

## **Early Detection Of Aphasia In Acute Stroke : Concept Analysis**

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### **Abstract**

**Background** The concept of early detection aphasia in acute stroke has been extensively studied in nursing research, but many aspects are used throughout the current literature which include assessment, screening, and early assessment. This term is used in current literature in various contexts that relate to studying quickly aphasia in acute stroke and accurately so that the handling is timely. **Aim** The paper is a report of a concept analysis of early detection of aphasia in acute stroke. **Method** A literature search was conducted using the MEDLINE, Pubmed, Scince Direct database from 2010-2019 with the keyword "Early Detection", "Aphasia in Acute Stroke". The reference lists of the identified papers where than searched for further sources and 10 papers were identified for inclusion into the paper. The Wilson's Process was used to conduct the concept analysis. **Findings** Early detection of aphasia in acute stroke is major aspect of determine or find language disorders in stroke patients. Early detection is affected by the attributes, namely screening, assessment, finding and tracking. This balance is also an important factor in the incidence of disease and for optimal health and reduces anxiety, depression, quality of life and length of stay. **Conclusion** Early detection of aphasia in acute stroke is potentially relevant to many aspects of nursing. In order for nurse to have a positive relationship with a patients aphasia in acute stroke, early detection of aphasia in acute stroke must be present in terms of assessing aphasia, screening, and finding the incidence of aphasia in acute stroke.

**Keywords:** Concept analysis, Aphasia screening, Aphasia acute stroke, Wilson method

### **Introduction**

Nursing is a profession that provides nursing care to clients both healthy and sick. Early detection of aphasia in acute stroke is still considered as the authority of doctors and therapists even though nursing requires coordination and collaboration to jointly solve client problems with aphasia in acute stroke. So how does the term early detection of aphasia in acute stroke become part of the scheme and responsibility of nursing? Orlando's theory emphasizes the reciprocal relationship between nurses and patients by looking at the function of professional nurses to find out and meet urgent patient needs through identifying patient needs and responses. Orlando introduced a positive correlation between the length of experience of patients who did not meet their needs and stress levels so that he strongly emphasized aspects immediately throughout the discussion of his theory. (Aligood, 2017)

Aphasia in acute stroke is a communication disorder acquired by acute stroke sufferers. Acute stroke patients who are not detected cause

communication information between nurses and patients is not optimal which causes patients to experience anxiety and depression easily. (Shehata, 2018) The function of a nurse according to Henderson is to help individuals both sick and healthy in carrying out activities that affect health and healing. The individual may not need help if he already has things that have been needed such as self strength, desire, or knowledge and with this condition nurses still need to make efforts to help individuals improve their freedom as quickly as possible. (Aligood, 2017)

I suggest that early detection is a key element in clinical experience for nursing. Abdellah's Nursing Theory also includes early detection of acute stroke aphasia that one of the nursing processes aims to assess and facilitate the maintenance of effective verbal and non-verbal communication. Henderson in his 14 needs, one of which was to identify the need for communication with other people to express feelings, needs, concerns and opinions. (Aligood, 2017 and Parker, 2001)

Early detection of aphasia in acute stroke is a term that we usually associate with assessment or rapid assessment to prevent aphasia during a stroke. However, the term early detection of aphasia in acute stroke aphasia is complex and most often disappears in many clinical situations that have a direct impact on patient care. The purpose of this paper is a report of a concept analysis of early detection of aphasia in acute stroke that can be used by nursing.

### **Methods**

Wilson's process of analysis, as used in Walker and Avant (1995), was implemented in an effort to clarify the concept of early detection of aphasia in acute stroke. This process allows for all words for better understanding. This strategy is a procedure that plays a role in nursing theory construction. The seven steps used in the present analysis were: Selection of the concept, determination of the purpose of analysis, identification of all uses of concept that can be found, determination of the defining attributes, constructing of cases, identifying antecedents and consequences and defining empirical referents. To begin the concept analysis, an extensive literature search was carried out using electronic versions of MEDLINE, Pubmed, Science direct from 2010-2019. Additional media sources including Google search engines were also used. All relevant sources containing the search term "Early Detection" "Aphasia in Acute Stroke" were examined. A secondary literature search was then completed using the reference list of the articles identified by the search. Ten were selected for inclusion into the analysis using the synthesis method described in Wilson's process of analysis.

