New work on the brain and addiction

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The brain has become an important part of how we understand ourselves as human beings. Almost everything is nowadays explained by references to the mechanisms of the brain: consumption behaviour, political activity, career choice and marital status. In fact, it is difficult to come up with a single social phenomenon that has not yet been connected to the brain. It is a central and exciting part of the human biopsychosocial essence. This also applies to addiction. In the field of addiction studies, the neurosciences have been provided enormous space in the form of expectations and financial grants. According to the so-called brain disease model of addiction (BDMA), addiction is a chronic brain disease and it is thought that in the future it will be possible to medicate or manipulate the disease with various concrete tools. The evidence seems to be unequivocal: imaging of brains has shown how “kicks” of dopamine and serotonin light up in people who are addicted to alcohol or gambling even when only thinking about drinking or playing, not even engaging in the behaviour.

In recent years, however, a rapidly growing group of scientific authorities – including several well-known neuroscientists – have pointed out how weak and relative the evidence for brain research really is. They believe that neither the brain nor addiction problems are as easily programmed as the BDMA suggests. The same activity in the brain has shown to take place in other contexts: in everyday situations such as when we watch sports competitions or exciting movies, or when we feel great nervousness and it then releases. Because of brain plasticity, it is almost impossible to diagnose a person’s bad habits solely on the basis of brain imaging. Does the image of the brain from last year still represent the brain as it looks today? How do you “tie” the appearance of the brain to the person and their life situation? Here, psychology has become the helper of the brain disease model in that it provides the neurosciences with concepts and phenomena to search for in the chemical processes of the brain.

Two new titles

This spring there are at least two brand new titles worth checking out for anybody interested in how evidence on the brain can support knowledge production in the addiction field.
The first is the Routledge anthology volume edited by Nick Heather, Matt Field, Antony C. Moss and Sally Satel, with both new and re-printed contributions concerning the BDMA (Heather et al. 2022). Chapters are ordered into sections representing texts that are “For the BDMA”, “Against the BDMA”, “Unsure of the BDMA” and “Alternatives to the BDMA”. The result is a massive collection of 44 chapters that together have been described as a “landmark volume” with tens of contributors, many of whom are world renowned names in the addiction field.

The second book is a Palgrave Macmillan-published monography by an international author group of social scientists from Finland, Canada and Germany, including myself as first author (Hellman et al., 2022). The focus of research is here how understandings of the brain affect our view of reality. We examine this aspect among experts and professionals in addiction care, in media material about new neuroscience findings, in various prevention campaigns and among clients of one of the world’s largest addiction care units (CAMH) in Toronto, Canada. We have mapped and explained how brain-related understandings and concepts affect how we view addiction as a phenomenon.

Our research shows that brain-related understandings, including our knowledge of what is possible to prove and comprehend through brain research, have enormous significance for how we perceive addictions and the people who live with addiction. Diagnosing addictions as brain diseases can make people feel that their problems are taken seriously and they feel themselves that it alleviates the great burden of stigma that they are exposed to in everyday life. At the same time, the diagnosis removes agency, and can give unrealistic hopes for easy medical solutions to complex social and cultural problems. The experts in our research do not deny that the brain plays a crucial role as a place where the creation and materialisation of problems takes place. But they do not support the disease model as a dominating basis for individual or societal efforts. The disease model was also not a very commonly occurring or particularly important concept for clients in addiction care.

In this issue

Ramstedt et al. (2022) show that restrictive parental attitudes towards youth drinking may have contributed to the decline in youth drinking in Sweden. The study by Pistella and colleagues (2022), for its part, suggests that an average level of parental involvement in mothers seems to prevent adolescents from developing inordinate alcohol use patterns. This range of involvement could likely be considered characteristic of an authoritative parenting style, which is widely accepted as a predictor of the most optimal outcomes in children. However, both the lowest and the highest levels of maternal involvement correlated with adolescents’ more risky behaviour in alcohol use.

Hoff’s study on doping (Hoff, 2022) concerns life situations in which doping occurs. The studied subjects had different reasons for and ways of using, and Hoff suggests that this can be understood in terms of reflexive body regimes.

Nyuyen and colleagues (2022) have studied and compared two telephone helplines in Sweden. Both interventions were significantly associated with a shift to a lower level of risky alcohol use after 12 months. There was no difference between the two interventions in the proportions changing alcohol use or sustaining risk level reduction.

Del Palacio Gonzalez and Pedersen (2022) studied youth substance use, and showed that having a close friend who uses illicit drugs, and high externalising symptoms, predict the risk for using substances. Alcohol use was more consistently related to peer-related variables than to symptoms. Smoking cigarettes, cannabis use, and Orally Inhalated Drug (OID) use were related to peer and symptom variables. Parental separation was related more strongly to alcohol use among adolescents The authors emphasise that interventions and policies should address social, developmental, and psychological factors.
Hystad and Wangensteen (2022) explored the narratives of former substance use disorder (SUD) inpatients after their discharge from long-term SUD treatment. Most of the participants continued to use substances in some way, and some reported that such use did not affect them negatively. The authors conclude that complete sobriety might not necessarily be the best or the only way to assess the SUD treatment stay. Instead, they see that an improvement in the quality of life and well-being, even when core symptoms are still present, may be considered a successful treatment outcome.

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