

# To Assess the Effectiveness of Self Instructional Module on Knowledge Regarding Prevention of Aspiration in Infant among Postnatal Mother in Selected Hospitals

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**Abstract:** *Aspiration is defined as the entry of foreign material into the airway below the true vocal cord. Some aspiration occurs in normal individuals especially, when the air way protective mechanisms are stressed, such as while talking, laughing, eating or sleep.<sup>1</sup>*  
**Objectives:** *To assess the existing knowledge regarding prevention of aspiration in infant among postnatal mothers in selected hospitals. To assess the effectiveness of self instructional module regarding prevention of aspiration in infant among postnatal mothers in selected hospitals. To find out the association between knowledge score with selected demographic variables of postnatal mothers in selected hospitals.*  
**Methods and Materials:** *The study was a one group pre test and post test design (Quasi experimental research design. Population for the study was postnatal mother. The sample consists of 100 postnatal mother. Inclusion criteria Postnatal mothers, present at the time of the study; who are willing to participate in the study; Those who are able to read, write and understand Marathi, or English . Exclusion criteria those mothers having postnatal complication (postnatal psychosis). Mother who are health care professional. In this study, the sampling technique used was non-probability convenient sampling. Framed the item and same were incorporated into the tool and self instructional module. The reliability of questionnaire was done by Guttman Split Half Coefficient.*  
**Results:** *In Pre-test the 39(39%) of postnatal mother were having average level of knowledge score, 59(59%) of postnatal mother were having good level of knowledge score, only 2(2%) of postnatal mother were having very good level of knowledge score. The minimum score was 6 and the maximum score was 13, the mean score was  $9.06 \pm 1.687$  with a mean percentage score of 45.3. In Post- test the 2(2%) of postnatal mother were having good level of knowledge score, 63(63%) of postnatal mother were having very good level of knowledge score and 35(35%) of them had excellent level of knowledge score. The minimum score was 11 and the maximum score was 18, the mean score was  $15.84 \pm 1.398$  with a mean percentage score of 79.2*

**Keywords:** prevention of aspiration, self instructional module

## 1. Introduction

Children constitute the foundation of a nation. Healthy newborn evolve become healthy adults and effectively participate in national development programs. The child's health while in the womb depends on the health of the mother. But after being born its survival, health and growth depend not only its own health but also on the mothers knowledge about child rearing practices and the immediate environment in which the family lives.<sup>1</sup>

At birth a baby is transposed from the warm contentment of the uterine environment to the outside world where the role of independent existence is assumed. The baby must be able to make this sharp transition swiftly, and in order to achieve the series of adaptive functions have been developed to accommodate the dramatic change from the intrauterine to extra uterine environment.<sup>2</sup>

Recurrent aspiration of foreign material into the respiratory tract is a common problem in children and patients with predisposing anatomic and functional disorders such as tracheoesophageal fistula, GER, and neuromuscular disorders. As a result, it has been implicated in the etiology of a variety of pulmonary disorders. Clinically, children who

aspirate may present with pneumonia, recurrent wheezing, unexplained cough, interstitial lung disease, and even apnea<sup>3</sup>. Furthermore, an association between aspiration of milk and exacerbation and/or development of asthma has been suggested<sup>4</sup>.

## 2. Problem Statement

To assess the effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals.

## 3. Objectives

- 1) To assess the existing knowledge regarding prevention of aspiration in infant among postnatal mothers in selected hospitals.
- 2) To assess the effectiveness of self instructional module regarding prevention of aspiration in infant among postnatal mothers in selected hospitals.
- 3) To find out the association between knowledge score with selected demographic variables of postnatal mothers in selected hospitals.

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#### 4. Methodology

- 1) **Research approach:** Interventional approach
- 2) **Research design:** The research design is One Group Pre test Post test Design
- 3) **Setting of the study:** This study was conducted in hospital.
- 4) **Sample:** Postnatal mother.
- 5) **Sampling technique:** Non-probability convenient sampling technique.
- 6) **Sample size:** Sample size for this study is 100.
- 7) **Tool:** Structured knowledge questionarrier including demographic variables and self instructional module was used for the study.

#### Sampling criteria

##### Inclusion Criteria

Postnatal mothers,

- 1) Present at the time of the study.
- 2) Who are willing to participate in the study.
- 3) Those who are able to read, write and understand Marathi, or English

##### Exclusion Criteria:

- 1) Those mothers having postnatal complication (postnatal psychosis).
- 2) Mother who are health care professional.

#### 5. Result

The present study has been taken up to assess the Effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals. Analysis and interpretation is based on the objectives of the study. A structured questionnaire to collect knowledge was used for data collection. The analysis was done with the help of inferential and descriptive statistics.