### **Results**

Use and meaning of the concept of early detection of aphasia in acute stroke:

Early Detection According to the Indonesian Dictionary is:

Detection is an attempt to find and determine existence, presumption, or reality. Detecting is finding or determining the existence or reality of something, tracking. Detection is a process,

method, action to detect, track. [http:// www.kbbi.web.id/detektor.html](http://www.kbbi.web.id/detektor.html)

In the modern era the definition deviates from its roots as follows:

Detection is an investigation work to find out what happened.

Early detection is watching or feeling something.

Early detection is the discovery of something.

The synonyms of early detection of aphasia in acute stroke inclusion: diagnosis, spotting, recognition, observation, discovery, arrest and exposure. <https://www.collinsdictionary.com>

The concept of early detection of aphasia in acute stroke has not been extensively studied by nursing research, but was used throughout the current literature in many aspect including assessment, screening, and early assessment. The use of early detection of aphasia in acute stroke is also inseparable from instruments or tools to assess an illness. Orlando uses the term early detection which was interpreted as identifying the needs and responses of patients. Orlando reflects identification as a strong belief in nurse-patient relationships to meet patient needs through communication in clinical practice. She stressed that nurses need to relate to patients to learn what was felt about their needs and ways to address those needs. Orlando said no one else would help guide patients through the system if nurses did not ensure that patients got what they needed. The nurse's responsibility is here to help patients meet communication needs. The nurse has responsibility in accordance with his professional role, which is to immediately identify aphasia in acute stroke. (Alligood, 2017)

Enderby (2015) uses the term screening to early detect of aphasia in acute stroke. Screening to detect aphasia uses an instrument called the Frenchy Aphasia Screening Test (FAST). FAST is a tool for assessing aphasia for patients who are not oriented to testing procedures for a long time. This screening can be done by nurses because it is simple and fast. Flamand Roze (2011) also uses the term screening to detect early acute stroke aphasia. She also uses an

instrument called the Language Screening Test (LAST) to detect aphasia. LAST consists of black and white images consisting of an expression index and receptive index in assessing aphasia. Thommessen (2017) described the early detection of acute stroke aphasia with special screening by nurses. He also used instruments to detect aphasia, which was named Ullevaal Aphasia Screening. Nursi et al., (2019) he also described early detection of aphasia by screening tests. In assessing aphasia also using an instrument named Mississippi Aphasia Screening Test (MAST \*) was investigated in patients with acute stroke type at an average age of 54 years. MAST \* has a range of scores from 0-100 and is done next to the bed. The MAST instrument \* has a sub-test of instruction with a yes or no response and a writing test if this sub-test is involved then the patient only causes a nod of the head. Most of the acute stroke patients also experience paralysis in one limb, both hands and feet, this aspect also needs to be considered in the writing test of the instrument, so that the assessment has a fairly high bias. Choi, Park et al. (2015) describe the term early detection identical to screening using the Mobile Aphasia Screening Test (MAST) tool investigated in patients with ischemic and hemorrhagic stroke types at an average age of 54 years. This instrument has subtests on expression and understanding, although this instrument has been reported that subjects in the study had 2-8 days onset of stroke doubtful because most stroke patients found at that time onset were most patients experiencing decreased consciousness.

#### **Defining attributes of early detection of aphasia in acute stroke**

Walker and Avant (1995) state that defining attributes are characteristic of the concept that appear over and over again. Based on the uses of the concept of early detection of aphasia in acute stroke in the literature, its defining attributes early detection of aphasia in acute stroke include : the attribute of language impairment screening, the attribute of speech disorder Assessment, the attribute of finding, the attribute of determining and the attribute of tracing.

These attributes will be used below to construct examples of use and misuse of the concept of early detection of aphasia in acute stroke.

#### **Antecedents of early detection of aphasia in acute stroke**

Antecedents are those events or incidents that must occur prior to the occurrence of the concept (Walker and Avant, 1995). In the case of early detection of aphasia in acute stroke this includes efforts to find and determine existence, tools to track and find times.

#### **Consequences of early detection of aphasia in acute stroke**

Walker and Avant (1995) define consequences as those events or incidents that occur as a result of the occurrence of the concept and are helpful in discovering ideas that may be neglected in evaluation of the concept. Those include processes, assumptions, or reality.

