

TOWARDS DEVELOPING A DIGITAL TOOL TO NAVIGATE THE PAEDIATRIC SPORTS THERAPY JOURNEY

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BACKGROUND

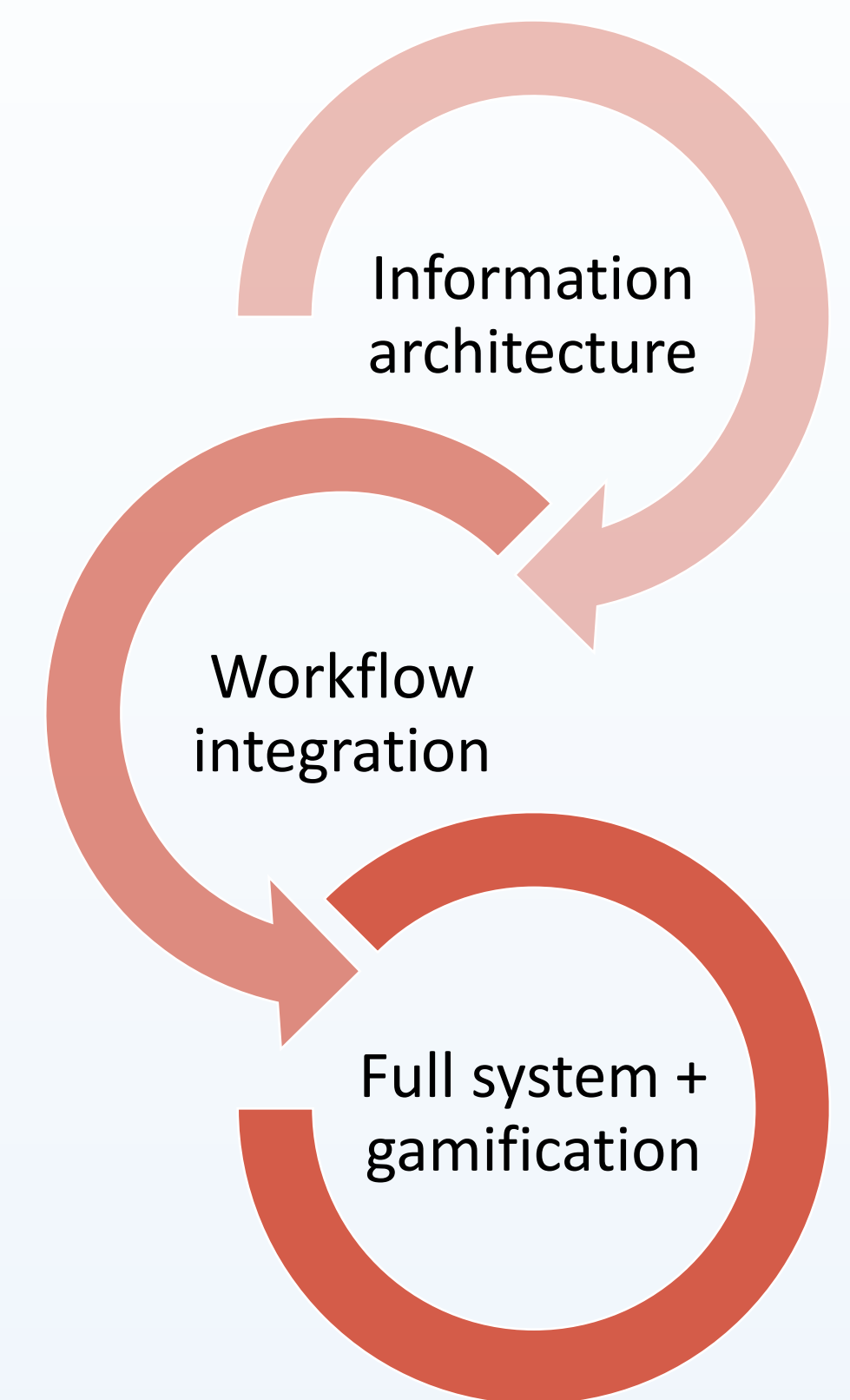
- **Sports therapy at Frankfurt University Hospital** is an integral part of supportive care in paediatric oncology
- **Resources for therapy and continuity of care are often limited** due to manual administrative processes
- **Mobile health apps** can support clinicians in **coordinating care** with caregivers and patients [1, 2]

AIM

Design a **user-centred mobile app mock-up** to **reduce administrative workload** throughout the therapy journey

