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Clinical hypnosis – a revitalisation of the art of medicine

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The effect of clinical hypnosis is now so well documented across several conditions that it should be part of the treatment offered to many patients – both adults and children. Its implementation in clinical practice, however, goes surprisingly slowly.

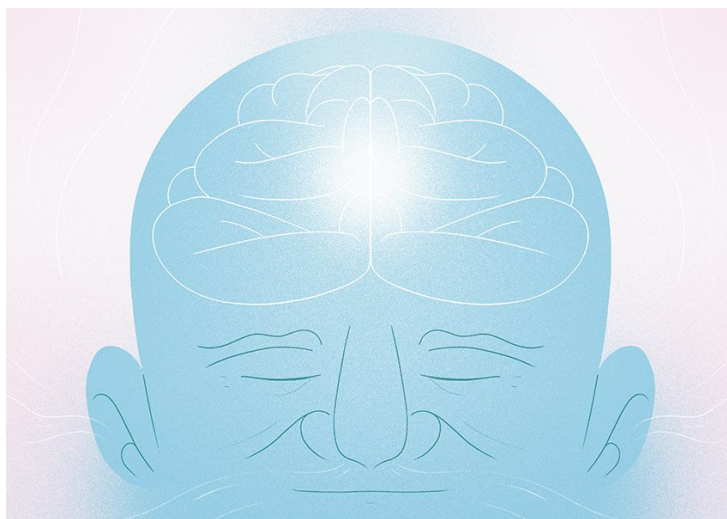


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Today, an increasing evidence base supports the claim that clinical hypnosis is a safe and effective treatment of conditions such as acute, chronic and procedure-related pain, irritable bowel syndrome, anxiety, depression and sleep disorders (1–5). Clinical hypnosis also appears to increase the effect of other therapeutic approaches and can be useful as part of a complex intervention in the treatment of chronic pain, for example (6, 7). Furthermore, audio recordings of hypnotherapy sessions for self-exercise practice have been shown to be an effective treatment (8). It also appears that patients who have learned hypnosis skills continue to use self-hypnosis as part of their management of symptoms and life coping (9).

Lack of implementation

In our opinion, we now have sound documentation of the efficacy of clinical hypnosis in the treatment of a number of medical and psychological conditions. Accordingly, hypnosis should be part of the established treatment options for many patient groups in different age segments. However, its implementation in clinical practice is proceeding very slowly.

The reasons may be diverse. Many associate the phenomenon of hypnosis with something mysterious and esoteric, available only to the initiated. In particular, the use of hypnosis as spectacular entertainment has given rise to misunderstandings, such as the belief that the hypnotist is in full control of the hypnotised person, that people can be hypnotised against their will, and that suggestions can trigger actions that conflict with the hypnotised person's values and morals. It is especially unfortunate that it is this mysterious aspect of the *hypnotic state* which is highlighted, at the expense of *suggestion*, which is a recognisable phenomenon for most clinicians.

Moreover, both healthcare professionals and the population are still influenced by the traditional biomedical understanding of illness that makes a clear distinction between the physical and the mental. In such an outdated picture of reality, the phenomenon of hypnosis is difficult to grasp. In addition, training in hypnosis is virtually absent in study programmes in medicine and psychology in Norwegian universities, and education programmes for professionals are few. As a result, there is a dearth of healthcare professionals who have updated knowledge and competence in this area. Many patients who might benefit from clinical hypnosis are therefore not offered such treatment.

What is clinical hypnosis?

Clinical hypnosis – or hypnotherapy – is a relational process where hypnosis skills are used in the treatment of medical or psychological conditions (9, 10). The purpose is to reduce symptoms and increase the patient's experience of coping and control (9). It is essential that knowledge and skills in hypnosis are *integrated* into clinical practice, and not only seen as an instrumental procedure (8, 11).

A hypnotic state, also referred to as a trance, is often defined as a spontaneously occurring or induced state of consciousness with focused attention directed at something important, combined with reduced peripheral awareness (9). A person in trance has also an enhanced capacity to respond to suggestions (9). Suggestions, i.e. what is communicated verbally or non-verbally to a patient who is in trance, is central to hypnotic communication and invites the patient to experience themselves or the world in a new way. Suggestions can lead to changes in the patient's sensations, perception, emotions, thoughts and behaviours (7, 8). A person who responds to hypnotic suggestions is often referred to as hypnotisable (7, 9). To increase the patient's susceptibility to suggestions, the therapist can help the patient enter a trance state by using specific techniques (inductions), such as eye fixation, progressive muscle relaxation or guided imagery (7).

The use of hypnosis as spectacular entertainment has given rise to misunderstandings, such as the belief that the hypnotist is in full control of the hypnotised person

Research on clinical hypnosis is rapidly evolving, and our understanding of this phenomenon is developing in parallel (7, 12). Much remains to be elucidated. For example, it is still unclear whether the effect of suggestions is dependent on the use of induction and whether the patient is in trance or not (7, 12). Researchers have reported a strong correlation between people's response to suggestions both when they are in and not in a trance (12). It is also possible that the effect of induction can be linked to increased motivation and expectation in the patient (12).

