



# Supporting Children to Better Health

Within the NHS



Enhancing efficiency and improving patient experiences through a digital eSupport platform customised to your organisation.





A child in a blue patterned jacket is reaching up towards large, colorful, translucent bubbles. The bubbles are filled with various colors and patterns, creating a magical and playful atmosphere. The child's hands are visible, reaching towards the bubbles. The background is dark, making the bubbles and the child's jacket stand out.

## Our Mission

Little Journey aims to support all children to better health. We believe that, by providing engaging, interactive and age-appropriate content designed to psychologically prepare and support families throughout healthcare interactions, we can improve healthcare experiences and health outcomes for all.

Using a co-creation process, children are consulted at each step of the way, helping to steer design and ensure a truly patient-focused user experience.

We strive to provide an inclusive, accessible solution, accounting for variations in physical and cognitive needs.

We believe in the power of familiarisation and desensitization through immersive play to facilitate individual coping strategy development, reducing peri-procedural anxiety and improving healthcare experiences.



# The Problem

Peri-procedural anxiety is common, affecting 50-75% of children and 33% of adults <sup>(1)</sup>. It is the leading complaint before surgery <sup>(2)</sup> and leads to poor patient experiences, outcomes and organisational financial implications <sup>(3)</sup>.

Psychological preparation has been shown to be effective in reducing anxiety but is time consuming and costly <sup>(4)</sup>.

The COVID-19 pandemic has exacerbated these issues: reducing the ability to provide face-to-face preparation and increasing fear associated with hospitals.

Peri-procedural anxiety results in:

- **Poor patient experiences:**
  - Higher incidence of emergence delirium <sup>(5)</sup>
  - Negative behavioural changes - 50% of children undergoing elective surgery develop changes including bedwetting, nightmares and separation anxiety <sup>(3)</sup>
- **Reduced satisfaction with care**
  - Worse mental and physical health outcomes:
  - Increased reporting of post-operative pain <sup>(6)</sup>
  - on-going healthcare-induced anxiety <sup>(7)</sup>
- **Organisational cost implications:**
  - Increased use of sedative pre-medication <sup>(8)</sup>
  - Increased unplanned admissions
- **Service inefficiencies:**
  - Increased on-the-day cancellations

References:

1 Kain ZN, Mayes LC, O'Connor TZ, Cicchetti DV. Preoperative anxiety in children: predictors and outcomes. Arch Pediatr Adolesc Med 1996; 150: 1238-45. 2 Walker EM, Bell M, Cook TM, Grocott MP, Moonesinghe SR Patient reported outcome of adult perioperative anaesthesia in the UK: a cross-sectional observational study. Br J Anaesth 2016; 117: 758-66 3 Kain ZN, Mayes LC, Caldwell-Andrews AA, Karas DE, McClain BC. Preoperative anxiety, postoperative pain, and behavioral recovery in young children undergoing surgery. Pediatrics. 2006 Aug;118(2):651-8. doi: 10.1542/peds.2005-2920. PMID: 16882820. Reference 4: Meletti D et al. Psychological preparation reduces preoperative anxiety in children. Randomized and double-blind trial. Journal of Pediatrics 2019; 95:545-51 5 Kain ZN, Caldwell-Andrews AA, Maranets L, et al. Preoperative anxiety and emergence delirium and postoperative maladaptive behaviors. Anesth Analg. 2004;99(6):1648-1654. 6 Chiang YJ, Chan WC, Liam JL, Klainin-Yobas P, Wang W, He HG. Exploring influencing factors of postoperative pain in school-age children undergoing elective surgery. J Spec Pediatr Nurs. 2013;18(3):243-252. 7 Lerwick J. Psychosocial implications of pediatric surgical hospitalization. Semin Pediatr Surg 2013;22 8 Kim JE, Jo BY, Oh HM, Choi HS, Lee Y. High anxiety, young age and long waits increase the need for preoperative sedatives in children. J Int Med Res. 2012;40(4):1381-1389.



