

## *Electronic Screen Addiction: Don't Take My Ice Cream*

Presenter: Christine Migliara and Elizabeth Donnellan

### Can you provide the names of the studies of the rewards research?

A: You can find many interesting research studies that explore different aspects of “addiction and internet use. The following are recommended:

- Carlisle, K.L., Carlisle, R.M., Polychronopoulos, G.B., Goodman-Scott, E., & Kirk-Jenkins, A. (2016). Exploring internet addiction as a process addiction. *Journal of Mental Health Counseling, 38*(2), pp. 170-182.
- Dowling, N.A. (2014). Issues raised by the DSM-5 internet gaming disorder classification and proposed diagnostic criteria. *Society for the Study of Addiction, 109*, pp. 1407-1413.
- Han, D.H., Hwang, J.W., & Renshaw, P.F. (2010). Bupropion sustained release treatment decreases craving for video games and cue-induced brain activity in patients with Internet video game addiction. *Experimental and Clinical Psychopharmacology, 18*(4), 297-304.
- Heitzeg, M.M., Cope, L.M., Martz, M.E., & Hardee, J.E. (2015). Neuroimaging risk markers for substance abuse: Recent findings on inhibitory control and reward system functioning. *Current Addiction Research, 2*(2), pp. 91-103.
- Kaltiala-Heino, R. (2009). Internet addiction? Potentially problematic use of the internet in a population of 12-18-year-old adolescents. *Addiction Research and Theory, 1*(12), 89-96.
- Volkow, N.D., Fowler, J.S., & Wang, G. (2004). The addicted human brain viewed in the light of imaging studies: Brain circuits and treatment strategies. *Neuropharmacology, 47*(1), 3-13.
- Weinstein, A., & Lejoyeux, M. (2010). Internet addiction or excessive internet use. *The American Journal of Drug and Alcohol Abuse, 36*(5), 277-283.

### Is there a concern that early childhood introduction to screens have negative impact on brain development (preference for gazing at screen image over face to face gazing, for instance)?

A: There is a concern for children age 0-2 using any screen device (including television). These recommendations originate from the American Pediatric Association and are supported by many developmental psychologists. There are a few issues with this including the one raised in the question.

For example, many mothers breastfeed late at night in front of the television (mostly to keep them awake). Exposure to the light from the screen is disruptive to the infant’s delicate Circadian rhythms, even if the child is feeding half asleep. If you ever watch and infant at that time, despite being tired and hungry, he/she will orient the head toward the television.

In fact, try this. Turn on your television in a main room of your house. Mute the volume. Then, note how many members of your family walk by and stop. Even those passing through the room will orient on the television for some time. It is an attention “trap.” The problem with late night viewing for the child has to do with how the brain responds to the light emitted by the screen. To deliver the picture (true of any device), there are lights used that wake up the brain.

The other issue is “what else could the child be doing instead of a passive activity.” So, if a child watches television for two or three hours a day (standard in our country), he/she is not participating in other healthier activities. At this age, children’s brains are actively myelinating meaning that neural connections are being formed over brain structures (white matter of the brain is growing over the grey matter to form communication pathways. To develop properly, the child needs to be introduced to novel stimuli. The brain responds better to active exploration (e.g. picking up toys rather than watching someone else play with toys on a screen). Movement is a strong motivator for increasing myelination. If a child watches too much television, there is potential for reduced ability to initiate activities and to sustain attention.

### **What resources are out there for adults dealing with screen addiction?**

A: Some therapists use a form of Cognitive -Behavioral Therapy (CBT) called CBT-IA (internet addiction). Because the symptoms present in the same manner as a substance use disorder, often, therapists use a CBT model to reduce the severity of the symptoms. Others use Dialectic Behavioral Therapy (DBT) too, though for those who want to try to treat it on their own, there are now support groups structured similarly to traditional 12-step programs. Most treatments are experimental at this time given that the APA does not yet, recognize this as a “stand-alone” disorder.

To find local 12-step programs, search for 12-Step Internet Addiction Anonymous or “ITAA”. There are not many chapters of this yet, so clients can attend other 12-Step programs for process addictions.

### **What may be behind the late adolescent avoidance of using the telephone?**

A: I think that the answer is endemic of the extension of societal reliance of the hypothetical relationship versus a real one. It is easier and quicker to send a text message or email than it is to call someone. Adults tend to use this form of communication because of convenience (send a message that I know someone will see when we are both too busy to talk).

The theory as to why many adolescents avoid making phone calls has to do with their understanding and comfort with social interactions. With increased use of electronic devices, adolescents have created a society where immediate response is uncomfortable. It is easier to read someone’s text, consider options for response, and then attempt to control the communication through providing a response that has been filtered first. Now, not all communication for them is “thoughtful”, but they do consult each other on how to communicate with peers in a way that non-technological generations did not. Instead of living a vicarious life where mistakes are made, pain is felt, and lessons are learned (or not), they try to moderate their experiences through an electronic filter. Electronic devices provide the opportunity for us to stop communicating directly with each other and to instead, “talk at a target”. If the person responds in a way that I do not like, I can just delete the message instead of having to consider my discomfort.

### **Is there an interaction between ADHD and screen addiction?**

A: This is an interesting question and one that is being studied. The problem for children diagnosed with AD/HD is that their attention is already difficult to control. They can become lost in a passion for hours and often, for pre-adolescent and adolescent males, it is internet gaming that captures them. They have a more difficult time in directing their attention and a much more difficult time with controlling initiation and inhibition. Parents often have to create very structured schedules that include some time each day (regardless of behavior) for them to play their games. When parents stop making this a punishable activity, the intensity of it tends to dissipate. However, I have worked with families where parents had no choice but to remove devices from their home (except for theirs that had to be locked up) because they were unable to help gain control over use. Visit CHADD.org for more information about studies being done on this topic.