

core muscles, which is suggested by literatures to be effective in treating chronic LBP. This study aimed to evaluate the effectiveness of clinical Pilates exercise programme in patients with chronic LBP.

Methods: Subjects aged 18–55 years and diagnosed with LBP for more than 3 months were recruited. Clinical Pilates exercise group (CPEG) was given one-to-one supervised Pilates exercises, while traditional back exercises were taught to the traditional exercise group (TEG). Both groups received 30-minute exercise training, twice per week for 8 weeks. Outcome measures included Numerical Pain Rating Scale (NPRS), Sit and Reach test, Hong Kong Chinese version of the Roland Morris Disability Questionnaire (RMDQ-HK), Chinese version of the 11-item Tampa Scale of Kinesiophobia (ChTSK-11) and the Chinese (HK) SF-12 Health Survey-Version 2 (SF-12v2).

Results: Forty-eight patients (male=11, female=37, mean age=46 years) were recruited. The baseline characteristics of the groups were comparable. There was significant within-group difference in NPRS in both groups, while between-group comparison showed greater pain reduction in CPEG than TEG (63% vs. 33%; $p<0.05$). Subjects in CPEG demonstrated a greater improvement in ChTSK-11 as compared to TEG (23% vs. 15%; $p<0.05$). Similar findings were detected with significant improvement in flexibility for within-group comparison, while between-group comparison demonstrated greater improvement in CPEG (57% vs. 27%; $p<0.05$).

Conclusion: Clinical Pilates and traditional back exercises are effective in managing chronic LBP, with our results favouring clinical Pilates.

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What makes the difference: the patient journey of a 4-year old boy with type I spinal muscular dystrophy

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Background and purpose: Spinal muscular atrophy (SMA) is an autosomal recessive neuromuscular disease characterized by degeneration of spinal motor neurons, resulting in progressive weakness. In the most severe form, Type 1, the typical natural history is respiratory failure and death before age of 2. With advances in medical technology and standard of care, both survival time and quality of life move forward.

Methods: This is a case report of a 4-year old boy with Type 1 SMA. The clinical record was reviewed and related information on four care areas—diagnosis, pulmonary, gastrointestinal/nutrition, orthopaedic/rehabilitation—was extracted.

Results: The boy was noted to have hypotonia before the age of 3 months. Diagnosis of Type 1 SMA was confirmed at 19 months by muscle biopsy. Physiotherapy started at 8 months, including gentle strengthening and stretching exercises, chest physiotherapy, hydrotherapy and 24-hour positioning programme. Home programme was implemented for continuity of care. Wide spectrum of appliances and equipment were prescribed as indicated. The family reported significant decrease in time for chest physiotherapy (50%) after the use of nocturnal BiPAP and CoughAssist (started at 20 and 25 months, respectively). The score of Pediatric Quality of Life Inventory Neuromuscular Module before and after increased from 30 to 34.

Conclusion: Physiotherapist plays a significant role in the family-centred multispecialty care of SMA. The better quality of life score indicates that we do not just add years to life but also life to years. The authors hope that the sharing of this boy's patient journey will serve as local care reference for other affected children.

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Grip strength can predict choice of walking aids in the elderly

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Background and purpose: Good grip strength is a prerequisite to hand function. It was found not only to correlate to the global strength of upper limb

muscles but also correlate to lower limb muscle strength. This study aimed to identify if grip strength could predict the walking ability of the elderly.

Methods: 95 patients from rehabilitation wards and outpatient clinic were included. Patients with upper limb pathology, bed-/chair-bound or non-communicable, and with a history of hemiplegia were excluded. Subjects performed three full-strength grips with both hands, measured by a digital dynamometer. Ordinal logistic regression model was performed to investigate if the selection of walking aids was dependent on the maximal grip strength, Abbreviated Mental Test (AMT), age and sex. One-way ANOVA was performed to compare the means of maximal grip strength among walking aid groups.

Results: All 95 patients consented and completed the test. The selection of walking aids was found to be dependent on the maximal grip strength of the dominant hand (odds ratio=1.07, 95% confidence interval 1.01–1.14, $p=0.02$) but not age, sex, and AMT in the regression model. In ANOVA, patients walking unaided, stick, quadripod, and frame/crutches were found to have significant difference in grip strength (means = 22.5 kg, 18.0 kg, 13.2 kg and 11.1 kg respectively; $F=10.30$, $p<0.001$). Post-hoc comparisons indicated significant between-group differences ($p<0.05$) except for similar strengths between quadripod and frame groups.

Conclusion: Selection of walking aids is related to grip strength. Patients with need for higher level of aids had progressively weaker grip strength.

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Survey on team sports-related injury and management in young Hong Kong athletes

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Background and purpose: Sports-related injuries are common in young athletes. Little is known about the prevalence, nature, severity and management of such injuries amongst the Hong Kong youth. The objective is to estimate the prevalence, identify the nature and anatomical location of common injuries and current injury management strategies.

Methods: This was a cross-sectional study that recruited adolescents aged 12–18 years, who represent their schools in basketball, soccer, volleyball and handball, from 20 randomly selected secondary schools. The participants completed a survey about their sports-related injuries and injury management in the last 1 year.

Results: The response rate was 79% with 779 surveys completed. 523 of respondents sustained at least one injury over the last year. Sprains (32.6%), strains (27.8%) and contusions (21%) were the most common injuries. The ankle (26%) was the most common site of injury, followed by the knee (16.6%) and wrist/fingers (13.4%). Logistic regression revealed injury prevalence was significantly ($p=0.001$) associated with increasing age and older athletes were 1.175 times more likely to sustain an injury when compared to younger athletes. Less than 10% of those injured sought medical treatment or physiotherapy.

Conclusion: Sports-related injuries is common in young team sports players and the epidemiological data on injury type and location generated from this study can form the basis for investigation of risk factors. Given the high prevalence of injury, resources should be put forward to implement injury prevention programmes and ensure proper injury management. Moreover, enhancing public awareness and educating coaches, parents and athletes on injury prevention and management are necessary.

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Laser acupuncture attenuates paraesthesia and allodynia induced by chemotherapy in gastrointestinal cancer patients

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Background and purpose: Gastrointestinal cancer has been the most common cancer in Taiwan especially for colorectal cancer during the past decade. Oxaliplatin is clinically widespread used as the first line chemotherapy for patients