Mindfulness-Based Methods and ADHD:

Do They Help?

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If the assessment of ADHD as attentional learning deficit is correct, mindfulness-based training as a form of meta-cognition should be an effective treatment strategy. If it is not, then aetiologically the biological component appears to outweigh the psychological one.

Mindfulness-Based Methods

Edel et al. (2017) report similar, but small effect sizes of mindfulness-training compared to behaviour therapy in a group of 91 adults. A 30% reduction in ADHD symptoms was observed, compared to 11.5% in the behaviour therapy group. A systematic review regarding interventions based on meditation was inconclusive. There were only 16 studies identified in total. Studies involving meditation appeared to lack methodological scrutiny and contain a high risk of bias (Evans, 2017).

A cognitive-behavioural method focusing on self-as-context, which comes close to the concept of mindfulness, is acceptance and commitment therapy (ACT; 2009). Murrell et al. (2014) found some evidence for lowered Reliable Change Index, Behaviour Assessment Scale, and Bull's-Eye Values Assessment scores in urban area school children (N = 9). However, the effect sizes were small, not all participants improved, and some got worse. As one observation, parents and teachers in this setting did not comply with measures that were previously agreed upon. Understanding the questionnaires presented

a second challenge to the participants. Overall, there is a lack of research on the sole effectiveness of ACT regarding ADHD, and environmental support appears to exert substantial influence on the effectiveness of therapy.

General Cognitive-Behavioural Methods

Petterson et al. (2017) found a cognitive behavioural therapy (CBT) effective post-treatment and at 6 months follow-up, with no difference between internet based self-help or group based sessions. Their intervention targeted behaviour analysis, mindfulness and acceptance, time management, attention skills, distraction reduction, planning, organisation, behaviour activation, and anger control, using ACT-based methods as one part of a package. However, the sample sizes were small, the control groups not attention matched, only self-rating was available, and many of the participants were on medication. In their meta-analysis of CBT interventions for ADHD in adults, Knouseet al. (2017) found medium-to-large effects in self-reports (symptoms and functioning), but only small-to-medium effects compared to placebo controls. Longer interventions, however, did not lead to larger improvement, and no difference between mindfulness and skill-based intervention was found. Currie et al. took advantage of an insurance policy expansion in Quebec, Canada, that covered stimulants for ADHD. However, they did not find enhanced medium-to-long-term outcomes.

Conclusion

The overall situation with regard to ADHD is ambiguous. Causation appears to point towards biological factors. There is some evidence that behavioural therapies can complement treatment, but the underlying biological components of ADHD appear to outweigh the cognitive component (Pettersson et al., 2017). If the above-

described serotonin overdrive hypothesis with respect to focus is correct, stimulants like ritalin may not be the first line treatment in ADHD, and further studies are necessary for drugs that target down-regulation rather than activation.

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