

## RESEARCH ARTICLE

## IMPACT OF PEDIATRIC DYSPHAGIA AWARENESS PROGRAMME ON NURSES

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## ABSTRACT

**Background:** Pediatric dysphagia is a common consequence of many structural and neurological problems after birth. In a Health care setting, Nurses can only screen out pediatric dysphagia if they had knowledge of swallowing difficulties **Objective:** To determine the impact of pediatric dysphagia awareness program among nurses. **Methodology:** A Quasi experimental study was conducted at Railway Hospital Rawalpindi hospital from January 2021 till august 2021. The convenient sampling technique was used for data collection during the period of February 2021 till May 2021. The nurses having working experience of more than two years in pediatric ward. The total sample size was n= 19, out of which n= 14 were females and n= 5 were males. The study was conducted in two phases. In 1<sup>st</sup> phase, questionnaire was developed and the content validity for items & content validity for scale was tabulated. In 2<sup>nd</sup> phase webinar of one hour was conducted and self- developed questionnaire was used for pre and post analysis. Analysis was done through SPSS 20. **Results:** Results of the current study indicates that, "There was a significant improvement in awareness of nurses about pediatric dysphagia after attending the webinar (96.055 ± 11.8593) (117.227 ± 5.377, p<0.05). **Conclusion:** Research study concluded that an awareness programme about pediatric dysphagia improved the knowledge of nurses working with pediatric population.

**Keywords:** Awareness programme, nurses, speech therapist, pediatric dysphagia

## INTRODUCTION

Pediatric dysphagia is defined as any impairment in sucking and eating or disturbance in coordination of any oral, pharyngeal and oesophagus swallowing phases in children. Early detection of dysphagia in infants and children is important to prevent or minimize complications.<sup>1</sup> Acquiring a healthy diet for body growth is essential to fulfil nutritional demands for a healthy and sustaining a good long life.<sup>2</sup> According to centre of Disease control and prevention (CDC), around 0.9% of children are having swallowing difficulties, who are in age range of 3 to 17 years.<sup>3</sup> 25% to 45% of feeding and swallowing difficulties are reported in normally developing children (4). According to researches approximately 1% of children suffer from swallowing difficulties and the rate of Pediatric dysphagia (PD) is higher in children with cerebral palsy, traumatic brain injury, and airway malformation.<sup>5,6</sup>

The major sign and symptoms of PD include aspiration, coughing, choking, drooling, shortness of breath, vomiting, refusal to eat and penetration in supraglottal area. These conditions can lead to life threatening situations.<sup>7, 8, 9</sup>

In a Health care setting, Nurses can only screen out the pediatric dysphagia if they had knowledge of swallowing difficulties in children. Nurses are the very important part of the multidisciplinary team

and their awareness can readily minimize the consequences of pediatric dysphagia.<sup>10</sup> Lack of knowledge about swallowing problems can be the reason of missing out or delayed dysphagia referral to SLP which can lead to life threatening conditions. The knowledge of signs & symptoms and its management can help nurses to screen out feeding problem immediately.<sup>11</sup>

A research review on 'Evidence-Based Nursing Protocols for Dysphagia Assessment' suggests that nurses are in the front line to observe dysphagia sign & symptoms as most of the time food and medication are given to the patient in their presence. During the mealtime if the nurses observe any of the following symptoms, like coughing, choking, frequent throat clearing, food refusal by the patients, heart burn, lump feeling in throat, changes in oxygen saturation level during or after swallowing, frequent temperature spikes and prolonged meal time, then the nurses can quickly refer and manage the patient accordingly.<sup>12</sup>

To minimize consequences of PD, early diagnosis and effective management is very necessary. The nurses are among the main members of a multidisciplinary team. Keeping in view the research evidence and existing literature, it is indicated that our medical facilities have lack of resources, limited budget and lack of knowledge. The conduction of awareness sessions in such

scenarios is inevitable. For this reason, the present study will be focused on conduction of the awareness webinar, and analyze the impact of this webinar on the role of nurses in pediatric dysphagia.

