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The effect of guided imagery relaxation to overcome the pain scale in mr. Ph with a head injury in the galilee room at rsu hkbp balige, toba regency

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ABSTRACT

A head injury is an injury caused by a blunt or sharp object impact, which is characterized by a lump or swelling of the wound, or bruises on the scalp, experiencing confusion and difficulty contracting. This study aims to perform guided imagery relaxation management to reduce the pain scale in Mr.PH with head injuries. This research method is a case study using a descriptive design that is focused on the application of guided imagery relaxation to treat pain in clients with head injuries. The results of the case study Mr. PH, 45 years old, was brought by a resident to the hospital with a torn wound on his head. The focus of nursing action is to provide guided imagery techniques/guided imagination to clients to reduce pain. After three days of treatment, the problem of pain has not been resolved but has been reduced and can carry out guided imagination independently. Nurses as health workers should teach and accompany clients with head injuries with guided imagination techniques to reduce the intensity/scale of pain.

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1. INTRODUCTION

Traffic accidents are a global health problem as a cause of death, disability and mental deficits. The World Health Organization (WHO) in 2022 reports that road accidents kill more than 3,500 lives every day and the number of deaths reaches nearly 1.3 million and around 50 million injuries each year. The World Health Organization is embarking on a campaign to reduce millions of road traffic deaths and injuries by at least half by 2030. This move follows the August 2020 adoption by the UN General Assembly of the Decade of Action for Road Safety. WHO cites road traffic injuries as the leading cause of death worldwide for children and adolescents aged 5 to 29 years (WHO, 2022).

In Indonesia alone according to the Ministry of Transportation (Kemenhub) reports, the number of land traffic accidents in Indonesia will reach 103,645 cases in 2021. This number has increased by 3.62% compared to the previous year of 100,028 cases. Statistical data from the National Criminal Information Center (PUSIKNAS), traffic accidents that occurred throughout 2022 from January 1 to December 31, namely 25,138 traffic accidents. With the highest type of accident front-to-front collision, the number reached 3,503 accidents. The highest accident incident occurred on the internal time of 8 am-12 noon. The reason is, more than 5,000 victims had accidents with minor

injuries. There are three types of traffic accident victims, namely minor injuries, major injuries, and death. The highest number of victims were minor injuries with a total of 29. 519 victims or around 76.44 percent. Meanwhile, the number of those who died was the second largest, with a total of 3,706 victims. The remaining 3,706 victims suffered serious injuries (Pusiknas, 2022). Related to the high level of mobility and the lack of awareness to maintain road safety, head injuries are one of the main causes of death for motorized vehicle users. Head injuries due to traffic accidents are one of the main causes of disability and mortality in developing countries. This situation generally occurs in young motorcycles, namely drivers who do not use helmets or wear helmets but do not meet the standards (Mariza et all, 2018). Head injury is brain damage resulting from bleeding or swelling of the brain in response to injury and causes increased intracranial pressure. Increased intracranial pressure will cause distortion and displacement of the brain which will interfere with cerebral perfusion (Rudi Haryono & Maria Putri Sari Utami, 2019).

The exact incidence of head injuries is difficult to determine due to various factors, for example some fatal cases never reach the hospital, on the other hand many mild cases do not come to the doctor unless complications later arise. As many as 480,000 cases per year are estimated to be real incident head injuries requiring hospitalization. Most head injuries occur in men aged between 15-24 years, where the incidence of head injuries in men (55.4%) is higher than women, this is due to high mobility among productive age groups (Nugroho et al., 2018)).

Head injuries directly or indirectly affect the head resulting in scalp injuries, skull fractures, brain tissue damage, neurological disorders, bleeding in the skull, increased intracranial pressure, and decreased brain perfusion pressure. If the situation gets worse, you will experience bradycardia (decreased pulse rate) and even reduce the frequency of respiration (Haryono & Utami, 2019).

The 2018 Global Burden of Disease (GBD) estimates that there are more than 27 million cases of head injury per year, with an average rate of 369 per 100,000 people. About 90% of deaths in the world from head injuries occur in developing countries. Africa is one of the developing countries. Head injuries that occur in Africa are estimated at around 8 million cases per year with an average rate of 801 per 100,000 people originating from traffic accidents. People living in African countries tend to experience traffic accidents more than 2 times (Dixon et al., 2020). It is estimated that 1.7 million people in the United States experience head injuries each year. More than 52,000 people died, 275,000 were hospitalized, and nearly 80% were treated and referred to the Emergency Room.

