

EVALUATING THE AWARENESS OF DEVELOPMENTAL COORDINATION DISORDER IN CHILDREN AMONG SCHOOL TEACHERS OF SOUTH INDIAN CONTEXT

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INTRODUCTION

Developmental coordination disorder (DCD) is explained, using the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)¹. However American Psychiatric Association and WHO- World health organization has coined inclusion and exclusion criteria in describing and coining the term DCD and the condition is marked by a significant limitation in the development of motor coordination in children, which interferes with academic activities and activities of daily living (ADL)¹.

However the problem in motor coordination which underlies DCD is not because of any other generalized medical condition (eg, cerebral palsy). The child should not have disturbances in muscle tone, sensory loss and involuntary movements. There is a need to rule out the presence of mental retardation and IQ should be definitely more than 70 to categorize the child as having DCD².

According to DSM-IV diagnosis of DCD should be done by following up the criteria for classification,

A. Motor coordination in activities of daily living is substantially below normal when compared to the persons chronological age and measured intelligence level. This may be ruled out by the clinical examination of significant delays in achieving motor milestones (e.g., walking, crawling, sitting), dropping things, clumsiness, poor performance in sports and Poor handwriting skill.

B. The disturbance in the above manifested skills significantly interferes academic achievement or activities of daily living.

C. The disturbance shouldn't be due to a general medical condition (e.g., cerebral palsy, Hemiplegia, or muscular dystrophy) and the children should not meet criteria for a Pervasive Developmental Disorder.

D. If mental retardation is present, the motor difficulties are in excess of those usually associated with it³.

The cause for DCD is still under investigation by the researchers all over India. Children with DCD have difficulty with Gross motor skills, showing predominant difficulty in walking, running and they experiences frequent falls, Fine motor skills were also defective in these children, manifested as difficulty in writing, drawing, planning and executing skills. When the Psychological functions were examined in children with DCD it is prominent these children shows lack of friends and poor communication skills with peer group. DCD becomes apparent in childhood and it persists into adulthood⁴.

These children with DCD have difficulty with motor problems and also there is an emotional threat from the peer group members and family members, because of this, these children experience low self esteem. They lack the confidence and consider themselves to be with less potential than their peers group not only in physical activities and participation in sports but also in several other activities like physical appearance and social activities [Rose et al (1997), Shoemaker and Kalverboer (1994), Skinner and Piek (2001)]. Children with DCD have also been shown to be more likely to have cardiovascular distress and other health ailments at higher rate than children in the general population⁵. [Hellgren et al (1993)]. When the historical perspectives of the DCD are examined in detail, teachers were the first to assess the child with DCD as they used to identify them easier through their academic performance and through poor handwriting skills.

METHODOLOGY

After getting informed consent signed from all the teachers to participate in the study, the survey on the awareness of DCD was carried out on 50 school teachers with convenient sampling technique. Interview method is used in this study, one on one personal interview is taken and the entire interview is audiotape and converted into verbatim. The teachers included in the study were with teaching experience 5-10 yrs and teachers were also included with the experience of more than 2 yrs and Teachers having less than 2 yrs of experience were excluded from the study.

Every teacher was explained about the purpose of study. Self generated questions were delivered to the teachers during the interview sessions. Components of the questionnaire focus on assessing the knowledge and awareness of teacher in terms of children with DCD.

