



## To Study Awareness Level of Dysphagia and Role of Speech Language Pathologist in Dysphagia Assessment and Management among Nurses

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### ABSTRACT

Over the years nearly every SLP department in the hospital across India has experienced a condition that poor referral from the medical professional for dysphagia management. This could be due to lack awareness among specialist and non specialist staff. Although it is widely recognized that dysphagia is a common consequence of stroke and neurological insult, it is also associated with a variety of other conditions Myasthenia gravis, ALS etc. The perception among healthcare professionals such as nurses that feeding and swallowing problems are primarily related to stroke could result in them being missed in patients who have other conditions. Objective: The objective of the present study is to find out level of awareness among nurses regarding role of speech and language pathologists in assessment and management of dysphagia and sign & symptom of dysphagia. Methods: non-experimental, descriptive survey research design was used for the purpose of this research. Purposive convenient sampling technique was used for data collection. Nurses were selected on the basis of inclusion criteria i.e. they should be having work experience more than 2 years. Nurses are working in ICU, neurological and medical wards included in sample. The total sample size was 81 nurses out of which were 76 female and 5 were male. Measures used in the study were demographic data sheet and a self-developed questionnaire. 22 items questionnaire was developed in which cover swallowing assessment and management procedure done by SLP. The questionnaire was validated by 5 speech therapists who were working in hospital set up. The questions were closed ended having 1 target response with 3 distracters. Results: t tail was done for hypothesis testing. Data were analyzed using SPSS 16 (Statistical Package for the Social Sciences). Findings indicate lack of awareness in all four aspect of questionnaire (i.e. 5 items for assessment 5 items for management, 6 items for role of SLP, 6 items for general sign of dysphagia). Conclusion: Research study concluded that nurses lack of awareness about

*dysphagia and its sign. Nurses are not aware of role speech and language pathologist in diagnosis and management of dysphagia. Research recommends that medical hospital with otolaryngologist, neurologist and SLP should conduct camp or conferences for nurses in the area of swallowing assessment and management protocol. Hospital should make them as active member and their role should be defined for interdisciplinary team approach.*

**Keywords:** Dysphagia, Swallowing Difficulties, Nurses, SLP, assessment and management of dysphagia.

## INTRODUCTION

Over the years nearly every SLP department in the hospital across India has experienced a condition that poor referral from the medical professional for dysphagia management. This could be due to lack awareness among specialist and non specialist staff. Although it is widely recognized that dysphagia is a common consequence of stroke and neurological insult, it is also associated with a variety of other conditions Myasthenia gravis, ALS etc<sup>(1-3)</sup>. The perception among healthcare professionals such as nurses that feeding and swallowing problems are primarily related to stroke could result in them being missed in patients who have other conditions. Increased ratio of complaints associated with dysphagia necessitates timely identified and management of dysphagia is very important issue<sup>(1-4)</sup>. Speech and language pathologist (SLP) is a part of multidisciplinary team member and plays vital role such as early identification, assessment, diagnosis and management of dysphagia. In subjective assessment procedure which conducted by SLP includes bedside evaluation, cervical auscultation, four finger test<sup>(6-8)</sup>. Similarly SLP play role in objective assessment procedures accompanied with otolaryngologist and radiologist like FEES, VFSS, and EMS etc. SLP also play significant role in management of dysphagia by giving direct therapy or indirect therapy depending upon client specific condition. Much time SLP uses techniques like supraglottic swallow, super-supraglottic swallow, and effortful swallow, Mandelsohn maneuver swallow for improving muscular coordination and control of swallowing<sup>(6-8)</sup>. Speech and language pathologists' main role is essential for better care and improved quality of life of the patient with

dysphagia. Speech and language pathologist will not only involve in assess the patient but will also play crucial role in a management plan in terms to improve hydration and nutrition of patient with dysphagia<sup>(6-8)</sup>. The exact incidence and prevalence of oropharyngeal dysphagia is not clear in Indian population however; incidence of dysphagia is growing rapidly due to increased cases with CVA. Approximately ten million American are assessed with swallowing difficulties. Stroke is the most common cause of dysphagia<sup>(1)</sup>. It is estimated that 22% of adults over 50 years of age, 61% of adults admitted to an acute trauma center, 50 to 75% of stroke patients and 60 to 70 percent of patients who undergo radiation therapy for head and neck cancer and 20-40% of patients with neurological diseases such as ALS , myasthenia gravis , Parkinson's Disease have dysphagia<sup>(5,6)</sup>. It have been reported that 70% of stroke survivors 75% have aphasia and dysphagia together<sup>[1]</sup>. The SLPs are trained in dysphagia and management & treat patients along with documenting progress report of patients and their plan for discharge. In addition, SLP also gives family/care givers guidance and educating other professionals regarding the needs of the individuals with swallowing disorders is also under the scope of speech-language pathologist<sup>(7,8)</sup>.