## METHODOLOGY

A Quasi experimental study was conducted at Pakistan Railway Hospital after approval from the Research Ethical Committee of Riphah international university (With Ref #Riphah/RCRS/REC/00976). The non –Probability, convenient sampling technique was used for data collection. The nurses having working experience of more than two years in pediatric ward was included. The total sample size was comprised of n=19 nurses

The study was divided into two phases. In the 1<sup>st</sup> phase, self- structured questionnaire was developed, which was used for the analysis of the difference in pre & post assessments. The questionnaire was composed of 25 items related to sign, symptoms and management of pediatric dysphagia. Likert scale was used for the response analysis with 1 indicates strongly disagree while 5 indicates strongly agree respectively. The content validity index for scale, S-CVI was 0.88.

In the next phase, a webinar about pediatric Dysphagia was arranged for the nurses. It was one hour awareness programme which include the information regarding the sign & symptoms and management .It also covers the role of nurses

regarding management of Pediatric dysphagia. A thorough data analysis was conducted by using the SPSS 20, by applying the paired sample t-test on a normally distributed data, to find the impact of awareness programme on Nurses.

## RESULTS

A Total n=19 nurses were included in this study, among them 74% were females (n=14) and 26% (n=5) were males. In the selected sample, 42 % (n=8) were Masters in Nursing (MSN), 32% (n=6) were having Bachelors in Nursing (BSN) remaining 26% (n=5) were having certified nursing assistants (CNA) certificates.

The demographic data is showed in figure 1. The figure 1, illustrates about the working experience of nurses working with pediatric population. The below figure shows that 48% of nurses having work experience in nursing field lie between 5-10 years and 37% of nurses having experience between 2-5 years. Whereas 15% of nurses experience range is more than 10 years.

The mean scores of pre and post assessment about the level of awareness of nurses about pediatric dysphagia, The result showed that there significant increase ( $96.055 \pm 11.8593$  ver.  $117.227 \pm 5.377$ ,  $p < 0.001$ ) in the Pediatric dysphagia awareness among nurse after attending the webinar. (Figure 1)

