

Physical functioning after treatment for breast cancer and the impact of age

V. R. Robins¹, S. Gelcich¹, G. Velikova^{1,2} and K. Absolom^{1,3}

Patient Centred Outcomes Research Group (PCOR)

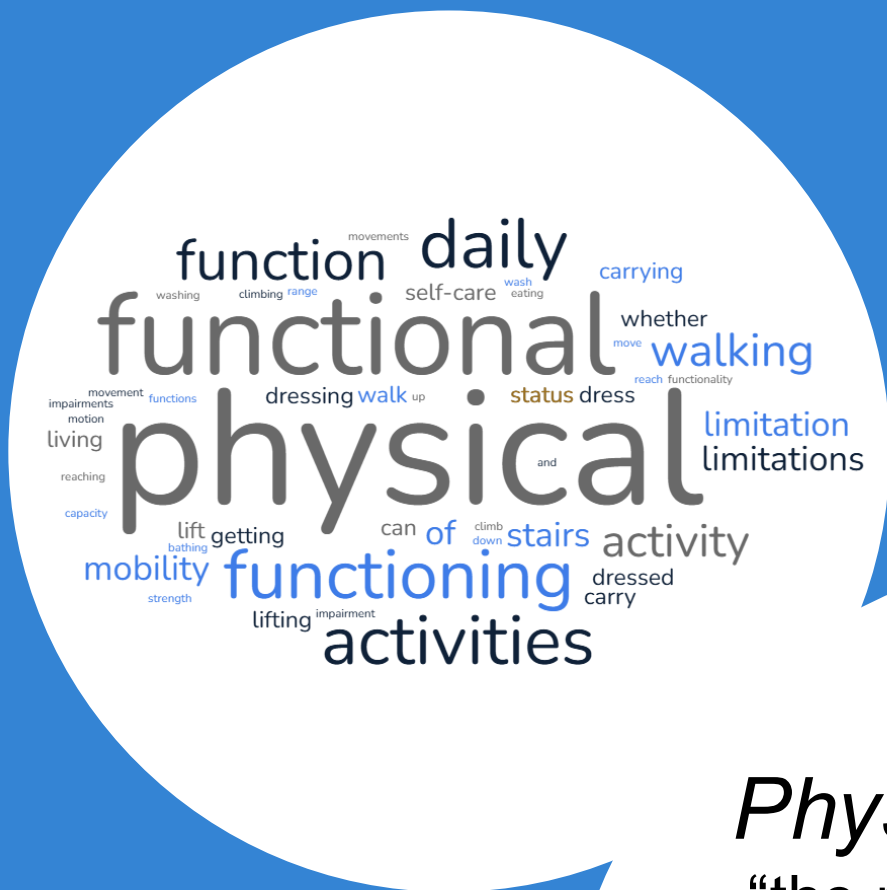
¹Leeds Institute of Medical Research at St James's, University of Leeds, Leeds, England

