

# An Experimental Study to Assess the Effect of Acupressure Therapy on Management of Raised Intracranial Pressure among Children Diagnosed with Meningitis in Selected Hospitals of Metropolitan City

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**Abstract:** An increase in intracranial pressure is a serious and life-threatening medical problem. The pressure can damage the brain or spinal cord by pressing on important structures and by restricting blood flow into the brain. Increased intracranial pressure can be due to a rise in pressure of the cerebrospinal fluid. This is the fluid that surrounds the brain and spinal cord. Acupressure was originated in ancient China. It showed superior therapeutic potential against numerous disease conditions. Both acupressure and acupuncture are based on same fundamental principle of acupoints activation across the meridians. In acupressure, muscular tension is released by applying pressure with hand at specific acupoints or pressure of the thumbs on specific points or the application of pressure to acupoints is used to balance the flow of the physiological energy. No side effects & more benefits, Consequences quick & faster. Relieving stress, tension, anxiety, headache, vomiting etc, Stimulate the immune system, This therapy is 100% natural. **Statement:** "An Experimental study to assess the Effect of Acupressure therapy on management of Raised intracranial pressure among children diagnosed with Meningitis in selected hospitals of metropolitan city." **Aim of the study:** To evaluate the effect of acupressure therapy in management of raised intracranial pressure among children diagnosed with meningitis. **Objectives of the study:** 1. To assess the signs & symptoms of raised intracranial pressure among children diagnosed with meningitis before and after intervention. 2. To apply the acupressure therapy as an intervention in management of raised intracranial pressure. 3. To determine the association between the effect of acupressure therapy and raised intracranial pressure among experimental and control group. **Research methodology:** In this study research approach was quantitative research; research design was pre -test post- test design. the investigator used probability convenient sampling to select 40 sample, 20 in each group i.e. acupressure therapy in experimental group and conventional treatment in control group. The data was collected through questionnaire for history collection before intervention and rapid assessment scale for assess raised intracranial pressure. Data was analysed by frequency, percentage and association with selected demographic variables comparison pre-test, post-test observation by paired 't' test, comparison of post test observation by unpaired 't' test, experimental vs. control group whereas effect of acupressure therapy on raised intracranial pressure by ANNOVA. **Result:** The comparisons of the pretest and post-test means of the intracranial pressure among children were done by the paired t test. The pre-test average score was 22.50 with standard deviation of 1.27. The post-test average score was 9.10 with standard deviation of 2.17. The test statistics value of the paired t test was 23.84 with p value 0.00. The calculated value of the test greater than table value, hence accept the H1. Concludes that, acupressure therapy on management of raised intracranial pressure among children diagnosed with meningitis was very effective. **Conclusion:** The effect of acupressure therapy on raised intracranial pressure was very effective that conventional treatment. it has No side effects & more benefits, Consequences quick & faster.

**Keywords:** Acupressure therapy, raised intracranial pressure

## 1. Introduction

An increase in intracranial pressure is a serious and life-threatening medical problem. The pressure can damage the brain or spinal cord by pressing on important structures and by restricting blood flow into the brain. Increased intracranial pressure can be due to a rise in pressure of the cerebrospinal fluid. This is the fluid that surrounds the brain and spinal cord. Increase in intracranial pressure can also be due to a rise in pressure within the brain itself. This can be caused by a mass (such as a tumor), bleeding into the brain or fluid around the brain, or swelling within the brain itself. Many conditions can increase intracranial pressure. Common causes include: Meningitis (infection of the membranes covering the brain and spinal cord) Aneurysm rupture and subarachnoid hemorrhage, Brain tumor, Encephalitis irritation and swelling, or inflammation, of the brain), Head injury, Hydrocephalus (increased fluid around the brain), Hypertensive brain

hemorrhage (bleeding in the brain from high blood pressure), Intraventricular hemorrhage (bleeding into the fluid-filled areas, or ventricles, inside the brain), Subdural hematoma (bleeding between the covering of the brain and the surface of the brain), Epidural hematoma (bleeding between the inside of the skull and the outer covering of the brain), Seizure, Stroke.

**Subrata Sarkar (2018)** stated that, Child health refers to a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health of the children is also very important not only because they are the asset and future of their families and nation but also because health status, health behaviour and lifestyle, thus from during childhood determinants quality of life during childhood determines quality of life during the following years of life.