Peterson et al. (2019) reported that based on the Surveillance Report of Traumatic Brain Injury in 2014, in the United States there were around 2.87 million patients with head injuries. Among them, around 2.5 million people came to the Emergency Room (ER), in which more than 812,000 patients were children. There were around 288,000 head injury patients who were hospitalized, 23,000 of whom were children and 56,800 died, of which 2,529 were children. The cause of patient visits to the emergency room with head injuries has a fairly high prevalence. The prevalence of falling is 47.9%, getting hit by 17.1% and 13.2% for motorized accidents. The highest rate of ED visits with head injuries per 100,000 population is in older adults aged ≥ 75 years (1,682.0), children aged 0-4 years (1,618.6), and individuals aged 15-24 years (1,010.1) (Peterson et al., 2019).

In the results of the 2018 National Basic Health Research (Riskesdas), the prevalence of head injuries in Indonesia is at 11.9%. Injuries to the head occupy the third position after injuries to the lower limbs and upper limbs with a prevalence of 67.9% and 32.7% respectively. The place where the injury occurred was at home and its environment 44.7%, on the highway 31.4%, at work 9.1%, elsewhere 8.3%, at school and its environment 6.5% (Ministry of Health RI, 2019). Injuries to the head occupy the third position after injuries to the lower limbs and upper limbs with a prevalence of 67.9% and 32.7% respectively. The place where the injury occurred was at home and its environment 44.7%, on the highway 31.4%, at work 9.1%, elsewhere 8.3%, at school and its environment 6.5% (Ministry of Health RI, 2019). Injuries to the head occupy the third position after injuries to the lower limbs and upper limbs with a prevalence of 67.9% and 32.7% respectively. The place where the injury occurred was at home and its environment 44.7%, on the highway 31.4%, at work 9.1%, elsewhere 8.3%, at school and its environment 6.5% (Ministry of Health RI, 2019).

Complications that occur in head injuries are increased intracranial pressure, namely pressure that occurs in the cerebral space due to an increase in brain volume that exceeds the tolerance threshold in the cranium space. This can be caused by cerebral edema and cerebral hemorrhage. One of the symptoms of increased intracranial pressure is headache. To deal with pain needs to be done with pharmacological and non-pharmacological. One of the non-pharmacological therapies that can be used is guided imagery pain management.

Guide imagery is the process of using the power of the mind by directing the body to self-healing and maintaining health/relaxation through communication in the body that involves all the senses (visual, touch, guidance, sight, and hearing). In this way, a balance is formed between the mind, body and soul. Simple guided imagery is "the deliberate use of imagination to induce relaxation or avoid unwanted sensations. Relaxation with the guide imagery technique will make the body more relaxed and comfortable in sleep. By doing deep breathing slowly the body will relax (Pusparini, 2017).

Giving Guided Imagery according to (Innez., et al, 2017) can reduce the pain scale in head injuries. This can be applied by nurses because it does not cause side effects. However, Guided Imagery is given as a companion to analgesic drugs, it cannot be given to severe to moderate pain without administering analgesic drugs. Head injuries will be followed by posttraumatic syndromes, posttraumatic syndromes can include headaches, vertigo, insomnia, nausea, vomiting, and decreased consciousness. Sleep disturbance for a long time will affect a person's physical and psychological condition and can cause a long healing process (Nugroho et all., 2018).

Research (Pusparini, 2019) also explains that after guiding imagery the patient still experiences pain, this indicates the patient is not yet free from pain but the purpose of the guide imagery technique itself is not to eliminate pain all at once but how can the patient control his pain because the pain itself arises as a result tissue damage, before the tissue heals, the pain will still be there. Based on the background of this problem, the author is interested in writing a scientific paper entitled "The Effect of Guide Imagery Relaxation on reducing the Pain scale in Mr. PH with a head injury in the Galilee Room at RSU HKBP Balige, Toba Regency".

2. RESEARCH METHOD

This study uses descriptive research with a case study in one stroke patient who experienced a head injury. The study focused on implementing the Imagery Relaxation Guide to reduce the Pain scale in Mr. PH with a head injury in the Galilee Room at RSU HKBP Balige, Toba Regency.

3. RESULTS AND DISCUSSIONS

The results of the study conducted on Mr. PH with a head injury there are lacerations on the head, chin and hands, Location of pain in the head Pain scale (severe pain), pain frequency 8-9 times/hour with a duration of 30-60 seconds/pain, the client says the pain feels like punctured. The client grimaced in pain when he moved his head. The client also complains of dizziness and dizzy vision, the client says he can't sleep because he feels pain in the stitches especially when moving, decreased muscle strength, it's hard to move his right leg, the client's activities are assisted by the nurse and also the family. The client looks weak, the level of consciousness decreases, GCS: 10 E:3 M:4 V:3, BP: 113/67 mmHg, HR:90 x/i, RR:24 x/i, T: 37 OC, SPO2: 89 %.

