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Hypnosis (Hypnotherapy) in Patients before Operation: Integrative Literature Review

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ABSTRACT

Background: Patients before being operated felt anxiety, which affect the physiological status of the patient and can further have an impact on changes in the patient's hemodynamic and clinical status. Fear of the process that will be undertaken, imagining the pain that will be suffered and the existence of other factors, namely the lack of support for the preparation of surgery from family members and people around the patient is a burden for the patient. **Purpose:** To review existing hypnotherapy and design to improve the patient's readiness for surgery, anxiety/ worries and pain. **Methods:** Literature search from CIAHL, Scopus, PubMed, International Anesthesia Research Society (IARS), and Google Scholar 2002-2020, on this topic using hypnotherapy in preoperative preparation as keyword showed 8 related articles. **Results:** From the results of literature studies it was found that there are several benefits of giving hypnosis before surgery. Hypnosis can also be termed as giving hypnotherapy. The impact is in the form of positive changes. There are various advantages of applying hypnosis to pre-operative patients in several countries such as France, Indonesia and America, including, reducing pain, reducing anxiety among patients to be undergoing surgery, preparing patients for surgery and reducing other post-operative impacts. **Conclusion:** Hypnosis can be applied in the cases of advanced preoperative patients, which can improve self-preparedness and can even decrease postoperative pain.

Keywords: Hypnosis; Anxiety; Pre-surgery

INTRODUCTION

Hypnosis is often interpreted as an attempt or way for others to influence the thoughts of others that would benefit those who perform hypnosis. In some countries hypnosis is only performed with a specific purpose such as committing a crime or simply doing for entertaining purposes on stage. The term hypnosis was first coined by Etienne Felix d'Henin de Cuvillers in 1820, defining the condition of a person or group of people who experience change, even the subject's memory and awareness is altered as a result of solicitation or suggestion (Wobst, 2007).

The use of hypnosis for the benefit of surgery began in the 1830s by physicians, since then several trials were conducted, that aimed at reducing the action of postoperative pain by providing advice and stimulus to the minds of some researchers trying to compare the effects of hypnosis with the effects of acupuncture, aspirin, or diazepam (Wobst, 2007). According to Amraoui *et al.*, (2018), preoperative hypnosis has been shown to have the effect of reducing perioperative anxiety, reducing pain by measuring the Visual Analog Scale Test (VAS) to analyze the need for treatment and reduces vomiting.

Preoperative anxiety has an impact on physiological and psychological responses, if not handled properly it will cause changes in hemodynamic status so that postoperative can affect the recovery and healing of wounds after surgery (Basir, Awaludin, & Hidayat, 2020; Gunawan & Kristinawati, 2018). For postoperative mastectomy patients, the results suggest that short preoperative hypnosis may be an effective way to control preoperative stress. Similar results were seen in women waiting for surgical diagnostics for breast cancer (Schnur *et al.*, 2008).

Research on hypnosis is even compared with several methods. Data shows up to 89% of patients who are hypnotized before surgery can experience less pain than those who are not hypnotized (Raddaoui *et al.*, 2020; Montgomery *et al.*, 2002). Hypnosis is a non -

pharmacological way to manage adverse surgical side effects. Typically, reviews of the hypnosis literature are narrative, because they are used in a specific outcome domain (eg. a patient reports anxiety about something or pain), and rarely discuss the impact of hypnotic as modalities therapies.

The purpose of this literature review is to assess whether hypnosis has the effect of reducing anxiety, preparing patients for pre-surgery, reducing the effect of surgery on drug therapies used, and reducing pain arising from surgery. The study explores whether hypnosis have a positive impact in the pre-operative stage of patients.

METHODOLOGY

Using this integrated literature review, an up-to-date knowledge of the positive and negative effects of hypnosis in pre-operative patients is obtained. A study of all research results needs to be carried out so that a conclusion can be made. According to Christmals & Gross, (2017), there are 5 stages in the study of literature, namely the identification of the problems, searching the literature, evaluation of the data, data analysis (containing data reduction, display data, comparison of data, draw a conclusion and verification), disseminating the findings.

