### CASE REPORT



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# Headache management through hypnosis: A case report

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## ABSTRACT

Studies have shown impact of hypnosis on pain management. The current case report is focused to find the impact of a novel hypnotic technique for headache management. Unpublished data on old novel therapy has shown significant impact on pain management including headache. Our patient had gone through a complete physical examination and clinical interview. For the management of headache, a novel hypnotic intervention, Circle Therapy (CT), was applied. Before the induction of CT, the intensity of the headache was measured through a subjective rating scale (i.e. from 0 to 10) to be 9. Post-hypnosis rating was measured to be zero. This brief intervention provided an immediate relief from headache, however, this experience is limited to a single case. So, there is need to see the effect of CT on more cases and/or on different types of pain.

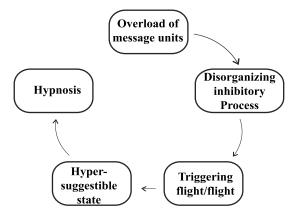
**Key words:** Pain management; Circle therapy; Headache; Suggestibility; Hypnosis; Psychotherapy

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### **INTRODUCTION**

Pain is a serious health care problem and recent studies have shown that the use of hypnosis is increased for the management of pain. Recent evidences has indicted the impact of hypnosis in reducing the pain associated even of medical origin.<sup>1</sup> Sufficient number of case studies on hypnosis have shown a remarkable impact on the pain reduction and management.<sup>2,3</sup> Studies have also indicated that hypnosis is effective in all kinds of pain i.e. acute or chronic, cancer pain, headache, lower back pain, arthritis, sickle cell disease, fibromyalgia etc.<sup>4-8</sup>

There are different approaches for induction of hypnosis. However, according to Kappasonian hypnosis, hypnosis is induced by an overload of information to the mind from the environment, the body and/or conscious and subconscious mind, called message units. Overloading the message units block the critical mind, activating our fight/flight process, and finally reaching the sub-conscious mind that creates a hyper-suggestible state, called hypnotic state or hypnosis.<sup>9</sup> The Kappasonian model of induction of hypnosis is shown in Figure 1.



# Figure 1: The process of induction of hypnosis (Kappasonian model)

When the patient is in hypnotic state, suggestions should be given a particular way, called suggestibility. So, suggestibility can be defined as the manner in which an individual receives and interprets message units. According to Kappasonian model of hypnosis, there are mainly two ways of suggesting the patient during hypnotic state i.e. physical suggestible and emotional suggestible. Physical suggestible are those who have high degree of responsiveness to literal suggestions. Emotional suggestible have high degree of responsiveness to inferred suggestions.<sup>9</sup>

### **CASE REPORT**

A female patient, 30 years, was referred by the medical doctor for assessment and management of headache suspected to be due to psychological origin. She was observed and interviewed to know about any possible etiology of her pain. She was suffering from moderate to severe pain off and on since last three weeks, and was taking analgesic medication since three weeks but no effect except temporary relief.

According to her history, it seemed that there was no medical reason of dental pain. So, on the basis of clinical examination and interview, it was assumed that the headache might be due to psychological factors. Pre-hypnosis pain intensity was assessed at 9 out of 10 on a numeric rating scale and considered severe pain.

As mentioned above, knowing the suggestibility of the patient is important for a good outcome. The patient was assessed for suggestibility through handwriting analysis and finger spreading technique and she was emotional suggestible. She was fully explained about the steps of the process of hypnosis.

The process of hypnosis consisted of the following steps:

**First step:** The patient was relaxed through deep breathing on a recliner in a peaceful dark room. In relaxed state, there are theta brain waves that may be more prone for achieving hypnotic state.<sup>10</sup>

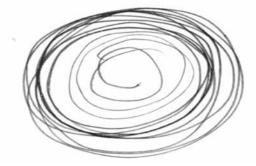


Figure 2: Circle drawn by the patient during hypnotic session.

**Second step:** hypnotic state was created by asking the patient to focus on central point of a circle on desktop of a computer and she was given as opportunity to close the eyes as tired.

Third step: she was given a paper and black pen, while she was in hypnotic state. She was suggested, "To draw a circle clockwise as she start to perceive less pain and keep drawing circle till no pain". After drawing few circles, she was feeling no pain and was in confident and relaxing state. A copy of the picture of the circles drawn by her is shown in Figure 2.

### DISCUSSION

The current case study highlights the impact of circle therapy (CT), a hypnotic technique for management of psychological origin. CT provided an immediate relief from headache through hypnotic suggestions based on Kappasonian model of hypnosis. According to Kappasonian Model of hypnosis, subconscious mind can be reached by blocking the critical mind through an overload of message units and this is explained in the Figure 1.9 In this case report, physical and psychological types of message units were used to disorganize the inhibitory process. Physical message units were included: peaceful room, comfortable chair, deep breathing and psychological: referral (as she was referred by the medical doctor to have hypnotic intervention for the headache), credentials and certifications of the therapist, so the patient has a strong belief on the therapist. These message units have not only a psychological impact but also rationale for induction of hypnotic state, especially physical message units. As the physical message unit we used in this case study produces relaxation which has impact not only on pain relief but relaxed state may be more suitable for induction of hypnosis.<sup>11</sup> As the patient was in hypnotic state (procedure described above), therapist gave a direction to draw a circle clockwise, as she started to perceive less pain and to keep drawing circle till there was no pain. The therapist was repeating the suggestion with low tone, "Keep drawing the circle clockwise till no pain". This way of suggestion is called emotional suggestibility, as she was observed emotional suggestible through finger spreading technique. In finger spreading test, clients are suggested to spread their fingers in front of their eyes two times. One time, they are suggested with low tone and other time with loud tone to spread their fingers and time is noted for both. If they are more responsive to low tone, they are emotional suggestible and they are physical suggestible if they are more responsive to loud tone. Emotional suggestible people can be suggested better through inferred suggestions with low tone of voice.<sup>9</sup> The client signaled with her finer after drawing few circles that indicated she has no pain. The author names this technique as 'Circle Therapy', as this technique involves drawing the circle in hypnosis. This technique also follow the concept of perceptual and cognitive distraction are implicated in reduction of pain perception. This cognitive distraction can be achieved by reaching the subconscious mind, as subconscious mind as more powerful and hyper-suggestible.<sup>12,13</sup>