METHOD

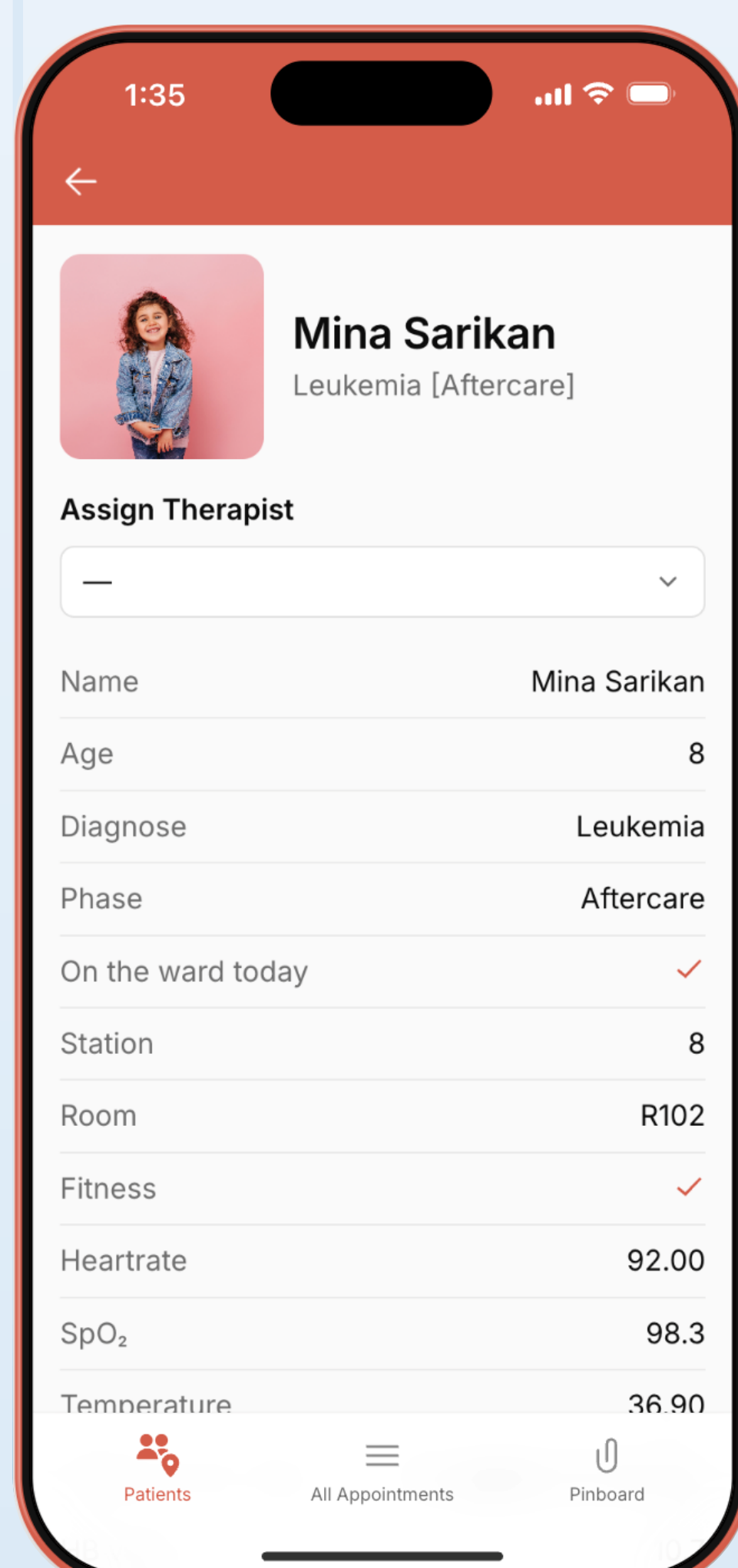
- **Functional requirement analysis** through field observation and interviews with sports therapists (n=3, consistent cohort)
- **Design Science Research** in 3 iterative cycles including
 - Tree testing
 - Think-aloud usability
 - Integrated usability
- **Usability metrics**
 - Success, time to complete, erroneous clicks, confidence



RESULTS

Mock-up features cover **administrative processes from therapist's perspective** in three domains