**Joyce M. Black (2017)** described that, the brain and spinal are remarkably resistant to infection, but when they

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became infected, the consequences are usually very serious. Meningitis is characterized by inflammation of the meninges, the membranes lining the brain and spinal cord. Bacterial, viral, fungal, and parasitic organisms can all cause meningitis, but bacterial meningitis is by the far the most common.

**Navdeep Kaur Brar (2015)** described that, Acupressure is an ancient healing art uses the fingers to press key points on the surface of the skin to stimulate the body's natural self-curative abilities. When these points are pressed, they release muscular tension and promote the circulation of the blood and body's life force to aid healing. Acupressure uses the gentle but firm pressure of hands and even feet.

## 2. Need of the Study

**O.P. GHAI (2017)** mentioned that, Diseases of the nervous system are fairly common in pediatric practice. Neurological symptoms are also frequently encountered in wide variety of systematic illnesses. Almost 20-30 percent of children encounter acute, chronic or recurrent neurological illnesses. These are major contributors to childhood morbidity and disability.

**WHO (2019) Mentioned** that, Meningitis is a devastating disease and remains a major public health challenge. Meningitis can be caused by many different pathogens including viruses and fungi but the highest global burden is seen with bacterial meningitis. Together with sepsis, meningitis is estimated to cause more deaths in children under 5 years of age than malaria. Survivors can suffer severe sequelae with considerable social and economic costs. Recognizing the global importance of the problem, countries and partners issued calls for a global vision and the ambition to develop a global strategy to defeat meningitis by 2030.

**The latest WHO and UNICEF (2019) data on global Meningitis** is a life threatening central nervous system infection that is prevalent worldwide. Raised intracranial pressure is one of the problems in neurosurgical & neurological practice. In year of 1985, a total no of 6133 meningococcal meningitis cases were recorded in India with 799 deaths from the disease. In year 1966, a case – fatality rate of 20% was recorded in India with the total of 616 cases. Between 2014 to 2015 a total of 16217 cases & 300 deaths due to meningitis were recorded in India. Age - 90% between 1 month to 5 years. Incidence – 5.4 to 7.3/ 1, 00000 population: Total Number of Cases and Deaths Due to Meningococcal Meningitis in India – 2015: Cases 12, 002 Deaths 172, Male Cases: 5, 379, Deaths: 102FemaleCases: 6, 623, Deaths 70. Bihar has the highest number of meningitis in 2014 and 2015 with 1042 and 8871 cases respectively. Bihar total cases 8, 871.

### Problem Statement:

“An Experimental study to assess the Effect of Acupressure therapy on management of Raised intracranial pressure among children diagnosed with Meningitis in selected hospitals of metropolitan city.”

### Primary Objectives:

- 1.To evaluate the effect of acupressure therapy in management of raised intracranial pressure among children diagnosed with meningitis.

### Secondary objective:

- 1.To assess the signs & symptoms of raised intracranial pressure among children diagnosed with meningitis before and after intervention.
- 2.To apply the acupressure therapy as an intervention in management of raised intracranial pressure.
- 3.To determine the association between the effect of acupressure therapy and raised intracranial pressure among experimental and control group.

### Hypothesis

**H1-**There will be significant difference between acupressure therapy & management of raised intracranial pressure among children diagnosed with meningitis.

### Assumption

Acupressure therapy has specific effect on curing any sign and symptoms related to disease condition.

### Variables

**Independent variable:** Acupressure therapy

**Dependent variable:** Raised intracranial pressure

## 3. Methodology

**Research Approach-** In the present study, the investigator intended to Assess the Effect of Acupressure therapy on management of Raised intracranial pressure among children diagnosed with Meningitis in selected hospitals of metropolitan city. Hence, quantitative research approach was considered to be appropriate and accepted this study.

**Research Design-** In this study, experimental research design (pre-test post-test only design) was selected as research design.

**Setting-** In this study, physical location was paediatric departments in selected hospital of metropolitan city. In order to carry out the study, the investigator selected paediatric departments in selected hospitals of metropolitan city with the prior permission of authority.

**Population-** In this study, the population consisted of the entire children living in metropolitan city and diagnosed with meningitis, age group 1 year to 18 years.

**Target Population-** In this study, the target population was children with raised intracranial pressure diagnosed with meningitis admitted in selected hospitals of metropolitan city and meets the inclusion criteria listed by the investigator.

