

The BASEM Travelling Fellowship Award - 2014 Winners' Reports

The first BASEM Travelling Fellowship was awarded in 2014. It is to enable a BASEM member to travel at home, or overseas, to study a specific sports or exercise medicine problem at one or more centres of excellence.

There were two winners in 2014 - Dr Polly Baker and Dr Bhavesh Kumar...

Paediatric and Adolescent Sport and Exercise Medicine in North America



Report by
Dr Bhavesh Kumar

Our speciality arguably has much to offer in the care of young people across a spectrum of activity levels. This includes the growing cohort of inactive youth at heightened risk of chronic disease, those that already live with chronic disease, and active young athletes. The desired outcomes are similar across all groups, chiefly to promote and facilitate safe participation in sport and exercise that result in psychosocial benefits, such as increasing self-confidence and self-esteem, and physical gains such as aerobic capacity and strength. Positive physical activity behaviours established in childhood are likely to track into adulthood, ultimately resulting in economic benefits to our National Health Service and more widely through increased productivity. Opportunities for Sport and Exercise Medicine (SEM) physicians to acquire essential

training in Paediatric and Adolescent SEM (PASEM) in the UK are few and piecemeal. Physical activity promotion is apparent at the public health level, and limited musculo-skeletal injury management experience is available pitch side and within general sports or orthopaedic clinics. Paradoxically, given the vulnerability and nuances of the developing child, clinicians seeking pitch side care experience often find their initial opportunities with younger athletes before 'progressing' to elite adult athlete care! Other areas of PASEM, such as exercise medicine and physiology, concussion care, screening and injury prevention, are less well served in clinical practice here in the UK. I therefore chose to look further afield to pursue my interest. **Paediatric Sports Injury Prevention and Management** There are numerous teaching hospitals and clinics in the USA that offer observerships in paediatric sports injury care. I was attracted to the



Above, Left: McMaster Children's Hospital in Hamilton, Ontario. More attractive on the inside! Above: Sick Kids Hospital in Downtown Toronto.

Boston Children's Hospital (BCH) for a number of reasons, including the fact it hosts the first established sports medicine department in the USA, and it has a dedicated facility for injury prevention in active young people, based on individual screening and physical testing, sport-specific risk assessment and a tailored prescription for an exercise programme. Much of the prescribed strength and agility programmes are based on extrapolation of the evidence from larger non-sports specific injury prevention studies.

Perhaps given the relatively high levels of education and socio-economic status of the Massachusetts population, buy-in from parents and children maintains a busy daily schedule! A dozen sports physicians share the workload in their private clinics within BCH. Each maintain special interests to cater for a wide range of sports medicine and performance related issues. **Concussion Care In the Young** BCH set up a sports concussion clinical pathway for athletes



Above: Boston Children's Hospital sits adjacent to Harvard Medical School

aged eight and over in 2007, incorporating some interesting initiatives. Led by sports physicians, it utilises the skillset of specialist physiotherapists, neuropsychologists, neurologists and neuroradiologists. Many regional schools have bought into baseline neurocognitive testing of pupils, partly as a result of parental pressure. This in turn helps generate attendance at BCH for suspected concussion. It was intriguing to see their management of prolonged concussion, including the use of school sick notes for sport and academic activities, vestibular rehabilitation, and some perhaps rationale-based rather than evidence-based medications. LED light therapy is currently undergoing clinical evaluation. Their concussion prevention programme is based on exercise therapy to improve neuromuscular control and balance, and strengthen upper body muscles including the neck and shoulders. Current education initiatives in concussion recognition and management among coaches

and referees in the UK would be well served by having access to SEM physicians that can provide or coordinate concussion care utilising some of the BCH principles. **Exercise Medicine and Health In Children** Canada has been a forerunner in physical activity initiatives in the paediatric population. Organisations such as the Paediatric Sport and Exercise Medicine Section of the Canadian Paediatric Society, The Canadian Society of Exercise Physiology and The Active Healthy Kids collaborative regularly publish guidelines, position stands and research. To gain further insight, I chose to visit three centres in Ontario with impressive clinical and research pedigree, namely McMaster University Hospital, Brock University and Toronto Sick Kids Hospital. A particular highlight was observing the Child Health & Exercise Medicine Program at McMaster that takes an outpatient multi-disciplinary approach to enhance the care

of children with chronic health conditions. This incorporates exercise testing and physical activity counseling to increase physical activity confidence and competence. The small but highly active research department here has published widely and is currently studying paediatric exercise in relation to a variety of topics ranging from hydration status, thermoregulation and academic performance, to type 1 diabetes and inflammatory conditions. Toronto Sick Kids hospital has transferred some of its experiences from their multi-disciplinary care pathway for the management of complex obesity in adolescents, in which families have rather impressively been engaged to travel hundreds of miles to attend appointments, to a non-surgical obesity initiative for children as young as six! Outcomes are eagerly awaited. **PASEM at the ACSM annual conference** I timed my trip to coincide with the 61st annual American College of Sports Medicine

(ACSM) conference in Orlando, which featured an array of PASEM topics in daily parallel sessions. Large audiences attended each session, with research scientists usually appearing to out-number clinicians, perhaps reflecting the state of this sub-specialty at present. **Reflections** Ethical considerations frequently provide the greatest hurdle to medical research in children. In North America, the PASEM sub-specialty appears to take a pragmatic approach to many areas where research data is not yet available in children, and where it could be rationally extrapolated from adult data. Financial motivation may also exist in the USA, though the tariffs for children's sports clinical services are generally low. The socially funded Canadian healthcare system relies heavily on motivated healthcare professionals and societies thereof to work together to push forward boundaries in PASEM. I believe there is a niche for PASEM on the NHS, working alongside paediatric physicians, surgeons and physiologists for example, to develop innovative services. Grant funding could facilitate clinical initiatives linked to research and feasibility studies. I am extremely grateful to my hosts for being so very welcoming, and to BASEM for generously supporting my pursuit of further experience in PASEM. Hopefully this can stimulate interest among fellow BASEM members, and potentially the origin of a sub-specialty interest group! **Bhavesh Kumar** Consultant in Sport & Exercise Medicine, Institute of Sport Exercise & Health London, and Principal Clinical Teaching Fellow, University College London. bhavesh.kumar@ucl.ac.uk

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