



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2017; 3(12): 180-182  
www.allresearchjournal.com  
Received: 19-10-2017  
Accepted: 20-11-2017

**Arvind Kumar Sharma**  
Professor, Swasthya Kalyan  
Institute of Medical  
Technology and Nursing  
Education, Jaipur, Rajasthan,  
India

**Mukesh Chand Garg**  
Assistant Professor, Swasthya  
Kalyan Institute of Medical  
Technology and Nursing  
Education, Jaipur, Rajasthan,  
India

**Sushil Kumar Rundla**  
M.Sc. Nursing, Swasthya  
Kalyan Institute of Medical  
Technology and Nursing  
Education, Jaipur, Rajasthan,  
India

**Correspondence**  
**Arvind Kumar Sharma**  
Professor, Swasthya Kalyan  
Institute of Medical  
Technology and Nursing  
Education, Jaipur, Rajasthan,  
India

## Assessment of the level of knowledge regarding pentavalent vaccine among staff nurses working in selected hospital at Jaipur, Rajasthan

**Arvind Kumar Sharma, Mukesh Chand Garg and Sushil Kumar Rundla**

### Abstract

Immunization is one of the most important preventive health actions in children's lives, as it provides protection against the most dangerous childhood diseases. Achieving immunization through administration of vaccines to boys and girls is a priority, because if they have not been vaccinated they are at major risk of contracting diseases such as measles, whooping cough and others, which may be fatal in some cases and may lead to long-term debilitating effects on survivors. The pentavalent vaccine has replaced the current Hepatitis B and DPT primary vaccination schedule in the immunization programme. The Present study was undertaken to assess the level of knowledge regarding pentavalent vaccine among staff nurses. The research design used was descriptive experimental design and the population was 60 staff nurses working in selected hospital by using non probability convenient sampling technique. Structured knowledge questionnaire was used to assess the knowledge regarding pentavalent vaccine. The analysis of the data reveals that overall mean knowledge were 12.59. The results shows that existing mean knowledge of staff nurse was 2.95 in the aspect of introduction and advantages of pentavalent vaccine and least in the area of Age, route, dose & storage of pentavalent vaccine 3.96, in the area Schedule of pentavalent vaccine 2.58 and Contraindication & side effect of pentavalent vaccine the knowledge score was 3.1. The study revealed that the knowledge of staff nurses regarding pentavalent vaccine was moderate.

**Keywords:** Staff nurses, knowledge, pentavalent vaccine and hospital

### Introduction

The Government of India has decided to introduce pentavalent vaccine in the national immunization programme in selected states. Pentavalent vaccine provides protection to a child from 5 life-threatening diseases – Diphtheria, Pertussis, Tetanus, Hepatitis B and Hib. DPT (Diphtheria+Pertussis+Tetanus) and Hep B are already part of routine immunization in India; Hib vaccine is a new addition. Together, the combination is called Pentavalent. Hib vaccine can prevent serious diseases caused by Haemophilus influenzae type b like pneumonia, meningitis, bacteremia, epiglottitis, septic arthritis etc. Giving pentavalent vaccine reduces the number of pricks to a child, and provides protection from all five diseases.

### Objectives of the study

1. To assess the knowledge of staff nurses regarding Pentavalent vaccine.
2. To find out the association between level of knowledge of staff nurses regarding pentavalent vaccine and selected demographic variable.
3. To develop a health education module regarding the prevention of 5 life-threatening diseases – Diphtheria, Pertussis, Tetanus, Hepatitis B and Hib.

### Hypothesis

H<sub>0</sub>:-There is no significant relationship between knowledge of staff nurses regarding Pentavalent Vaccine and selected demographic variables.

### Assumption

1. Staff nurses play an active role in preventing childhood infections by Immunization of children.

2. Staff nurses will have some knowledge regarding Pentavalent Vaccine.
3. Health education module will help the staff nurses to gain knowledge regarding importance of Pentavalent Vaccine.

## Methodology

### Research Approach

Descriptive experimental approach helps to explain the effect of independent variable on the dependent variable. It includes manipulation, control and randomization.

### Research Design

Descriptive experimental design is used to assess the level of knowledge regarding pentavalent vaccine among staff nurses working in selected hospital at Jaipur Rajasthan.

### Variables

**Independent variables:** The Independent variable of the study refers a view to develop on a health education module regarding the prevention of 5 life-threatening diseases – Diphtheria, Pertussis, Tetanus, Hepatitis B and Hib.

**Dependent variables:** The dependent variables are the knowledge of staff nurses regarding pentavalent vaccine.

**Demographical variables:** The demographic variables are age (in years), gender, educational qualification, Experience (in years), area of working, Source of information regarding knowledge of pentavalent vaccine.

