Background Clinical practice guidelines play a key role in modern-day healthcare through guiding clinical decision making and standardising pathways¹. The new ways of working, implemented in response to COVID-19, have highlighted the requirement for clinical teams to access guidelines and resources when and where they undertake their work. The Paediatric Service developed a bespoke mhealth App that hosted clinical guidelines, clinical pathways and a contacts directory.

While there is a proliferation of medical-related Apps, the evidence suggests many are rarely used and are of questionable quality^{3,4}.

Objectives The project aimed to pilot a newly designed mhealth App among the paediatric staff in the Southern Health and Social Care Trust during the period of the COVID-19 pandemic to assess its quality and understand its impact on the new ways of working.

Methods

- An adapted Mobile App Rating Scale (MARS)⁵ rating tool was used.
- Quality was assessed using 12 subscales across the four domains of engagement, functionality, aesthetics and information.
- A 5-point Likert Scale was used with a rating from 1 denoting inadequate to 5 denoting excellent.
- Data was captured through an online web-based survey.
- Data was captured from a convenience sample of multidisciplinary paediatric staff in December 2020 – March 2021.

Results The assessment of the quality provided rich information on the user's experience of using the technology in their environment⁶ which was particularly useful in the context of COVID-19.

Table 1 outlines the mean App quality scores using the adapted MARS tool.

- The overall App quality mean rating was 4.141 (SD 0.27) - RATED GOOD
- The best-rated domain was functionality (4.171 (SD 0.372)), and the lesser rated domain was information (4.109 (SD 0.172)).

In response to the ongoing pandemic, it was also decided to explore the user's perceptions of how the App assisted in accessing clinical guidelines and supporting the new ways of working introduced as a result of COVID-19.

- 73% of users indicated the App was likely to increase their use of clinical guidelines.

Abstract 1150 Table 1 Overview of mean app quality scores

Domain	Quality Assessment Subscales	Description	Mean Rating Score (Standard Deviation)
Engagement	3 elements	Interesting, appropriately targeted	4.125 (SD 0.182)
Functionality	4 elements	Performance, usability, navigation, gestural design	4.171 (SD 0.372)
Aesthetics	2 elements	Layout, visual appeal	4.125 (SD 0.176)
Information	3 elements	Quality & quantity of information	4.109 (SD 0.172)

- 70% of users agreed that the mhealth App supported the new ways of working introduced in response to the COVID-19 pandemic.

Conclusions This project provided a valuable insight into users perception of quality which has informed the further refinement of the App as part of an ongoing PDSA cycle. All domains indicated a quality rating of acceptable and higher. There was a strong indication that the App supported the new ways of working and enhanced access to clinical guidelines and other relevant information.

A limitation of this project was its implementation during the acute strain on staff and services due to the COVID-19 pandemic, which may have contributed to the volume of quantitative research responses being smaller than anticipated.

References are available on request

Children's Cancer and Leukaemia Group

1151

A RETROSPECTIVE ANALYSIS OF FERTILITY DISCUSSIONS FOR ADOLESCENT AND YOUNG ADULT (AYA) AND PAEDIATRIC PATIENTS, THROUGHOUT AND FOLLOWING THEIR CANCER TREATMENT

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Background Increasing numbers of Paediatric and AYAs are surviving cancer which raises additional concerns about fertility preservation and its communication with this vulnerable age group. Since a regional review in 2016, fertility discussions and options have changed, with a particular focus within nurse led Late Effects clinics as well as acute settings of cancer's first presentations.

Objectives We undertook this study to understand how fertility in AYAs and Paediatric patients was communicated in different settings, what options were offered, and how different this was for AYAs currently undergoing treatment compared with those who had completed treatment.

Methods We reviewed the documentation of fertility discussions with 122 AYAs treated for cancer between 1990–2020; 72 AYAs and Paediatric patients on-treatment and 50 AYAs at least 3 years after treatment ('late effects' cohort).

Results Diagnoses were split evenly between haematological and solid tumour diagnoses, and between genders. 75% of cases were diagnosed in the AYA setting and 25% in a Paediatric setting, with median age at diagnosis 19 years (range 4–24) for on-treatment patients and 16 years (range 3–25) for late effects patients. Fertility was discussed pre-treatment with 93% of the on-treatment patient cohort and 48% of the late effects cohort. 78% of the on-treatment cohort took up an option for fertility preservation pre-treatment. Post-treatment, 84% of late effects patients had a discussion, and 57% took up an option offered. Only 4 patients across both cohorts underwent oocyte/ovarian tissue cryopreservation. Those referred to specialist Reproductive Medicine clinics received more options for future fertility care. Inpatients (ward setting) at diagnosis had more discussions about fertility than outpatients (clinic setting). Patients diagnosed in a paediatric setting were less

likely to discuss fertility, but later had discussions in the Late Effects service.

Conclusions Oncofertility options are important to convey to AYAs. Communication about fertility should occur repeatedly both before, during and after treatment. Referral to specialist oncofertility services and adequate information for both genders is important pre-treatment, and can be facilitated post-treatment by a Late Effects service.

