

Experience Of Self Care, Family Care And Quality Of Life Of The Posttraumatic Brain Injury Patient For Hospital Accreditation In A Selected Accreditation Hospital

Pitark Thongsook^{1*}, Sirikorn Sutawatnatcha² and PENCHUN Saenprasarn³

^{1*} M.N.S. (Psychiatric and Mental Health Nursing), Faculty of Nursing, St. Theresa International College, 1Moo 6, Rangsit, Nakhon Nayok Road, Klong 14, Bungsan, Ongkharak, Nakhon Nayok-26120, Thailand.

²Psychiatric and Mental Health Nursing, Faculty of Nursing, St. Theresa International College, 1Moo 6, Rangsit, Nakhon Nayok Road, Klong 14, Bungsan, Ongkharak, Nakhon Nayok- 26120

³ President, Cardiovascular Thoracic Nurse Association of Thailand.

Abstract

The purpose of this qualitative research was to study self care, Family Care and quality of life of post traumatic Brain Injury patients. Data were collected through documents and in-depth interviews with 30 informants. Fifteen of them were the post traumatic brain Injury patients and another fifteen were the caretakers or family members of the post traumatic Brain Injury patients. The following results were found.

The results showed that Patients and their families define self-care for traumatic brain injury as obstacles in one's life and it affects the normal lifestyle that has changed from the original. unable to help himself as he used to in the early stages both in terms of eating exercise, rest, excretion, social interaction personal hygiene and stress management However, an interesting observation is that if there is a good hospital discharge plan, This will enable brain injury patients to be able to care for and manage themselves more.

In terms of family care of the post traumatic brain injury patients were taken care of closely. In other words, each family was concerned about taking care of the post traumatic brain Injury patients in which the family members responsible for providing meals for them, maintaining their good health, handling the family, financial status and taking the post traumatic Brain Injury patients to friends and places This shows that the way of living in Sakaeo community was still remarkably rural like in spite of its transformation into a semi-urban rural community.

Regarding the Quality of Life of the post traumatic brain Injury patients in a selected a accredited hospital in Sakaeo province. The majority of post traumatic brain injury patients were satisfied with their own quality of life primary because of the stabilities of their residence and economy. Some of them even earned themselves by working in the form of mutual leisure activities. From the reasons that they were taken care of well by their family members and they could help themselves, the post traumatic brain injury patients felt no need to ask for more things from the caretakers and thus were happy to live their old lives.

Keywords: Self care, Family care, Quality of life, Traumatic, and brain injury

Background and Significance of the Problem

Trauma is the leading cause of death for people around the world, with most traumatic brain injury (TBI) caused by traffic accidents. (Azami-Aghdash. S, 2020) in Thailand from the Office of Policy and Strategy report Office of the Permanent Secretary, Ministry of Public Health It found that the mortality rate from brain injury per 100,000 population in the year 2014-2016 was 38.63, 43.28 and 43.54, respectively. Survivors of this injury are affected physically, mentally, emotionally and socially. by studying the relationship between life satisfaction (Satisfaction with life; SWL) with the results of subsequent activities brain injury There were depression-related factors that could be related and were emotional factors for life satisfaction among traumatic brain injury patients. (Kreitzer, Hart, Lindsell, Manley, Dikmen, Ratcliff, & Adeoye, 2019, pp E10-E17)

Selected provincial hospitals Somdej Phra Yupparat Sa Kaeo Hospital It is a hospital that has been accredited by the Hospital Development and Accreditation Institute. This population has a high rate of accidents and has a high probability of brain injury, with 1,031, 1,132 cases in 2017-2019, respectively. (Statistical data work Hospital Information Center , 2016 - 2019)which the phenomenon after injury, in general, brain injury patients have limitations in activities or some have degeneration of the brain and cognitive decline (Thepsathitporn, 2019)have a quality of life that needs to be taken care of Taking care of oneself and family therefore plays an important role. Recreational activities Psychological health and the influence on life satisfaction of brain injury patients showed that 47.6% had a high level of depression and life satisfaction was low.(Proctor, & Best, 2019, pp. 23-28) The ability to control different parts of the body is reduced by changes in the brain structure in the injured area. Therefore, brain injury patients need to take care of their health to slow down the deterioration of the brain and the body that is unable to function normally. (Downing, M., Bragge, P., & Ponsford, J. 2019) to prevent various health problems which should pay attention to the restoration of daily activities such as eating, resting, exercising, etc. Orem has divided the necessary self-care activities into 7 areas: 1) nutrition 2) excretion 3) activity and exercise 4) relaxation 5. 6) Social interaction and personal time, 6) personal hygiene, and 7) stress management. (Chueanlertsakul, & Keratiyuttawong, 2011, pp. 41 - 47)