Previous research review on nurses indicate that implication after CVA stroke suggests that dysphagia is a most common complication of stroke which infers need for increased understanding of post stroke dysphagia and its issues among nurses<sup>(9)</sup>. Most of the time, food and medication are given to the patient by nurses. They are professionals more likely to observe signs and symptoms of dysphagia in hospital.

There are issue and sign of dysphagia which nurses should be aware such as positioning during eating or drinking, coughing or choking after eating or drinking, complaints of a feeling of obstruction, frequent throat clearing, unexplained temperature spikes, food avoidance, heartburn, change in respiration pattern after swallowing, and prolonged mealtimes. Knowledge of swallowing difficulty enables nurses to identify the swallowing problem in time, refer the patient to SLP for diagnosis and intervention and follow the treatment plan accordingly.<sup>(9)</sup>. Weinhardt et al did research study to assess the accuracy of dysphagia screening done by trained nurses. Result of the study suggested that nurses can carry out the initial screening only if they are trained. They can then refer the patient for detail assessment and management to the speech and language pathologist<sup>(10)</sup>. Nurses are more likely to miss out or delay dysphagia referral to SLP due to their lack of knowledge about swallowing problem. Nurses are one of important unit of a team and their abilities do contribute maximum. However, nurses without knowledge of swallowing disorder will hinder team efficiency. An interdisciplinary approach and nurses with knowledge of sign and symptom of swallowing difficulty will help them to quick screen dysphagia and refer for detail assessment or management to SLP. A training program will improve the quality of services provided by interdisciplinary team.<sup>(11)</sup>. Therefore current research study been taken up to study level of awareness about dysphagia among Indian nurses in private hospital setup.

## METHODOLOGY

The purpose of this research study was to analyze level of awareness about dysphagia among nurses in four hospitals of Mumbai and Indore .A non-experimental, descriptive survey research design was used for the purpose of this research. Purposive convenient sampling technique was used for data collection. Nurses were selected on the basis of inclusion criteria they should be having work experience more than 2 years. Nurses

are working in ICU, neurological and medical wards and dealing with patients with various neurological and stroke patient.

The total sample size was 81 nurses out of which were 76 female and 5 were male. Measures used in the study were demographic data sheet and a self-developed questionnaire.

## Tool

22 items questionnaire was developed in which cover swallowing assessment and management procedure done by SLP. The questionnaire was validated by 5 speech therapists who were working in hospital set up. The questions were closed ended having 1 target response with 3 distractors.

Out of these 22 items were used to check level of awareness about dysphagia and its screening. 6 items were for sign of dysphagia, 5 items for assessment and 5 items for management aspect of dysphagia. 6 items were checking level of awareness about role of speech and language pathologist in dysphagia. Nurses were briefed about the questionnaire and were assured that the confidentiality of their identity will be maintained while processing the results.

On the basis of the collected data, a thorough analysis was conducted using SPSS 16 about the level of awareness among nurses regarding Dysphagia and role of SLP.

## RESULTS

Of 81 nurses, 76 were female and 5 male. The professional experience of 43 nurses was more than 5 years and 38 nurses had experience of 2 -5 years.

The research hypothesis was developed for analysis

- There was no significant difference between level of awareness among nurses assessment and management.

**Table 1.** showing mean value of level of awareness about assessment and management

| <b>Group Statistics</b> |            |    |        |                |                 |
|-------------------------|------------|----|--------|----------------|-----------------|
|                         | Group      | N  | Mean   | Std. Deviation | Std. Error Mean |
| questionnaire           | Assessment | 81 | 3.0864 | 1.12024        | .12447          |
|                         | Management | 81 | 2.0370 | .95452         | .10606          |

**Table 2.** Showing t tail (at df 160) value of level of awareness about assessment and management

|               | t-test for Equality of Means |     |                 |                 |                       |   |         |
|---------------|------------------------------|-----|-----------------|-----------------|-----------------------|---|---------|
|               | t                            | Df  | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|               |                              |     |                 |                 |                       | Lower                                     | Upper   |
| questionnaire | 6.417                        | 160 | .000            | 1.04938         | .16353                | .72643                                    | 1.37233 |

From the table value, t tail value at df 160 statistical significant difference seen assessment and management of dysphagia. Comparing the means score assessment of dysphagia has means score of 81 nurses 3.08 were management of

dysphagia has mean score of 2.03. These values indicate that nurses are more aware about assessment of dysphagia than the management of dysphagia.