#### **Empirical referents of early detection of aphasia in acute stroke**

Walker and Avant (1995) state that empirical referents are classes or categories of actual phenomena that by their existence or presence demonstrate the occurrence of the concept itself. In the case of early detection of aphasia in acute stroke the defining attributes listed earlier can serve as empirical referents. More specific measures of these attributes might include : a language impairment assessment, a screening tool to assess the severity of aphasia and expert validation by people who are experts in aphasia stroke.

#### **Model case of early detection of aphasia in acute stroke**

According to Walker and Avant (1995) a model case is a real life example of the use of concepts that includes all the critical attributes of the concept. A model case for the concept of early detection of aphasia in acute stroke is as follows:

Mr. K came to the hospital's Polyclinic room with mouth complaints sticking to his right, the language suddenly was unclear, pale and lizard tongue. The nurse conducts an assessment in this case is doing aphasia screening by using a Language Screening Test (LAST) assessment tool to assess patient complaints. From the

results of the study, subjective data were obtained, namely the patient said speech difficulties, and objective data in the form of mouth sticking to the right side, lizard tongue, unclear voice, LAST 8 assessment results (Note: FAST value 15 is not aphasia, <15 said aphasia). From the results of these studies by nurses made a nursing problem in the form of verbal communication disorders and given an intervention in the form of image stimulation for speech exercises collaborated with doctors and therapists.

#### **Bordeline case of early detection of aphasia in acute stroke**

A borderline case according to Walker and Avant (1995) will contain some of the critical several important attributes of the concept being examined but not all, of them it may even contain most or all of the criteria but differ substantially in one of them. A borderline case for the early detection of aphasia in acute stroke is as follows:

A nurse planned an assessment of aphasia in acute stroke for Mr. R at room 112 B. He did this assignment because he had 10 years of experience working in the nerve room. Inspection and observation techniques by inviting patients to talk is a way to attract a diagnosis of verbal communication disorders.

#### **Related case of early detection of aphasia in acute stroke**

Related cases are instances of concepts that are related to the concept being studied that do not contain critical attributes (Walker and Avant 1995). The case below illustrates the above mentioned agreement :

Rita, a nurse currently in graduate classes, comes into work on Monday in her unit. She needs to be off duty the next day scheduled to complete his concept analysis on the following Monday. He arranged for another nurse to work for him the following Wednesday.

#### **Contrary case of early detection of aphasia in acute stroke**

Walker and Avant (1995) describe contrary case as those that are clear examples of not the concept. Following is a contrary case that contains none of the defining attributes for early

detection of aphasia in acute stroke. Which were listed earlier :

A nurse who works in the morning shift in the Polyclinic Room comes to work on Monday. A co-worker in the nerve polyclinic is currently screening for early detection of aphasia in acute stroke while he is sitting just taking care of another job. At the end of the shift, he has not completed his work and must overtime to complete nursing documentation. His co-workers began to complain to the supervisor.

#### **Invited case of early detection of aphasia acute stroke**

Walker and Avant (1995) define cases invited cases as cases that are constructed using ideas outside our own experience (fiction). As in the model case, earlier numbers are inserted below for each defining attribute.

Riska, a nurse on duty in the nerve room she routinely spends her time on the meeting agenda and hopes she gets information about the patient's condition after returning from the meeting through her manager.

#### **Illegitimate case of early detection of aphasia in acute stroke**

Illegitimate case is one the gives an example of the concept term used improperly or out of context (Walker and Avant, 1995) The following case is based on the definition for early detection of aphasia in acute stroke found in the Indonesian dictionary but has no relation on the defining attributes :

A nurse monitors inpatients in the nerve ward, the nurse sees the patient - his patient is sleeping, he assumes that everything is calm and safe. At that time, the infusion liquid of Mr. A was exhausted the nurse immediately replaced fluids according to the doctor's therapy.

#### **What is already known from this topic:**

Early detection of acute stroke aphasia is usually associated with rapid tracking before language disorders occur. Early detection of acute stroke aphasia is part of nursing studies and is an integral part of effective communication. Early detection of acute stroke aphasia has not been extensively studied in nursing research

#### **What does this paper add?**

Antecedent early detection of acute stroke aphasia is a screening effort or finding and determining the presence and tracking quickly before language disorders occur in acute stroke patients. The consequences of early detection of acute stroke aphasia in nursing is a process, presumption, or reality. Promotion of early detection of acute stroke aphasia in nursing interactions will lead to the discovery of the occurrence of language disorders in early acute stroke patients, patients feel the benefits and improve relationships between members of the health team.

