60 parents from a NICU, postnatal ward and PICU were approached once through child's stay on the unit.

91 HCPs (including consultants, trainees, fellows, nursing and allied health professionals) participated in an online survey in a PICU distributed by closed group network of emails.

Results Results of the survey:

NICU parents (n=30):

Babies' length of stay (median)(days)	70(1–126)
HCPs' who introduced themselves	29/30(96%)
HCPs' who asked parents how they'd like to be addressed	15/30(50%)
Parents' perspective on how they'd like to be addressed as:	'Mum/Dad'
20/30(66%)	'By their name':
None	It didn't matter':
18/30(60%)	
PICU parents (n=30):	
Child's length of stay (median)(days)	30(3–260)
HCPs' who introduced themselves	30/30(100%)
HCPs' who asked parents how they'd like to be addressed	25/30(83%)
Parents' perspective on how they'd like to be addressed	'Mum/Dad':
20/30(66%)	'By their name': 10/30(33%)
	'It didn't matter': 25/30(83%)

HCPs' survey (n=91):

How did you address parents?

(Option of more than one answer selection) 'Mum/Dad':

54/91(59%)	'By their name': 52/90(57%)	'Ask parents': 37/91(40%)
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Some parents on NICU preferred to be called 'mum' or 'dad'. A parent felt that, 'between all the stress and constant worry, it was a reminder that they are still parents'.

A foster carer appreciated use of 'mum/dad' for herself and her husband, as they felt that the staff were acknowledging that 'we see ourselves as mummy and daddy rather than simply carers'.

When the HCPs were asked about barriers they faced in addressing parents by their names, they were worried that they would 'forget their names' or 'get their name wrong'.

Conclusions It is surprising that parents often would like to be called Mum or Dad. Many also do not mind how they are addressed. However, some prefer to be called by their name especially in PICU.

HCPs are often unsure what would be the correct way to address parents and worry about remembering their names.

This study shows the importance of not making assumptions and ask parents how they would like to be addressed.

HCPs may be helped by reminders such as cot cards or badges. However, it may also be polite to admit you do not remember a parent's name and ask them again.

Whilst communicating to parents, it's important to remember 'The person behind a parent'.

REFERENCE

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International Child Health Group

1526

USABILITY FOCUSED DEVELOPMENT OF THE NEOTREE-BETA-APP FOR NEWBORN CARE IN A LOW RESOURCE NEONATAL UNIT, MALAWI

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Background Usability is the quality of a user's experience when interacting with an intervention, encompassing the effectiveness, efficiency and overall satisfaction of the user. It is crucial for user engagement and therefore success of digital health interventions. Agile, user-centred approaches are being applied more commonly to the development of healthcare apps but have scarcely been applied to developing digital health interventions for neonatal healthcare professionals (HCPs) in low-resourced hospitals, where usability may be particularly important.

Objectives To evaluate usability and usage of NeoTree, an app for Neonatal HCPs; and to conduct usability-focused development of the NeoTree user interface in a Malawian neonatal unit.

Methods Usability of the NeoTree app was evaluated using think-aloud usability sessions, System Usability Scores (SUS) and iterative feedback during six months of ward use. Usability sessions involved guiding end-users through the app while encouraging them to voice their thoughts aloud. Feedback notes by a facilitator were analysed within an agile 'product backlog', where they were converted into user-stories, grouped into larger 'Epics', and subjected to thematic analysis. Iterative feedback notes were similarly analysed in the same backlog. Resulting adjustments were made to the app either by the researcher via a bespoke web-editor platform (without requiring coding expertise) or coded by developers where necessary. For usage, the number and cadre of HCPs using the app, the proportion of admissions/outcomes captured digitally (*coverage*) and median time taken to complete forms (*completion time*) were calculated.

Results Six neonatal HCPs attended usability sessions in which 20 themes, under 12 overarching themes, generated 57 app adjustments (stories). Forty-three stories (75%) were executed via the web-editor with only 14 (25%) requiring coding by the developers. Themes relating to usability as an electronic medical record included *exhaustiveness of data schema*, *prevention of errors to support data integrity*, *ease of progression through the app*, *efficiency of data entry using shortcuts*, *navigation of user interface* and *relevancy of content*. Themes relating to usability as a clinical decision support system included, *confidentiality of identifiable information*, *cohesion with ward process*, *embedded education and decision support*, *locally coherent language*, *adaptability of user-interface to resource availability* and *printout design to facilitate handover*. Eight HCPs completed SUS. Mean SUS was above average at 88.1 and 89.4. After suggested features were implemented in the app, it was used by 93 different HCPs to record 1323 admissions and 1197 outcomes, over a six-month period.