**Accessible Possible-**In this study, the accessible population was the children who are available at the time of data collection.

**Sample-** In this study, the sample consisted of children with children who fulfil the inclusion criteria.

**Sampling Technique -** In this study, the investigator was used non-probability convenience sampling technique.

**Sample Size-** In this study, the number of study participants was 40, consisting 20 for experimental group and 20 for control group.

#### Inclusion Criteria

- A. Children suffering from meningitis with raised intracranial pressure with age group 1- 18 years.

#### Exclusion Criteria

- A. Children who will be diagnosed with multiple conditions.

#### Development of Tool

**In this study,** the technique used for obtaining data was as follows.

#### Interpretation of score as:

**Maximum Score 28 Minimum Score 7**

Sr. No	Score		Remark
1	1-7	<input type="text"/>	Normal
2	8-14	<input type="text"/>	Mild
3	15 -21	<input type="text"/>	Moderate
4	22-28	<input type="text"/>	Severe

#### Data Collection Process

“It is the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions, hypothesis of a study.”

The investigator planned to do data collection in the following way:

1. Procuring permission from the respective authority for the study.
2. Selection of children according to inclusion criteria.
3. Informed written consent from parents of respective children.

#### Section I

It consists of semi structured interview schedule to parents for collection of demographic variables of children.

**Demographic data:** It included children age, gender, meningitis type, socioeconomic status, education of parents, occupation of parents, CSF analysis etc.

#### Section II

It consists of semi structured interview schedule to parents for history collection of children. In this study, the investigator used Questionnaire for History Collection before Intervention on the basis of literature review, observation during the clinical experience and opinion of experts from the field of medicine and nursing. It consists of 18 parameters.

#### Section III

Participatory Observer to assess sign and symptoms of raised intracranial pressure among children diagnosed with meningitis. Observation checklist consists of 7 parameter to assess sign and symptoms of raised intracranial pressure among children diagnosed with meningitis.

#### Process of Data Collection

Necessary permissions from the concerned authorities and written informed consent from the parent was taken and investigator explained the procedure. The investigator was explained about the study topic, regarding the need and importance of acupressure therapy help to reduce sign and symptoms of raised intracranial pressure. After explaining the purpose of the study, informed written consent was obtained. Provided acupressure therapy to experimental group. Assess sign and symptoms of control group with conventional treatment. Procedure was continued till the desired number sample size was obtained. At the end the investigator was extended thanks to parents for participation of their children in the study.

Sr. No.	Variable	Groups	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
1	Age	Infant	2	10.00	2	10.00
		Toddler	1	5.00	2	10.00
		Pre Schooler	3	15.00	5	25.00
		Scholar	13	65.00	8	40.00
		Adolescent	1	5.00	3	15.00
2	Gender	Male	13	65.00	13	65.00
		Female	7	35.00	7	35.00
		Transgender	0	0.00	0	0.00
		Other	0	0.00	0	0.00
3	Meningitis Type	Bacterial	20	100.00	20	100.00
		Viral	0	0.00	0	0.00
		Fungal	0	0.00	0	0.00
		Pyogenic	0	0.00	0	0.00
4	Socio economic status	Upper class	0	0.00	0	0.00
		Upper middle class	0	0.00	0	0.00
		Lower middle class	0	0.00	0	0.00
		Upper middle class	0	0.00	0	0.00
		Lower class	20	100.00	20	100.00
5	Education of parents	Professional degree	0	0.00	0	0.00
		Graduate	0	0.00	0	0.00
		Intermediate/ diploma	0	0.00	0	0.00
		High school	1	5.00	0	0.00
		Middle school	1	5.00	6	30.00
		Primary school	7	35.00	9	45.00
6	Occupation of parents	Illiterate	11	55.00	5	25.00
		Professional	0	0.00	0	0.00
		Semi professional	0	0.00	0	0.00
		Clerical/shop/farm	0	0.00	0	0.00
		Skilled worker	0	0.00	0	0.00
		Semiskilled worker	6	30.00	10	50.00
		Unskilled worker	10	50.00	10	50.00
Unemployed	4	20.00	0	0.00		

**Data Analysis and Interpretation of Result**

1.Descriptive statistics: -The descriptive statistical analysis included percentage, frequency, mean, standard deviation and correlation coefficient.