### Nursing implications

While different meaning of early detection of aphasia in acute stroke have been identified, analysis this concept analysis has illuminated the relevance of the concept nursing practice. Patients are the main recipients of nursing services and nurses must strive to apply ideas related to early detection of aphasia in acute stroke in their interactions with patients and the health team. Roy, Henderson, Abdellah, and Orlando provides a theoretical basis for this.

### Conclusion

Early detection of aphasia in acute stroke is an attempt to find language disorders by screening stroke patients. If there is no early detection of aphasia in acute stroke, the patient has used telegraphic speaking style and has an impact on anxiety, depression, quality of life and length of stay. Therefore, early detection of acute stroke afasia is potentially relevant to many aspects of nursing. In order for nurses to detect acute stroke patients with aphasia, early detection must be present to screen or review it.

### References

- Al-Khawaja I and Wade D, et al. *Bedside screening for aphasia : A comparison of two methods Bedside screening for aphasia : a comparison of two methods*.2017.201-204
- Alligood M. *Pakar Teori Keperawatan*. Elsevier; 2017 ;119-148
- Azuar C and Leger A, et al. *The Aphasia Rapid Test: An NIHSS-like aphasia test*. J Neurol. 2013;2110-2117
- Bonilha HS and Simpson An, et al. *The one-year attributable cost of post-stroke dysphagia*.2014;29(5):545-552
- Choi Y and Park, H. et al (2015). *A Telescreening Tool to Detect Aphasia in Patients with Stroke*. Telemedicine and E-Health : 729–734.
- Corallo F and Bonanno L, et al. *Augmentative and Alternative Communication Effects on Quality of Life in Patients with Locked-in Syndrome and Their Caregivers* :J Stroke Cerebrovasculer Disease : 2017; 1-5
- Enderby and Crow E. *Frenchay Aphasia Screening Test : validity and Comparability*.2014;18(5):238-240
- Enderby PM and Wood VA, et al. *The frenchay aphasia screening test: A short, simple test for aphasia appropriate for non-specialists*. Disabil Rehabil. 2015;8(4):166-170
- El Hachoui H and Visch-Brink EG, et al. *Screening tests for aphasia in patients with stroke: a systematic review*. J Neurol. 2017;264(2):211-220
- Flamand-Roze C, Falissard B, Roze E, et al. *Validation of a new language screening tool for patients with acute stroke: The language screening test (LAST)*. Stroke. 2011;42(5):1224-1229
- Morris R, Eccles A, Ryan B, et al. *Prevalence of anxiety in people with aphasia after stroke*. Aphasiology. 2017;31(12):1410-1415
- Neill PAO and Cheadle B, et al. *The value of the Frenchay Aphasia Screening Test in screening for dysphasia : better than the clinician*. Rehabil Clinic. 2015:123-128
- Nursi, A., Padrik, M., Nursi, et al. (2019). *Adaption and validation of the Mississippi Aphasia Screening Test to Estonian speakers with aphasia*. Brain and Behavior, 9(1), 1–8.
- Shehata G. *The effect of aphasia upon personality traits, depression and anxiety among stroke patients*. 2018; 312-314
- O'Neill P, Cheadle B, Wyatt R, et al. *The value of the Frenchay Aphasia Screening Test*

- in screening for dysphasia: Better than the clinician.* Clin Rehabil.2015;4(2):123-128
- Parker ME. *Nursing Theoris and Nursing Practice.*; 2001; 125-140
- Salter K, Jutai J, et al. *Identification of aphasia post stroke: A review of screening assessment tools.* 2006; 559-568
- Thommessen B, Thoresen Geva, et al. *Screening by nurses for aphasia in stroke- the Ullevaal Aphasia Screening (UAS)* 2017;82-88
- Walker L. And Avant K. (1995). *Strategies for Theory Construction in Nursing*, 3rd edn. Appleton and Lange, Norwalk, CT, USA.
- Web-1: <http://www.collinsdictionary.com>, accessed 01 july 2019
- Web-2: [http:// www. kbbi.web.id/deteksi.html](http://www.kbbi.web.id/deteksi.html), accessed 03 july 2019