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ABSTRACTS AND PROGRAM BOOK

OP 1

Corelation Between Foot Posture Index and Balance in Down Syndrome Children Aged 7 - 15 Years Old

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Background: Children with Down syndrome have hyperlaxity joint problem that cause flatfoot and will affect the biomechanic of the foot. This foot biomechanical change has an important role in the quality of balance, standing and walking. So this change will affect the strategy in maintaining the balance of the body, including the foot posture. **Objective:** To investigate the effects of varying the degrees of posture foot index to functional balance in Down syndrome children aged 7- 15 years-old. To investigate the relationship between FPI and balance score. **Design:** Cross sectional study. **Time and Location:** The study was conducted in *Sekolah Luar Biasa Negeri Semarang* . March 2017. **Participants :** 34 children with Down syndrome aged 7-15 years who attend school in *Sekolah Luar Biasa Negeri Semarang*. **Method :** Assessing foot posture index of 34 Down syndrome children who could stand and walk without aids. Then the FPI assessment results were correlated with their functional balance. The balance function in children was measured with Pediatric Balance Scale (PBS). **Result :** There was a significant difference in correlation test of both group with $p = 0.000$ and $r = -0.682$ that showed strong unidirectional relationship where the higher FPI score, the smaller the PBS score or vice versa. **Conclusion :** Higher FPI score cause lower functional balance of children with Down Syndrome.

Keywords : Foot Posture Index, Pediatric Balance Scale, Down Syndrome

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