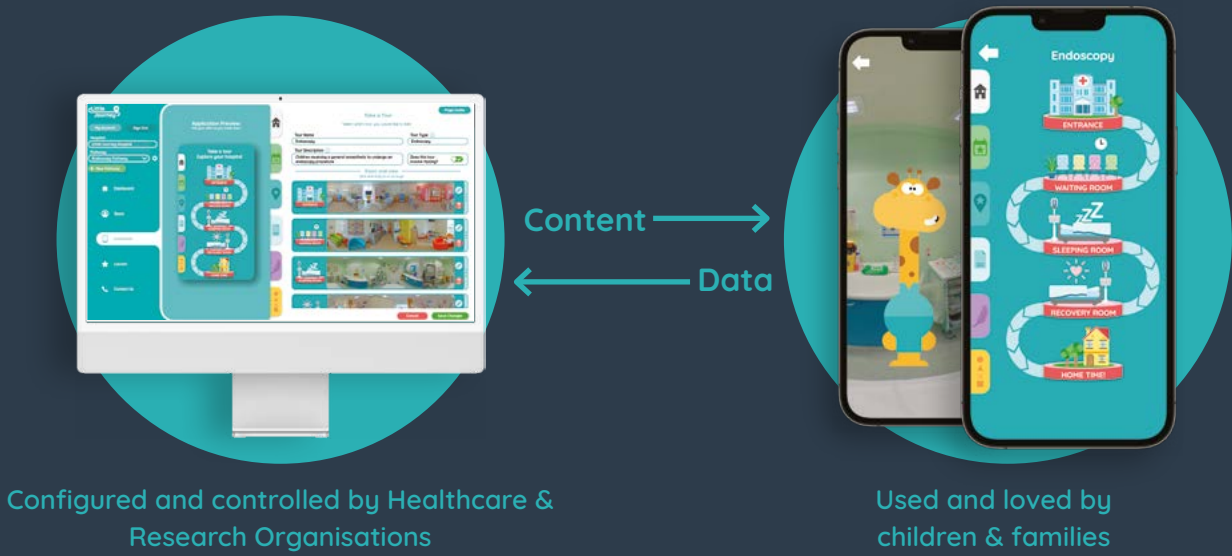
Our Solution

Little Journey is a digital eSupport platform that psychologically prepares, informs and supports children and families before, during and after healthcare procedures, all from the comfort and safety of their own home.

Designed to reduce healthcare-induced anxiety, the Little Journey platform has been co-created with children, families and healthcare staff to provide end-to-end support throughout each hospital journey.

The Little Journey smartphone app delivers interactive and engaging content tailored to a child’s age, procedure type and hospital.

An accompanying Little Journey web portal, accessed by healthcare staff, enables organisations to configure the app content, building virtual patient pathways and editing key information in near real time.



# An Award Winning Patient-facing App

The Little Journey smartphone app provides accessible, multi-faceted support for both child and caregiver.

With features to engage and support patients and their families through their medical journey, the Little Journey app addresses common challenges faced in medical procedures.

Tailored information is delivered at key time points along a patients journey, enhancing their comprehension and retention of understanding. Peri-procedural psychological preparation, including virtual tours and relaxation guides, aids the development of problem and emotion-focussed coping strategy formation, reducing anxiety and improving experiences.

## Languages, Localisation & Globalisation



Little Journey is currently available in 16 languages, including: English, French, Portuguese, Greek, Lithuanian, American, Spanish, Russian, Italian and Vietnamese; and features a diverse range of characters for you to select from.



## Tailored procedure preparation content for:

- Paediatric Surgery
- Paediatric COVID-19 Swab
- Paediatric Phlebotomy
- Paediatric Endoscopy
- Paediatric Clinical Trials

### Coming Soon:

- Paediatric MRI Scans
- Intensive Care
- Neonatal Intensive Care



## A Multi-award Winning Platform



## Security and Governance

At Little Journey, we place data security and protection at the heart of everything we do.