Electronic data bases such as CINHL, Scopus, PubMed, International Anesthesia Research Society (IARS) and Google Scholar from 2002-2020 are used as literature by using English keyword "Hypnosis" and "Preoperative patients" as an inclusive criterion, and all articles must a complete paper. The exclusive criteria are papers involving intervention in the form of the provision of music, giving a deep breath exercise activity, watching movies and not published in English. The details of the manuscripts used are six empirical research, two narrative texts, in the form of five experimental texts, two mixed method texts and one correlation research text.

Activities	CINA HL / EBSCO	Scopus	PubMed	IARS	Google Scholar
Entire article	14	17	5	3	235
Literature Review	2	2	1	1	2
Data analysis and evaluation	6 empirical study and 2 review study				
The script used	6 experimental studies, 1 mixed method and 1 synthetic narrative				

RESULTS

From the results of literature studies, there are several benefits of giving hypnosis before surgery. Hypnosis can also be termed as giving hypnotherapy. The impact is in the form of positive effects, while things that are negative are still in the advanced research stage. There are various advantages of applying hypnosis to pre-operative patients in several countries such as France, Indonesia and America, including, reducing pain, reducing anxiety for patients who will perform surgery, preparing patients for surgery and reducing other post-operative impacts.

A person about to undergo surgery will certainly feel anxiety, about the procedure to be undertaken, anxiety about the pain that will be suffered, or anxiety about the impact after surgery (Saadat *et al.*, 2006). Anxiety disorders will be more dominant if not supervised. Anxiety disorders is a mental illnesses that make the patient suffer from feelings of excessive nervousness and worry. Anxiety that is intense and appears for no apparent reason has the potential to reduce the quality of life and make a person unable to live a normal life (Sarastika, 2014).

According Amraoui *et al.*, (2018), post-secondary symptoms include secondary symptoms like nausea/vomiting, fatigue, discomfort along with anxiety. Prolonged-stay of the patients in the postanesthesia care unit (PACU) causes fatigue and patient dissatisfaction. So, in fact every patient prior to surgery needs to be prepared (Gunawan & Kristinawati, 2018). All individual conditions make the patient ready to respond in a certain way to certain situations. These conditions are physical and psychological conditions that will help to achieve the maximum level of readiness, physical and psychological preparedness that are needed to support each other's readiness (Alfabeta, 2010).

According to Schnur *et al.*, (2008) demographic data (age, education, ethnicity, marital status, all P's > 0.28); medical variables (pre-operative diagnosis, previous excitation biopsy, previous breast cancer, all P's> 0.11); or preintervention anxiety (SV-POMS P> 0.74) was assessed on the day of surgery. Post intervention, and preoperatively, patients in the hypnosis group had significantly lower mean scores for pre-surgery with VAS, emotional distress (16.5 vs 38.2, P <0.0001, d = 0.85), VAS depressed mood (6.6 vs 19.9, P<0.02, d = 0.67), and SV-POMS anxiety (10.0 vs 5.0, P <0.0001, d

= 0.85); and significantly higher rates for visual analog scale (VAS) relaxation (75.7 vs 54.2, $P<0.001$, d = -0.76) than the attention control. This means brief hypnosis intervention in the pre-operation stage can be an effective way to control the pressure in case of pre-surgery in women who are waiting for breast cancer diagnostics.

One of the interventions that can be done to suppress the effects of surgery is hypnosis, as a non-pharmaceutical tool to manage adverse surgical side effects. Literature and definition of hypnosis are found which reveals numerous benefits (example mitigate pain), but rarely led to impact negatively on the model administration of hypnosis in pre-post and perioperative patients (Montgomery *et al.*, 2002).

Surgical patients in the hypnosis treatment group had a better outcome than 89% of patients in the control group (Montgomery *et al.*, 2002). These results support the fact that hypnosis is an effective adjunctive procedure for a wide variety of surgical patients. In line with this, according to Schnur *et al.*, (2008) hypnosis can reduce anxiety in patients about to undergo breast surgery. This is also reinforced by the opinion of Haleh *et al.*, (2006) that hypnosis can significantly relieve pre-operative anxiety in adult patients.