Remark: analysis of demographic data.

2.Inferential statistics: Paired t test, unpaired t test ANNOVA Test

Remark: comparison of acupressure therapy on raised intracranial pressure with conventional treatment.

The data collected of the study was classified, organized and analysed under following sections:

**Section I**

Deals with analysis of demographic data of children diagnosed with meningitis in selected hospitals of metropolitan city in terms of frequency and percentage.

In experimental group according to age of the children, 10% were infants, 5% toddlers, 15% pre-schooler, 65% Schooler and 5% Adolescent. In control; group according to age of the children, 10 % of them were infants, 10% were toddlers, 25% pre-schooler, 40% were schooler and 15% adolescent. In experimental group according to gender of children, 65% were male children 35% were

female children. In the control group according to the gender of children, 65% were male children and 35 % were female children. In experimental group 100% children were bacterial type of meningitis. In the control group, according to meningitis type, 100 % children were bacterial type. In the experimental group according to socioeconomic status, 100% of children from economically lower-class family. In the control group according to socio economic status, 100 % of children from economically lower – class family. In the experimental group according to education of parents, 55% of parents were illiterate, 35% parents were educated up to primary school, 5 % were educated up to high school. In the control group according to education of parents, 25% of parents were illiterate, 45 % educated up to primary school, 30 % educated up to middle school.

In experimental group of children 20 % of the parents were unemployed, 50 % were unskilled workers and 30 % were semiskilled workers. In control group no one parents were unemployed, 50% were unskilled workers and 50 % are semiskilled workers.

**Section II**

Deals with analysis of history collection before intervention of children diagnosed with meningitis in selected hospitals of metropolitan city in terms of frequency and percentage.

**History Collection before Intervention**

- [1] To the question is your child suffering from fever, in the experimental group of the children, all 100% of parents answered yes. In the control group of the children, also all 100% of parents answered yes their child suffering from fever.
- [2] To the question how long your child suffering from fever, in the experimental group of the children, 10% of parents answered since 1-7 days, 60% answered since 8-14days, 20% suffering since 15-21 days and 10% since more than 21 days. In the control group of the children, 15% of parents answered since 1-7 days, 40% answered since 8-14 days, 45% suffering since 15-21 days and no one since more than 21 days.
- [3] To the question when does your child suffering from fever, in the experimental group of the children, 55% of parents answered whole day, 5% answered morning rise, 35% had evening rise and 5% in the night time. In the control group of the children, 55% of parents answered whole day, no one had answered morning rise, 30% had evening rise and 15% in the night time.
- [4] To the question what type of fever does your child get, in the experimental group of the children, 20% of parents answered Low grade fever, 40% had moderate fever and 40% of them had high grade fever. In the control group of the children, 10% of parents answered Low grade fever, 40% had moderate fever and 50% of them had high grade fever.
- [5] To the question what are the characteristics of fever present in your child, in the experimental group of the children, 75% of parents answered heavy sweating and 25% of them had Hot flush. In the control group of the children, 60% of parents answered heavy sweating and 40% of them had Hot flush.
- [6] To the question is your child having a headache, in the experimental group of the children, all 100% of parents answered yes. In the control group of the children, also all 100% of parents answered yes their child having a headache.
- [7] To the question how long your child suffering from headache, in the experimental group of the children, 15% of parents answered since 1day, 50% answered since 2-3 days & 35% suffering since 8 days. In the control group of the children, no one of parents answered since 1day, 65% answered since 2-3 days & 35% suffering since 8 days.
- [8] To the question when does your child get headache, in the experimental group of the children, 80% of parents answered whole day and 20% in the morning time. In the control group of the children, 55% of parents answered whole day, 10% had answered morning, 25% had evening and 10% child get headache in the night time.
- [9] To the question what is the duration of headache in your child, in the experimental group of the children, 20% of parents answered 1-3 hrs, 25% answered 4-7 hrs, 30% of them in 8-11 hrs and 25% of children had headache more than 12 hrs. In the control group of the children, 60% of parents answered 4-7 hrs, 30% of them in 8-11 hrs and 10% of children had headache more than 12 hrs.
- [10] To the question what type of headache is present in your child, in the experimental group of the children, 5% of parents answered Moderate Headache, 15% had severe headache and 80% of child had Intense Headache. In the control group of the children, 40% of parents answered severe headache and 60% of child had Intense Headache.
- [11] To the question which site is affected during a headache in your child, in the experimental group of the children, 55% of parents answered Frontal head, 5% of them answered Temporal head and 40% answered entire head. In the control group of the children, 70% of parents answered Frontal head and 30% answered entire head.
- [12] To the question what are the other symptoms along with headache present in your child, in the experimental group of the children, 75% of parents answered nausea, 20% had Pain in the eyes and 5% of children had Dizziness. In the control group of the children, 35% of parents answered Nausea, 40% had Pain in the eyes and 25% of children had Dizziness.
- [13] To the question is your child having a vomiting, in the experimental group of the children, all 100% of parents answered yes. In the control group of the children, also all 100% of parents answered yes their child having a vomiting.
- [14] To the question when does your child starts vomiting, in the experimental group of the children, 40% of parents answered whole day, 45% in the morning time and 15% of them continuous vomiting. In the control group of the children, 40% of parents answered whole day and 55% in the morning time.
- [15] To the question what type of vomiting occurs in your child, in the experimental group of the children, all 100% of parents answered projectile vomiting. In the control group of the children, also all 100% of parents answered projectile vomiting.
- [16] To the question how does your child having vomiting, in the experimental group of the children, all 100% of parents answer vomiting with food contents. In the control group of the children, also all 100% of parents answered vomiting with food contents.
- [17] To the question how frequently your child does get vomiting, in the experimental group of the children, 85% of parents answered 3-4 episodes and 15% answered 5-6 episodes of vomiting.
- [18] In the control group of the children, 70% of parents answered 3-4 episodes and 30% answered 5-6 episodes of vomiting.
- [19] To the question what is the present problem with vision to your child, in the experimental group of the children, 5% of parents answered Diplopia, 75% answered Photophobia and 20% of the children had Blindness. In the control group of the children, 35% of parents answered Diplopia, 45% answered Photophobia and 20% of the children had Blindness.

