

KNOWLEDGE, ATTITUDE AND PRACTICE OF POLIO PREVENTION AMONG PEOPLE IN KHYBER PAKHTUNKHWA

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ABSTRACT

Objectives: To assess the knowledge, attitude and practice of Polio among people in Khyber Pakhtun Khwa and to recommend measures in order to improve the awareness of disease.

Study Design: Descriptive cross sectional study.

Place and Duration of Study: This study was conducted at CMH Nowshera, CMH Mardan and Kohat General Hospital from March to June 2013.

Subjects and Methods: Persons presenting for consultation to tertiary care hospitals at medical reception rooms were approached by convenience sampling. Structured questionnaire was developed and data was collected by interviews.

Results: The findings of the study revealed that out of 296 persons participated in study 57.4% were males while 42.2% were females. They were residents of Mardan, Nowshera, Kohat and Swabi districts of Khyber Pakhtunkhwa. Persons who believed that vaccine is prohibited in religion were 13.9%, 81.1% persons knew about Polio disease and 84.5% persons believed that disease could be prevented by giving vaccines to children. Persons who gave vaccine to their children were 88.9% and 66.9% also knew the schedule of the vaccine. Pressure groups which included tribal elders' stopped 19.3% people from giving vaccine to their children and for 11.1% persons the facility of giving vaccine was not available. Persons who believed that Polio can cause infertility were 11.5% and 20.9% believed that Polio vaccine cannot prevent Polio disease. Persons who have seen patient of Polio were 38.9% and 88.5 % persons wanted to eradicate disease from Pakistan.

Conclusion: The results of the study revealed that people have adequate knowledge about Polio and wanted to eradicate it from Pakistan by participating in vaccination activities but still there are few people who believe that Polio vaccine cannot prevent disease resulting in failure to administer vaccine for their children.

Keywords: Paralysis, Polio, Vaccine.

INTRODUCTION

Poliomyelitis, or infantile paralysis, is an acute infectious disease characterized by fever, flaccid paralysis, and muscle atrophy as a result of the destruction of motor neurons in the spinal cord and brainstem¹. Polio (poliomyelitis) is an acute viral illness caused by an RNA virus which affects children under five years of age and can take the form of an epidemic if not controlled at the primary health care level by mass vaccination and health education of the people.

Mankind has been successful in restricting the spread through organized government and community efforts at global level by launching

Polio eradication initiative. There are only three countries namely Nigeria, Pakistan and Afghanistan that still have high number of cases with active polio transmission.

The dream of Polio free world would be a distant possibility until the remaining countries with polio virus transmission cannot be made polio free. This can be achieved through concerted efforts on finding out the impediments in achieving Polio vaccination status up to the mark. Knowledge about Polio among general population is the most important link, if addressed properly, can decrease the disease. Information regarding signs and symptoms of the disease, complications and prevention modalities can play a vital role to eradicate disease.

Attitude of the people towards vaccination of the disease can contribute significantly to

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control transmission of disease. Attitude can be changed by increasing literacy rate.

Practice regarding vaccination of polio can also play an important role to control disease. This can be improved by population education to improve understanding of the disease and by removing misperceptions regarding the vaccination. As people believe that vaccine contains toxic ingredients that are detrimental.

The aim of the study is to identify the knowledge, attitude and practice among people in the most of polio prevalent region of Khyber Pakhtun khwa and formulate recommendation in order to address the gap in knowledge and practice to make Pakistan, polio free.

SUBJECTS AND METHODS

This study was conducted at CMH Nowshera, CMH Mardan and Kohat General Hospital from Mar to Jun 2013. Convenience sampling technique was adopted. The respondents were assured of confidentiality of the data. Subjects from all age groups were interviewed. Patients reporting to above mentioned health care facilities were administered questionnaire who were willing to participate. Respondents were asked to give response on questionnaire. The questionnaire was pre-tested and discrepancies were resolved. One facilitator at each of the above mentioned hospital was trained and briefed about questionnaire to help the participants in providing response.

Data was collected to analyze the variables like ages of the participants, gender, religion, district of residence, polio vaccine, polio disease, availability in area for the vaccine, beliefs regarding polio vaccine, side effects and knowledge about polio patient in the area.

The data was entered and analyzed using the SPSS 20. The descriptive analysis was performed to record frequencies and percentages.

There may be some bias in the selection of the individuals who participated as the subjects were selected conveniently.