Most of the brain injury patients were with their families. Family members therefore have a duty to help in various activities and caring for brain injury patients to be in equilibrium in terms of diet, sleep, and choosing the right form of exercise. Having activities with family will help stimulate and promote the recovery of brain function. Setting up the environment to prevent accidents the care of family members is therefore essential to enable the trauma patient to adapt to the changing conditions and lead a happy life. (Thongsook, 2019) When a traumatic brain injury patient takes proper care of himself and his family, they are well taken care of. Brain injury patients will also have a good quality of life. At present, the quality of life has been defined as the ultimate goal of the country's development. It is an awareness of the role and status in each person's life within the context of the culture in which the person lives There were four components of quality of life: 1. physical, 2. mental, 3. social relations, and 4. environmental. Therefore, families of traumatic brain injury patients need to be aware of the need for dependence on things that traumatized patients cannot do on their own. loss of ability to perform daily activities The care, if it is comprehensive and meets the needs of brain injury patients, will lead to a good quality of life. Therefore, it is an interesting point that these brain injury patients will have to take care of yourself how to adjust and taking care of the family as How to treat a brain injury patient including how to take care of yourself and how is the quality of life of brain injury

patients Therefore, the researcher is interested in studying such issues. The information obtained from this study will be of great benefit for families caring for traumatic brain injury patients for family members to get to know and understand the traumatic brain injury more It is also beneficial to the hospital or various organizations related to apply the results of this study to plan in various matters related to the further care and rehabilitation of traumatic brain injury patients.

Research Objectives

To study self-care experiences Family care and quality of life of traumatic brain injury patients at a selected hospital

Research questions

How is self care experience family care and quality of life of traumatic brain injury patients at a selected hospital?

1. To study the self-care of brain injury patients after being discharged from the hospital?
2. To study family care for traumatic brain injury patients after being discharged from the hospital?
3. To study the quality of life of brain injury patient after being discharged from the hospital?

Research Methodology

This research is a qualitative research. The researcher conducted the research in the following order. Informant: The main informants used in the research were divided into 2 groups, totaling 30 people:

1. A group of 15 brain-injured patients.
2. A group of 15 family members of brain injury patients.

Place of study: Selected provincial hospitals Somdej Phra Yupparat Sa Kaeo Hospital

Research instrument

The instrument used for data collection in this research consisted of

1. The researcher prepares for data collection as follows:
 - 1.1 Researcher's knowledge; Reviewed the conceptual literature to guide understanding and guide questions data credibility; analysis; data interpretation; and a summary to write a report.
 - 1.1 Skill training; interview, observation, data analysis to be able to summarize various issues can be a guideline for answering further research questions
 - 1.2 Questions used in the interview; it's an open-ended question. It consisted of 2 sets of interview forms: an interview form for traumatic brain injury patients. and an interview form for family members
 - 1.3 The researcher brought the tool to the experts to check the suitability and completeness of the interview issue before applying to the target group of 3 people, namely professional nurses with special expertise. Head of Surgical Nursing Group Advanced Nurse Practitioner (APN) and Neurosurgeon
3. Field equipment includes a voice recorder from a smart phone and a small notebook and a pen to take in the field during the interview. A document file that collects all the information obtained each day.

