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## The effectiveness of Pilar Dominguez Method based on dance exercise and movement to improve posture and musculoskeletal disorders among children and teenagers; A pilot study

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**Background:** Pilar Dominguez Method (PDM) is an individualized dance exercise program, intended to promote correction and postural awareness, and to prevent and correct the harmful consequences of improper postural placement.

**Aim:** Aim of this study is to evaluate the effects of the PDM in the improvement of the posture and the musculoskeletal disturbances (MSD) at 9 months (an academic year) and, the effect maintenance after two or three years of program assistance.

**Methods:** 23 subjects, 14 (60.9%) females, from 4 to 15 year old (median 11.7) with an MSD who assisted at Instituto Pilar Dominguez (IPD), were enrolled. PDM was applied in 1-hour sessions, twice a week for nine months. Results from VAS scale, Kraus-Weber test, Adams test and arrow's test were registered prospectively. Statistical bilateral tests were undergone with a significance level of 0.05.

**Results:** 13 children (56.5%) had some spine disorders and five (21.5%) EEII disorders. The most frequently disturbances were eight (34.8%) scoliosis, three (13.0%) flat foot, two (8.7) scoliosis attitude, and two (8.7) spondylosis. We found a statistically significant positive effect in flexibility ( $p=0.007$ ) and cervical lordosis ( $p=0.03$ ). Six of the 12 subjects with reduced flexibility and five of the six with hyperlordosis normalized their tests scores at nine months. These effects were maintained in the subjects that attend PDM at two and three years.

**Conclusions:** PDM is effective in reducing posture and musculoskeletal disorders in children and teenagers. This method achieves a posture re-education that improves body movement in daily activity, school work, and sports performance.

### Biography

Carme Carré Llopis has completed her PhD from Universitat Autònoma de Barcelona; MD from Universitat Autònoma de Barcelona, School of Medicine and; MSBS from Universitat de Barcelona, School of Biology. She is the Medical Director of Instituto Pilar Dominguez (IPD), a musculoskeletal maintenance and rehabilitation center. She has published more than 30 papers in reputed journals. She teaches at Barcelona University.

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