Scientific Exercise Approach to Scoliosis (SEAS)

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Statement of the Problem: Adolescent Idiopathic Scoliosis (AIS) is defined as a three-dimensional (3D) deformity of the Spine, with no recognizable causes, in an otherwise healthy growing child. The main risk factors for curve progression are a large curve magnitude, skeletal immaturity, female gender, and regional disparity. There is an adjoining association involving curve progression and fast (spinal) development at some stage in puberty. Spine deformity can affect a child's appearance, may lead to symptoms of pain, and can lower a child's self-esteem due to a feeling of social isolation and can have an effect on the health-related quality of life (HRQoL). Early detection of scoliosis through screening in schools is useful and provides the opportunity for conservative treatment before the deformity is noticeable. The goal of this study was to identify the high-risk idiopathic scoliotic curve in South Indian pre-menarche girls and to evaluate the effect of the Scientific Exercise Approach (SEAS) in girls with no more than 15 degrees of Axial Trunk Rotation (ATR).

Methodology: 24/600 of the pre-pubertal girls were found to be positive with right side thoracic level curve 70,100,120. Clinical evaluation was performed before the SEAS and at 3, 6, 9, and 12 months after the SEAS. Modified valid and reliable South Indian language (Kannada) version of SRS 30 Questionnaire for HRQoL was appropriately executed.

Findings: SEAS highlighted a significant enrichment ($p<0.05$) 12 months post SEAS in pre-pubertal girls with ATR less than 15 degrees. All distinct aspects of modified SRS 30 demonstrated enhanced remarkability 12 months after SEAS in all high-risk pre-pubertal girls.

Conclusion: Our analysis indicates ATR of 7° or greater is more acceptable in early detection of the scoliotic curve before the skeletal maturity of the Spine and SEAS represents a realistic and effective conservative Idiopathic Scoliosis before skeletal maturity.

Biography

Mudasir Rashid Baba is a Paediatric Physical Therapist, Assistant Professor, and Researcher in Yenepoya (Deemed to be University), Mangalore, Karnataka, India. Involved in clinical trial studies on human participants following guidelines of the World Medical Association (WMA), Declaration of Helsinki as a statement of ethical principles involving human participants. She is a member of the Rehabilitation Association for Hematopoietic Cell Transplant, United Kingdom; She is a lifetime member of the Indian Association of Physical therapists. She has expertise in pediatric/adult Spinal Disorders and pediatric Neurological Disorders. She has a special interest in ethical issues related to research and patient care. She serves as an ethics committee member in Centre for Ethics, Yenepoya (Deemed to be University) and delivers lectures on ethical principles to the medical fraternity. She enthusiastically contributes to Physical Therapy and Bioethics research by enriching patient care with her original research.

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