Based on the patient's data, the diagnosis of acute pain is related to physical injury agents, characterized by the client saying pain in the head, the client grimacing in pain, the client looking restless, the client having trouble sleeping, T: 113/67 mmHg, HR: 90 x/i , RR: 24 x/i, T: 37 OC, SPO2: 89 %, Location of pain in the head, pain scale 8 (severe pain), pain frequency 8-9 times/hour with a duration of 30-60 seconds/pain (D. 0077). The diagnosis of acute related pain was raised in this case because of a laceration to the head after being hit by a car 20 minutes ago.

Nursing Implementation is a follow-up to planning, at this stage there are no difficulties in carrying out nursing care to clients because the provision of nursing care is in accordance with what is in the predetermined action plan and because of collaboration with nurses and other health teams. Likewise with the participation of families and clients, the provision of nursing care does not

experience significant obstacles. The focus of nursing implementation on acute pain problems is identifying location, characteristics, duration, frequency, quality, pain intensity, identifying pain scales, identifying nonverbal pain responses, identifying factors that aggravate and alleviate pain, monitoring TTV,

This is in line with the theory that pain is an unpleasant sensory and emotional experience resulting from actual or potential tissue damage, sudden or slow pain of mild to severe intensity with an anticipated or predictable end and a duration of less than six months (Wilkinson, 2011). Pain is classified as a positive sensory disturbance. In essence, pain cannot be interpreted and measured, but it cannot be denied that pain is an unpleasant feeling and even painful. Pain is a unique sensation. The uniqueness is because the degree of severity and lightness of pain that is felt is not determined only by the intensity of the stimulus but also by feelings and emotions.

4. CONCLUSION

After treatment from March 23-25 2023, provide nursing care and monitor progress notes that have been implemented. After three days of treatment, the client said he could not sleep because he felt pain in the stitches especially when moving, the location of the pain was in the head, the frequency of pain was 2-3 times/hour with a duration of 15-20 seconds/pain, pain scale 4 (moderate pain), pain still occurs when you want to move, BP: 110/70 mmHg, HR: 89 x/i, RR: 20 x/i, T: 36.5 OC, SPO2: 98%, the client and the nurse both perform guided imagination actions and seen enjoying the shadows according to the wishes of the client, the room is safe from noise and sufficient light, complying with visiting hours regulations set by the hospital, the client receives therapy according to the doctor's recommendations: 1 ampoule/8 hours injection of keterolac, the client receives Inj therapy. Keterolac 1 app/8 hrs, Inj. Ranitidine 1 pl/12 hr, Inj. Transamine 500 mg/8 hours.The brain is an organ that is very important for all activities and functions of the body, because in the brain there are various control centers of the body. Head injuries can cause brain damage by causing brain structure damage, so that its function can also be disrupted. Head injuries are mechanical injuries that directly or indirectly affect the head resulting in injuries to the scalp, fractures of the skull bones, tears of the lining of the brain, and damage to the brain tissue itself, as well as resulting in neurological disorders (Hamdani and Husain, 2021). Patients with mild scale pain can be given non-pharmacological guided imagery therapy where this therapeutic process uses the power of the mind by directing the body to self-healing maintaining health/relaxation through communication in the body which involves all the body's senses (visual, touch, guidance, sight, and hearing). The Agency for Healthcare Policy and Research (AHCPR) guidelines for the management of acute pain state nonpharmacological interventions as suitable interventions for clients who meet the criteria that patients seek interventions of interest (Potter & Perry, 2006). Patients with mild head injuries can be given this guided imagery therapy to reduce the pain they feel. Relaxation of this imagery guide will make the patient relax and more comfortable. This therapy is more effective when combined with other non-pharmacological therapies such as deep breathing relaxation (Mariza, 2017) The Agency for Healthcare Policy and Research (AHCPR) guidelines for the management of acute pain state nonpharmacological interventions as suitable interventions for clients who meet the criteria that patients seek interventions of interest (Potter & Perry, 2006). Patients with mild head injuries can be given this guided imagery therapy to reduce the pain they feel. Relaxation of this imagery guide will make the patient relax and more comfortable. This therapy is more effective when combined with other non-pharmacological therapies such as deep breathing relaxation (Mariza, 2017) The Agency for Healthcare Policy and Research (AHCPR) guidelines for the management of acute pain state nonpharmacological interventions as suitable interventions for clients who meet the criteria that patients seek interventions of interest (Potter & Perry, 2006). Patients with mild head injuries can be given this guided imagery therapy to reduce the pain they feel. Relaxation of this imagery guide will make the patient relax and more comfortable. This therapy is more effective when combined with other non-pharmacological therapies such as deep breathing relaxation (Mariza, 2017) Relaxation of this imagery guide will make the patient relax and more comfortable. This therapy is more effective when combined with other non-

