**CAOT OT SPD**

**TECHNOLOGY AND SENSORY PROCESSING IN CHILDREN FACT SHEET**

Joey is 4 years old and is in daycare, and has great difficulty modulating and self-regulating his energy states; he seems to be either hyper and charged, or sleepy and low arousal. Joey exhibits sudden episodes of aggression toward the teaching staff, as well as toward his peers. On occasion, Joey swears and uses ‘hurtful’ phrases often found in video games. Joey’s attention span for a task of choice is 1-2 minutes, and Joey has trouble with transitions between activities, often resulting in a ‘meltdown’ requiring teacher intervention. Joey is hypersensitive to unexpected noise and tactile stimuli, and appears to frequently seek movement through rocking in his chair, jumping up and down, or running fast. Joey repeatedly requests to use the classroom tablet stating he wants to play his ‘games’, and reports he has his own iPad at home which he can “use anytime”. During OT assessment, Joey’s Mom was observed to spend considerable time on her phone, and exhibited minimal interaction with her son.

*Recognize any of these behaviors? This individual’s symptoms may be associated with sensory impairments, developmental disorders, and/or technology overuse.*

**How is technology defined?**

Technology is defined as a laptop, desktop, tablet, cell phone, or other handheld device which allows the user to watch or interact with internet or cable based content including TV, movies, sitcoms, YouTube, video games, pornography, texts, email etc.

**Technology overuse can be associated with one or more of the following disorders:**

* Altered visual perception and/or auditory experience (1,2).
* Uncontrolled, sudden aggression and defiance (3,4).
* Sleep disorders (5).
* Delayed development (5,6).
* Obese or overweight (5,7,8).
* Mental illness (9,10,11,12).
* Sensory hypersensitivities and impairments (13,14).
* Attention deficit and learning difficulties (5,15,16).
* Self-regulation difficulties e.g. tantrums, meltdowns (5,8).
* Child addiction to technology (17).

Children’s brains and bodies develop in accordance to the different types of stimulation found in their surrounding environment. Fast paced and violent media content can *overstimulate* the visual and auditory senses, while the sedentary and isolating aspects of technology *deprive* children of movement and touch sensations. This ‘sensory imbalance’ inherent in technology overuse, could impact on a child’s ability register and modulate sensory inputs, thus resulting in difficulty attaining optimal arousal and self-regulation states. While some children can use technology without adverse effects, children with Sensory Processing Disorder (SPD) might respond to technology differently. Sensory imbalance might be difficult to for parents and therapists to interpret, and could present as problematic behavior, attention deficit, sensory dysregulation, and/or developmental delay. Identification of SPD children who overuse technology, followed by education and treatment interventions, could make a huge difference in their ability to adequately process sensations. Understanding and managing balance between technology and healthy activity, may improve sensory processing for children with SPD and enable those affected to lead more productive and satisfying lives.

**What should I do if I suspect technology overuse with my child?**

1. **Gain information** through websites, books, workshops, and technology addiction treatment centres, or join a **support network** (see Resource section).
2. **Take a** t[echnology screen](http://www.olganon.org/self_tests_on_gaming_addiction)to identify technology usage rate, then check out the [Canadian Pediatric Society guidelines for technology usage](http://www.cps.ca/documents/position/physical-activity-guidelines)**.**
3. **Seek assistance** from your primary physician, therapist, and/or counsellor with experience in assessment and treatment of technology overuse in children.

**Resources**

[Families Managing Media](http://www.familiesmanagingmedia.com/) – Smart parenting in the digital age.

[American Academy of Pediatrics - How to advise families on media use](http://www.aappublications.org/content/36/10/54).

[Canadian Pediatric Society guidelines for technology usage](http://www.cps.ca/documents/position/physical-activity-guidelines) – technology usage guidelines.

[Center on Media and Child Health](http://www.familiesmanagingmedia.com/) – Boston Children’s Hospital Digital Research Center.

[Institute of Digital Media and Child Development](http://www.childrenandscreens.org/) – Consortium of researchers and clinicians.

[Excessive Video Game Screening Tool](http://www.olganon.org/self_tests_on_gaming_addiction) – for video game overuse by Online Gamers Anonymous.

[Common Sense Media](https://www.commonsensemedia.org/) – Rate, educate and advocate for technology in homes and schools.

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