Paediatric Educators' Special Interest Group

588 SUPPORTING TRANSITION TO LEADERSHIP WITHIN A VIRTUAL LEARNING ENVIRONMENT

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Background The Covid-19 pandemic has resulted in unprecedented changes to the delivery of postgraduate education, mandating the swift transformation of training to the virtual learning environment.

Objectives This study examines the conversion of a well-established regional deanery-led Paediatric Transition to Leadership Course, aimed at senior house officers (SHO) approaching registrar level, into a national freely available online course.

Methods This three-day face-to-face course traditionally comprised lectures, small-group work and individual reflection, addressing leadership and management competencies. In Spring 2020 it was rapidly restructured: lecture recordings and handouts were produced for dissemination via a shared Trello board, alongside an online handbook summarising life as a new registrar and topical updates, providing flexible access. Several half-day 'Putting Leadership into Practice' (PLiP) interactive Zoom workshops were facilitated, and a half-day live webinar was held, tackling situational awareness, conflict resolution and accountability.

Results Online material was accessed by 192 learners, of whom 68% had received no specific transition training, though 93% conceded this should be mandatory, 50 attended PLiP sessions and 35 joined the webinar. Of 75 post-course evaluations >98% found the course useful. Candidates also ranked perceived competence in various domains on a 4-

point Likert scale: across 60 complete data sets, seven of eight leadership and management domains demonstrated significant increases (table 1). Interestingly, changes in control domains were not statistically significant, highlighting the courses' predominant impact on non-technical skills. Specific accolades included feeling more confident, learning from colleagues and alleviating common fears. The virtual environment engaged almost five times the audience of the previous year, and included 50% out-of-deanery candidates, keen to replicate the course locally. Nevertheless, 53% would still prefer a face-to-face event with a supportive peer-network, an element we must strive to maintain even in the virtual setting. Participant feedback has enabled ongoing adaption of the course to address learner needs, including a consultant-delivered session exploring their expectations of a new registrar.

Conclusions Our newly curated virtual Transition to Leadership Course clearly provides SHOs with appreciable gains in core leadership and management attributes, as effectively as previous face-to-face courses, but with the ability to reach a much wider audience. Future courses must employ a blended-learning programme, creating easily accessible user-friendly online resources, alongside opportunities for peer discussion and networking, to deliver the best of both pre- and post-Covid-19 education models.

British Association of General Paediatrics

589 IS THERE AN ASSOCIATION BETWEEN MILD TRAUMATIC BRAIN INJURY AND SUBSEQUENT BEHAVIOURAL AND/OR PSYCHOLOGICAL PROBLEMS IN CHILDREN UNDER 18 YEARS OF AGE?

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Background The incidence of paediatric mild traumatic brain injuries (mTBIs) diagnosed have increased exponentially within the past decade. Approximately 1.4 million people attend the emergency department (ED) due to mild head injury, within which 33–55% are children under 15 years. Once treated, the general practice is to acknowledge the emergence of medical post-concussive symptoms such as nausea or dizziness. Contrastingly, less so recognised are the behavioural changes that may arise, mainly due to lack of awareness regarding the myriad of possible outcomes. Thus, greater research regarding the association of behavioural and psychological changes following an mTBI are imperative to ensure follow-up after head injury is being conducted so holistic management can be achieved.

Objectives To conduct a literature review and investigate whether psychological or behavioural changes occur within children under 18 years proceeding mild traumatic brain injury.

Methods Six electronic databases searched for studies within the past 30 years for this literature review. Studies needed to meet the following criteria in order for selection: primary research studies, population age <18 years for both with mTBI and the control group (healthy children or those admitted for orthopaedic injury), 'mild' traumatic brain injury (loss of consciousness for <30 minutes and GCS 13–15) and

Abstract 588 Table 1 Comparison of candidates' perceived competence ratings in various skills domains

Rated Domain	Mean Competency Rating (1–5)			
	Pre-Course	Post Course	Mean Difference	P value
Knowing when to call my Consultant	2.98	3.22	0.23	0.050
Leading during a resuscitation	2.62	2.88	0.27	0.027
Managing conflict	2.57	2.78	0.22	0.046
Managing cases with safeguarding concerns	2.67	2.90	0.23	0.049
Difficulties regarding consent	2.37	2.80	0.43	<0.001
Managing when a child dies on the ward	2.07	2.70	0.63	<0.001
Leading and managing a team	2.92	3.08	0.17	0.106
Making mistakes and coping with increased responsibility and accountability	2.55	2.90	0.35	0.001
Control Domains				
Dealing with common neonatal problems	3.08	3.13	0.05	0.618
Dealing with common paediatric problems	3.12	3.18	0.07	0.464

encompassed psychiatric, psychological, psychosocial and behavioural consequences post-mTBI.

Results Electronic databases identified 577 journal articles, from which 11 studies were included in review. Based on literature, prevalence of inattention and conduct mean ratings increased in ages 10–13 with hospitalisation compared to those after outpatient clinic. Furthermore, 10% of children under 18 years with a history of multiple previous mTBIs, showed having significantly higher scores in emotionally reactive, withdrawn and aggressive problems compared to single or no mTBI history. Majority studies also found that that 35.7% of mild TBI group suffered new onset anxiety disorders compared to 11.4% in control group, particularly when patients had pre-existing psychiatric illness.

Conclusions Although the correlation between mTBIs and subsequent behavioural or psychological changes reached significance, there is still little evidence to support the true nature of this relationship. Ideally, future studies should identify the risk factors that may exacerbate post-head injury symptoms to ensure more holistic patient care. Moreover, detecting the persistence of psychiatric and/or behavioural changes long-term, rather than acute, would add greater significance to this correlation in children and adolescents following an mTBI.

Association of Paediatric Emergency Medicine

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IS THERE AN ASSOCIATION BETWEEN MILD TRAUMATIC BRAIN INJURY AND SUBSEQUENT BEHAVIOURAL AND/OR PSYCHOLOGICAL PROBLEMS IN CHILDREN UNDER 18 YEARS OF AGE?

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10.1136/archdischild-2021-rcpch.87

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British Inherited Metabolic Disease Group

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LESSONS FROM THE NEWBORN SCREENING FOR POMPE DISEASE: A SINGLE-CENTER UK EXPERIENCE BASED ON USA NEWBORN SCREENING PROGRAM

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Background Pompe disease is a rare genetic disorder caused by deficiency of alpha-glucosidase enzyme. The classical infantile form clinically presents in the first two months of life with myopathy and cardiomyopathy and is fatal in the first year of life if untreated. Enzyme replacement therapy (ERT) should be initiated as early as possible to improve outcomes through early identification of cases. Pompe disease can be identified by measuring alpha-glucosidase activity in newborn blood spot samples (NBS). Pompe disease is not included in the UK Newborn blood spot screening program, however babies resident on American military bases in the UK have their blood spot samples analysed in the USA by screening programmes that may include Pompe disease. Any abnormal screening results are followed up locally by UK paediatricians.

Objectives The aim of this study was to characterise the cohort of cases with increased risk of Pompe disease due to a positive initial newborn screening test.

Methods We have recorded the epidemiological, clinical, biochemical and genetic data of babies born at two local US Air Force bases and referred to CUH Metabolic outreach clinic in 2020 with increased risk of Pompe disease. NBS was undertaken by Maryland newborn screening laboratory.

Results Lymphocyte alpha-glucosidase activity was undertaken in four cases. Two cases had normal activity and no further investigations were undertaken. Two cases showed marginally