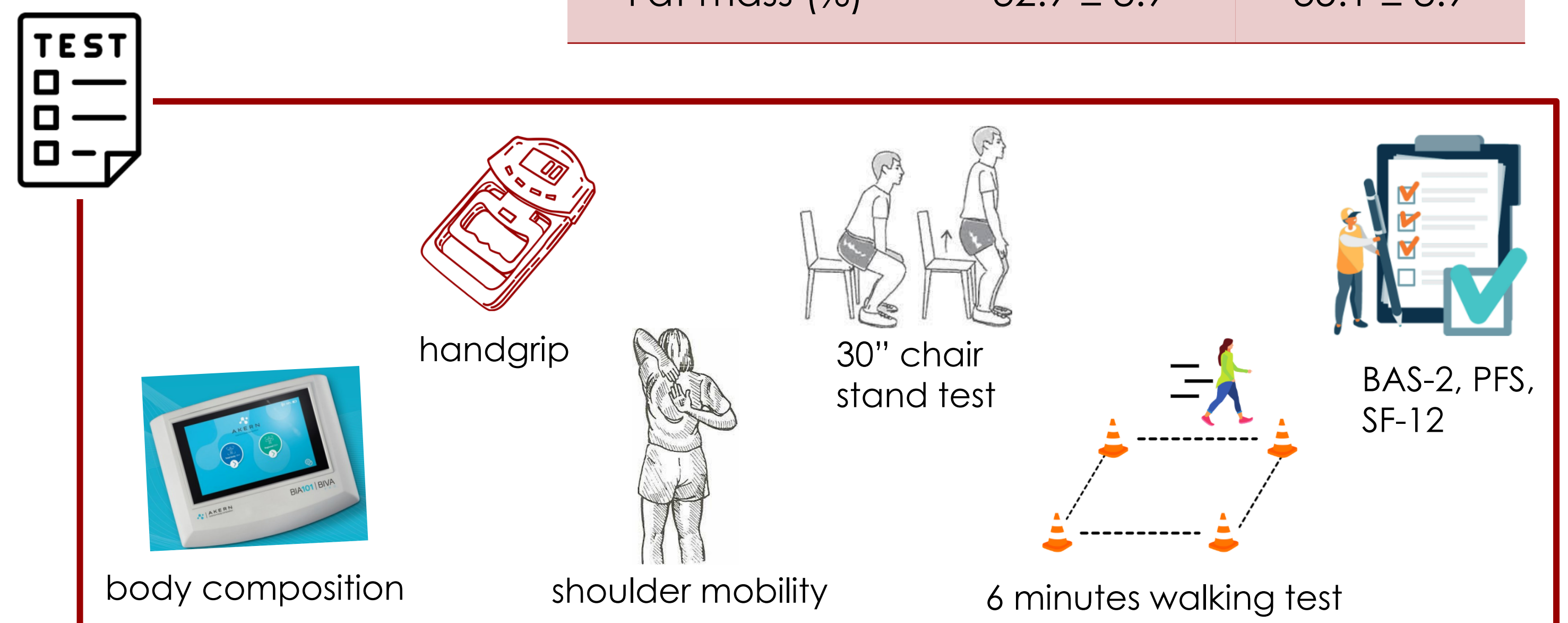
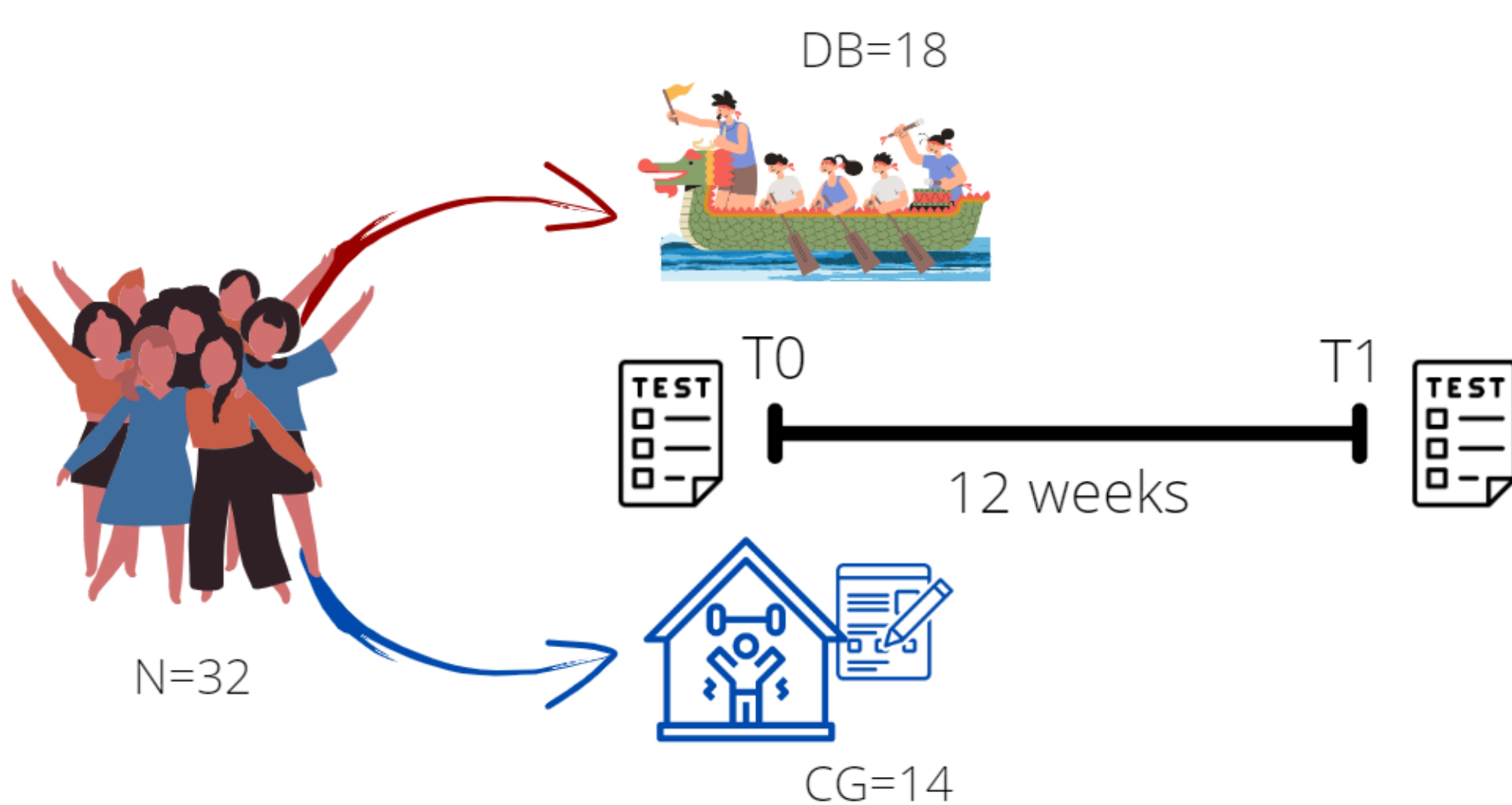
The present randomized control trial aims to depict the effects of a DB program on **body composition**, **physical function**, and some psychosocial aspects, such as the **perception of body image** in women with a previous diagnosis of breast cancer.