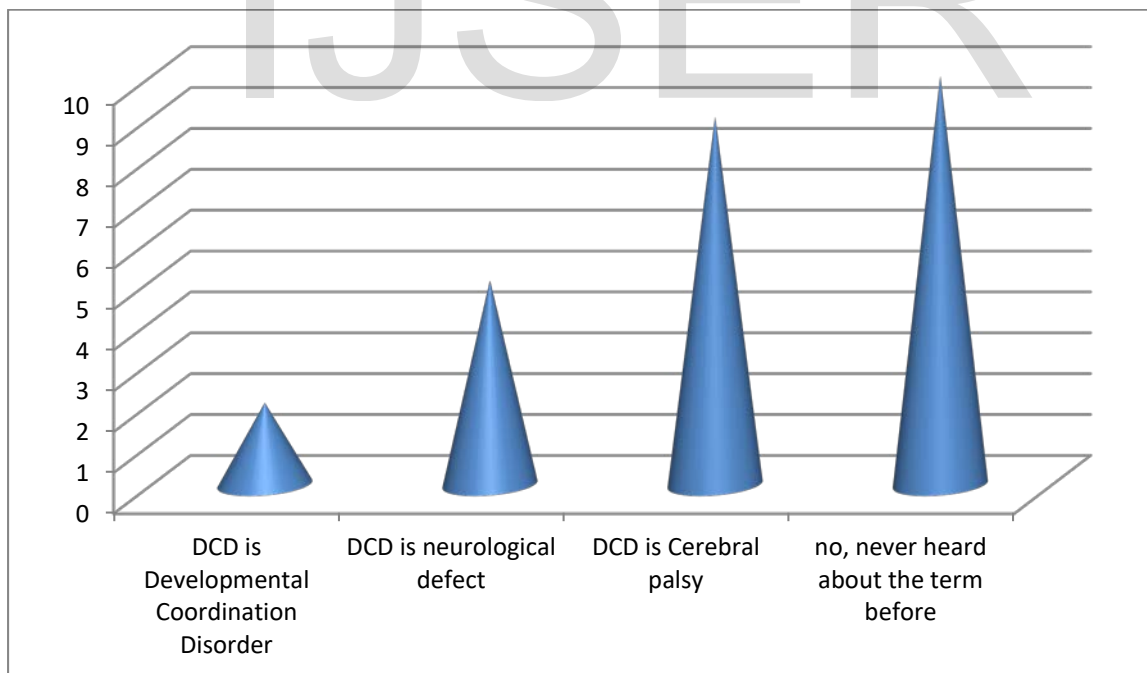
Questions which are directed during one on one interview is

- 1) What is developmental coordination disorder?
- 2) Have you ever heard of the term DCD? If yes, what is your source of information?
- 3) In your teaching experience, have you identified any child as abnormal?
- 4) If yes, what diagnosis you were ruled out?
- 5) What are the measures taken by you, to treat the child's abnormality?

These simple five questions were audio taped from all the 50 teachers belong to various schooling in and around Kancheepuram.