# A Configurable Web Portal for Hospital Staff

The Little Journey web-portal, accessed by hospital staff, enables teams to collaborate in configuring app content relevant to their organisation.

The Little Journey web portal enables staff to configure app content, ensuring that the information delivered to your patients is accurate, relevant and up to date. Data feedback allows the monitoring of patient experiences helping to drive service improvements.



# Key Portal Features

## Create a Team

Create online teams to enable effective collaboration with colleagues in managing the Little Journey platform.



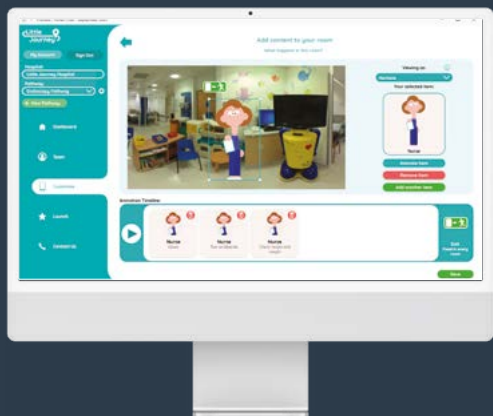
## Customise your Content

Easy configuration of app content to build virtual patient pathways reflecting your local protocols and policies.



## Configurable Animations

Customisation of animated tours using 360 degree images of your organisation to create virtual tours for your patients.



## Manage and Update Your Content

Update content and local pathways at anytime, with near real time updates to the smartphone app when launched.





# App Features

## For Patients & Families



# Preparation & Support

Our information modules prepare and empower caregivers in supporting their child during medial interactions.

Specific articles can be customised by site staff via the portal meaning information is tailored to hospitals.

Families can track upcoming appointments, reflect on previous interactions and request rescheduling of appointments via an interactive appointment scheduler module.

Age-tailored, interactive virtual tours explain what will happen and who families will meet during each hospital visit. These include 360 degree images of the actual rooms visited, uploaded by sites via the Little Journey portal.

## Key Features

- |   |  |   |
|---|--|---|
| <p><b>Prepare:</b></p> <ul style="list-style-type: none"> <li>• Customisable age tailored virtual tours</li> <li>• Therapeutic games</li> <li>• Snippet information articles</li> <li>• Fasting guidelines</li> <li>• Checklist</li> <li>• Coping guides</li> </ul> | <p><b>Distract:</b></p> <ul style="list-style-type: none"> <li>• Distraction games</li> <li>• Relaxation animations</li> <li>• Low sensory environments</li> </ul> | <p><b>Support:</b></p> <ul style="list-style-type: none"> <li>• Appointment scheduling</li> <li>• Hospital contact information</li> <li>• Nudges and reminders</li> </ul> |
|---|--|---|

## Key Benefits

- |   |  |   |
|---|--|---|
| <p><b>For Healthcare Providers</b></p> <ul style="list-style-type: none"> <li>• Reduction in on-the-day cancellations</li> <li>• Time saving for site staff</li> <li>• Leads to cost savings for local hospitals</li> <li>• Improves patient experiences</li> </ul> | <p><b>For Sites &amp; Staff</b></p> <ul style="list-style-type: none"> <li>• Reduction of on-the-day cancellations</li> <li>• Time saving for site staff</li> <li>• Patients are better prepared and informed</li> <li>• Ability to tailor care to individual patients and family needs</li> </ul> | <p><b>For Patients &amp; Families</b></p> <ul style="list-style-type: none"> <li>• Easily accessible information</li> <li>• Reduced procedural anxiety and stress</li> <li>• Distraction therapy provided whilst undergoing procedures</li> <li>• Helps to develop coping strategies</li> </ul> |
|---|--|---|