²Leeds Cancer Centre, Leeds Teaching Hospitals NHS Trust, Leeds, England

³Leeds Institute of Health Sciences, University of Leeds, Leeds, England

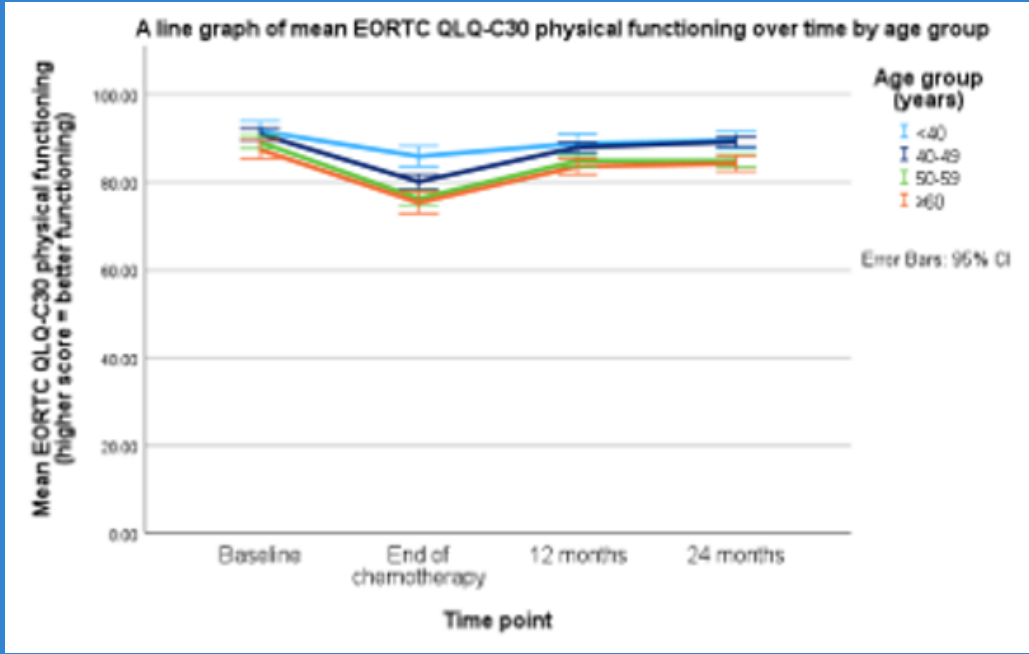


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Physical functioning:
“the performance of or the capacity to perform a variety of physical activities normal for people in good health. Such physical activities include bathing, dressing, walking, bending, climbing stairs, and running” (Stewart and Kamberg, 1992, p.86 [1])

Results



Background

Survival rates for early-stage breast cancer are high [2]. However, treatment can be multimodal (surgery, radiotherapy, chemotherapy, targeted therapy and/or hormone treatment) and have long-term impacts. The incidence of breast cancer increases with older age and the population is ageing [3]. Robust data is needed on the impact of treatment on physical functioning to inform shared decision-making.

Aim

To explore the impact of age on physical functioning after treatment for early-stage breast cancer, and the moderating effects of type of treatment, comorbidities, fatigue, pain, anxiety and depression.

Methods

Data from the CANcer surVeillance And Support (CANVAS) study in Leeds, and the national randomised controlled trial (RCT) of accelerated adjuvant chemotherapy with capecitabine in early breast cancer (TACT-2) was analysed via multilevel modelling [4-6]. Physical functioning was self-reported by patients using the EORTC QLQ-C30.

CANVAS study (funded by Yorkshire Cancer Research): Patients completed multimodality treatment representing standard clinical practice

TACT-2 RCT: Patients completed an intensive form of adjuvant chemotherapy (standard or accelerated epirubicin and cyclophosphamide, methotrexate and fluorouracil (CMF), or capecitabine)

- CANVAS study** (standard multimodality treatment):
- N=401, N=189 aged ≥60 years
 - Age was significantly associated with EORTC QLQ-C30 physical functioning ($p \leq .002$): participants **aged ≥60 years** reported worse physical functioning than those aged <60 years.
 - More EORTC QLQ-C30 fatigue and pain were significant moderators associated with worse physical functioning ($p < .001$).
 - Comorbidities, type of treatment, anxiety and depression were not significant moderators.

- TACT-2 RCT** (intensive adjuvant chemotherapy):
- N=1,170, N=247 aged ≥60 years
 - Age was significantly associated with EORTC QLQ-C30 physical functioning ($p < .001$): participants **aged ≥50 years** reported worse physical functioning than those aged <50 years.
 - More EORTC QLQ-C30 fatigue, EORTC QLQ-C30 pain and HADS depression and less HADS anxiety were significant moderators associated with worse physical functioning ($p < .001$).
 - Fatigue had a more significant impact with older age ($p < .001$).

Conclusions

Physical functioning declined with increasing age after breast cancer treatment

More fatigue and pain associated with worse physical functioning

More depression and less anxiety associated with worse physical functioning when measured with a specific patient-reported outcome measure after intensive adjuvant chemotherapy

Fatigue was only moderator affected by age

Findings can inform patients' expectations and shared decision-making

References

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