DISCUSSION

Impact of Hypnosis on the Brain

Hypnosis is defined as a state in which a person's consciousness changes markedly with the ease with which the person accepts suggestions. As a technique or activity, hypnosis is a communication that influence a person, so that the person's level of consciousness changes, namely by reducing the frequency of brain waves from full awareness to a relaxed or calm state (Amraoui *et al.*, 2018). When the brain is conscious of the production of the hormones cortisol and norepinephrine which play a role in the response to stimuli, worry, stress, and anger, while in the brain calm hormones melatonin, catecholamine, and arginine vasopressin (AVP) cause the mind to be more focused, relaxed, calm, calm, and have potential intuition results (Sunardi, Dodi & Yuniarti, 2017).

Hypnosis Reduces the Effects of Anxiety

In a study conducted by Saadat *et al.*, (2006) on the effects of hypnosis, anxiety was measured pre- and post-intervention as well as at the time of entrance into the operating room. It was found that patients in the hypnosis group were significantly less anxious post-intervention than patients in the control groups (31 ± 8 versus 37 ± 9 versus 41 ± 11, analysis of variance, P = 0.008).

In addition, at the entrance to the operating room, the hypnosis group reported a significant 56% reduction in their level of anxiety whereas the attention control group reported a 10% increase in anxiety and the control group reported a 47% increase in their anxiety (P = 0.001). In conclusion, hypnosis significantly reduces preoperative anxiety (Haleh *et al.,* 2006).

In addition, other studies have revealed that anxiousness and chronic pain in patients is an expression of the disorders of the pituitary-adrenal hypothalamic axis. This system is largely responsible for the resistance response to stress. Given that stress is a major factor contributing to depression and chronic pain, this may explain the physiological link that has been found between depression and chronic pain (Gill, 2018).

Hypnosis Reduces Pain

One study in the literature review revealed that anxious patients have increased awareness of pain (Basir, Awaludin, & Hidayat, 2020). Hypnosis is also about the hypothalamic pituitary adrenal axis, which is normally activated during the response to stress, but it is also known to play a role in the development of chronic pain. The stimulation of axis coupled with saturation of the cytokines is responsible for pain perception (Goodin *et al*, 2012).

Recent studies have shown that changes in gray matter material are frequently seen in patients suffering from pain and have a direct impact on the psychological well-being of patients. This directly reflects the level of anxiety and depression experienced by pain sufferers (Bushnell *et al.,* 2015). In fact, the reduction of gray matter exacerbates and prolongs pain sensation (Apkarian, 2004; Geha *et al.*, 2008, Bushnell *et al.,* 2015).

To control the pain the technique of hypnosis can be an alternative, it is necessary to be given as a pre-surgery hypnosis, to change consciousness, the dissociation of peripheral consciousness, and increased responsiveness for cues provided, which is effective in controlling somatic pain in the long term (Gill, 2018).

Hypnosis Reduces Post-Operation Negative Effects (Nausea, Vomiting)

Field studies suggested that there are several side

effects of anesthesia after surgery, including headaches, dizziness, nausea, anxiety, or panic (Saadat *et al*., 2006). However, this can be overcome by giving hypnosis before the surgery process (Hermes *et al*., 2004).

A literature review in the late 1980s documented several cases of patients displaying detrimental behavior after hypnosis. Adverse reactions or hypnotic complications consist of "unpredictable, unwanted thoughts, feelings, or behaviors during or after hypnosis that are inconsistent with agreed goals and interfere with the hypnotic process by interfering with optimal mental function (Wobst, 2007).

The most common adverse reactions related to hypnosis are suspected include drowsiness, dizziness, stiffness, headache, or can even lead to more anxiety. More serious reactions such as symptom replacement and masking of organic disturbances can also occur. These adverse reactions are associated with deficiencies in hypnotic techniques, such as not realizing that suggestions in hypnosis are taken literally, taking the patient out of a trance too quickly, using age regression inappropriately, not eliminating preconceived expectations of the negative consequences of hypnosis before starting the session, or not prescreening for specific psychopathology (Stewart, 2005).

CONCLUSIONS

One of the ways to overcome mental health problems and physical stress before and after surgery is hypnosis or hypnotherapy. This method is an effective method to calm the mind so that all problems related to worry can be mitigated. Hypnosis or Hypnotherapy can help to get rid of unwanted or unhealthy habits and replace them with something better. Another method of intervention is to increase patient ability to control pain or anxiety, so that adverse thinking patterns can be eliminated. This way other pre and post-operative effect can be reduced, and depression can be resolved.

Conflict of Interest

There is no conflict of interest in this paper.

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