**Table 1:** Percentage wise distribution of Effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals, n = 100

Level of knowledge score	Score range	Percentage score	Knowledge Score	
			Pre Test	Post Test
Poor	1-4	0-20 %	0	0
Average	5-8	21-40 %	39	0
Good	9-12	41-60%	59	2
Very good	13-16	61-80%	2	63
Excellent	17-20	81-100%	0	35
Minimum score			6	11
Maximum score			13	18
Mean score			9.06 ± 1.687	15.84 ± 1.398
Mean %			45.3	79.2

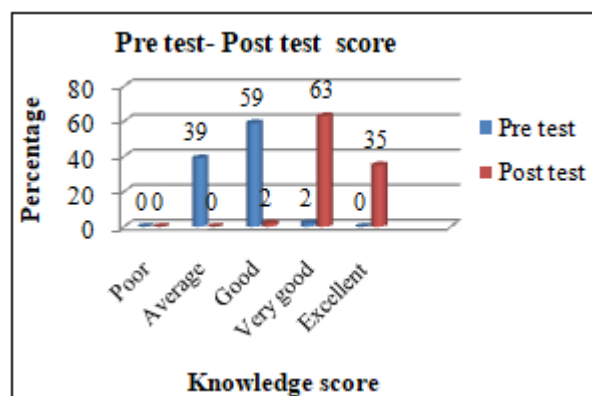
The above table and below graph shows that in **Pre-test** 39(39%) of postnatal mother were having average level of knowledge score, 59(59%) of postnatal mother were having good level of knowledge score, and 2(2%) of postnatal mother were having very good level of knowledge score. The minimum score was 6 and the maximum score was 13, the

mean score was  $9.06 \pm 1.687$  with a mean percentage score of 45.3.

The above table and below graph shows that in **Post- test** 2(2%) of postnatal mother were having good level of knowledge score, 63(63%) of postnatal mother were having very good level of knowledge score. And 35(35%) of them had excellent level of knowledge score. The minimum score was 11 and the maximum score was 18, the mean score was  $15.84 \pm 1.398$  with a mean percentage score of 79.2.

To assess the effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals.

This section deals with the effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals The hypothesis is tested statistically with distribution of pre test and post test mean and standard deviation and mean difference. The levels of knowledge during the pre test and post test are compared to prove the effectiveness of self instructional module 't' test and tabulated 't' value is compared with calculated 't' value. Also the calculated 'p' values are compared with acceptable 'p' value i.e. 0.05. Hence, H1 hypothesis is accepted for the present study.



**Figure 1:** Percentage wise distribution of Effectiveness of self instructional module on knowledge regarding prevention of aspiration in infant among postnatal mother in selected hospitals

#### 6. Discussion

The major findings of the study shows that the pre test score of postnatal mother is 9.06 and post test is 15.84 after administering self instructional module. The statistical analysis was done by 't' test where the overall calculated 't' value was 60.30 when compared to the tabulated 't' value with degree of freedom at the level of 0.05 significance was higher showing high level of significance making the conclusion that self instructional module is effective in improving the knowledge of postnatal mother on prevention of aspiration.

Similar finding was conducted by, A study shows that, a review of 196 cases of infant and early childhood death in children under 3 years of age, occurring over a 9-year period (September 1989 to August 1998) was undertaken to ascertain how many cases of significant gastric aspiration had occurred. Extensive and widespread filling of the

airways/alveoli with gastric contents was found in three infants/young children aged 5, 6 and 30 months, respectively. In each instance the body had been found lying face down (prone), with the face in a pool of vomitus in at least one case. No cases of significant gastric aspiration were found in infants who had been found lying on their sides or backs (supine). In addition, no significant increase in numbers of infant and early childhood deaths in South Australia due to gastric aspiration over this time could be demonstrated. Concerns that the supine rather than the prone position is more likely to result in significant gastric aspiration are not supported by this study.<sup>5</sup>

Chronic aspiration in children can cause life-threatening pulmonary consequences as well as multiple hospital stays and costly nursing requirements. Causes of aspiration vary widely and must be accurately assessed for treatment to be optimal. This disorder can be successfully controlled with a number of medical and surgical interventions. Rarely, children with severe neurologic disorders will continue to aspirate saliva despite treatment with voice-conserving measures. In cases of life-threatening aspiration, laryngotracheal separation can be lifesaving.<sup>6</sup>

## 7. Conclusion

In this study from detail analysis it shows that of post test mean score is 15.84 and pre test mean score is 9.06. The hypothesis is tested statistically with distribution of pre test and post test mean, standard deviation and mean difference. There were significant association between knowledge score with education, occupation, type of family and not associated with age, residential area, family income and parity respectively.

## 8. Recommendations

Recommendations for further study based on the findings of the study the following recommendations could be made-

- Comparative study conducted between urban and rural area.
- To assess the effectiveness of planned teaching program on knowledge regarding prevention of aspiration in infant among postnatal mother.
- A study to assess the knowledge regarding prevention of aspiration of under five children among postnatal mother.
- To assess knowledge and attitude regarding prevention of aspiration in infant among postnatal mother.

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