

“Preparing for medical imaging – There’s an app for that!”

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Background

Providing Medical Imaging services to paediatric patients presents a range of unique challenges to clinicians and families. Families often arrive with misconceptions, fears and confusion about what to expect. This can cause anxiety, distress and patient refusal, thereby leading to cancelled appointments and delays for families and clinicians. However, direct patient preparation can be limited by staff availability, funding, and the ability of families to attend preparatory sessions.

Methods

‘Okee in Medical Imaging’ was developed in collaboration between Educational Play Therapy, the Educational Resource Centre and Medical Imaging at The Royal Children’s Hospital and digital agency Conduct. This free app complements existing preparation services by providing information to families before they arrive to hospital. This makes their visit a positive experience, rather than a source of anxiety. The app also provides opportunities for patients to practise necessary skills for a range of imaging procedures, such as keeping still and holding their breath. Research has found that children engage with video games because they are strongly motivated to learn something new, develop mastery and are challenge driven. (Olson, 2010). These elements were crucial to the app development process.

Results

100 families (50 families who used the app prior to their imaging appointment; 50 families who did not use the app) were recruited into a research study to evaluate patient anxiety and compliance in medical imaging. Benefits of the app for the child and family include skill mastery and increased understanding of imaging procedures and expectations. Preliminary results also demonstrate decreased patient anxiety, increased patient compliance and shortened preparation time.

Discussion

By combining educative content with a game-based delivery method, this app facilitates the engagement and education of more families than is possible via direct staff-delivered preparation. The implications of the app for families, clinicians and health services will be discussed.