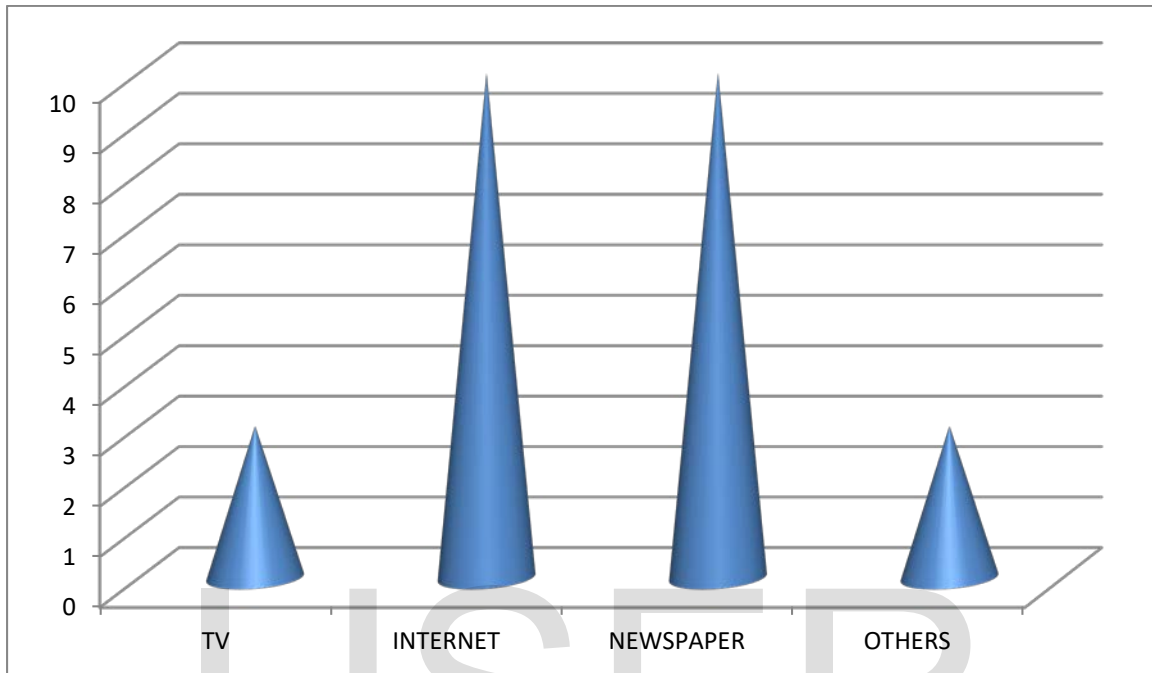
DATA ANALYSIS

GRAPH 1: AWARENESS OF THE TERM DCD? WHAT IS DCD?



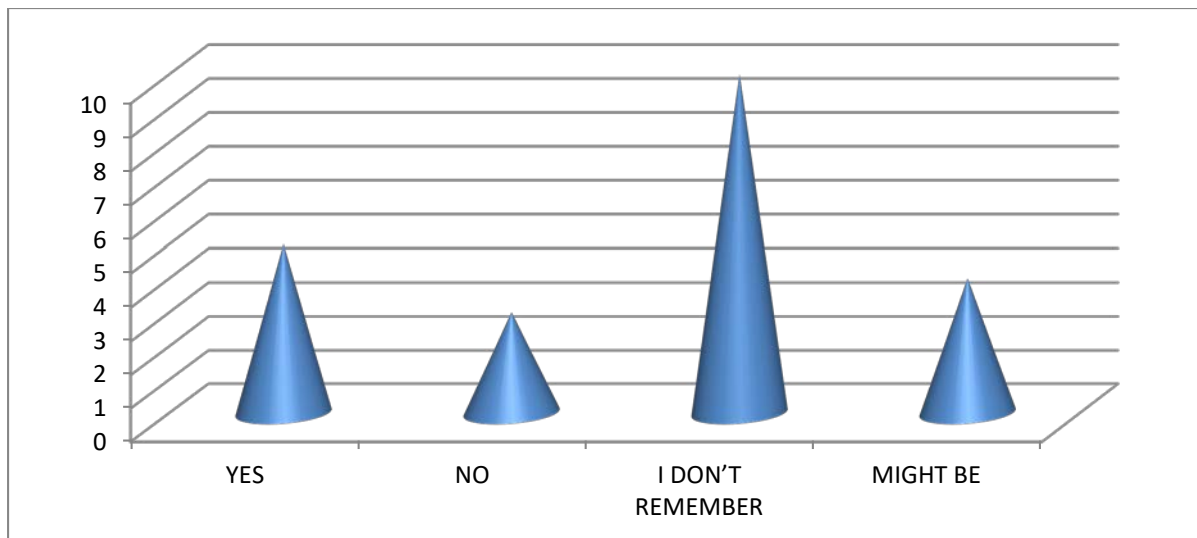
INFERENCE: 2% of the teachers were aware about the term DCD