The doctor-patient consultation

There is an increasing interest in the therapeutic effect of beneficial clinical communication where the fundamental elements of hypnosis are applied (8, 11). Many patients will automatically fall into a trance-like state – with focused attention and increased susceptibility to suggestions – when they enter a doctor's office, are admitted to hospital, experience pain, are about to undergo a painful medical procedure or treatment, or receive important information on worrisome symptoms (11).

What the doctor, therapist, nurse or biochemist is communicating to the patient in the clinical encounter may therefore have a decisive impact on the patient's expectations for what is about to happen, assessment of risk, expectations about control and coping, and thereby also on the patient's illness behaviour (8, 11, 13). For example, it seems as though negative suggestions ('It's nothing dangerous, don't cry!') do more harm than good ('This will be fine, you can be calm and confident!') (11, 13). Communicating a lack of understanding or recognition of the patient's experiences may also have a negative effect on the course of illness and symptoms ('We cannot find any explanation for your pain – it must be all in your mind') (13).

It is essential that knowledge and skills in hypnosis are integrated into clinical practice, and not only seen as an instrumental procedure

Arguably, we can say that *changing* the patient's expectations about the course of symptoms and illness or the experience of control in a given situation is an important part of the treatment (11, 14)? If so, the medical consultation provides a golden opportunity. As we see it, deliberate use of hypnotic communication in the doctor-patient consultation to promote healing powers in the patient and represents a large and unused potential.

In an elegant study it was shown that the *meaning* of pain changed from negative to positive in healthy participants through positive verbal information (suggestions) given before a painful procedure. The only difference in the research setup between the groups that were compared, was the use of positive versus negative verbal information ('This procedure is beneficial for your muscles' versus 'This procedure will cause you some pain'). The researchers concluded that '... when the meaning of the pain experience is changed from negative to positive through verbal suggestions, the opioid and cannabinoid systems are co-

activated and these, in turn, increase pain tolerance' (14). Furthermore, a person's experience of control has been reported to reduce pain and discomfort from acute-onset pain, and is associated with better functioning in chronic pain conditions (15).

Neurobiological basis

Examinations with functional MRI of persons in a trance show changes in activity in all three main cortical neural networks – the central executive network, the salience network and the default mode network. These are associated with executive functions, salience and introspection respectively (16).

Two patterns recur in the studies (16). The first concerns activation of frontal parts of the central executive and salience networks, which are associated with attention, executive control and cognitive monitoring. The second pattern concerns deactivation in the frontal parts of the default mode network, which is associated with self-related thoughts and internal attention. Roughly speaking, this fits with the characteristics of trance. For example, deactivation of parts of the default mode network can fit well with reduced racing thoughts and automatic thoughts (for example undesirable thought patterns), while activation of the salience network and parts of the central executive network can fit well with focused attention and reduced distractibility. The most specific activation seen in hypnosis appears to be limited to a small area of the lingual gyrus, not far removed from the visual cortex (16). This area is associated with mental imagery that is undoubtedly important in hypnosis. In addition, investigations of brain activation associated with specific suggestions reveal changes that are to be expected based on the nature and content of the suggestion (16).

Deliberate use of hypnotic communication in the doctor-patient consultation to promote healing powers in the patient represents a large and unused potential

Judging from the amount of activity in brain networks, there is nothing to indicate that the neurobiological basis for the trance state is fundamentally different from other mental states. Findings from brain scans nevertheless have value by providing a mechanistic understanding of specific cognitive processes, thereby strengthening or weakening psychological explanatory models. In a perspective that transcends biological mechanisms, the findings from brain scans tell us little more than that trance – like all other mental phenomena – have a correlate in the brain. This should come as no surprise. We already know that the correlate for thoughts and actions is synchronised oscillating activity in widespread brain networks. Findings from brain scans are nevertheless used as a 'validation of the participants' subjective response to hypnosis' (17). In other words, prominent researchers claim that people's experiences must be validated by brain research to be accepted as real. Apparently, a reductionist approach to complex human phenomena remains widespread.

The education programmes need to be improved

The authors of this article all have key roles in an education programme in clinical hypnosis and communication for doctors and psychologists who work with children and adolescents (18). In our experience, the programme participants quickly recognise that they already – more or less unconsciously – integrate elements of hypnosis and hypnotic communication in their own clinical practice. However, systematic training provides more knowledge about and skills in hypnosis, and a better understanding of which patients may benefit from such treatment. Training may also provide experience in how hypnosis can be *deliberately* integrated into clinical practice to promote adequate and effective treatment for the good of the patient. We believe that hypnosis represents an opportunity to revitalise the art of medicine.

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