Abstract 234 Table 1

Capability	Opportunity	Motivation
<p><i>Psychological</i></p> <ul style="list-style-type: none"> • Parent <ul style="list-style-type: none"> ○ Cognitive Function ○ Education Level <p><i>Physical</i></p> <ul style="list-style-type: none"> • Child <ul style="list-style-type: none"> ○ Drug Ingestion ○ Parent ○ Forgetfulness 	<p><i>Social</i></p> <ul style="list-style-type: none"> • Parent <ul style="list-style-type: none"> ○ Stigma ○ Religious/cultural beliefs ○ Income <p><i>Physical</i></p> <ul style="list-style-type: none"> • Both <ul style="list-style-type: none"> ○ Interrupted access to health care facilities ○ Inconsistent doctor-patient relationship ○ Cost of medication 	<p><i>Reflective</i></p> <ul style="list-style-type: none"> • Parent <ul style="list-style-type: none"> ○ Negative Attitudes ○ Treatment Concerns ○ Alternative Therapies ○ Outcome Expectations <p><i>Automatic</i></p> <ul style="list-style-type: none"> • Both <ul style="list-style-type: none"> ○ Fear and Anxiety

Conclusions This study's main application lies in formulating interventions related to acknowledging misconceptions and stigmas related to Epilepsy and improving health-care systems by creating a team-based approach to patient care in meeting the required demands. These interventions may also be linked to devise applicable policies to impact reforming target behavior significantly.

235 GENOTYPE/PHENOTYPE CORRELATIONS IN 125 CHINESE PATIENTS WITH TUBEROUS SCLEROSIS: A 29 YEARS' EXPERIENCE IN HONG KONG

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Background Tuberous Sclerosis Complex (TSC) is a multisystemic neurocutaneous disorder of autosomal dominant inheritance, with characteristic presentation of benign hamartomatous lesions across the brain, kidney, heart, eyes, skin and lungs.

Objectives To study the mutation spectrum and phenotypic characteristics of TSC patients in the Chinese population, as well as to delineate the underlying genotype-phenotype correlations and compare with previous studies.

Methods 120 patients suspected of TSC were referred to the Clinical Genetic Service (CGS), Department of Health, HKSAR for evaluation between 9/1991 and 8/2020. Blood samples from 105 patients presented with ≥ 1 major/ ≥ 2 minor diagnostic features according to the latest diagnostic criteria [1,2] are taken. Comprehensive genetic testing including sequencing and Multi-ligand probe-dependent Amplification (MLPA) was performed. Family screening was performed on molecularly confirmed cases. In total, 133 patients had a definite diagnosis, in which the 125 Chinese patients are included into the study. Statistical analyses (Pearson χ^2 tests, Fisher exact test and ANOVA) are performed using SPSS version 26.0.

Results Pathogenic genetic alternations are identified in 72.0% patients (90/125), in which 26.4% (33/125) have TSC1 and 45.6% (57/125) have TSC2 mutations. 28 novel mutations are reported while familial cases account for 23.2% (29/125). Males have significantly more subependymal nodules (47/55 vs 34/50; $p=0.033$) than females, whereas de novo cases have more cortical tubers (69/82 vs 14/24; $p=0.007$) and renal angiomyolipoma (44/85 vs 3/21; $p=0.002$) than familial cases.

TSC2 cases have more frequent mental retardation (29/42 vs 4/25; $p<0.001$), cardiac rhabdomyoma (21/45 vs 3/25; $p=0.003$), renal angiomyolipoma (24/49 vs 5/27; $p=0.009$) and facial angiofibromas (37/50 vs 16/31; $p=0.039$) than TSC1, while mutation-negative cases show less subependymal nodules (14/23 vs 65/77; $p=0.015$) than mutation-positive cases. Similarly, TSC2 cases show higher occurrence of subependymal nodules (44/50 vs 14/23; $p=0.012$) than mutation-negative cases though mutation-negative patients have more frequent mental retardation (10/21 vs 4/25; $p=0.020$), autism spectrum disorder (4/18 vs 0/23; $p=0.030$) and renal angiomyolipoma (12/23 vs 5/27; $p=0.012$) than TSC1 cases. There are no significant phenotypic differences between patients with missense and protein-truncating mutations in TSC2, while TSC2 missense mutations are associated with more mental retardation (17/21 vs 4/23; $p<0.001$), cardiac rhabdomyoma (11/21 vs 2/24; $p=0.001$), renal angiomyolipoma (13/23 vs 4/24; $p=0.004$) and renal cysts (6/23 vs 1/24; $p=0.048$) than those with TSC1 protein-truncating mutations. Mutations in the coiled-coil region (TSC1) are significantly associated with nail abnormalities. All 14 antenatal-onset patients have cardiac rhabdomyoma. Meanwhile, they have less seizures (6/11 vs 55/64; $p=0.027$) than paediatric-onset cases but have higher frequencies of mental retardation (5/11 vs 0/11; $p=0.035$) than adult-onset patients. Generally, paediatric-onset patients have more neurological manifestations, while initial presentations of adult-onset TSC are more diverse. The predictive yield of antenatal cardiac rhabdomyoma on TSC is 63.6%.

Conclusions The overall phenotypic spectrum and genotype-phenotype correlations in our Chinese cohort are compatible with literature. 28 novel mutations have been reported in this study.