GRAPH 2: INTERVIEWING THE SOURCE OF INFORMATION



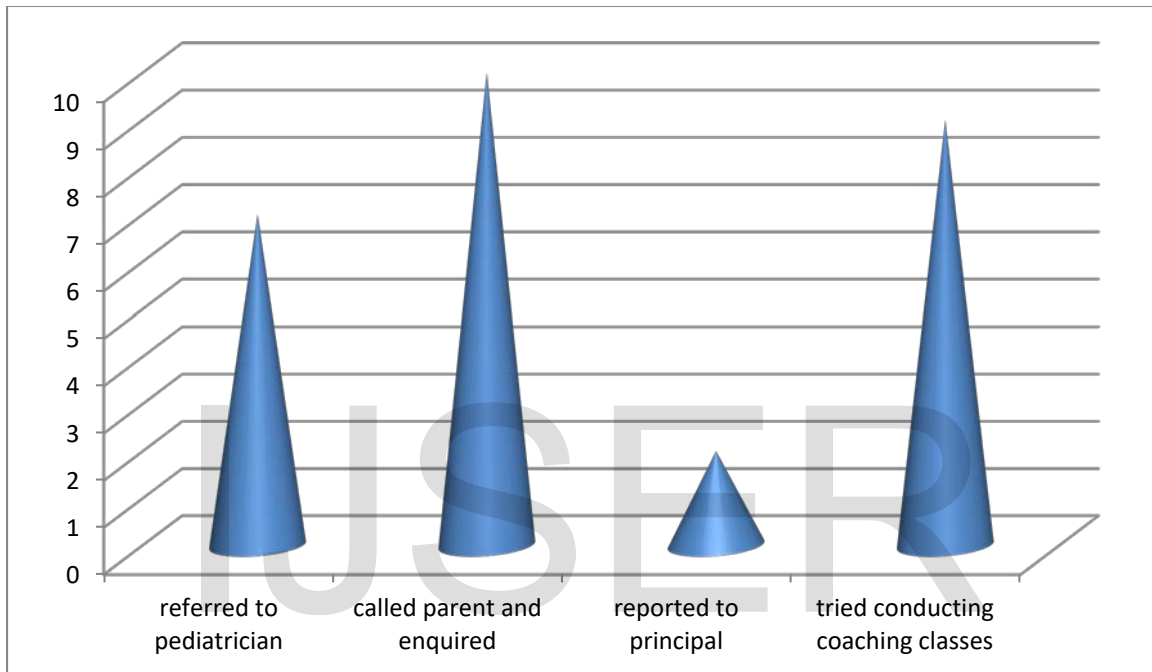
INFERENCE: 10% of the teachers were aware about the term DCD THROUGH INTERNET AND NEWSPAPERS

GRAPH 3: IDENTIFIED CHILDREN WITH DCD IN TEACHERS , YEARS OF EXPERIENCE



INFERENCE: 10% of the teachers does not remember whether they identified any children with DCD

GRAPH 4: THE MEASURES TAKEN BY THE TEACHER TO TREAT THE CHILD'S ABNORMALITY



DISCUSSION

The problems become more obvious when the child enter the academics.⁴School teachers play an vital role in monitoring the early signs of motor development and difficulties. Teachers rating and monitoring is mandatory to assess the problems faced by children while performing their activities like sitting on desk, writing, drawing, communicating, playing with their peer group. Through teachers understanding and awareness of the term DCD, teachers can volunteer and encourage their parents to deliver the needs of their child through proper rehabilitation programme. Early identification facilitates detection off motor coordination difficulties at the earliest. Behavioral problems were more predominant in children with DCD if effective communication with their parents were not done.

Teachers misunderstanding and lack of awareness of the term will cause delayed diagnosis and misinterpretation. So they need to be aware of this and report to parents and pediatrician.^{4,5}

Physiotherapist and occupational therapist plays an vital role in treating the children with DCD. They will help the regain the child's ADL skills and thus helps to learn to perform tasks more efficiently.

Early rehabilitation sessions delivered by the therapist, will help children to achieve physical activities , through teaching movement skills pattern, and coordination activities by improving strength, flexibility, and endurance, to provide appropriate equipments to improve task performance. Early detection will easily deliver the skills back to the child and identification by the teacher is necessary to overcome the delay in rehabilitation of children.

CONCLUSION

Hence, it is important for teachers to have an awareness of the term DCD and its clinical manifestation for early identification.

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