

CAN TECHNOLOGY MAKE EXERCISE MORE FUN AND ENGAGING DURING CANCER TREATMENT?

FEEDBACK FROM YOUNG PEOPLE WITH CANCER AND EXERCISE & HEALTHCARE PROFESSIONALS ON NOVEL MOTION-TRACKING TECHNOLOGY

Original Article: Solera-Sanchez A et al. (2026). **The use of motion tracking technology to support an exercise intervention for children and young people with cancer: Perspectives of users and healthcare professionals in the FORTEe trial.** *Frontiers in Pediatrics* 14: 1879166

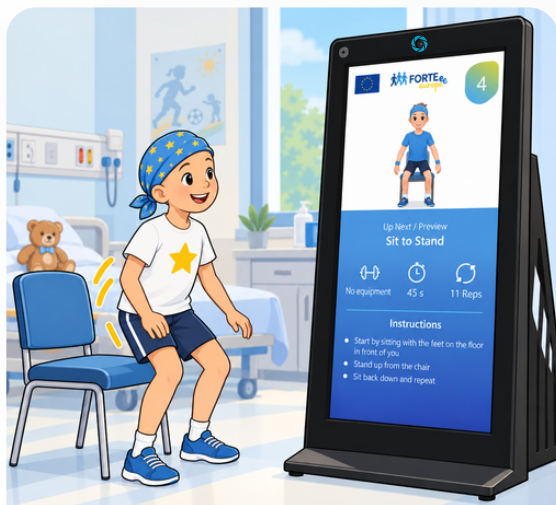
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#GetStrongToFightChildhoodCancer

1 OUR GOAL

To explore **if motion-tracking technology can be an engaging** addition to personalised exercise for young people with cancer.

Avatar-based exercises on motion-tracking devices from Pixformance Sports GmbH were used as part of the clinical FORTEe trial (NCT05289739).



Privacy Protection:

Video is not captured by the device, and no personal data is required or stored.

2 HOW WE DID IT

90 young people with cancer (4-21 years old) shared their feedback **in interviews**.

33 exercise & healthcare professionals (from 5 cancer centres in Germany, Italy, and the UK) provided feedback in an **online survey**.



3 WHAT WE FOUND OUT

Young people with cancer who used the Pixformance motion-tracking device

- found it **fun, novel, and useful** in addition to conventional training.
- liked the **variety of exercises**.
- felt **motivated by the avatar and by receiving scores** while exercising.
- appreciated the **helpful real-time feedback** during each exercise.



Exercise & healthcare professionals also found it

- **easy to use and useful** for supporting exercise sessions.
- **helpful to complement supervised exercise**, but it should not replace face-to-face training with exercise professionals.
- **enjoyable and engaging** for the young people in the study.



4 CHALLENGES & LIMITATIONS

- **Minor technical issue:** The motion-tracking feature did not always work perfectly.
- Large device size: **Space and transport** were perceived as difficult in some cases.
- **Internet access was needed** for initial setup and to adapt exercise programmes.
- For some young people in the study, the **novelty wore off & pauses were too long**.

5 IDEAS FOR IMPROVEMENT



Customisable avatars and more gamification (rewards, challenges, competitions) would be fun.



Optional audio instructions (in addition to the written guidance on the screen) would be useful.



It would help **if exercise programmes could also be adapted offline** (without internet access).

6 TAKE-HOME MESSAGE

THE PIXFORMANCE MOTION-TRACKING DEVICE WAS WELL RECEIVED BY BOTH YOUNG PEOPLE WITH CANCER AND EXERCISE & HEALTHCARE PROFESSIONALS

- **Technology** can support exercise training for young people, but it **should not replace people**.
- The **Pixformance motion-tracking device can complement conventional, personal exercise training**. Some technical and practical improvements may make it even easier and more motivating to use in the future.

What's next: More research is needed to find out if motion-tracking technology leads to **measurable improvements in health, physical function, or emotional well-being**. This study mainly explored the users' experiences and opinions.