Method of collecting information:

For the collection of information by In-depth interview using the questionnaire it is a guideline for interviewing the informant In order to obtain comprehensive information, during the interview, the researcher can see and observe the behaviours, gestures, tone of voice, facial expressions and to

obtain clear information in accordance with the most truth. The researcher divided the data collection period in the qualitative research as follows: (Posita, 2552)

Preparation period before the interview; the researcher contacted the selected person to provide the information. According to the specified properties to introduce oneself and clarify the objectives of the research Interview objectives and asked about their willingness to participate in the research and to provide information; Collected research data from St Theresa International College. To the director of Somdej Phra Yupparat Sa Kaeo Hospital to clarify research objectives and request Permission to collect information and when permitted The researcher went to meet the informant to introduce himself again along with explaining the details and objectives of the study. Explain the question line interview method length of time each interview is approximately 45 minutes to 1 hour and may include 1-2 additional interviews if issues persist. Needing clarification and all information will be presented and summarize the overall results for the benefit of the study only.

Interview process; the researcher conducted the data collection with an interview the researchers will build relationships and good atmosphere in the interview by talking about General and informal language is used to create trust and explain the rights of informants objectives of the research Expected duration of the interview Request permission to tap the interview during the interview If in doubt, the informant can ask questions at any time. When the informants understand their rights well the researcher therefore requested Sign the informed consent form and begin a semi-structured interview, a semi-structured interview, where researchers begin the interview with an introductory, broad question about brain injury and continually covering all issues, questions and other relevant suggestions.

Interview termination period the researcher was confident that the data was saturated (Saturation); the researcher terminated the interview and thanked the informant will request permission to interview again

Building data credibility:

1. The researcher took the data from the analysis back to the informant for repeated review (Member checks) to confirm the accuracy.

2. The researcher certifies or confirms the facts (Conform ability) to inform data, group the data into categories and the data collected were analyzed for all 30 cases by having experts as consultants and periodically reviewing the data.

3. The researcher conducted an interview. Observe each informant 2-3 times until the data is complete according to the study objectives when the data is complete and saturated. The respondents had no further answers and the interview was discontinued.

Rights Protection of the Sample Group:

Before conducting this research, the researcher presented Research protocols and research tools are presented to the research committee of St Theresa International College and when received the review has been completed. The research can be conducted by the researcher recognizing the respect for the individuality of the sample group. The sample group decides to participate in the research. The researcher explains the research objectives, benefits and risks that will be gained from this research. Only the researcher will know and the information obtained in every research will be useful for academic and Offered as a general overview only. In the event that the sample refuses not participating in the research or later withdraw from research. For any reason, the result of refusal will not be transmitted. The effect on the sample when the sample groups decide and then have to sign consent in the right defender to keep as evidence

Data analysis:

An in-depth analysis of the data obtained from the interview and group discussions. To analyze the data, the investigators used Colaizzi's data analysis. (Colaizzi, 1978), by analyzing both at the time of collection and after the collection the data was analyzed after obtaining the information in each interview as follows:

1. The researcher took the data obtained from the tape recording to transcribe the interview and printed word-by-word.
2. The researcher grouped the words key statements or sentences that are the same information and relevant to the phenomenon that are to be studied as much as possible. In addition, information other than words must be collected, such as facial expressions, tone of voice of the informant, etc.
3. The researcher reads the data of all contributors to obtain an overview of the information obtained. Also provide line numbers for easy reference later.
4. The researcher went back to study the data again and extracted important information sentences related to the experiences of the relevant informants.
5. The researcher tried to understand the meaning of each word group. Important sentences by reading each word group to discover every word that matters, word by word, line by line. Then give meaning or code (Coding) in each sentence may have meaning about the life experience of the informant. The researcher records the meaning or the code that, while the researcher gives the code. After the researcher analyzes and gives meaning to the data the researcher brings all the information obtained to the research experts. Help to check whether the interview questions are appropriate or not. Is the researcher biased in asking for conclusions or analysis? In order to use the suggestions obtained in the next data collection
6. The researcher used the recorded meanings to group them into issues in accordance with the research objectives by summarizing the concepts of both the main themes and sub themes that the same meaning as the main themes.
7. Based on the data from the informant's actual experiences, the researcher took the conclusions into separate notes by writing a detailed description of each conclusion based on the researcher's objectives.
8. The researchers took the summarized data back to verify the accuracy of the data and conducted additional interviews on unclear issues.

