

# **We're not burying our heads in the sand: Lessons learned from the OSTRICH MMI SWAT**

By Bottomley-Wise, R.M., Exley, V.A., Baird, K., & Fairhurst, C.M.



## **What was the OSTRICH trial Study Within A Trial (SWAT)?**

This SWAT aimed to evaluate the effectiveness of a multimedia website and video animation, in addition to written information, in improving trial recruitment. It was embedded in the [OSTRICH](#) trial, a multi-centre, randomised controlled trial (RCT) exploring the use of insoles along with exercise and advice, compared to exercise and advice only, for the treatment of symptomatic flat feet in children ([ISRCTN14602568](#), Cockayne et al., 2025).

## **Why create a Multimedia Interface (MMI) SWAT?**

While they provide key information about a study, Participant Information Sheets (PIS) are sometimes criticised for being long, technical and unappealing (Knapp et al., 2023).

MMIs, such as websites, infographics and animations, could aid understanding of what a trial involves for studies involving children (Sheridan et al., 2019). When compared to a printed PIS, adolescents found the information on a multimedia website easier to understand, and improved their confidence in deciding whether to take part (Knapp et al., 2021). Yet, there is limited evidence about whether this translates to higher recruitment rates. Video animations improve patient knowledge and behaviour in the short-term, and have some positive effects on both cognitions and attitudes (Moe-Byrne et al., 2025). To evaluate long-term outcomes, higher quality and larger RCTs are needed, especially for individuals with low health literacy (Moe-Byrne et al., 2025). We therefore developed and tested an MMI, comprising a trial website and a short video animation, to convey trial information to children and young people to see if this increased recruitment rates.

Use this QR code to view the MMI website or follow this link [ostrich.digitrial.com](https://ostrich.digitrial.com).

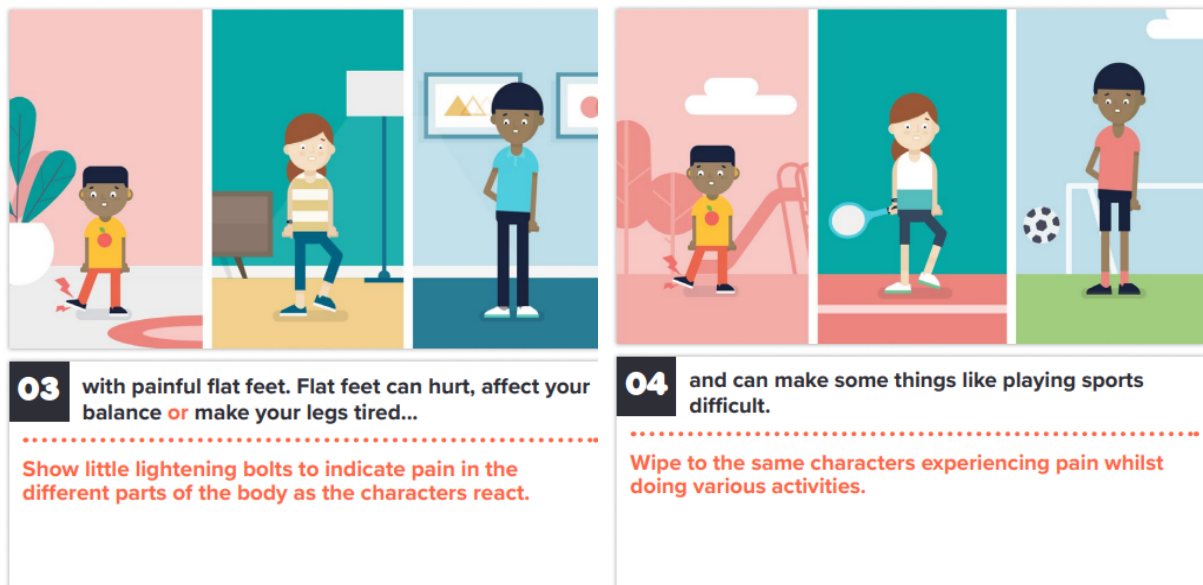


## How was the MMI video

## animation created?

The OSTRICH team developed a short script which was written in lay language in collaboration with clinicians. We commissioned the company Morph (<https://morph.co.uk/>) to create the animation. They started by creating a storyboard outlining the content of the animation, which was presented to clinicians and to children and young people for their feedback.

The children suggested several changes to the images to increase the diversity of ethnicities, disabilities and body sizes shown.



This feedback led to positive changes to the animation, e.g. we depicted a child with sight impairment and people of different heights and ethnicities. Equality and diversity in research is hugely important, and we are very thankful for the helpful recommendations from the children and young people that made our animation more representative!

A page from the storyboard:



Please click [here](#) to view the final video animation used in OSTRICH.

