

**Introduction:** Autism can be described as a mental disorder that displays social interactions and communication impairments as well as a restricted range of activities or interests. Since autism is different for each individual, possible treatments are challenging and should consider individual characteristics at all times. Interactions with peers, family, and teachers are challenging for those with autism as they usually lack behaviors such as eye contact, playing, and talking with other people. It is common to observe sensorial issues as hypersensitivity in these individuals. Patients may have visual, auditive, or even tactile dysfunctions.

Dir/Floortime is a comprehensive model that gives theoretical support and methodological approach to lead to development focusing on the development of individual capacities for sensorial organization, motor planning, language, and many abilities that provide a development trail that will help individuals to achieve essential milestones to infants and adolescents. The DIR/Floortime is based on the development as a lifespan event, individual differences, and relationships established with peers and any other people in the child's context.

**Objectives:** The aim of this study was to demonstrate that the DIR/Floortime is a comprehensive method of study and intervention since it matches all necessary characteristics to produce development.

**Methods:** It was performed a theoretic approach of both DIR/Floortime and Biological Theory of Human Development in search of basis in a contextualist theory to explain a practical method of intervention.

**Results:** Psychological theories about human development are important tools for understanding the way individuals interact with their context and produce changes in biopsychosocial characteristics. The Bioecological theory of Human Development is a contextualist theory that considers the interactions established between individuals through a model called PPCT, with their characteristics with people, objects, and symbols through interactions known as proximal processes, considered to be meaningful interactions, occurring frequently, through a long time.

**Conclusions:** The TBDH through the PPCT model can show that the DIR/Floortime presented itself as an efficient method for the treatment of autism since it considers the personal characteristics of the patients, especially their sensory and motor characteristics (Personal Characteristics such as Resource, Demand, and Force). This method has in significant interaction the most efficient way to produce development (equivalent to proximal Proximal Processes), takes into account the contexts where the developing individual attends, especially home, school and therapy, and has time as an essential factor for development to occur.

**Disclosure of Interest:** None Declared

## EPV0208

### Does Vitamin D3 supplementation improve Depression scores among rural adolescent? A Cluster Randomized control trial

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**Introduction:** Contemporary evidence has established that stunted vitamin D levels are associated with depression, poor mood and other mental disorders. Vitamin D supplementation might play a significant role in depression.

**Objectives:** To assess the role of supplementation of Vitamin D on depression scores among rural adolescents

**Methods:** It is a Cluster Randomized Control Trial carried out for a period of two years. 10 Government rural schools were taken as clusters and sample size was calculated using previous literature. (Libuda et al: EJM. 2020; 27:1-0) 150 was the final sample size in each group. Adolescents aged 11-18 years were included and with any pre-existing mental health illness, renal abnormalities and confirmed neurological disorders (Epilepsy) were excluded. Intervention group received 2 months of 2000 IU per day for 9 weeks and Control arm received 500 mg of Calcium and low dose (250 IU) of Vitamin D. To assess socio-demographic status a pretested semi structured questionnaire was used. To assess depression, Becks Depression Inventory (BDI-II) was used. Venous Blood was taken by experienced lab technician and analyzed in Central Diagnostic Laboratory Services, Biochemistry Department, SDUMC, SDUAHER, Kolar, Karnataka, India. Study was started after Central ethics Committee approval. This study is intramural funded project (Rs.6,12,000/). Clinical Trials Registry number: CTRI/2021/07/034654: REF/2021/03/042355. All the data collected entered in Microsoft excel and analysed using SPSS v 22 (IBM corp, USA). Pre-intervention and post intervention difference assessed with t-test summarized as Mean and Standard deviation (SD) with statistically significant difference defined with p value less than 0.05. Both Intention-To-Treat analysis and Per Protocol analysis done and reported separately.

Distribution of adolescent school children according to sociodemographic profile	Vitamin D supplementation arm (n=235)		Calcium supplementation Arm (n=216)		
	Frequency	Percent	Frequency	Percent	
Age in years	14	8	3.4	42	19.4
	15	129	54.9	143	66.2
	16	86	36.6	31	14.4
	17	12	5.1	00	00
Gender	Boys	124	52.8	100	46.3
	Girls	111	47.2	116	53.7
Type of Family	Nuclear	187	79.6	136	63.0
	Joint	48	20.4	80	37.0

### Results:

Comparing Becks Depression scores before and after intervention, Vitamin D arm showed statistically significant reduction in Becks Depression scores. Intention to treat analysis showed that Vitamin D arm had statistically significant reduction in Becks Depression scores.

**Conclusions:** Vitamin D supplementation had reduced Depression scores among rural adolescents significantly. Vitamin D toxicity was not noted inspite of High dose of Vitamin D supplementation

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