Research results and discussion

Personal information

The informants for traumatic brain injury patients were 12 males, 3 females, 6 married, and 9 singles, mostly between 18-25 years old (mean age 22 years). The family of traumatic brain injury patients: 5 males, 10 females, 12 married, 3 divorced, mostly aged between 40 – 45 years (mean age 43 years), education: 8 secondary school level and 6 primary school level.

1. Self-Care Experience Family care and quality of life of traumatic brain injury patients at a selected hospital

Study of self-care experience, Family care and quality of life of traumatic brain injury patients at a selected hospital. The researcher presented self-care definition family care and quality of life of traumatic brain injury patients including offering self-care Family care and quality of life as follows

The meaning of self care, family care and quality of life of traumatic brain injury patients

1. Traumatic brain injury patients and their families define care as it's an obstacle in one's life. It affects the normal lifestyle that has changed from the original. Care must be taken as follows: 1) must do as the doctor recommends Believes that if treated correctly, symptoms will improve. 1.1 Must exercise as selected information "I have to walk every day for at least 30 minutes, as the doctor said. I think if I don't do it, I will not. It's better like this." 1.2 Must not drink alcohol, not smoke as selected information "I quit everything, alcohol, cigarettes, no more, it's good, not dizzy, no headache because drinking alcohol makes my head hurt." 1.3 Must take medication regularly as select information "This medicine is not lacking. You have to eat. Eat every meal. Sometimes I don't eat. It gives me a headache. I have pain. When I take it on time, it feels light." 1.4 Must be comfortable as selected information "You have to be at ease? When I came back from the hospital, I couldn't sleep, I was stressed, I talked to my kids and my wife, and they listened. When the doctor made an appointment, I told the doctor, the doctor recommended me to drink milk and find something to do. I was busy. I tried it. I slowly did it. I thought. Solve the problem, it will gradually get better." 2. The heart must be strong. 2.1 Must have a fighting heart 2.2 Must be patient 2.3 Encouragement from relatives

Discuss the meaning of patient self-care. Is one of the obstacles in life It affects the normal lifestyle that has changed from the original need to take care Must do as your doctor recommends. Must not drink alcohol, do not smoke, must take medication regularly. Corresponding to the study of Aimeoth Yaowaratet al. (2020)The study of the self-care program of mild traumatic brain injury patients on their knowledge and ability to care for themselves found that the mild traumatic brain injury patients After discharge from hospital, there was a headache. Fatigue and dizziness, sometimes with irritability, short attention span, easily forgetfulness, requiring family care. due to obstacles from changing lifestyles

The family care; The patient's family gave the meaning of caring for a brain injury patient in 3 aspects as follows: 1) The patient must be able to take care of himself in order to reduce the burden and the patient will be encouraged as selected information "You have to help him first, help him practice walking, help support him, because if he doesn't walk If you don't practice, he's bad. We can't. We have to practice. He can walk. He smiles. We're happy. That's right." 2) Follow the advice of the hospital as selected information "The nurse told him Follow the handouts if you have a headache, vomit, back to the hospital." 3) You need to encourage, give time, as selected information "I have to encourage him to believe that he will recover soon because he was not very injured." In accordance with (Ponsford, Nguyen, Downing, Bosch, McKenzie, Turner, & Green, 2019, pp. 32-39), it was found that patients were able to return to work 14 days after minor injuries. This is because it can help reduce the number and severity of symptoms after mild traumatic brain injury during the first 1-2 weeks, with a lot of family involvement in the care.

