

Down Syndrome Survey in South Indian Population- Understanding Inheritance, Perceptions, Interventions and Diagnosis

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ABSTRACT Down syndrome (DS) has been prevalent worldwide, for centuries now. Despite the fact that tremendous research has been done on DS ever since the early 1950s, most results obtained, are on the basis of etiological and demographic factors and predominantly of the western data. Every year in India, >30,000 children are born with DS. This survey has been done keeping the Indian population in mind and to analyze the outlook of parents having children with DS, understand the comorbidities and their management. The study was conceptualized to create an exhaustive and comprehensive questionnaire to study the pattern of inheritance of Trisomy 21, analyze influence and correlation of advanced maternal age, sex ratio, order of birth, hypothyroidism, common comorbidities, abortions, Attention deficit hyperactivity disorder (ADHD) and sleeping difficulties in individuals diagnosed with DS. 50 family triads were interviewed. The results showed that incidence of DS was more in males compared to females. The analysis revealed that mean maternal age of 25-28 years showed increased incidence of DS. 2.5 percent showed severe ID and 27.5 percent had severe ADHD symptoms, while 10-13 percent showed mild to moderate ADHD. The most and least prevalent comorbidity seen was the presence of heart disease (45%) and hearing impairment (10%) respectively. It was found that about 40 percent of parents strongly agreed to the idea that Genetic Counseling (GC) is helpful and wanted to reinforce it to others who find it difficult to cope up with their DS child.