pharmacological therapies such as deep breathing relaxation (Mariza, 2017) Relaxation of this imagery guide will make the patient relax and more comfortable. This therapy is more effective when combined with other non-pharmacological therapies such as deep breathing relaxation (Mariza, 2017)Treatment of head injuries starts with protecting the brain by improving blood flow to the brain so that hypoxia or brain ischemia does not occur Non-pharmacological pain management. Non-pharmacological therapy that can be done is to do pain management which consists of relaxation techniques. Relaxation is an external action that affects the individual's internal response to pain. Pain management with relaxation measures includes diaphragmatic breathing exercises, progressive relaxation techniques, guided imagery and meditation. Relaxation training can be done for a limited period of time and usually has no side effects. One way to use the Guide imagery technique is the process of using the power of the mind by directing the body to self-healing and maintaining health/relaxation through communication in the body that involves all the senses (visual, touch, guide, sight, and hearing). In this way, a balance is formed between the mind, body and soul. Simple guided imagery is "the deliberate use of imagination to induce relaxation or avoid unwanted sensations. Relaxation with the guide imagery technique will make the body more relaxed and comfortable in sleep. By doing deep breathing slowly the body will relax (Pusparini, 2017). Research (Innez., et al, 2017) patients with head injuries can result in permanent damage to brain tissue such as brain ischemia. Increased brain metabolism causes increased brain oxygen consumption by the body. When the brain's oxygen demand is not met, the metabolism will switch from aerobic to anaerobic metabolism. In this condition lactic acid is produced which stimulates the occurrence of headaches. Pain felt by patients with head injuries can be controlled pharmacologically or non-pharmacologically. Administration of Guided Imagery and Music (GIM) and autogenic relaxation according to (Innez., et al, 2017) can reduce the pain scale in head injuries. In this condition lactic acid is produced which stimulates the occurrence of headaches. Pain felt by patients with head injuries can be controlled pharmacologically or non-pharmacologically. Administration of Guided Imagery and Music (GIM) and autogenic relaxation according to (Innez., et al, 2017) can reduce the pain scale in head injuries. In this condition lactic acid is produced which stimulates the occurrence of headaches. Pain felt by patients with head injuries can be controlled pharmacologically or non-pharmacologically. Administration of Guided Imagery and Music (GIM) and autogenic relaxation according to (Innez., et al, 2017) can reduce the pain scale in head injuries.The results of Pusparini's research (2017) showed that there was an influence between guide imagery and changes in pain intensity in patients with mild head injuries at Dustira Hospital, Cimahi City. Patients with mild head injuries experience headaches, where 38% of injured patients experience acute post traumatic headaches (ATPH) with symptoms most often in the frontal area and have nothing to do with the severity of the injury. There are several types of clinical symptoms of pain in patients with mild head injuries, namely migraine headaches, cluster headaches, cercicogenic headaches. From the results of the study, 37% of patients experienced tension head pain, 27% migraine and 18% cercicogenic and the pain symptoms will continue to be experienced by patient for up to one year.This can be applied by nurses because it does not cause side effects. However, Guided Imagery and Music (GIM) and autogenic relaxation are given as a companion to analgesic drugs, cannot be given to severe to moderate pain without giving analgesic drugs. Head injuries will be followed by a posttraumatic syndrome, post traumatic syndrome can include headaches, vertigo, insomnia, nausea, vomiting, and decreased consciousness. Sleep disturbance for a long time will affect a person's physical and psychological condition and can cause a long healing process (Nugroho et all., 2018). The initial step that the author did before the guided imagery relaxation exercise was to build a relationship of mutual trust, explain the procedure, purpose, position, time, and the nurse's role as a guide. Sit or lie down in a quiet, comfortable place and loosen your clothes. The author also involves the family in performing relaxation techniques so that when the client experiences pain and the nurse is not around, the family is able to accompany the client in performing the guided imagery relaxation technique. In preparation for discharge, patients and families are given education on how to care for wounds, examine signs of infection, comprehensively assess pain location, characteristics, duration, frequency, quality and precipitation factors, provide patient and family education about activities that reduce

pain, teach about management pain, perform cardiac/ECG record actions with the medical team in drug administration. The author also involves the family in performing relaxation techniques so that when the client experiences pain and the nurse is not around, the family is able to accompany the client in performing the guided imagery relaxation technique. In preparation for discharge, patients and families are given education on how to care for wounds, examine signs of infection, comprehensively assess pain location, characteristics, duration, frequency, quality and precipitation factors, provide patient and family education about activities that reduce pain, teach about management pain, perform cardiac/ECG record actions with the medical team in drug administration. The author also involves the family in performing relaxation techniques so that when the client experiences pain and the nurse is not around, the family is able to accompany the client in performing the guided imagery relaxation technique. In preparation for discharge, patients and families are given education on how to care for wounds, examine signs of infection, comprehensively assess pain location, characteristics, duration, frequency, quality and precipitation factors, provide patient and family education about activities that reduce pain, teach about management pain, perform cardiac/ECG record actions with the medical team in drug administration.

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