2.The Traumatic brain injury patients and their families defined quality of life as follows: 2.1 The patient was satisfied in terms of 2.1.1 Able to eat normally as selected information "I am fine, not disabled, able to eat and walk" 2.1.2 Able to perform routine activities as selected information "I'm better, I can walk, drive, go to school, almost normal" 2.1.3 My image is not bad as selected information "In the past, I was embarrassed to have a wound on my face and head, especially when I returned home. But now, good, good, not ashamed of anyone as selected information "2.2 the traumatic brain injury patients who are dissatisfied with quality of life in terms of 2.2.1 Work cannot be done, must take time off. Staying at home is a mother's burden need a new job, the old job is not yet packed. 2.3. Studying and studying as selected information as selected information "leaving the hospital can't keep up with friends Stop studying." 2.3.1 Quality of life that the patient wants the health team to support, such as work, physical therapy, near home

The researcher divided the components of self-care into 7 aspects as follows:

1. In aspect of diet, it was found that most of them ate all 3 meals, mainly eating rice for almost every meal, but breakfast was different, which can be divided into 3 groups: 1) group that eats mainly rice 2) group who eat beverages such as coffee, ginger juice, tofu, fried rice, or congee. 3) The group who eats both coffee and rice for breakfast. Most of the daily water intake is about 5-6 glasses of water per day. Drinking water is consumed when feeling thirsty only when eating and taking medicine and a minority of male brain injury patients of the sample drank white liquor or pickled pills before eating because there is an attitude and belief that it can help appetizers to make eating more delicious. There is a smoking because it is believed that rejuvenate

2. In terms of physical activity, it was found that there were a variety of physical activities and different It depends on the physical strength condition and aptitude of the individual brain injury patient physical activity, including walking, physical exercise cycling farming, etc. Most of the time I exercise is in the morning. Because the weather is good and most people exercise alone.

3. In aspect of relaxation, it was found that relaxation was through sleeping, sitting, watching television, listening to the radio, and sleeping. After the brain injury patient is discharged from the hospital still can't work much. Mostly sleep during the day. Sleep at night Sometimes I can't sleep well due to discomfort most did not experience pain. Some people have to take sleeping pills when they can't sleep. Few of them use prayers to get them to sleep, etc.

4. Excretion, found that the average excretion of faeces 1 time per day, normal excretion, sometimes constipation and diarrhoea the solution to constipation is to stay still, trying to sit in the bathroom until you pass. Some people use laxatives including the practice of shooting at dawn regularly As for diarrhoea, use the solution by taking the drug "Cure Diarrhoea, White Water Elemental Medicine, Salt Water".

5. In aspect of social interaction, it was found that the important sources of meeting with brain injury patients are markets, restaurants, coffee shops. Occupational activities will provide opportunities to meet others and have a social life. Most brain injury patients Want to return to work that can be done because it will not be bored don't want to stay at home.

6. In aspect of personal hygiene, it was found that brain injury patients took an average of 1 bath per day, mostly in the evening. Most of the water features are tap water dental care is brushing teeth as for washing and cleaning the clothes of female brain injury patients, they will clean it themselves. Most men will have a caregiver or family member to help.

7. In aspect of stress management, it was found that most of them had anxiety about returning to school or return to work have to wait for the recovery period Only some people experience extreme stress. Worried about not being able to return to work The way to deal with stress is to avoid thinking about stressful things, letting go, turning to religion, etc.

In the event that a Traumatic brain injury patients has an illness If it's just a minor illness Use the solution by self-medication and rest. If it does not improve, see a doctor with relatives taking Self-care after discharge from the hospital Most of them have family to help take care of activities that cannot be done. Family care is divided into 4 subjects.

1. Taking care of eating, Take care of food preparation as for the traumatic brain injury patients, they cook themselves. Sometimes the caregiver will cook for patients. The food provided is food that a traumatic brain injury patient can eat supplementary food is provided various health drinks come by chance.

2. Health care help take care of medicine and taking him to see a doctor by appointment including taking them to the doctor when general illnesses

3. Taking care of financial status will give money for brain injury patients to use most are infrequent when needed.

4. Taking care of travel to different places will lead to places such as contacting schools contacting social support sources, such as going to the Social Security Office, etc.

Caring for traumatic brain injury patients is divided into two types.

