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EDITORIAL

Health impact of screen time

The increasing prevalence of childhood overweight and obesity worldwide is an important health concern. Besides an unhealthy diet, insufficient physical activity and too much sedentary behaviour play a major role in the development of overweight and obesity. Scientists believe that way of life and spending time affects body composition, brain development and behavior patterns with potential impact on health across the life time.¹ Physical activity is inversely related to the frequency and duration of screen time (ST). Higher ST has been linked to obesity, metabolic syndrome, aggressive behavior and mental health problems.²

Screen viewing (TV; DVD player, desktop computer, laptop; games console, portable music player and a smart phone) patterns differ by age, gender and socioeconomic status from childhood to adulthood.³ Many parents view screen viewing as a valuable family time, a good way of entertainment, a source of education and as a means of relaxation for their child. Adults and children sometimes use more than one screen device at the same time (such as a TV and laptop) which is called 'multi screen viewing'.

Advantages of moderate use: TV and computers in moderation can be a good thing, not only for entertainment, but media can also be used as an excellent educator. Schoolers can be exposed to science and nature. The danger is too much media exposure and the wrong usage, which discourages more active pursuits. The American Academy of Pediatrics (AAP) recommends that "Kids under 2 years old should not watch any TV, and that those older than 2 should watch no more than 1 to 2 hours a day of quality programming." Most programs should be informational, educational, and nonviolent, and the programs should be monitored.³

Benefits of reducing ST include physical fitness, closer family communication and improved school performance. It is important to provide children with opportunities to learn through social interactions and face-to-face conversations. Children's sleep, behaviour and school work improves when their parents closely track their media use, according to a new study published in JAMA Paediatrics.

Disadvantages of overuse: Time spent on TV and other media impacts not only young children's language and cognitive abilities, it also adversely affects the development of young children's social skills and emotional understanding. In a study of preschoolers (aged 1-4 years), a child's risk of being overweight increased by six percent for every hour of television watched per day. If that child had a TV in his or her bedroom, the odds of being overweight jumped an additional thirty one percent for every hour watched.⁴

Personal note preparation which involves brainwork is rarely practiced now. Screen has also replaced the handwriting which improves hand eye coordination and sharpens fine motor skills for doing tender tasks.⁵ Opticians believe addiction to smart phones increases the risk of eye damage. Blue violet light is potentially hazardous and may cause macular degeneration, a leading cause of blindness. It is the combination of less blinking and bringing the device closer than normal strains one's eyes and cause more headache."

Determinants of ST: The principal influencing factor for ST is the family dynamics: Parents feel they were time-poor, working long hours and leaving minimal time to be active with their older children which resulted in using small screen recreation as a proxy babysitter, critical role of siblings and caregivers as

role models in relation to physical activity, Secondly, Socio-cultural issues: Some families see co-viewing as "family time"; Many parents value TV as a good educational tool and concern over TV watching is only about content (violence, language). Lastly, there are a number of barriers to changing behaviour: Parents are not concerned about excessive time spent with devices; Parents need to use TV as a safe and affordable distraction and they believe that children should be able to spend leisure time as they wish.

Global scenario: In western countries, screen viewing has been associated with higher levels of cardiovascular risk factors among children and adults. For decades, education researchers have been lamenting that the US is undergoing a "quiet crisis" regarding the education of its most academically talented students. It was noted that the gap between electronics use in the US and India was roughly equal to the gap in time the groups spending on academics.³

Data from the 2008 Health Survey for England indicate that over 45% of boys and 47% of girls in England spend more than 3 hours a day watching TV on weekdays. Access to media equipment, particularly in the child's bedroom, was associated with higher levels of screen viewing among boys and girls.

Recent studies in our country explored that malnutrition and obesity are on the rise among children in urban areas. ICDDR research highlighted that 14% of urban children suffer from overweight problems while 4% are obese. It is not just the lack of physical activity, the faulty food habits of children are responsible as well.

Psychiatrist says how social media can negatively affect users. "The media homepage is filled with information about how the lives of everyone around us are going so happily and perfectly because everybody uploads and talks only about their successes and achievements and don't usually share their failures, insecurities and embarrassing moments". Meanwhile, those failures, embarrassments and problems in own life creates a false impression, which consequently creates a sense of emptiness.⁵

ST guideline: Sedentary behaviour guidelines for young children were recently released as part of new physical activity guidelines in Australia, Canada and UK which state that screen time is not appropriate for those under 2 years of age, and should be limited to less than 2 hours per day for children of all ages.

Key evidence for these guidelines comes from a systematic review examining the relationship between sedentary behaviour and six health indicators (adiposity, skeletal health, motor skill development, psychosocial health, cognitive development and cardio metabolic indicators) in the early years (aged 0-4 years). No definitive optimal amount of physical activity is available, but substantial health benefits are gained from an overall volume or amount of activity ranging from about 150-300 minutes of moderate intensity or 75-150 minutes of vigorous intensity activity each week, or various combinations of moderate and vigorous activity. Activity at the lower end of scale provides

considerable health benefits, including reduced risk of CVD, type 2 diabetes mellitus, psychosocial and musculoskeletal problems. Activity at the upper end of the scale is required for the prevention of unhealthy weight gain and some cancers.⁴

Approach for control: If our child is crying and seeking our attention, we are simply handing him our iPad. Steve Jobs, former CEO of the company that developed iPad once said, when he was asked whether his own children loved Apple's iPad - "They haven't used it. We limit how much technology our kids use at home." Smart phones and Internet have their benefits. If not allowed for a minimal use, our children may fall behind. They need to be technologically competent. But at the same time, there must be boundaries and the supervision of parents.

Potential measures to restrain the problem are raising parental awareness of the association between ST and childhood obesity including negative psychological, behavioural and physiological side effects. Secondly, informing parents of simple changes like removing TV's from bedrooms and turning screen off during dinner. Thirdly interventions that target family screen viewing practices of parents in particular are more likely to be effective than interventions which directly target adolescent.

In order to control ST, reduction of supply is not the best solution. Instead, demand for screen time should be reduced. Parents should look for interesting alternatives such as reading to kids which promotes their language, thinking, motor, emotional and social skills; Choosing picture books with a story; Engaging in conversations with the baby and Use of family time with guitar, board games, gardening etc.

Public health experts and social scientists may also contribute in raising awareness in the society about the pros and cons of ST. Unless we are careful now, the modernization may lead to a pot belly generation with poor thinking ability.

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