- There was no significant difference between level of awareness among role of speech therapist and general sign of dysphagia.

**Table 3.** showing mean value of level of awareness about role of speech therapist and general sign of dysphagia.

| <b>Group Statistics</b> |                           |    |        |                |                 |
|-------------------------|---------------------------|----|--------|----------------|-----------------|
|                         | Group                     | N  | Mean   | Std. Deviation | Std. Error Mean |
| questionnaire           | general sign of dysphagia | 81 | 3.9877 | 1.26978        | .14109          |
|                         | role of speech therapist  | 81 | 3.3580 | 1.08753        | .12084          |

**Table 4.** showing t tail test value of level of awareness about role of speech therapist and general sign of dysphagia.

|               | t-test for Equality of Means |     |                 |                 |                       |   |        |
|---------------|------------------------------|-----|-----------------|-----------------|-----------------------|---|--------|
|               | t                            | df  | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|               |                              |     |                 |                 |                       | Lower                                     | Upper  |
| questionnaire | 3.389                        | 160 | .001            | .62963          | .18576                | .26277                                    | .99649 |

From the table value, t tail value at df 160 statistical significant difference seen between role of speech therapist and general sing of dysphagia. Comparing the means score general sing of dysphagia has means score of 81 nurses 3.987

were as role of speech pathologist has mean score of 3.3. These values indicate that nurses are more aware about general sign of dysphagia than the role of speech and language pathologist.

## DISCUSSION

Dysphagia is an extremely serious medical problem in which patients' life is under severe threat. Initial identification is recommended in dysphagia to prevent further complications. Nurses can play an important role in identification early sign of dysphagia if nurses are aware about general sign, assessment method and role of speech language pathologist in management of dysphagia. Results of this study indicated that nurses are not aware about all four component of dysphagia (i.e. assessment and management role of speech therapist in swallowing and general sign of dysphagia).

Sample of this research study was consisted of nurses who are working in ICU, medical wards, surgical ward and neurological wards. These nurses manly tack care of medicine BP, Insulin, urine level etc. They spend most of their time with ward patients; therefore they are the important professional for early identification of dysphagia. Nurses need to observe sign and symptoms of at risk factors patients to identify dysphagia. Understanding and knowledge of dysphagia is a prerequisite when working in setting where influx of dysphagia patient is high.

Similar results were reported by a study carried out to check knowledge of certified nurses regarding dysphagia which also concluded lack of knowledge among nurses<sup>(12)</sup>. Lower score on knowledge about dysphagia items in the present study indicated that nurses are handling dysphagia without correct knowledge. There is need to conduct awareness camp or conference for nurses about dysphagia. These results highlighted the fact that there are a number of patients who are at risk of developing complications due to poor knowledge of dysphagia and its screening among nurses. Langmore et al done research study on predictors of aspiration pneumonia indicated that dysphagia, if not identified timely, might result in aspiration pneumonia<sup>(13)</sup>. Nurses can play crucial role in reducing adverse outcomes associated with dysphagia if they do dysphagia screening in critical time in medical ward. If nurses can screen

important sings and symptom of swallowing difficulties and refer them to SLP for assessment can be treated effective in early stage. Results of this study indicated that nurses lack awareness about role of speech and language pathologist which is an obstacle in creation of an ideal interdisciplinary team approach for effective management. Blackwell et al research study on prevalence, assessment and management of dysphagia emphasized similar finding of current study i.e. the need for nurses to work in collaboration with speech and language pathologist<sup>(14)</sup>.

## CONCLUSION

This research finding indicates that the nursing staffs as primary medical professional manifest lack in the knowledge and awareness related to dysphagia assessment and management. This can hamper the subsequent phases of early identification of patients with swallowing problem. Therefore current research study concluded that nurses should be made more aware about the dysphagia and its management. There should be camp or conference on dysphagia management for nurses conducted by SLP or Neurologist, otolaryngologist. Role of nurses in interdisciplinary team approach for dysphagia management in hospital set up. Current research study concludes that nurses don't have awareness of role speech and language pathologist in dysphagia assessment and management.

## LIMITATIONS

Limitation to the present research study is small sample size (81). The sample was collected from only four hospitals of two cities of India that cannot be generalize.

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