1) Take care of medication related to illness 2) Take care of continually taking care of the doctor as scheduled

Discussion of Research Results

Self care, family care and quality of life of Traumatic brain injury patients

1. General care

1.1 Eating self-care Most of them eat rice for all 3 meals because eating rice fills the stomach. It is the way of life of the rural people and is mostly agricultural area. However, some areas are urban communities. Eating breakfast is a simple food that can be bought in the city such as coffee, soy milk, or porridge soup, etc.

1) Supplements for traumatic brain injury patients take a variety of food due to economic position, such as milk, extracted chicken soup, calcium, etc. Most traumatic brain injury patients do not eat nourishing food or tonics or vitamins without their doctor's prescription.

2) Most traumatic brain-injured patients cook with their families to take care of them. Don't like eating bags like to cook by them. In addition, an interesting issue was the attitudes of traumatic brain injury patients to drinking white wine before eating with the belief that help improve appetite, help with blood circulation clear mind Instead, the researchers view that such actions can impair physical health, especially the recovery of brain injuries.

1.2 Physical exercise; often choose physical activities that they are good at and that can be done during the recovery period. Due to physical, emotional, social, process and cognitive limitations (Cognitive function) has changed. Therefore, there are limitations in choosing the right exercise activities. Exercise is usually early in the morning, mostly using walking having an activity called "Stretching", however, most still have the perception that Doing daily activities at home by helping with small chores can be considered exercise. Consistent with the concept of cognitive reasoning: a new approach to restoring brain-management functions in brain-injured patients (Thongsook, Sarawin The psathitphon, 2019). However, daily activities are integrated in the belief that it is exercise.

1.3 In terms of relaxation, such as sleeping, listening to music, watching television, having conversations with neighbours or friends, most of them have conversations with friends. The visit was due to the lifestyle of traumatic brain injury patients in the case study, which included social interactions, friends, working age, and school age. There were also some activities that most traumatic brain injury patients discriminated against in order to relax and not get bored. Is playing games from a mobile phone and not feel lonely can relax without stress

Resting by Sleep in traumatic brain Injury Patients Most of them go to bed at night around 10 p.m. or more, wake up no later than 6:00 a.m., average sleep duration is about 6-10 hours. There are factors that cause insomnia, including dizziness. But the symptoms can be managed by taking a headache medicine received after being discharged from the hospital

1.4 excretion Most of them bowel movement 1time per day in the morning some traumatic brain injury patients have problems with, namely constipation, which is used to solve the problem of constipation by sitting in the morning regularly sitting on the toilet for a long time Including eating

foods that help to excrete, such as fruits, bananas, papaya, few use laxatives. In addition to constipation, there are some cases of diarrhoea, using mineral salts, white water pills.

Urinary excretion of traumatic brain injury patients about 1-2 times at night during sleep or drinking too much water before bed Most choose to use the bathroom at night for defecation rather than using a potty to maintain cleanliness in personal hygiene

1.5 Social interaction; because of the interaction talked to friends or neighbours to help relax help to not be bored because they cannot go out into the working society or learning in the recovery period which interaction with society is good because they had the opportunity to exchange information with each other There may be information that is useful and knowledgeable. or for fun is good that does not cause traumatic brain injury patients during the rehabilitation period It has avoided being alone and thus creating cognitive rejuvenation activities, A Survey of Precision Medicine Strategy Using Cognitive Computing and A dataset for automatic contrast enhancement of microscopic malaria infected blood RGB images (Downing, Bragge, P., & Ponsford, 2019; Ramu, Dileep Kumar Reddy, Appawala Jayanthi, 2018, Somasekar a, , Ramesh , Gandikota Ramu, Dileep Kumar Reddy, Eswara Reddy , Ching-Hao Lai, 2019).

1.6 Personal hygiene; Most of them take a shower once a day in the evening. The cleaning of the mouth and teeth is done in the morning after waking up. The washing and cleaning of the clothes Most of them are provided by their families to help clean up, with brain injury patients being able to take care of cleaning small personal belongings such as underwear.

1.7 Regarding stress management, most of them were worried about symptoms after traumatic brain injury, absenteeism, missing school, worrying about failing to study with friends, worrying about possibly not returning to work continuous support from family.