236 A SURVEY OF PARENTAL KNOWLEDGE, ATTITUDE AND PRACTICE OF USING CHILD CAR SEAT RESTRAINTS IN SINGAPORE, WITH A SYSTEMATIC REVIEW

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Background Motor vehicle accidents are associated with significant mortality and morbidity in adults and children. The annual number of accidents with injury in Singapore remained at over 7600 for the past 5 years. Child car restraints prevent

death and lower the severity of injuries sustained in road traffic accidents.

Objectives The main objective of our study was to explore the knowledge, attitude and practice of parents of newborn babies regarding infant or child car restraints during their homeward trip from the hospital. The secondary aim was to evaluate the reasons behind non-compliance to infant and child car restraints amongst those who intended to travel home in a motor vehicle, and compare our findings with a systematic review of child car seat restraints.

Methods A 22-item self-administered questionnaire was completed by a convenience sampling of 200 parents of babies about to be discharged from a well-baby nursery in Singapore during the 4-month study period. Parents of babies who were admitted to the Neonatal Intensive Care Unit, transferred to other hospitals or passed on, along with unwell mothers, were excluded.

Results Out of 200 parents, 98.5% intended to bring their newborn baby home by a motor vehicle. Parental knowledge of the local legislation on child car restraints was generally high (74%), with the majority aware of the correct location (93.5%) and orientation inside the vehicle (72%). Although 106 parents were already in possession of a child car restraint, only 81 (76%) intended to use it for the homeward journey. The remaining chose not to because of a personal belief, misperception of risk and/or logistical difficulty. Ownership and usage of child car restraints was positively correlated with household income.

Conclusions The surveyed parents generally had a high level of knowledge regarding child car restraints. However, the misperception of need which led to inconsistent practice was worrying. A multi-faceted approach, including parental education and regulatory requirements, are important to increase compliance to child and infant car seat restraints in Singapore.

238 KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS BREASTFEEDING AMONGST PAEDIATRIC HEALTHCARE PROFESSIONALS

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Background The World Health Organisation recommends exclusive breastfeeding of infants for six months when complementary feeds are introduced whilst continuing breastfeeding for up to two years of age and beyond. Ongoing predictable support to breastfeeding mothers is essential to improve breastfeeding rates and paediatric hospital doctors and nurses have an opportunity to provide this support when breastfed infants are admitted to their wards.

Objectives This study aimed to assess the breastfeeding knowledge, attitudes, and practices amongst paediatric healthcare professionals in a large teaching hospital in the UK.

Methods We conducted a qualitative study through a self-administered online questionnaire. Participants were doctors, nurses, nursery nurses and student nurses working in the paediatric department at the time of the study. There were 32 respondents, 14 of these were doctors.

Results

- Emergent themes were identified and analysed across all interviews. Five themes emerged: Breastfeeding knowledge

and training, the influence of paediatric work experience, practitioner attitude towards breastfeeding, role in breastfeeding and practice in supporting breastfeeding.

- Almost all the participants had good levels of breastfeeding knowledge though only 50% of doctors had received formal breastfeeding training and were relying on personal experience whilst 70% of nurses had received training.
- All participants had a positive attitude towards breastfeeding with nurses mostly indicating comfort in the role of supporting mothers. A significant proportion of doctors indicated a lack of conviction in their ability to support breastfeeding mothers.
- Inconsistent advice would be offered to mothers about bottle feeding by different practitioners.

Conclusions 7 out of 14 doctors had no breastfeeding training and doctors were found to be less confident in the role of supporting breastfeeding mothers. There was good knowledge base amongst all the healthcare professionals however the actual practice of advice offered in supporting mothers was inconsistent amongst practitioners.

We hope that the results of this study will encourage formal breastfeeding education to be offered for all health care professionals working in paediatrics and the development of departmental breastfeeding policies to enable consistency whilst improving the care offered to patients and their families.

239 TRIAL PROFILE: COMMUNITY ENABLED READINESS FOR FIRST 1000-DAYS LEARNING ECOSYSTEM (CRADLE)

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Background The first 1000 days presents a unique opportunity to enhance a child's ability to grow, learn and thrive which will have a long term impact in a child's future.

Objectives The Community enabled ReAdiness for first 1000-Days Learning Ecosystem (CRADLE) is a trial designed to develop a self-learning eco-community from pregnancy to early-childhood to promote parenting self-efficacy (PSE) and improve health outcomes for first-time families. Here, we describe the trial protocol and provide updates thus far.

Methods CRADLE is a parallel, three-arm randomised controlled trial which targets to recruit 750 pregnant women from KK Women's and Children's Hospital (KKH), Singapore. Participants are randomly assigned to receive: (1) standard routine care; (2) behavioural nudges and engagement via a social media platform; or (3) midwife-led continuity care involving direct individual engagement with midwives throughout pregnancy, to 6-month post-delivery.

We hypothesize that the use of virtual targeted nudging tool in the form of text messages along with social media (arm 2), or face-to-face care from midwives supplemented with individualised teleconferencing sessions (arm 3) in the first 1000 days will lead to a better maternal PSE and health outcomes in both mother-child, compared with those who are receiving standard routine care (arm 1).

The primary outcome is PSE, while the secondary outcomes include birth experience, mental wellness, feeding practice and nutritional status of mother-child. Participants are followed-up