Patient management



Admission

- Patient dashboard
- Medical information
- Clearance for sports

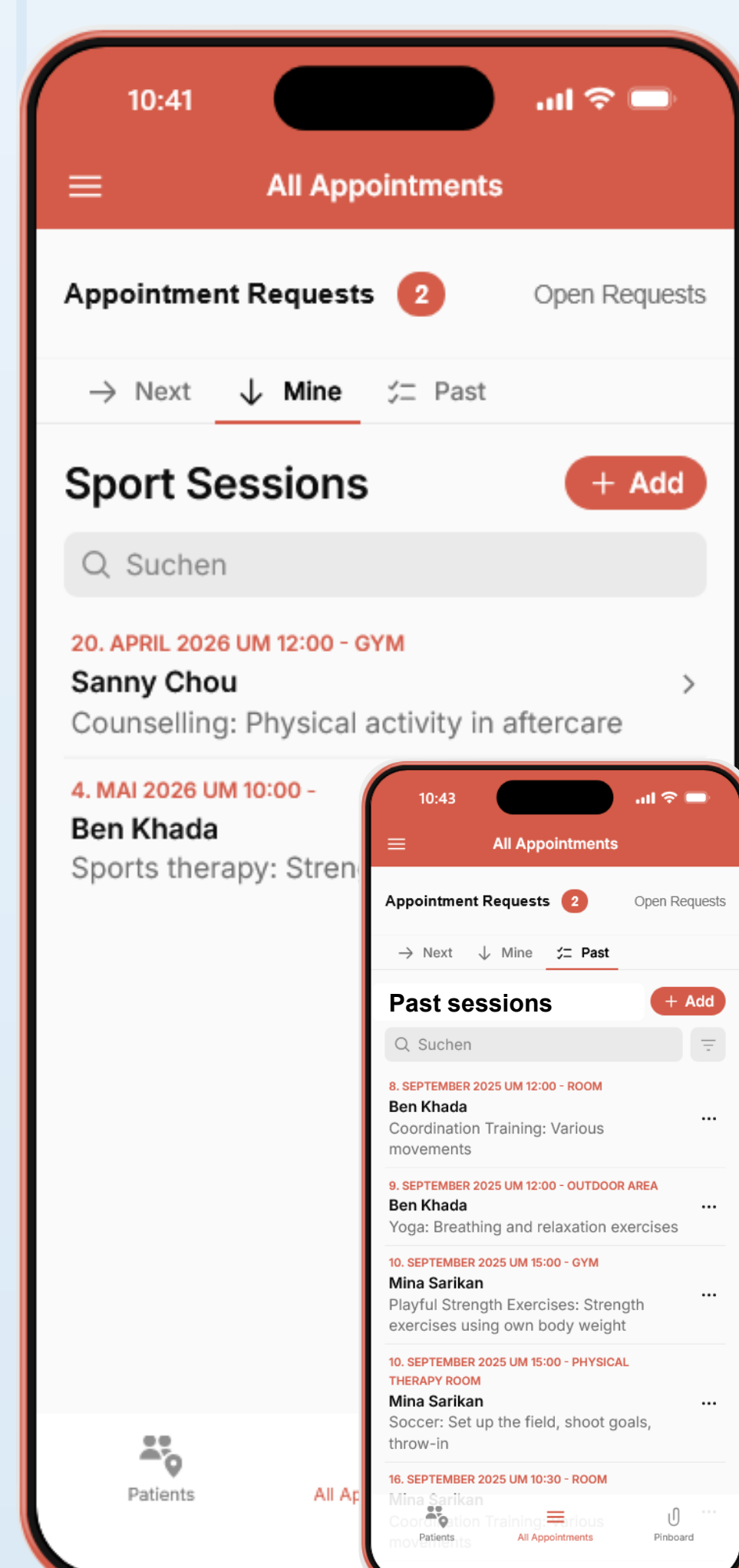
Assessment

- Physical capacity
- Limitations
- Sporting biography

Analysis

- Continuity of care

Therapy



Planning

- Daily schedule
- Team responsibility
- Patient availability

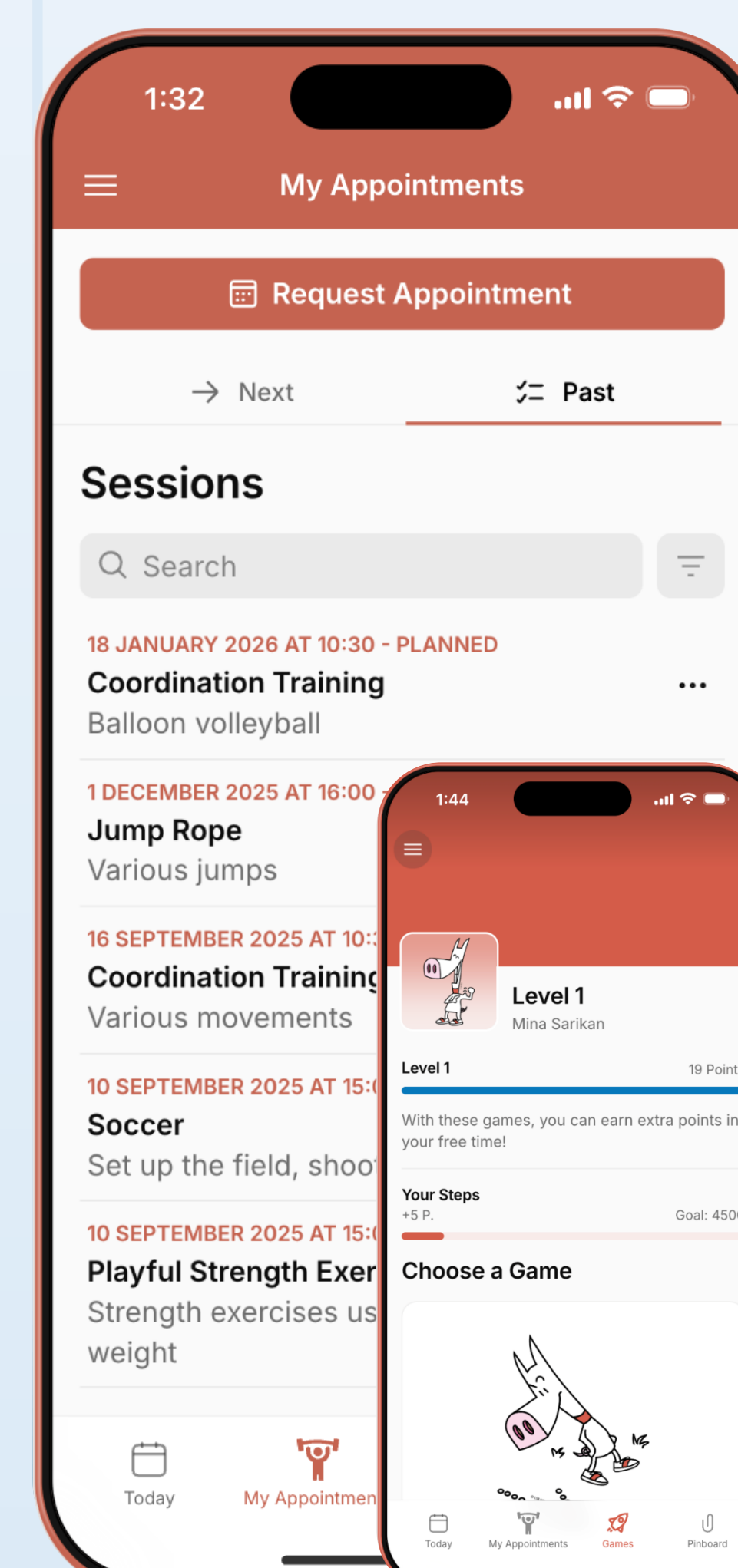
Documentation

- Participation
- Session details
- Adverse events

Overview

- Past therapy sessions

Communication



Appointments

- Individual requests
- Follow-up

Guidance

- Educational resources
- News feed

Gamification

- Level-up avatar system
- Interactive challenges

- Additional requirements involve role-based access control (therapist - patient / caregiver), notifications and rest mode, aggregated data for analysis, as well as a summary of pending tasks.

PROSPECT

- **Real-time information for therapy management *on the go*** is expected to
 - ↓ administrative burden, ↑ continuity of care, ↑ family engagement
- **Limitations:** No child testing, n=3 (single-centre workflow experience)
 - Not yet included are advance filtering, data export / sharing options, extended device compatibility.

EXPLORE
THE APP



REFERENCES

[1] Skeens MA, Jackson DI, Sutherland-Foggio MS, Sezgin E. mHealth Apps in the Digital Marketplace for Pediatric Patients With Cancer: Systematic Search and Analysis. *JMIR Pediatr Parent*. 2024 Oct; doi: 10.2196/58101.

[2] Ramsey WA, Heidelberg RE, Gilbert AM, Heneghan MB, Badawy SM, Alberts NM. eHealth and mHealth interventions in pediatric cancer: A systematic review of interventions across the cancer continuum. *Psychooncology*. 2020 Jan;29(1):17-37. doi: 10.1002/pon.5280.

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