1. General caring for illnesses1) Take care of medication related to the illness of brain injury patients
2) Take care of continually taking care of the doctor as scheduled when there is little sickness Most of them buy their own medicines. Symptoms that brain injury patients focus on and perception of hospitalization include fever, headache, vomiting mother or spouse will be the hospital escort

Family care of traumatic brain injury patients after discharge from hospital:

1. Taking care of eating will be considered according to the condition in the recovery period that can do quite a lot of activities Family support, conditional care requested because traumatic brain injury patients can also have social friends that are still in contact

2. Health care will help take care of the medication and taking them to see a doctor by appointment including taking them to the doctor when general illnesses

3. Financial health care offers infrequent payments for traumatic brain injury patients. It is given when a brain injury patient needs it. Some were suspended will receive financial support from the Social Security Office

4. Supervision of travel to various places will lead to important places such as contacting schools contacting social support sources, such as going to the Social Security office and taking them to the hospital, etc.

Quality of life of traumatic brain injury patients was divided into 4 subjects: 1) financial status, i.e. having money for daily expenses according to the appropriate condition; 2) living in their own homes 3) good health able to travel easily 4) being close to family 5) having to interact with other people, most brain injury patients are satisfied with the quality of life and well-being of oneself and does not want to demand care from caregivers because they can help themselves as it referred in Image Segmentation Technique Using SVM Classifier for Detection of Medical Disorders (Ummadi Janardhan Reddy, Pandluri Dhanalakshmi, Pallela Dileep Kumar Reddy, 2019)

Research benefits

Administrative benefits

1. The government should have a policy to provide curriculum content on the importance of traumatic brain injury patients, care and value recognition of traumatic brain injury patients. in the course of study of students at all levels To raise awareness among people in society to realize the value and dignity of brain injury patients
2. The government should arrange for doctors or specialists to visit rural areas to provide knowledge on health promotion, prevention methods and basic self-care for the good health of brain injury patients.
3. The government should consider the current cost of living and adjusting the subsistence allowance for brain injury patients with disabilities to be appropriate for the era to enable brain injury patients to have a quality life.
4. The government agency Provincial areas should be surveyed to find people with traumatic brain injuries who have been left alone and help by finding shelter and basic consumer goods as appropriate
5. The government should establish learning and recreation centers in various community areas in each province to cover the whole country. To support brain injury patients who have the potential to generate income. It also helps patients with brain injury to participate in activities with others as well.

Theoretical benefit

- 1) Concepts of self-care, family care and quality of life for the study subjects.
- 2) Elements of Self-Care Family care and quality of life that provide desirable meaning. Classify and synthesize as components of self-care. Family care and quality of life for research

Suggestions for future research

1. Research should be done on self-care, family care and quality of life of traumatic brain injury patients in every province to be used as a database to be used for consideration in developing policies or measures for future traumatic brain injury patients
2. Research should be done on self-care, family care and quality of life of traumatic brain injury patients quantitatively so that data from both qualitative research and quantitative research can be compared in order to obtain information in a different and comprehensive perspective than conducting qualitative research alone.

References

1. Azami-Aghdash, S. (2020). Meta-synthesis of qualitative evidence in road traffic injury prevention: a scoping review of qualitative studies (2000 to 2019). *Archives of public health*, 78(1), 1-27.
2. Buranavanich, W., & Plakhauw, P., (2012). Quality of Life and Symtoms Among Adults after Mild Traumatic Brain Injury in Maharat Nakhonratchasima Hospital. *Journal of Nursing and Health Care*, 30(2), 82-88.
3. Chueanlertsakul, K., & Keratiyuttawong, P., (2011). The Characteristics of Nursing Agency in Orem's Self-care Deficit Nursing Thedry. *The Journal of Faculty of Nursing Burapha Universty*, 6(1), 41-47.
4. Colaizzi, P. F. (1978). *Psychological research as the phenomenologist*. Oxford New York: University Press

