



## Assessment of Occurrence Cerebrovascular Attack

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**Abstract** – Digital Information has revolutionized the theory of medicine. Medication is an information ironic creativity. The leading Information Technology wave is the digitalization of homeopathic records known as electronic health records. Digital Information includes the power of digital improvement which can transmute the way care is provided. This paper identified the used of digitalized information in predicting the physical manifestation of cerebrovascular accident patients. Cerebrovascular Framework was used in this study and descriptive evaluative research and the profile of respondents were identified such as age, gender and educational background. This paper includes the respondents from 10 different barangays in the community within the area. These decreased on motor abilities is in consonance with which side of the brain from hemisphere is affected. Magnetic Resonance Imaging (MRI) results show that left upper motor neuron lesion is most prevalent comprising about 60% of the respondents, while the remaining 40% of the respondents reveal that the right upper motor neuron lesion of the brain hemisphere is affected.

**Keywords** - Health Information Technology, Digital Information, Digital Imaging in Medicine

### INTRODUCTION

The emergent use of digital information clues to possibility of generating variety of ideas in interpreting health conditions. In an articles entitled Trend in Health Information Technology, 2016 it mentioned the technology help in the service delivery in the areas of healthcare. Certification for Health Information Technology (CCHIT) one of the main innovation of health information technology uses resources, devices, approaches an essential in improving storage, retrieval practice of information in health and medicine [1].

At present information technologies (IT) consume allowable faster, more reliable and inclusive data collection. These equipment have started to generate an outsized number of information, which denotes a restrictive factor and an existent increasing hole, between the therapeutic knowledge on one hand, and the competence of doctors to monitor its progress on the further [2]. Involved data from scanners are made on digital image treating, which involves

the use of refined algorithms such as feature mining, modules analysis, direct damaging, formation credit and multi-scale motion examination [3].

This study is to examine the forecast that bounded from the analysis lies and derives from the prediction in which portion of the physical part of the body measure the ratio of a warnings symptoms which present in a cerebrovascular damage and refers to cardinal evidence called CT scan examination. This focused on patients who encountered Cerebrovascular accident for the first attack. This will include patients who are experiencing therapy medicine and with available CT scan examination outcomes. The study will be limited to information delivered by the outcome of the CT scan of the Cerebrovascular accident patients.

### OBJECTIVES OF THE STUDY

The objectives of this study are: (1) to identify use of digitalized information of profile

of the respondents in terms of age, gender and educational background (2) to examine the digitalized information in predicting the physical manifestation of cerebrovascular accident patients.

**MATERIALS AND METHODS**

The descriptive evaluation approach of research was used in this study. The descriptive

method of research was used in order to obtain and elicit the requirements of the system. The developmental approach, on the other hand, was utilized to create the system based on the elicited requirements [19]. Cerebrovascular Framework was used in this study and descriptive evaluative research.

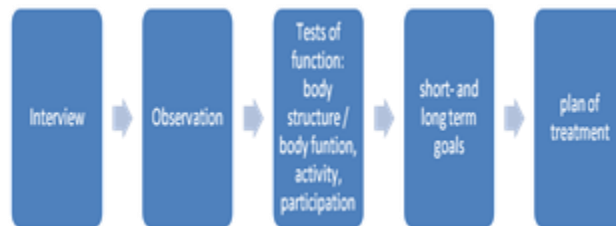


Figure 1. Cerebrovascular Framework

Since the study dwells on the usage of digitized information such as Magnetic Resonance Imaging result in identifying the side of the body will be most likely to be affected by the cerebrovascular accident, it is appropriate to

make use of descriptive evaluative research design. In essence, the objective of the description may also be the regular recording of information monitoring, surveillance.

Table 1. Table of Respondents

Variables	N	%	
Age (years)	41-45	18	9
	46-50	32	9.6
	51-55	40	8
Gender	Male	60	36
	Female	30	12
Educ. Background	Post Grad	17	6.8
	Bachelor	33	9.9
	Undergrad	40	12

**RESULTS AND DISCUSSION**

The profile of respondents were identified such as age, gender and job position. This paper includes the respondents from 10 different barangays in the community within the area where the researcher came from and nearby place. These includes Roxas Boulevard, Lucban Street, Rizal Avenue, Padilla Street, Barangay Bolingit, Barangay Tarece, Barangay Doyong,

Barangay Nelintap, Barangay Ano, and Barangay Manson. Random sampling was used in selecting the respondents.

The sample size computed was divided by the population and then multiplied by the rate (percent) to find the sample from each group. The final sampling from each group will be added to arrive at the total sample.



The formula to compute the size of the sample is as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where:

- n = the size of the sample
- N = the size of the population
- e = the margin of error

The study uses multiple instruments and techniques to achieve the stated on the statement of the problem through the profile of the respondents' questionnaires, personal interviews, and analysis of digitized information.

Structured Interview. The study has performed the structured interview. A structured interview, also called a standardized interview as prescribed gathering in individual, particularly some organized for the valuation of the educations of the users. The goal for the standard approach to ensure that the questions are in the same order and answers can be collectively reliable with all the subgroups answered the questions in different survey periods [10]. In this paper, a prepared sets of questions were distributed to the respondents. However, despite

well-written questionnaire some of the respondents were not familiar with the technical jargons. To address these issues, questionnaire content was explained in a dialect that the respondents are comfortable with. Careful explanations were given emphasis to avoid misinterpretation from the respondents.

