

# Analysis of Drug Therapy and Cognitive-Behaviour Modification for Children with Attention Deficit Disorders Without Hyperactivity

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**Abstract.** Drug therapy and cognitive-behaviour modifications (CBM) are two interventions most commonly applied for children with attention deficit disorders without hyperactivity (ADD/noH). Given alone, the drug therapy is effective in enhancing children's ability to concentrate, but there are many negative effects that need to be avoided as far as possible (e.g.: side-effects, tolerance effect, psychological dependence on drugs, etc.). On the other hand, although the CBM is very promising, it still has some weaknesses considering the cognitive ability of the children to comprehend the training, the possible disturbances for other classmates that caused by the children practising self-talk in the classrooms, and the ability of children to generalise or transfer the skills acquired in the training (therapy) with therapist's guidance into the real life or daily circumstances without guidance. Combining the two approaches would probably alleviate the weaknesses of each approach but still maintain the strengths of each approach. However a better design research and a longitudinal approach need to be used to investigate the effectiveness of the integrative approach.

Attention ability is very important in human life to comprehend something. Before being able to perform other cognitive processes — such as digesting, perceiving, and solving problems — first of all, a person has to be able to focus his/her attention to specific information or stimulus. After that, he/she must be able to sustain his/her attention as long as the other processes take place. Take as an example, a child who encounters a mathematical problem. First of all, he/she must be able to focus his/her attention to the task and keep maintaining his/her attention until the whole task is completed. This principle of attention focusing applies not only in educational setting, but also in almost any other human activities.

Individuals who are able to focus their attention will have several benefits. Firstly, they can increase their accuracy of perceptual judgements by selecting the incoming information and also increase the accuracy of actions they will execute. In other words, the individuals will be more alert to the incoming stimulus and to the actions that have been executed or will be executed. Secondly, they can accelerate perceptual judgements and anticipate actions better. It means that they will be faster in judging the stimuli and selecting appropriate actions for the stimulus. For example, a driver who stopped and then pays attention to the traffic lights will be able to react faster when the traffic light turns to green. Thirdly, attention ability allows us to sustain a perception or an action for extended periods of time even