## Hospital Benefits

Configured to over 50 NHS trusts, plus several healthcare organisations worldwide, Little Journey use has proven benefits for healthcare organisations including:

- Organisational cost benefits - £3.50 and £6.00 cash/non-cash releasing savings for healthcare organisations and society respectively for every £1 invested.
- Reduced unplanned admissions
- Decreased on-the-day cancellations (42% reduction)
- Improved staff/resource utilisation
- Improved patient compliance with care (e.g. reduced pre-medication rates)

## Patient Benefits

With a 97% satisfaction rate from more than 450 app store reviews, Little Journey improves patient experience of care, satisfaction and health outcomes:

- Reduced anxiety - 32% reduction in anxiety!
- Decreased fasting times by 1 hour for liquids and 2 hours for solids before surgery
- Faster post-operative recovery time (1.74% QALY improvement from using Little Journey)
- Fewer missed days of school/work
- Development of positive health behaviours transitioning to adulthood



# NHS Value Impact Assessment

With the ever-increasing pressures placed upon health and social care systems, any new interventions need to improve outcomes, increase safety and/or provide better value.

To understand the value impact achieved through the use of the Little Journey app, a study was completed with five NHS hospitals in the UK to evaluate the return on investment and opportunity for wider roll-out.

In collaboration with:



**97%** Satisfaction score

From 71% of patients who downloaded the app

## The Impact



**30%**

Less time in the recovery room



**42%**

Reduction in on the day cancellations



**1-2 Hours**

Fasting time reduction



**22%**

Reduction in premedication use

## The Cost Benefit

**3.5x**



### Return on investment

Tangible benefit for hospitals (cash & non-cash releasing savings) of **£3.50 for every £1 invested** in Little Journey

**6x**



### Societal benefit

Further **£6.00 in society benefit for every £1 invested** in Little Journey

## Little Journey for Children with Autism and ADHD

In collaboration with:



An audit revealed 68.89% of patients on the waiting list for basic dental care under general anaesthetic (GA) have ASD, ADHD or profound dental anxiety. All children (with or without ASD/ADHD) attending a specialist children's hospital for dental treatment under GA in January 2020 were provided with the Little Journey application before and after their procedure.

## The Results

Improved anxiety levels by

**32%**

Parent reported child-anxiety levels reduced from an average of 7.5/10 to 4.3/10 after using Little Journey.





Feedback

Valued by healthcare professionals,  
loved by patients and families!

*We used the Little Journey app to help a 9 year old girl recently who was very anxious and has autism. Her previous procedures have been a real challenge due to this. After the patient downloaded and used the app, it was a much less stressful situation, simply due to the immersive distraction she experienced from playing with the app.*

Dr Alyson Walker  
Consultant Paediatric Anaesthetist

*“We think the app is a really good idea. We hadn’t really discussed the operation with Freddie yet as we weren’t quite sure what to say or how best to go about it, so the app really helps with that.*

Parents of Freddie,  
aged 5

*“Amazing app, helped to show my daughter what she would experience, took a little of the anxiety away. Very easy to use and very informative.*

iOS App Store Review

*The Little Journey innovations are outstanding and a perfect example of patient-centred healthcare design. Little Journey’s goal of improving children’s experience of hospital is of paramount importance to us at NHS England.*

Dr Jacqueline Cornish  
NHS England National Clinical Director for Children, Young People and Transition to Adulthood.



# The Future of Little Journey

Coming soon:

- In-app gathering of patient recorded experiences and outcomes enabling an easy method of data collection and analysis by healthcare organisations.
- Creation of a data-driven, fully personalised solution based on individual health behaviours to enhance the support provided and facilitate the development of behavioural modification interventions.
- Platform expansion to support additional procedures and age groups.



# Book a Demo

To arrange a platform demo please visit  
[www.littlejourney.health](http://www.littlejourney.health)







Download Little Journey for free  
and experience it for yourself.



Find out more at



[www.littlejourney.health](http://www.littlejourney.health)