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Newly published results of a large scale clinical study show ATENTIVmynd™ Games and care services, significantly improved and sustained attention control in children with ADHD.

The cumulative clinical validation of statistically significant efficacy and safety of our non-pharmacologic treatment foreshadows a potential transformation in primary care for a severe chronic global disorder.

This large scale randomized, blinded and controlled study in 172 children with ADHD demonstrated that ATENTIVmynd™ Games can significantly improve and sustain attention control in children with ADHD when given eight hours of training over eight weeks with a minimum of 24 sessions. Attention control was sustained for as long as children were followed, which was up to six months. These results are particularly encouraging because this study was three times larger than our previous US clinical and school study, was blinded and demonstrated efficacy in a broadly Asian population of children.

The publication of the study, entitled “*A randomized controlled trial of a brain-computer interface based attention training program for ADHD*”, is available online in the peer-reviewed journal *PLoS One* (<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0216225>). The study was funded by the National Medical Research Council in Singapore. The study intervention was co-developed with the Institute for Infocomm Research, a research institute in Singapore and is a prototype of the current ATENTIVmynd™ Games application for children ages six to twelve.

This study, along with the previously reported sub-study published in *Translational Psychiatry* in August 2018, (www.nature.com/tp/) and prior clinical, school and home studies by Atentiv, provide evidence of the efficacy, sustainability, safety and utility of a non-pharmacologic therapeutic approach to remediate poor attention and inhibition symptoms in children with ADHD by re-wiring the brain networks regulating attention.

Historically, providers and payers could not serve all consumers with readily accessible, affordable, safe and sustainable therapeutics for the remediation of cognitive dysfunctions due to poor attention and inhibition control. Upon product launch, ATENTIVmynd™ Games and care services will engage and enable consumers to manage their cognitive skill health. Providers and payers will be able to transform volume and fee-for-service based primary care practices to value-based and patient-centered clinical evaluation and management. I see the potential for major improvements in the quality and durable outcomes of healthcare with significant cost savings for the consumer, payer and provider.

The children in this study were diagnosed with ADHD, based on the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (DSM-IV) and were enrolled at the Institute of

Mental Health in Singapore. Children were randomized either to a waitlist control group or the intervention attention skills training group, which received the intervention for three sessions per week for eight weeks, followed by one session per week for twelve weeks, and then had follow-up assessments after four weeks without training. The waitlist control group did not receive any cognitive skills training for the first eight weeks, and then received the identical intervention training as the original intervention group. The primary assessment was the blinded clinician-rated ADHD RS-IV inattention score, a nine-item rating scale used to rate the frequency of inattention symptoms based on the DSM-IV criteria.

The primary efficacy analysis demonstrated a statistically significant reduction of inattentive symptoms in the intervention trained group compared with the untreated waitlist control group ($p=0.0177$). The mean change of the inattention symptom score of the ADHD RS-IV at week 8 for the original intervention group on the clinician-rated ADHD RS-IV was 3.5 (Standard Deviation (SD) 3.87) points, compared to a corresponding mean change of 1.9 (SD 4.42) points for the waitlist control group. The mean difference between the groups was 1.6 (95% Confidence Interval (CI) 0.3 to 2.9, $p = 0.0177$). The analysis of the durability of effect demonstrated a mean change of 4.7 (SD 5.94) points of the inattention symptom score of the ADHD RS-IV from week 0 to week 24 for the original intervention group and a mean change of 2.0 (SD 4.26) points from week 8 to week 32 for the waitlist control group (while exposed to the original intervention). Pooling of the data from both groups while exposed to the intervention revealed a mean difference of 3.3 points of the inattention symptom score of the ADHD RS-IV (95% CI 2.5 to 4.2, $p<0.0001$).

About ADHD: Attention Deficit/Hyperactivity Disorder affects about 11% of children globally. The core observable symptoms are inattention, impulsivity and hyperactivity. It is a complex condition involving several interconnected brain regions, it effects all other executive functions, including memory, abstract reasoning, critical thinking and decision making. Causes of ADHD include both genetic and environmental components. Current treatment approaches for ADHD include medication, psychosocial interventions (behavioral therapy, parent training and academic accommodations), working memory training and neurofeedback.

About ATENTIV, LLC: ATENTIV, LLC is a digital therapeutic company that develops and markets a platform of digital therapeutics and integrated care services targeted at the prevention and treatment of childhood developmental disorders, beginning with ADHD.
(<http://www.atentiv.com>)