5. Downing, M., Bragge, P., & Ponsford, J. (2019). Cognitive Rehabilitation Following Traumatic Brain Injury: A Survey of Current Practice in Australia. *Brain Impairment*, 20(1).
6. Emeot, Y., & Chaivaiboontham, S. (2020). Effects of The Self-Care Agency Promoting Program on Knowledge, Self-Care Ability Perceived Post Concussion Symptoms, and Recovery from Brain injury in Patients with Mild Traumatic Brain Injury *Nursing Journal of The Ministry of Public Health*, 30(3), 207-222.
7. G. Ramu, P. Dileep Kumar Reddy, Appawala Jayanthi .(2018). "A Survey of Precision Medicine Strategy Using Cognitive Computing" *International Journal of Machine Learning and Computing*, Vol. 8, No. 6, December 2018 DOI: 10.18178/IJMLC2018.8.6.741 530 to 535.
8. J. Somasekar a, , G. Ramesh , Gandikota Ramu, P. Dileep Kumar Reddy, B. Eswara Reddy e, Ching-Hao Lai, "A dataset for automatic contrast enhancement of microscopic malaria infected blood RGB images", *Data in brief*, Elsevier. <https://doi.org/10.1016/j.dib.2019.104643>, 2352-3409
9. Jaywan, P., Nantachaipan, P. (2016). Effects of the Empowerment on Perceived Caring Capabilities Among Caregivers of Patients with Traumatic Brain Injury. *Nursing journal*, 43(1), 95-105
10. Kreitzer, N. P., Hart, K., Lindsell, C. J., Manley, G. T., Dikmen, S. S., Ratcliff, J. J., & Adeoye, O. M. (2019). A Comparison of Satisfaction With Life and the Glasgow Outcome Scale–Extended After Traumatic Brain Injury: An Analysis of the TRACK-TBI Pilot Study. *The Journal of head trauma rehabilitation*, 34(3), E10-E17.
11. Larrson, I.E., Sahlsten, M.J., Sjostrom, B., Lindencrona, C.S., & Plos, K. A. (2007). Patient participation in nursing care from a patient perspective: a Grounded Theory study. *Scandinavian journal of caring sciences*, 21(3), 313-320.
12. Lum., Panitnart., Harnirattisai.,T.,Tantongtip., D. (2019). The Effects of a Continuing Care Program on the Perceived Self-Efficacy of Caregivers and Post-Concussion Syndrome in Persons with Mild Traumatic Brain Injury, *Rama Nurs J*, 25(1), 59 – 73
13. Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: guided by information power. *Qualitative health research*, 26(13), 1753-1760
14. Ponsford J., Nguyen, S., Downing, M., Bosch, M., McKenzie, J. E., Turner, S. & Green, S. (2019). Factors associated with persistent post-concussion symptoms following mild traumatic brain injury in adults. *Journal of rehabilitation medicine*, 51(1), 32-39.
15. Posita, C.,(2013). *Science and art of qualitative research*. Amarin Printing and Publishing Company Limited: Bangkok.
16. Proctor C. J., & Best, L. A. (2019). Social and psychological influences on satisfaction with life after brain injury. *Disability and health journal*,23-28
17. Queirós, P. J. P., Vidinha, T. S., & Almeida Filho, A. J. (2014). Self-care: Orem's theoretical contribution to the nursing discipline and profession. *Revista de Enfermagem [internet]*, 4(3), 157-63.
18. Thongsook, P., The psathidporn, S. (2019). Cognitive reasoning : New approach for rehabilitation of executive function in traumatic brain injury *Boromarajonani College of Nursing, Uttaradit Journal*, 11(2).
19. Ummadi Janardhan Reddy, Pandluri Dhanalakshmi, Pallela Dileep Kumar Reddy. (2019). Image Segmentation Technique Using SVM Classifier for Detection of Medical Disorders *Ingénierie des Systèmes d' Information*, 24 (2): 73-176, , <https://doi.org/10.18280/isi.240207>

20. Wongwangphoem, P. (2020). Preliminary qualitative research. *Journal of Graduate Saket Review*, 5(2), 11-18.