## What were the problems?

The SWAT was a cluster RCT with OSTRICH recruiting sites allocated such that all potential trial participants from that site received either (i) a standard printed PIS with a QR code/ link to the MMI, or (ii) the standard printed PIS only (no link to the MMI), when approached to take part in the trial. We asked sites to maintain screening logs of potential participants approached for the trial and to return these to us at regular intervals. The primary outcome was the proportion of potential participants in each SWAT group randomised into the OSTRICH trial.

OSTRICH experienced many challenges including delays and interruptions to recruitment caused by the COVID-19 lockdowns, then slower than expected recruitment thereafter ultimately leading to the trial's early closure after only 134 participants had been recruited (28% of our target of 478), from 17 sites.

Fifteen of these sites took part in the SWAT (two declined); the 8 MMI sites recruited 83 participants in total, and the 7 'no MMI' sites recruited 40 participants. Screening data indicated at least 516 participants were approached at these sites but we know this figure is an underestimate as three sites, all in the MMI SWAT arm, did not return any screening data even though two of them recruited participants to the trial. In addition, some sites did not return screening logs that covered the entirety of the time they were open to recruitment; one in particular only returned screening data covering a couple of the 14 months they were open. We do not know if or how many potential participants were approached in the missing months. Our plan to compare the likelihood of a screened participant being recruited between the two groups using logistic regression, with site as a

random effect, was therefore invalidated by the lack of a reliable denominator and unequal missing screening data across the SWAT arms.

### **How to learn from this and not bury our head in the sand?**

As part of a Trials Unit committed to reducing research waste, we hold ourselves to a high standard. As such, it feels particularly frustrating that, despite our best intentions, we find ourselves in a position where we cannot formally publish our data from the OSTRICH MMI SWAT.

In truth, the numbers were small: the host trial ended early and we did not reach the sample size originally anticipated for various reasons (Cockayne et al., 2025). Even so, we had hoped these findings would add to the existing body of evidence regarding the use of MMIs to aid recruitment, so it is very disappointing not to be able to share them formally. Screening data matters!

Were there any positives to take from this experience? Absolutely. Although several years have passed since our MMI was developed- and the use of animations in trials has increased considerably as accessible software has become more available- we remain very proud of the work that went into developing it. The input from our children and young person PPIE group was invaluable. Whilst we cannot formally evaluate its effect, we hope the animation helped to engage and inform the parents/carers and the young people who took part in the trial.

If you would like to find out more information, please email [rachel.bottomley-wise@york.ac.uk](mailto:rachel.bottomley-wise@york.ac.uk).

### **Reference List**

- Cockayne, S., Baird, K., Gates, S., Fairhurst, C., Adamson, J., Bottomley-Wise, R. M., Woodward, A., Backhouse, M. R., Bye, R., Davies, N., Hewitt, C., Holton, C., Knapp, P., Keenan, A.-M., Morrison, S., Parker, D., Perry, D. C., Ronaldson, S., Smith, M., ... OSTRICH Team. (2025). OrthoticS for TRreatment of symptomatic flat feet In CHildren (OSTRICH): a randomised controlled trial. *Health Technology Assessment (Winchester, England)*, 1–49. <https://doi.org/10.3310/PLKJ4541>
- Knapp, P., Mandall, N., Hulse, W., Roche, J., Moe-Byrne, T., Martin-Kerry, J., Sheridan, R., Higgins, S., & (for the TRECA study group). (2021). Evaluating the use of multimedia information when recruiting adolescents to orthodontics research: A randomised controlled trial. *Journal of Orthodontics*, 48(4), 343–351. <https://doi.org/10.1177/14653125211024250>
- Knapp, P., Moe-Byrne, T., Martin-Kerry, J., Sheridan, R., Roche, J., Coleman, E., Bower, P., Higgins, S., Stones, C., Graffy, J., Preston, J., Gamble, C., Young, B., Perry, D., Dahlmann-Noor, A., Abbas, M., Khandelwal, P., Ludden, S., Azuara-Blanco, A., ... Ainsworth, J. (2023). Providing multimedia information to children and young people increases recruitment to trials: pre-planned meta-analysis of SWATs. *BMC Medicine*, 21(1), 244. <https://doi.org/10.1186/s12916-023-02936-1>
- Moe-Byrne, T., Knapp, P., Lidster, A., Ahamed, M., O'Hare, H., Golder, S., Lister, J., &

- Adamson, J. (2025). How effective are video animations as information tools for patients and the general public? An updated systematic review. *Frontiers in Digital Health*, 7(1717044), 1717044. <https://doi.org/10.3389/fdgth.2025.1717044>
- Sheridan, R., Martin-Kerry, J., Watt, I., Higgins, S., Stones, S. R., Taylor, D. H., & Knapp, P. (2019). User testing digital, multimedia information to inform children, adolescents and their parents about healthcare trials. *Journal of Child Health Care: For Professionals Working With Children in the Hospital and Community*, 23(3), 468–482. <https://doi.org/10.1177/1367493518807325>