### Sampling Technique

Samples were selected by using Non- probability convenient sampling method.

### Sampling Criteria

The following criteria are set to select samples:-

### Inclusion Criteria

The study includes

- ✓ Who are available at the time of the study?
- ✓ Staff nurses who are working selected hospitals at Jaipur.
- ✓ Staff nurses who are willing to participate in the study.
- ✓ Staff nurses who can follow the instructions.

### Exclusion criteria

The study excludes

- ✓ Staff nurses who are not available at the time of data collection.
- ✓ Staff nurses who are not willing to participate in the study.
- ✓ Staff nurses who have attended workshops or seminars on pentavalent vaccine.

## Results

Staff nurses had moderate knowledge were 12.59 overall mean knowledge regarding pentavalent vaccine. Knowledge level of respondents on pentavalent vaccine showed that 26.66 percentages of staff nurses had inadequate knowledge, 51.67 percentage staff nurses had moderate knowledge and 13 percentage staff nurses had adequate knowledge.

The chi square value indicates that there is significant association between Age, Gender, Education, qualification,

Experience, Area of working and Source of information and Knowledge level of respondents regarding pentavalent vaccine.

## Conclusion

The study revealed with the assumption of the study that the knowledge of staff nurses regarding pentavalent vaccine is moderate.

## References

1. Bloom D, Canning D, Weston M. The value of vaccination. *World Economics*. 2005; 6(3):15-39
2. Avinash Kumar *et al.*, Awareness and Attitude Regarding Breastfeeding and Immunization Practices Among Primigravida Attending a Tertiary Care Hospital in Southern India; *Journal of Clinical and Diagnostic Research*. 2015, 9(3): LC01-LC05
3. Vashistha PM, Kumar P. 50 years of Immunization in India: Progress and Future; *Indian Pediatrics*. 2013; 50:111-18
4. Report on Causes of Death in India 2001-2003: Office of the RGI, 1-7
5. National Family Health Survey-II (1998-'99), J&K State. International Institute for Population Sciences, Mumbai. 2002, 129.
6. Nilanjan Patra. Universal Immunization Programme In India: The Determinants Of Childhood Immunization. Dept. Of Economics, Delhi School Of Economics, Univ. Of Delhi, page no. 1-29
7. National Family Health Survey-3 (NFHS-III) Ministry of Health and Family Welfare, Government of India, International Institute for Population Sciences, Mumbai. 2005-2006-2007.
8. Kriti Vikram, Reeve Vanneman, Sonalde Desai. Linkages between maternal education and childhood immunization in India. *Social Science & Medicine* 75 (2012); 331e339
9. Nnenna TB, Davidson UN, Babatunde OI () Mothers' Knowledge and Perception of Adverse Events Following Immunization in Enugu, South-East, Nigeria. *J Vaccines*. 2013; 4:202
10. Rachna Kapoor, Sheetal Vyas. Awareness and knowledge of mothers of under five children regarding immunization in Ahmedabad. Volume 1 Issue 1 July-December. 2010, 12-15.
11. Humera Hayat, Parwez Sajad Khan, Gazala Hayat, Rehana Hayata. Knowledge and attitude of caretakers of children regarding immunization. *Eastern Journal of Medicine*. 2012; 17:126-129
12. Angadi MM, Arun Pulikkottil Jose, Rekha Udgiri KA. Masali, Vijaya Sorganvi. A Study of Knowledge, Attitude and Practices on Immunization of Children in Urban Slums of Bijapur City, Karnataka, India. *Journal of Clinical and Diagnostic Research*. 2013, 7(12):2803-2806
13. Ms. Mereena Mrs. Sujatha R. A Study on Knowledge and Attitude Regarding Vaccines among mothers of Under Five Children attending Pediatric OPD in a Selected Hospital at Mangalore. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)* e-ISSN: 2320-1959.p- ISSN: 2320-1940. 2014; 3(5):39-46.
14. Shamila Hamid, Syed Arshad Hussain Andhrabi, Anzum Fazli, Rahul Jabeen. Immunization of Children in a Rural Area of North Kashmir, India: A KAP Study.

Online Journal of Health and Allied Sciences, ISSN 0972-5997, 2012; 11(1).

15. Dr. Dinesh Das & Minakshee Pathak. The Growing Rural-Urban Disparity in India: Some Issues. International Journal of Advancements in Research & Technolog. 2012; 1(5), October-, ISSN 2278-7763.
16. Singh PK. Trends in Child Immunization across Geographical Regions in India: Focus on Urban-Rural and Gender Differentials. PLoS ONE. 2013; 8(9):e73102. doi:10.1371/journal.pone.0073102.
17. Joseph L. Mathew. Inequity in Childhood Immunization in India: A Systematic Review. Indian Pediatrics. 4916. 2012.