**Section III**

Deals with analysis of data related to assessment of the effect of acupressure therapy on management of raised intracranial pressure among children diagnosed with

meningitis in selected hospitals of metropolitan city in terms of frequency and percentage.

### General assessment of the intracranial pressure of children - Experimental

Score	Remark	Pre-Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1-7.	Normal	0	0.00	5	25.00
8-14.	Mild	0	0.00	14	70.00
15-21	Moderate	3	15.00	1	5.00
22-28	Severe	17	85.00	0	0.00

For the assessment purpose the score range of raised intracranial pressure among children diagnosed with meningitis 1-28 divided in to the four groups like, 1-7 score (Normal), 8-14 score (Mild), 15-21 score (moderate) and 22-28 score (severe). In experimental group, at the time of pre-test, 85% of children were diagnosed with

meningitis had severe intracranial pressure and 15% were moderate intracranial pressure. At the time of post-test, 25% of children were diagnosed with meningitis had the normal intracranial pressure and 70% were mild intracranial pressure.

### General assessment of the intracranial pressure of children – Control

Score	Remark	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1-7.	Normal	0	0.00	0	0.00
8-14.	Mild	0	0.00	0	0.00
15-21	Moderate	0	0.00	13	65.00
22-28	Severe	20	100.00	7	35.00

For the assessment purpose the score range of raised intracranial pressure among children diagnosed with meningitis 1-28 divided in to the four groups like, 1-7 score (Normal), 8-14 score (Mild), 15-21 score (moderate) and 22-28 score (severe). In control group, at the time of per-test, all 100% of children diagnosed with meningitis had severe intracranial pressure. At the time of post-test, 35% of children diagnosed with meningitis had severe

intracranial pressure and 65% had moderate intracranial pressure.

### Section IV

Deals with analysis of data related to the effectiveness of acupressure therapy on management of raised intracranial pressure among children diagnosed with meningitis in selected hospitals of metropolitan city.

### Comparison of the intracranial pressure of children – Experimental Group (Paired t test)

Experimental	Size	Mean	S.D.	t	t table	P
PRE Test	20	22.50	1.27	23.84	2.09	0.000
POST Test	20	9.10	2.17			

The comparisons of the per-test and post-test means of the intracranial pressure among children were done by the paired t test. The per-test average score was 22.50 with standard deviation of 1.27. The post-test average score was 9.10 with standard deviation of 2.17. The test statistics

values of the paired t test were 23.84 with p value 0.00. The calculated value of the test greater than table value, hence accept the H1. Concludes that, acupressure therapy on management of raised intracranial pressure among children diagnosed with meningitis was very effective.