Coverage slightly exceeded usual paper-based data collection, with NeoTree capturing 25 more admissions and 17 more outcomes than the ward clerk. Median completion times were 16 and 8 minutes for an admission and outcome respectively.

Conclusions This study demonstrates how a digital health app can be optimised according to think-aloud usability insights to produce a highly usable intervention that is ultimately used and taken up by newborn HCPs in a low-resource neonatal unit. This study spearheads translational approaches to digital health intervention development by combining agile, user-centred design with traditional qualitative methods to expedite timely and pragmatic development of NeoTree. These findings could inform optimisation and successful uptake of similar apps in other low-resource settings.

British Paediatric Neurology Association

1527

NEUROCOGNITIVE ASSESSMENT FOR CHILDREN WITH IDIOPATHIC EPILEPSY

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Background The effects of epilepsy are felt in physical, mental health, cognitive function and educational achievements. With the improvement in diagnostic and therapeutic modalities, we can expect a better quality of life.

Objectives assess the effect of different anti epileptic drugs on the neurocognitive functions of the children with idiopathic epilepsy.

Methods Case-control study, where thirty children diagnosed with genetic epilepsy were recruited from paediatric neurology clinic, Ain Shams University compared to 30 children included in the control group who were recruited from the outpatient clinic with the same age and sex as cases.

All included children were subjected to the following:

History taking including (Onset, course, seizures' type, (GTCs,absence,focal),treatment duration, and antiepileptic drug used. Developmental, diet and medication history. History of major illnesses and Familial similar condition. General, neurological examination and Neurocognitive assessment by using Wechsler Intelligence Scales, Wisconsin card sorting test the computerized version, and Continuous Performance Test.

Results *Results:* In the present study we have evaluated 30 patients with genetic epilepsy who were regularly attending the Pediatric neurology clinic, Ain Shams University, with male to female ratio 1:2 in whom 63% were using levetiracetam, while 33% were using valproate 20% were using carbamazepine, 6% using lamotrigine and 23% using poly therapy. They were compared to 30 healthy individuals of same age and sex groups who served as the control group. Fifty-six% of patients had generalized tonic-clonic seizures, 34% had absence seizures and 10% had focal seizures. The mean age of the studied patients was 10.72 years and the mean duration of treatment was 2.6 years.

Regarding Wechsler Intelligence Scales, results showed that 26.7% of cases were very low mental function as regards total IQ, 30% low average, while 43% were average total IQ compared to 60% of controls were average total IQ while 26.7% were high average and 13.3% were very high. In our study, patient group had significantly lower full-scale, performance, and verbal IQs compared with the control group. The verbal

IQ were higher in patients using monotherapy than those using poly therapy, levetiracetam has the highest Wechsler intelligence scale profile compared to those using valproate or poly therapy. In Wisconsin card sorting test, patients performed poorly compared to controls, patients using monotherapy had better scores than those on poly therapy, patients using LEV had a better score than patients using other medications, there was no significant difference between patients with generalized tonic-clonic seizures and those with absence seizures. *Regarding* Continuous performance test: it was found that controls have a better score than patients with idiopathic epilepsy, there was a significant difference between patients with GTCs and those having absence seizures regarding total omission and average delay, there was a negative moderate correlation between duration of treatment and digits span and there was a negative moderate correlation between the dose of LEV and picture completion.

Conclusions Children with idiopathic epilepsy are more vulnerable to cognitive deficits than healthy children. The longer the duration of therapy and the use of more than one anti-epileptic medication, the more cognitive deficit observed in these patients.

Association of Paediatric Emergency Medicine

1528

PAEDIATRIC EMERGENCY DEPARTMENT ATTENDANCES DURING THE FIRST WAVE OF THE COVID-19 PANDEMIC – PATTERNS OF CONDITIONS, DEMOGRAPHICS AND ETHNICITIES

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Background The first wave of the coronavirus pandemic in the United Kingdom began in March 2020 and resulted in the closure of schools and non-essential services as mandated by the government. During this period a notable reduction in the number of children attending the Paediatric Emergency Department (PED) was witnessed. At this time information that Black, Asian and Minority Ethnic (BAME) patients were having worse outcomes from COVID-19 was becoming apparent. This raised questions about which groups of patients were not utilising the emergency services despite being acutely unwell and how we can better support these patients.

Objectives The primary objective was to identify the specialty-specific case mix of emergency paediatric presentations during the first wave of the COVID-19 pandemic in comparison to the same time period in the preceding year. A secondary aim was to understand if COVID-19 had an impact on the proportion of BAME patients attending the PED.

Methods We retrospectively collected data on PED attendances at a busy district general hospital in two time periods; March to May 2020, and March to May 2019. Information on patients' age, gender, ethnicity, diagnosis (categorised by specialty) and the outcome of their attendance were collected for all children aged 0–16 within each time period.