METHODS

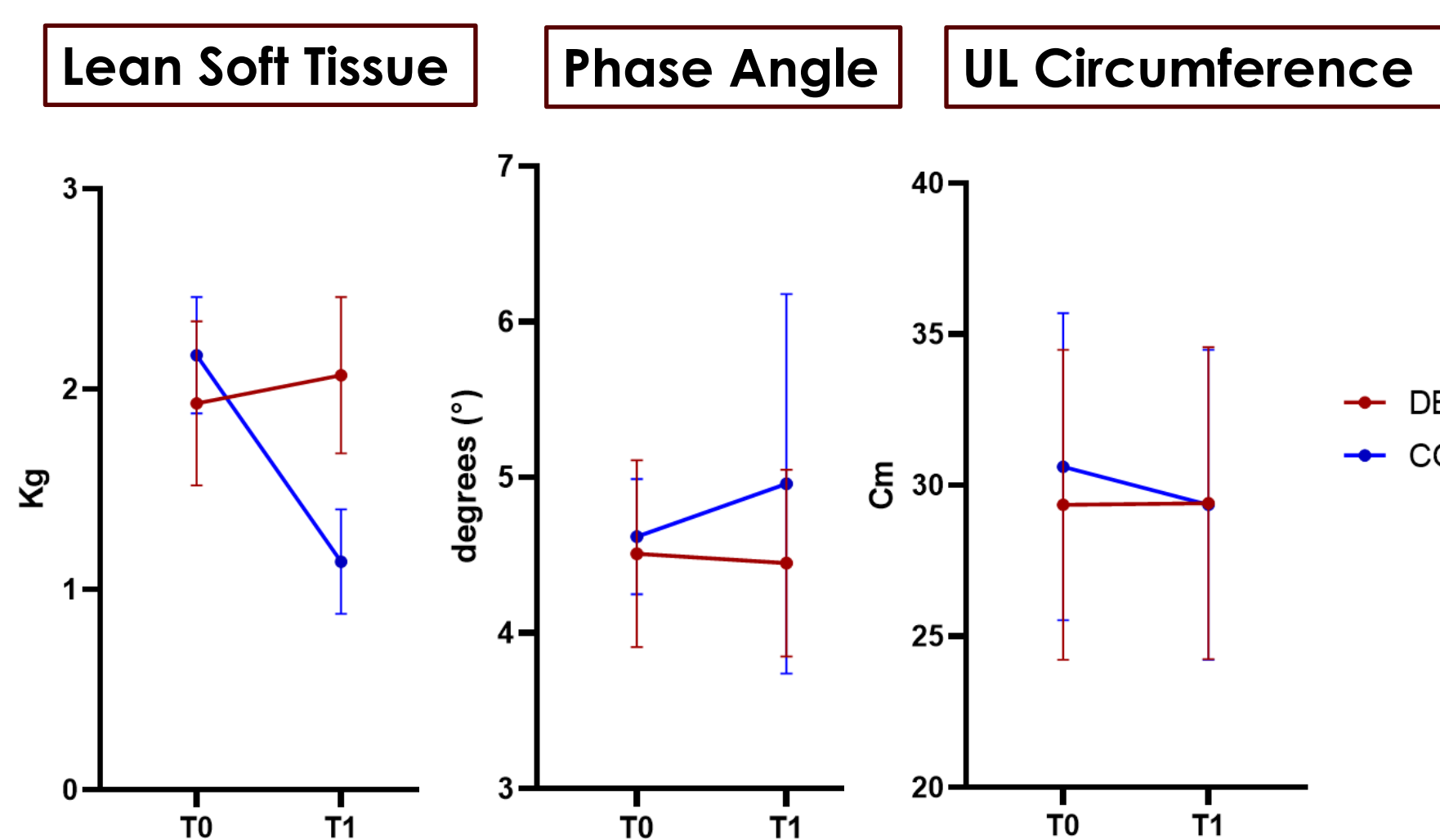
Thirty-two women with a previous diagnosis of breast cancer and consequent removal surgery were recruited and randomized into two groups. Eighteen subjects were included in the **Dragon Boat group (DB)**, while the remaining were collocated in control group (**CG**), which underwent a **home-based non-supervised training program**. All participants were tested at baseline (T0) and after 12 weeks (T1).

	DB	CG
	N=18	N=14
Age (y)	55.8 ± 6.9	60.5 ± 8.5
Body mass (Kg)	67.6 ± 16.7	73.4 ± 15.3
BMI (Kg/m ²)	26.9 ± 6.4	29.1 ± 6.4
Fat mass (%)	32.9 ± 8.9	35.1 ± 8.9