### Comparison of the intracranial pressure of children – Control Group (Paired t test)

N-40

Control	Size	Mean	S.D.	t	t table	P
PRE-Test	20	24.25	0.91	13.58	2.09	0.000
POST Test	20	21.00	0.91			

The comparisons of the per-test and post-test means of the intracranial pressure among children were done by the paired t test. The pre-test average score was 24.25 with standard deviation of 0.91. The post-test average score was 21 with standard deviation of 0.91. The test statistics value

of the paired t test was 13.58 with p value 0.00. The calculated value of the test greater than table value. **Concludes that,** significant difference in the intracranial pressure of children.

**Comparison of the intracranial pressure of children – Exp. vs. Control (Unpaired t test)**

Post Test	Size	Mean	S.D.	t	t table	P
Experimental	20	9.1	2.17	22.55	2.02	0.00
Control	20	21	0.91			

The comparisons of the post-test mean of the intracranial pressure among children in were done by the unpaired t test. The post-test average score of experimental group was 9.10 with standard deviation of 2.17. The post-test average score of control group was 21 with standard deviation of 0.91. The test statistics value of the unpaired t test was 22.55 with p value 0.00. The calculated value of the test greater than table value, hence accept H1. **Concludes that**, acupressure therapy on management of raised intracranial pressure among children diagnosed with meningitis was effective.

**4. Conclusion**

This shows that there was a significant difference in the average mean score in post-test in both groups. **Therefore**, it was concluded that there was a significance difference at < 0.05 level with the regard to Acupressure therapy on reduce signs and symptoms of raised intracranial pressure among children diagnosed with meningitis admitted in selected hospitals of metropolitan city. **Thus, the hypothesis is accepted.**

**Implications of this Study**

The present study findings depict the significance of acupressure on raised intracranial pressure among children diagnosed with meningitis. the findings of the study provide evidence regarding the use of acupressure as a complimentary therapy in reduce the signs and symptoms of raised intracranial pressure in field of nursing practice, nursing education, nursing administration and research. The findings of the study have implication for nursing practice, nursing education, nursing administration and nursing research.

**Child Health Nursing**

1. Child health nursing is essential health services to prevent, promote and restoring the health of child, family, and community.
  2. This study helps to reduce signs and symptoms of raised intracranial pressure.
- This study will improve pediatric nurse skill in management of raised intracranial pressure.

**Nursing Education**

Nursing education can incorporate this new method which is gaining much popularity among the people in these days. Special training and practical hours should be provided to stress the safe practice of these therapies for the educators first so that they can teach the student. It could help students to plan and organize the nursing intervention as per need.

**Nursing Service**

Nurse needs to understand the acupressure is non-invasive, simple complementary method of reduce signs and symptoms of raised intracranial pressure and no side effects or complications out of it. It is an economical, easy to learn and easy to practice and reduces the need of pharmacological intervention during the raised intracranial pressure. Educating the patient and support persons regarding the acupressure points and techniques can help them to be less dependent on osmotic diuretics and hence enhances the quality of life. So it essential to incorporate complementary therapies in nursing practice.

**Nursing Administration**

Nurse administrators, should find new approaches, technologies and ways of working to improve patient satisfaction and quality patient care through evidence-based practice and should arranged In service education programs. Or workshops to make the staff aware of complimentary therapies. Nurse administrators should encourage all the staffs to undergo training on acupressure and encourage them to use acupressure as one of the management of raised intracranial pressure. New guidelines and protocol can be made in such a way that it will include all complementary and alternative therapies to practice.

**Nursing Research**

Research in nursing improves the knowledge of nurses and enhances evidence-based practice in nursing. The newer knowledge arising from the research findings will definitely help in improving the nursing skills in providing care. This study provides newer knowledge and forms a foundation for further studies on acupressure not only on the reduce signs and symptoms of intracranial pressure but also for the other ailment of the body.

**5. Recommendations**

1. Similar kind of study can be conducted on a large group.
2. The same study can be conducted in different age groups, adults and old age people.
3. Acupressure is a low-risk intervention that has an additional advantage in that it can be self-administered for some conditions. Practitioners who are formally trained and certified.

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