British Association of Child and Adolescent Public Health

1152

PARENTAL PERCEPTIONS REGARDING THE IMPACT OF HOUSING ON HEALTH

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Background Child poverty rates are increasing in Ireland (24%) and the UK (30%), with children having the highest poverty risk of all ages in Ireland. From 2014–2021 a 211% increase in child homelessness was reported in Ireland, with children accounting for 28% of homeless people in March 2021. Childhood poverty is linked with prematurity, low birth weight, physical and mental ill-health, under-employment, and deprivation.

Objectives To assess parental perception of the impact their housing situation, in particular homelessness, had on their child, and to explore the use of primary and emergency healthcare services.

Methods We performed a cross-sectional survey in a tertiary paediatric emergency department in Dublin, Ireland. A questionnaire was distributed to parents in triage, who were invited to complete it.

Results From 01/11/2020–08/01/2021, 312 questionnaires were completed, with homeless parents (n=14) accounting for 4.5%.

Compared to non-homeless, homeless parents were less likely to be Irish (White Irish: 30.8% vs 78.9%; Irish traveller: 15.4% vs 2%; Black: 23.1% vs 4.1%; Asian: 7.7% vs 4.8%; other White: 0% vs 7.5%; $p<0.001$).

Homeless children had higher median GP attendances in the past 6 months (2 vs 1, $p=0.033$). Compared to non-homeless, homeless parents were more likely to report their housing situation impacted their ability to keep a GP (23.1% vs 1.5%, $p=0.002$), scheduling difficulties as reasons for incomplete vaccination (15.4% vs 1.8%, $p=0.031$), and less likely to be completely vaccinated (71.4% vs 92.4%, $p=0.024$).

Median homelessness duration was 13 months (IQR: 3.8–27), comprising emergency accommodation (85.7%), direct provision (7.1%), and staying with friends (7.1%). Non-homeless living situations comprised home-owners: 50%; renting: 29.9%; government housing: 8.7%; friends: 10.7%; mobile home: 0.7%.

Compared to non-homeless, homeless parents were more likely to report feeling unsafe at home (35.7% vs 3.4%, $p<0.001$), and concern regarding losing their home (46.2% vs 8.3%, $p<0.001$). They were less likely to have cooking

facilities (85.7% vs 98.6%, $p=0.027$), indoor play facilities (35.7% vs 94.4%, $p<0.001$), or outdoor play facilities (42.9% vs 90%, $p<0.001$). 28.6% of parents did not have landlord permission to fit safety equipment, with no differences between homeless and non-homeless parents.

Compared to non-homeless, homeless parents felt their housing situation negatively impacted their child's play (64.3% vs 17.5%, $p<0.001$), social development (71.4% vs 14.1%, $p<0.001$), education (58.3% vs 10.7%, $p<0.001$), physical health (45.5% vs 11.7, $p=0.007$), and mental health (61.5% vs 12.6%, $p<0.001$).

There were no differences in terms of age, medical history, self referrals, presenting complaints, ED attendances, and self-perceived healthcare access.

Conclusions Irish travellers and non-Irish ethnicities were over-represented in homeless parents, consistent with national data.

Compared to non-homeless, homeless parents were more likely to report over-crowding, feeling unsafe at home, and that their living situation impacted their ability to keep at GP. They were less likely to have cooking or safe play facilities, and their children were less likely to be fully vaccinated. They also felt their housing situation negatively impacted their child's play, social development, education, physical, and mental health.

Our study demonstrates the impact of homelessness on all aspects of childhood.

British Society for the History of Paediatrics and Child Health (ePoster presentations only)

1153

RICKETS: 100 YEARS ON FROM MELLANBY'S 'ACCESSORY FACTOR'

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Background This year marks the 100-year anniversary since Sir Edward Mellanby published 'Experimental Rickets', a culmination of 5 years of work investigating the cause of rickets. Preceded by largely qualitative work on the subject, Mellanby was adamant that '*all dietetics problems must ultimately submit to quantitative experiment*'. Mellanby identified that certain fats, in particular cod liver oil, had potent antirachitic properties and concluded '*there seems no longer any doubt that they contain some of the fat-soluble accessory food factor*'. He suggested, in children, the most common cause of rickets was '*a combination of relatively deficient anti-rachitic vitamin and excessive bread*' consequent to austerity during the first world war. McCollum et al supported this the following year, 1922, naming this 'factor' Vitamin D. Mellanby's remarkable and methodical work laid the foundations for a better understanding of rickets and popularised the use of cod liver supplements in subsequent generations of children.

Objectives To explore the historical development of our understanding and treatment of rickets, and the implications of these for current and future practice.

Methods Literature review.

Results In 1922, Harriette Chick of the British medical research council undertook trials involving children at the Vienna Kinderklinik, a paediatric clinic in a region particularly affected by rickets. Here she was able to demonstrate that