Analysis of Digitized Data. Document analysis is the process of collecting documents and other forms related to the operation of the hospital then the collected document is analyzed to determine the objects and flow of the actual operation of the hospital. Documents include policies and regulations which are usually written in manuscripts [11].

Table 2. Five Groups of Magnetic Resonance Imaging (MRI) Findings Analysis

MRI Findings	Normal	Atrophy (n=981)	Leuko (n=891)	Simple Infarct (n=460)	Complex Infarct (n=368)
MRI defined infarct	0.078	0.11	0.00	100.00	99.46
White matter grade (0-9)	1.37	1.62	3.75	2.06	4.03
Ventricular grade (1-9)	2.49	4.19	4.06	3.15	4.68
Sulcal grade	2.14	4.26	3.34	2.95	4.27

The cerebrovascular accident remains the second primary source of disease in the Philippines. Based on the analysis of the gathered data out of 29 respondents 19 of which are males and 10 of the respondents were females.

The study shows that cerebrovascular accident patient's manifest extensive decreased on motor abilities which include locomotion and decreased on motor control particularly in holding objects or things. These decreased on

motor abilities is in consonance with which side of the brain from hemisphere is affected.

Magnetic Resonance Imaging (MRI) results show that left upper motor neuron lesion is most prevalent comprising about 60% of the respondents, while the remaining 40% of the respondents reveal that the right upper motor neuron lesion of the brain hemisphere is affected.

Furthermore, the results Magnetic Resonance Imaging reveals that patients with left upper motor neuron lesion manifested decreased

on right motor function particularly in locomotion and on motor abilities. On the other hand Patient's right upper neuron lesion manifested decreased on with motor function on locomotion and abilities.

The primary sources of data were derived from the results of digitized information from Magnetic Resonance Imaging results and observation conducted with the cerebrovascular accident patients in rehabilitation department.

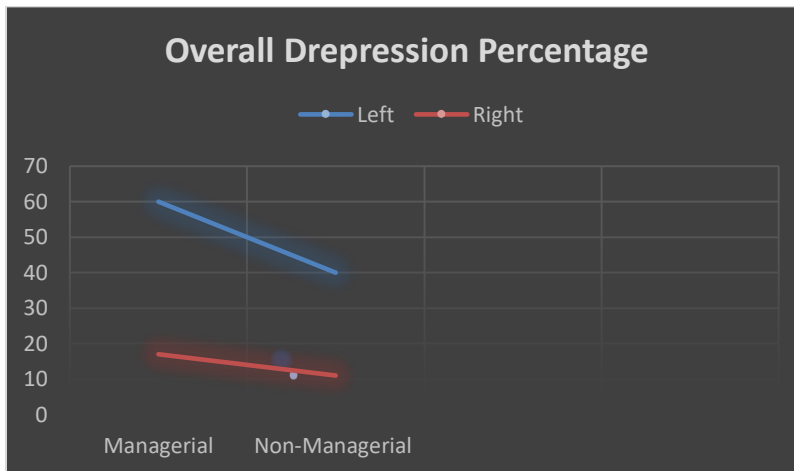


Figure 2. Overall Depression Result

Figure 2 shows that majority of the respondents, 60% suffering from depression is in managerial position while 20% holds a non-

managerial position. Data was derived from the educational background of the respondents.

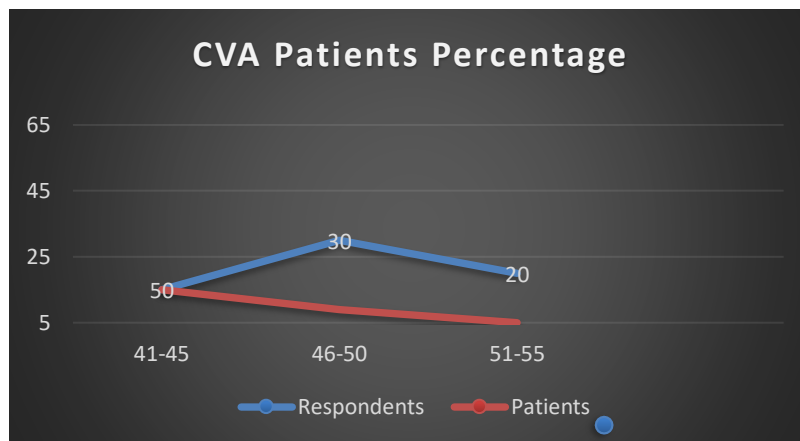


Figure 3. Result of CVA Patients Percentage

Based on the data collected, it shows that 50% of the respondents are within the range of 41 years old - 45 years old, 30% of the respondents are within the range of 46 years old - 50 years old, and the remaining 20% respondents are within

the range of 51-55 years old. It shows that most of the patients suffering from depression are within the age of 41 to 45 years old it gets lesser as the age gets higher.



## CONCLUSION AND RECOMMENDATION

Study shows that the cerebrovascular accident patient's manifest extensive decreased on motor abilities which include locomotion and decreased on motor control particularly in holding objects or things. These decreased on motor abilities is in consonance with which side of the brain from hemisphere is affected. Magnetic Resonance Imaging (MRI) results show that left upper motor neuron lesion is most prevalent comprising about 60% of the respondents, while the remaining 40% of the respondents reveal that the right upper motor neuron lesion of the brain hemisphere is affected.

The study was conducted as a prelude to a comprehensive study on Assessment of Occurrence Cerebrovascular Attack. It is recommended further study should be conducted focusing on the following variables namely: digitalized information in predicting the physical manifestation of cerebrovascular accident patients.

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