This case study is focused on psychological pain rather than any biological origin. Studies have shown that psychological factors may be implicated in perception of headache. It has been shown that there is now extensive evidence that psychological factors influence pain perception. Neuroimaging studies also show that activity in pain pathways is altered by attentional state, positive and negative emotions, stress and empathy.<sup>14</sup> Studies have revealed that pain can be of physiological or psychological origin and researches have suggested that pain either physical or psychological share some underlying neurological mechanisms.<sup>15</sup> The brain areas that are found to be implicated in either type of pain are anterior cingulate cortex and prefrontal cortex and may extend to other regions as well. As similar brain areas are involved in both physical and psychological pain, we should see pain as a continuum that ranges from purely physical to purely psychological.<sup>16</sup>

### CONCLUSION

In conclusion, the study shows that hypnotism techniques is an effective strategy for management of the headache. The use of circle therapy allows us to manage headache without any side effect and eliminates the unnecessary use of analgesics for headache of psychological origin. We feel that we need to apply this technique on more cases and/or on diverse types of pain.

**Conflict of interest:** Authors declare no conflict of interest **Author contribution:** All of the authors contributed equally in procedures, manuscript preparation, literature search and editing. **Consent:** Written informed consent was obtained from the patient for communication this case report with accompanying image.

#### REFERENCES

- Lang EV, Benotsch EG, Fick LJ, Lutgendorf S, Berbaum ML, Berbaum KS, et al. Adjunctive nonpharmacological analgesia for invasive medical procedures: a randomised trial. Lancet. 2000;355(9214):1486-90.[Pubmed] [Free Full Text]
- Jensen M, Patterson DR. Hypnotic Treatment of Chronic Pain. J Behav Med. 2006;29(1):95-124.[Pubmed]
- Montgomery GH, DuHamel KN, Redd WH. A meta-analysis of hypnotically induced analgesia: how effective is hypnosis? IntJ Clin Exp Hypn. 2000;48(2):138-53.[Pubmed]
- Haanen HC, Hoenderdos HT, Van Romunde LK, Hop WC, Mallee C, Terwiel J, et al. Controlled trial of hypnotherapy in the treatment of refractory fibromyalgia. J Rheumatol. 1991;18(1):72-5. [Pubmed]
- Appel PR, Bleiberg J. Pain reduction is related to hypnotizability but not to relaxation or to reduction in suffering: A preliminary investigation. AmJ Clin Hypn. 2005;48(2-3):153-61.
   [Pubmed]
- 6. Jensen MP, Hanley MA, Engel JM,

Romano JM, Barber J, Cardenas DD, et al. Hypnotic analgesia for chronic pain in persons with disabilities: a case series. Int J Clin Exp Hypn. 2005;53(2):198-228.[Pubmed]

- Gay MC, Philippot P, Luminet

   Differential effectiveness of psychological interventions for reducing osteoarthritis pain: a comparison of Erickson hypnosis and Jacobson relaxation. Eur J Pain. 2002;6(1):1-16.[Pubmed]
- Elkins G, Marcus J, Cheung A, Palamara L, Rajab H. Hypnosis to reduce pain in cancer survivors with advanced disease: a prospective study. Psycho-oncology. 2005;14:S63.
- 9. Kappas JG. Professional Hypnotism Manual: Introducing Physical and Emotional Suggestibility and Sexuality: Panorama Publishing Company; 1987.
- Jensen MP, Adachi T, Hakimian S. Brain oscillations, hypnosis, and hypnotizability. American Journal of Clinical Hypnosis. 2015;57(3):230-53.[Pubmed] [Free Full Text]
- 11. Vickers A, Zollman C, Payne DK. Hypnosis and relaxation therapies.

West J Med. 2001;175(4):269-72. [Pubmed] [Free Full Text]

- Spiegel H, Spiegel D. Trance and treatment: Clinical uses of hypnosis: American Psychiatric Pub; 2008.
- Lynn SJ, Shindler K, Meyer E. Hypnotic suggestibility, psychopathology, and treatment outcome. Sleep and Hypnosis. 2003;5:2-10. [Free Full Text]
- Villemure C, Bushnell CM. Cognitive modulation of pain: how do attention and emotion influence pain processing? Pain. 2002;95(3):195-9.
   [Pubmed]
- Meerwijk EL, Ford JM, Weiss SJ. Brain regions associated with psychological pain: implications for a neural network and its relationship to physical pain. Brain Imaging Behav. 2013;7(1):1-14.
   [Pubmed] doi: 10.1007/s11682-012-9179-y.
- Biro D. Is there such a thing as psychological pain? And why it matters. Cult Med Psychiatry. 2010;34(4):658-67.[Pubmed] [Free Full Text]doi: 10.1007/s11013-010-9190-y.

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