Using "Growing with Timocco" technology for OT intervention with a child with suspected ADHD

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Method

Participant: A four and half year old child with a suspected diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) who was treated at the Child Development Center of Clalit Health Services in Haifa, Israel.

Process

Each session was divided into two parts: the first part involved active play in the therapy room, while the second part was seated activity at a table. The purpose of the study was to see whether playing Timocco had an effect on the seated play activity.

Throughout the six sessions, Timocco was used during therapy on alternating weeks so the child was exposed to Timocco for three sessions (playing Timocco for up to 10 minutes each session).

During the sessions not including Timocco, the therapist planned the intervention based on conventional therapeutic approaches. However, both activities presented similar motor and cognitive demands.

The seated play portion of the session included a structured grapho-motor activity that requires several work phases (like painting, cutting, or gluing). The same activities were completed after each active play portion of the session. These parts of the sessions were documented on camera and then analyzed using a structured observation.

Results

In analyzing the results collected during the six sessions, the researchers compared the appearance frequency of ADHD characteristics in the three sessions using Timocco to the other three sessions.

The frequency of ADHD characteristics occurring while completing the seated table activity were analyzed and results showed that while most of the ADHD characteristics checked were almost equally evident in both cases, a significant difference in distraction and hyperactivity levels were found. Lower presence of both behaviors was found after playing Timocco.
In sessions, where the seated activity followed playing Timocco, only 22 characteristics of hyperactivity were noted. While during sessions following a “conventional activity”, the child exhibited 39 characteristics of hyperactivity. Thus, the child displayed less hyperactivity characteristics, and was less hyperactive, after playing Timocco.

The graph below displays the difference in hyperactivity levels post exposure to Timocco and compares them to the levels reached after "normal" or “conventional” sessions. You can clearly see the spikes and drops in the levels of hyperactivity between using Timocco versus traditional activity.

![Hyperactivity Levels Graph](image)