Reducing GA MRI waitlists and costs while improving patient outcomes through the role of health play specialists in paediatric MRI

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BACKGROUND AND AIMS

MRI scans can be challenging due to the need for stillness from paediatric patients, often requiring general anaesthesia (GA), which carries risks and high costs. Health play specialists (HPS) offer a safer, cost-effective alternative by using therapeutic play to reduce patient anxiety and help children complete scans awake. A pilot at the Royal London Hospital demonstrated the benefits of HPS in reducing GA use, costs and MRI waitlists. The aims of this audit include:

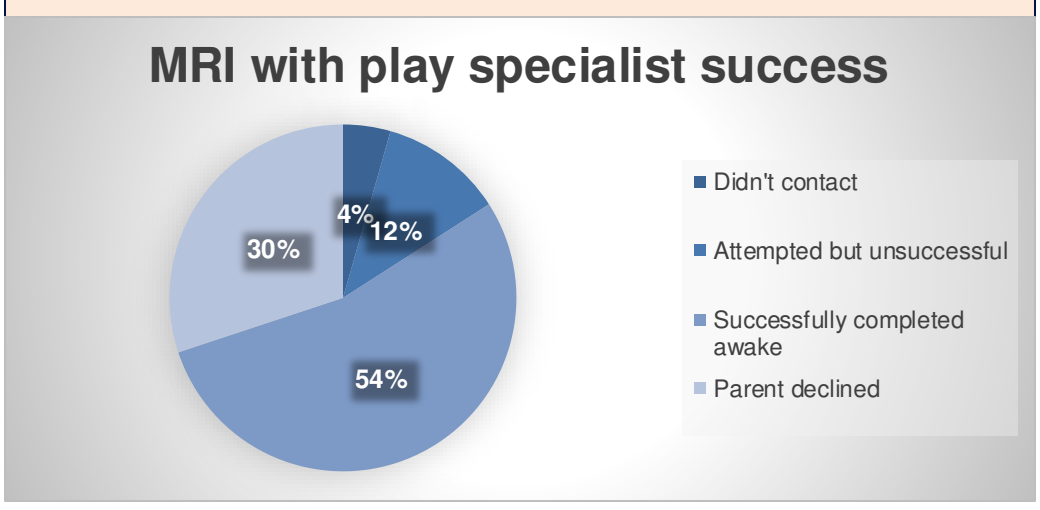
- To evaluate the use of a HPS in the MRI department.
- To analyse data collected during the pilot scheme.
- To analyse financial benefits and patient experience benefits of having a permanent role for HPS in the MRI department.

METHODS

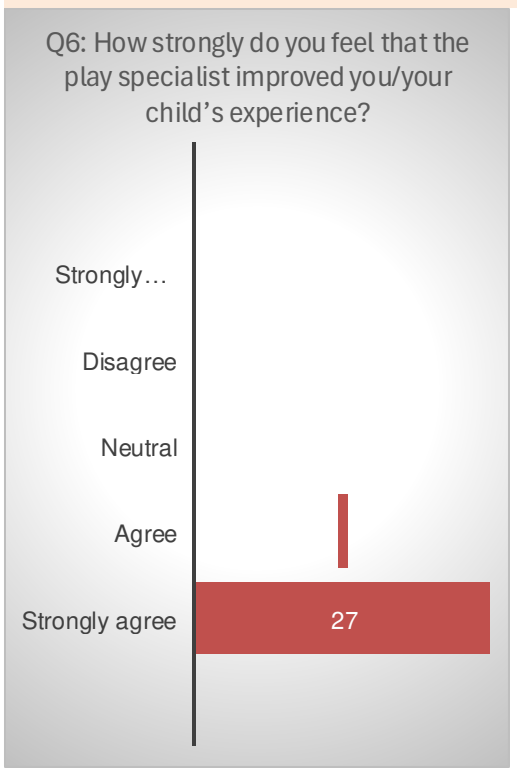
A prospective audit was carried out to evaluate the role of HPS to reduce GA for paediatric MRI scans. A database tracked GA MRI waitlist patients and new referrals from July 2023 to March 2024. Parents were contacted to assess suitability for an awake MRI with HPS support. Eligible patients received tailored play-based preparation, including demonstrations with a Lego MRI scanner, storybooks and MRI sound simulations on an iPad. During the scan, patients were able to utilise media options, parental support and guidance from HPS. Outcomes were recorded with unsuccessful cases retuning to the GA list. Feedback forms were distributed to parents and/or patients to assess effectiveness of the support given.

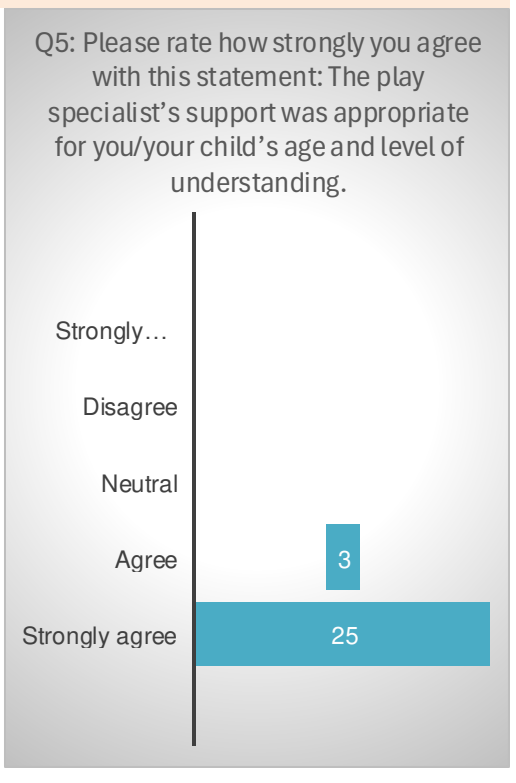
RESULTS

In total, 113 patients were included on the database during the MRI pilot. 34 families declined for their child to have an awake MRI scan due to their child having learning difficulties so they felt that they would be unable to cope with the scan. Out of 74 families that were happy to go ahead, 61 patients successfully completed the MRI scan awake (82%).



28 participants gave feedback through feedback forms and most of it was really positive. 96% of participants strongly agreed that the HPS improved their/their child's experience, 4% agreed with this statement and no one disagreed. 89% (25/28) strongly agreed that the support given was appropriate for the patient's level age and level of understanding, while 11% (3/28) agreed with the statement.





CONCLUSION

This audit showed the benefits of integrating HPS into paediatric MRI services. By providing tailored play-based preparation and support throughout the imaging process, HPS effectively reduced patient anxiety and enabled 82% of patients to complete their scan awake, reducing the need for GA. This approach not only improved patient outcomes but also caused a 60% reduction in the GA MRI waitlist, allowing timely diagnoses and treatment. Additionally, financial analysis confirmed cost savings per scan with a HPS compared to GA, reinforcing the feasibility of a permanent HPS role in MRI.

Feedback from families was significantly positive, highlighting the value of the support provided to reduce stress and anxiety around MRI scans. While the pilot successfully met its aims, further audit cycles should be carried out, focusing on refining data collection, addressing organisational challenges and comparing direct outcomes with a GA MRI study to strengthen the evidence. More feedback forms should also be collected.

Overall, this audit provides compelling evidence to support the role for a permanent HPS role in MRI which could revolutionise paediatric imaging by reducing hospital admissions, wait times, healthcare costs as well as side effects from GA. This could be expanded across other paediatric imaging and medical procedures to ensure a more child-friendly and efficient healthcare system.