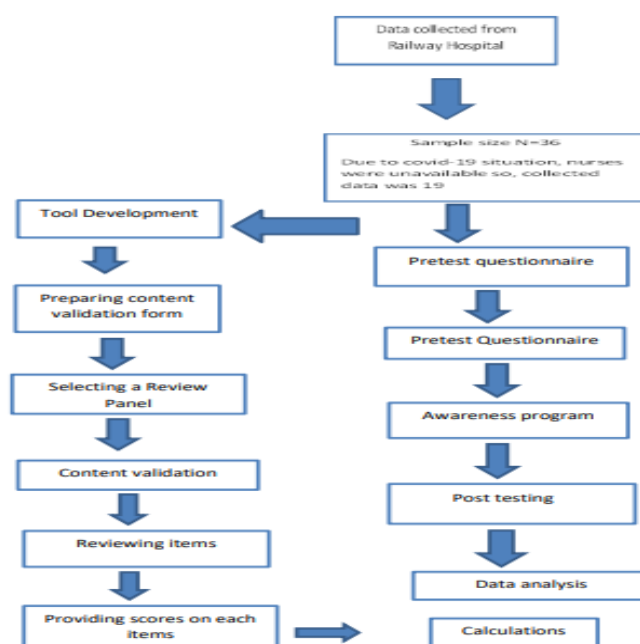


Figure 1: Flow chart

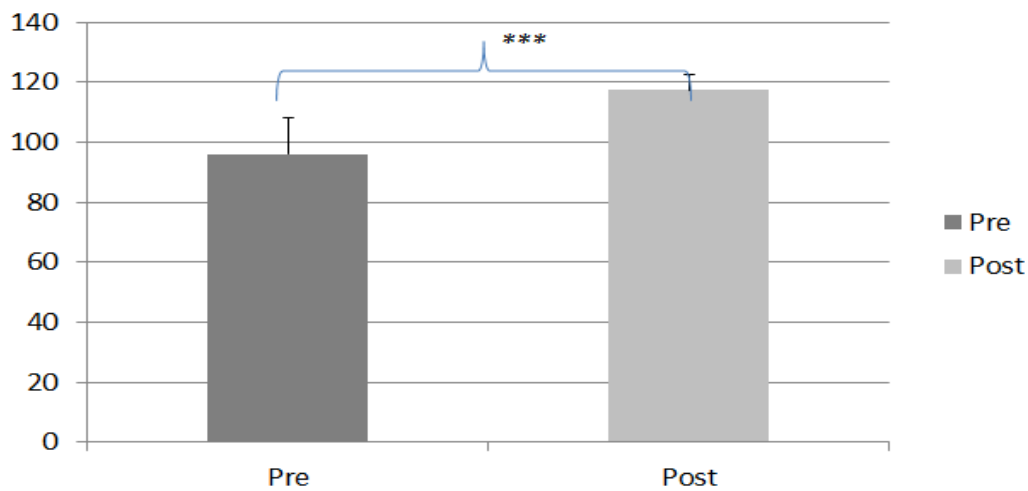


Figure 1: Pre &amp; Post Changes

## DISCUSSION

The objective of the present study was to determine the impact of awareness program on pediatric dysphagia among nurses. Nurses play an important role in identification of PD. Early identification can minimize the consequences of dysphagia on child later development. Similarly in one study it is indicated that in the management of patient with swallowing problems nurses plays a significant role.<sup>16</sup>

The existing literature also suggested that training should include the knowledge about administration of screening tests such as bedside swallow test or correct position of patient during mealtime.<sup>15</sup> A recent conducted in Pakistan, regarding Dysphagia screening and awareness among nurses of Rawalpindi and Lahore hospitals. The study results revealed that nurses had lack of knowledge and its screening also they don't have any awareness about the role of Speech and Language pathologist regarding diagnosis and management of Dysphagia.<sup>13</sup> A cross sectional study conducted in Saudi Arabia about knowledge and care practices regarding patients with dysphagia. The study results revealed that 78% of nurses have received less than one hour training in dysphagia and only 4% were aware about the role of Speech and Language Pathologist.<sup>14</sup> The identification and detailed evaluation of dysphagia can be made by the speech and language pathologist. The initial testing tools and protocols to screen dysphagia can be administered by the trained nurses. A skillful and knowledgeable nurse can play an important role at early step of problem.<sup>15</sup>

In present study, significant difference was found between the means of pre and post assessment which incredibly shows the difference between awareness levels among these nurses. In pre-assessment the results revealed that majority of nurses had lack of knowledge associated with PD. Similar results were reported by a study carried out to check the knowledge of dysphagia in nurses which also concluded lack of knowledge among nurses.<sup>13</sup> Similarly a survey was conducted in Namibia and its results confirmed that nurses have a lack of knowledge about the signs, symptoms and its management.<sup>15</sup>

The current study results, highlighted the fact that there is need to conduct awareness programme for nurses about pediatric dysphagia to reduce its adverse out come on child's later life. In one survey, the results showed that 12 to 54% of children are found to be malnourished, who are characterized to have feeding and swallowing problems.<sup>17</sup> Nurses have an important role in health care team; if they are fully trained they can do the screening in Peads ward. Training and awareness of nurses is significantly associated with the effective management and improvement in eating and swallowing difficulties symptoms. Furthermore, it has been found that higher knowledge of disorder is also associated with less experience of nurses.<sup>18</sup>

The present study results results were limited due to small sample size, self-structured tool and unavailability of nurses due to Covid -19 restrictions. The sample was collected from only one hospitals of Rawalpindi region.

## CONCLUSION

The nurses who are an important team member of the multidisciplinary team have significantly low levels of knowledge about pediatric dysphagia. The webinar increases knowledge base of pediatric dysphagia among nurses, as there is a great difference in the pre and post assessment results. So it is recommended such webinars should be the part of nurses training.

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