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The prevalence of idiopathic scoliosis in adolescence

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Aims: The aim of this research was to determine the prevalence and characteristics of patients with adolescent idiopathic scoliosis who go to osteopathic clinics.

Methods and Participants: The study was carried out by delivering three questionnaires to 55 osteopaths. Patients had to be between the ages of 9 and 20 years in order to be considered. The questionnaires completed by osteopaths included questions regarding the number of patients treated with and without adolescent idiopathic scoliosis and for those with the condition: the number of males and females, age at diagnosis, age at menarche, any instrumental tests, treatments previously performed, sport practiced, Cobb's angle measurement, type of curve and any pain. Finally the osteopath was asked to indicate the type of the therapeutic process chosen.

Results: 10% of patients between 9 and 20 years old treated by osteopaths had a condition of adolescent idiopathic scoliosis. Of these, 79% were female. The median diagnostic age was 11 years for females and 13 for males ($P = 0.002$). The age of menarche (12 years) was higher than the age of the adolescent idiopathic scoliosis diagnosis (11.5 years) and there was a significant positive correlation between the two, with age at diagnosis increasing with age of menarche ($P = 0.009$). There was a higher incidence of left-lumbar and right- scoliotic curves, with a Cobb angle of between 10 and 19° being observed in 50% of patients. Pain is felt mainly at the level of the lumbar spine (35%) and thoracic spine (28%).

Conclusions: This research was carried out to identify the prevalence and characteristics of individuals suffering from adolescent idiopathic scoliosis and provides preliminary evidence that it may be possible to establish routine screening in primary schools for both preventive (with postural assessment and feedback through x-ray) and therapeutic treatment, through osteopathy and other physical therapy (exercises, physical therapy) that could reduce painful symptoms and possibly the progression of the scoliotic curve.