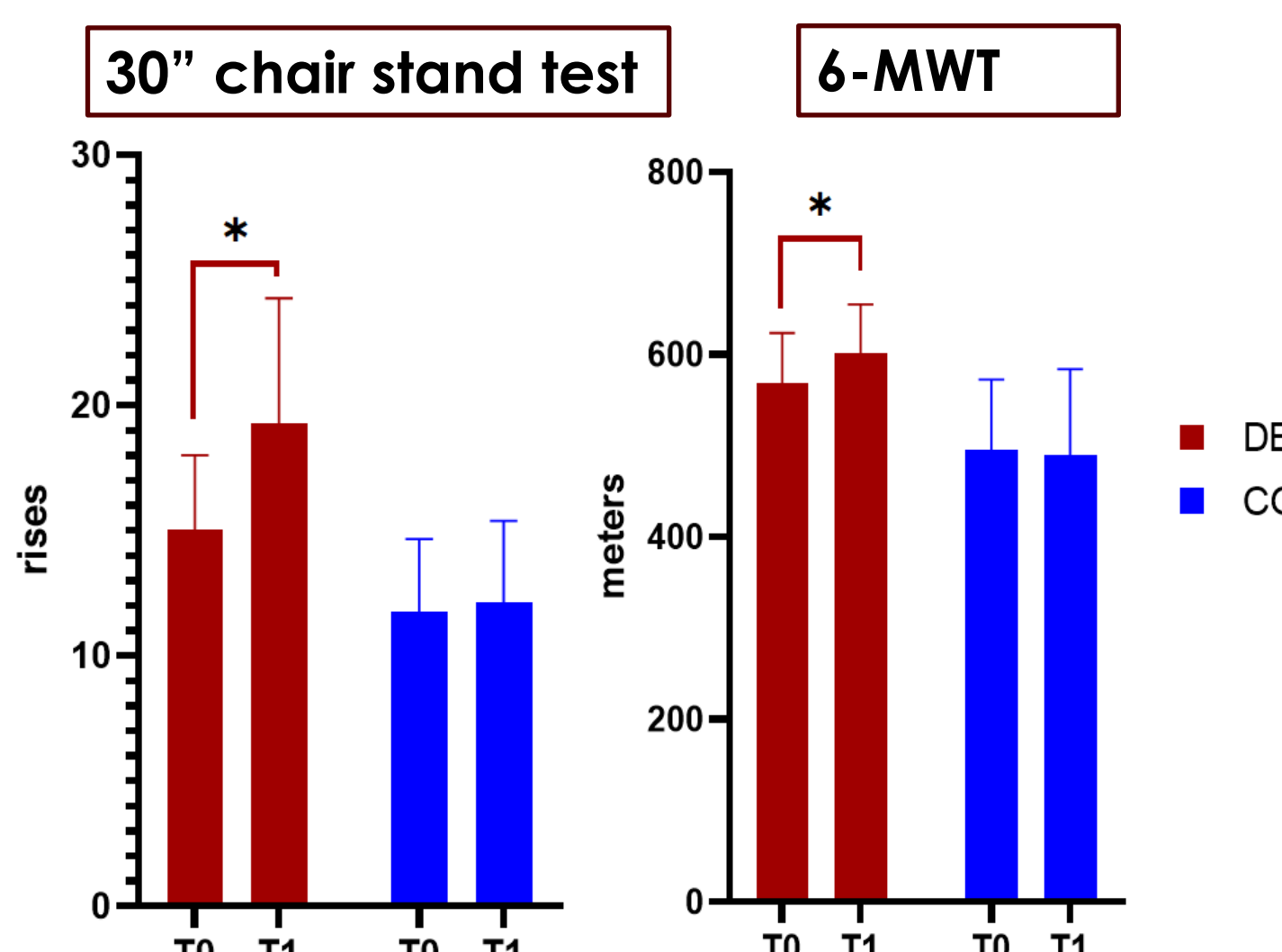


RESULTS

No changes in body composition were found in both groups. Furthermore, **no signs of lymphoedema** were observed in the operated upper limb (UL).



The DB group showed a significant **improvement in the 6-min walking test** (+6%; p<0.001) and in the **30-sec chair stand test** (+30%; p<0.001). No significant changes in the CG.



No significant changes were found in the psychological questionnaires.

However, the 20% (3/15) of DB participants obtained a potentially relevant change in the BAS-2 and the Mental health score (MCS) of the SF-12 following the intervention.

	T0	T1
DB	46.4 ± 8.7	49.1 ± 9.5
CG	47.6 ± 10.8	48.9 ± 9.5
SF-12 MCS		
	T0	T1
DB	3.8 ± 0.8	4.0 ± 0.5
CG	3.8 ± 0.8	3.7 ± 0.7
BAS-2		

DISCUSSION AND CONCLUSION

Our results suggest that **Dragon Boat is a safe** exercise modality for women after breast cancer surgery since there was **no evidence of lymphoedema**. The present study highlights that 12 weeks of DB practice **improves aerobic capacity** and **lower limb strength**, which are two variables associated with a **higher life expectancy**. However, based on recent studies, we suggest that longer periods of regular exercise (>3mo) may be needed in order to produce also significant improvements in upper limb strength, perceived well-being, and perception of one's body image.

REFERENCES

Harris SR, Evid Based Complement Alternat Med. 2012;2012:167651

Wirtz P, Breast Care (Basel). 2018 Apr;13(2):93-101