

Scientific studies show prolonged gadget screen time impairs kids' brains

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When a highly respected psychiatrist exclaims, “It’s scary!” about a looming mental health epidemic among Filipino children and adolescents, we better listen.



My good friend, Dr. June Pagaduan-Lopez, former president of the Philippine Psychiatric Association (PPA) and a prime mover of various mental health advocacies in the country, focused on a topic discussed in a recent convention about the hazards posed on the brains and minds of children and adolescents by too much “gadget screen time.” The problem was described as a Pandora’s box for the mental health of children and adolescents, alluding to the popular myth of human behavior in Greek mythology. Pandora, out of extreme curiosity, opened a gift box that the gods warned never to open. It turned out the box contained all the illnesses and hardships the gods were trying to keep away from the world.

In a way, it is a metaphor for the gadgets—mobile phones, gaming videos and other devices we allow our children to use for long periods. Sadly, many parents even “bribe” their children with these gadgets to keep them “busy” at home or during travel. Some have the mistaken notion that game gadgets can even improve their children’s skills.

Brain abnormalities

At the PPA convention, Dr. Jocelyn Bautista presented scientific data showing that too much screen time with devices causes ABCD (adolescent brain cognitive development) abnormalities which could have adverse long-term implications among children and adolescents.

Dr. Bautista cited an ongoing study of thousands of 9- and 10-year-old children who are being monitored for up to 10 years. Detailed information on their screen media usage is obtained, and MRI scans are done every two years.

The MRI scans found significant differences in the brains of some children who were using smartphones, tablets, and video games more than seven hours a day. Children

who had more than two hours a day of screen time also got lower scores in thinking and language tests.

Other studies evaluating the brains of these young “screen addicts” also show early atrophy of the gray and white matter of the brain, and relatively impaired functioning. It means their brains are aging prematurely.

They might be at risk of developing Alzheimer’s disease and other brain disorders when they grow older. We don’t know for sure, but if there are already some red-flag signals early on, it’s extreme folly to believe otherwise.

We don’t want our subsequent generations to be potentially mentally handicapped just because we allowed them too much screen time when they were children.

Obesity, sleep disorders

Excessive screen exposure also increases a child’s risk of developing obesity and sleep disorders. The odds of being overweight were almost five times greater for adolescents who watch more than five hours of television daily, compared to those whose exposure time was limited to less than two hours.

Children with higher social media usage who sleep with mobile devices in their rooms are more likely to develop shortened and interrupted sleep during the night. Exposure to the blue light of TV and gadget screens before bedtime also affects melatonin levels and can disrupt sleep.

Dr. Bautista also presented studies showing an association between digital media exposure and mental health problems like depression.

Could this be a reason there’s an increasing rate of suicide among the young? Could excessive exposure to gadget screens, including social media, impair one’s social coping mechanisms?

Some behavioral scientists have noted that millennials have a relatively lower capacity to cope with the stresses of the modern world, compared to the older generation. Is excessive usage of gadgets and devices to blame?

Gadgets are addictive, and this problem is just as bad on the brains of children as drug abuse, as some experts warn. Parents should realize that giving in to the whims and caprices of their children, gifting them with the gadgets they want, allows the addiction to worsen. The parents unwittingly become the “pushers” of such dangerous technology.

A positive lifestyle change—persuading children to engage in activities that encourage their mental, physical, and emotional development —is urgently needed.