RESULTS

The results revealed that out of total 296 persons, 170 (57.4%) were males while 125 (42.2%) were females. Age distribution is shown in figure-1. They were residents of Mardan, Nowshera, Kohat and Swabi districts of Khyber Pakhtukhwa. Persons who believed that vaccine is prohibited in religion were 41 (13.9%), 242 (81.1%) persons knew about Polio disease and 250 (84.5%) persons believed that disease can be prevented by giving vaccine to a child. Persons who vaccinated their children were 263 (88.9%) while 198 (66.9%) also knew the schedule of the vaccine. Pressure groups which included tribal elders, stopped 57 (19.3%) people from vaccinating their children and for 33 (11.1%) persons the facility of vaccination was not available. People who believed that polio could cause infertility were 34 (11.5%) and 62 (20.9%) believed that polio vaccine would not prevent polio disease. Persons who have seen a polio case were 115 (38.9%) and 88.5 % persons wanted to eradicate disease from Pakistan. Details are shown in figures-2a and 2b.

DISCUSSION

The results of this study revealed that people have adequate knowledge about polio and wanted to eradicate it from Pakistan by participating in vaccination activities but still there are few people who believe that Polio vaccine cannot prevent disease resulting in failure to get vaccine for their children. All these gaps in vaccination can be addressed by improving literacy rate and use of print and electronic media for creating awareness of the disease.

Polio cases have decreased by over 99% since 1988, from an estimated 350, 000 cases in more than 125 endemic countries, to 650 reported cases in 2011. In 2012, only parts of three countries in the world remained endemic for the disease.

A study conducted in Pakistan stated that the main reasons for routine immunization failure were absence of a vaccinator and unawareness of need for immunization³. Pakistan

has come a long way in its struggle to eradicate polio. In the early 1990s, the annual incidence of polio was estimated at more than 20,000 cases a year. By 2005, only 28 cases were confirmed. However, since then progress has been hampered by instability and war in border areas with Afghanistan, limiting safe access to children.

The majority of cases during the past 3 years were reported from the known transmission

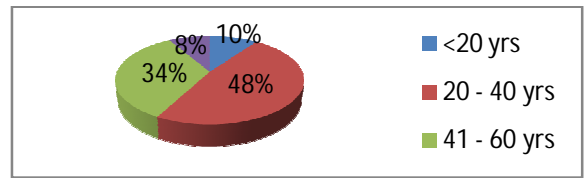


Figure-1: Age distribution of study subjects. states considered at high risk; in addition, four

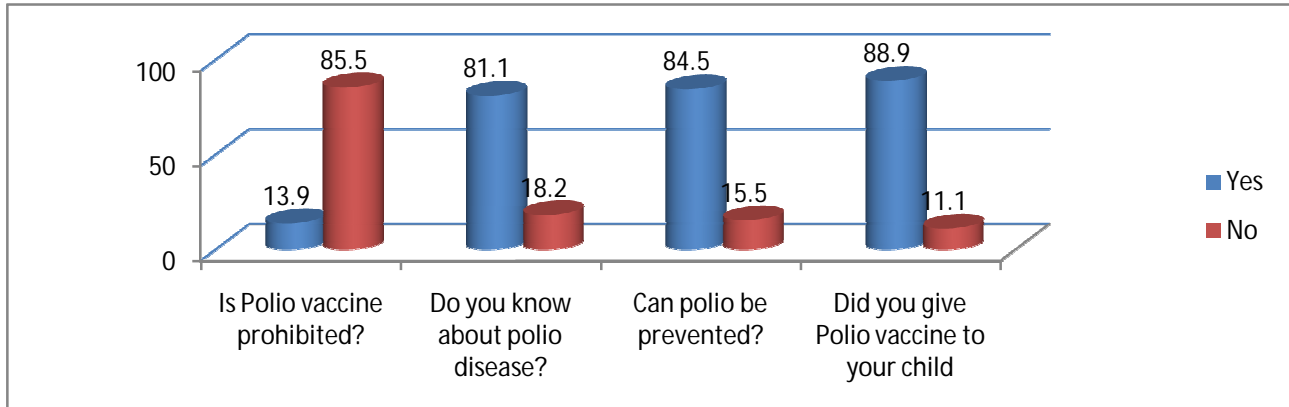


Figure- 2(a): Percentages of study subject regarding knowledge, attitude and practice for polio.

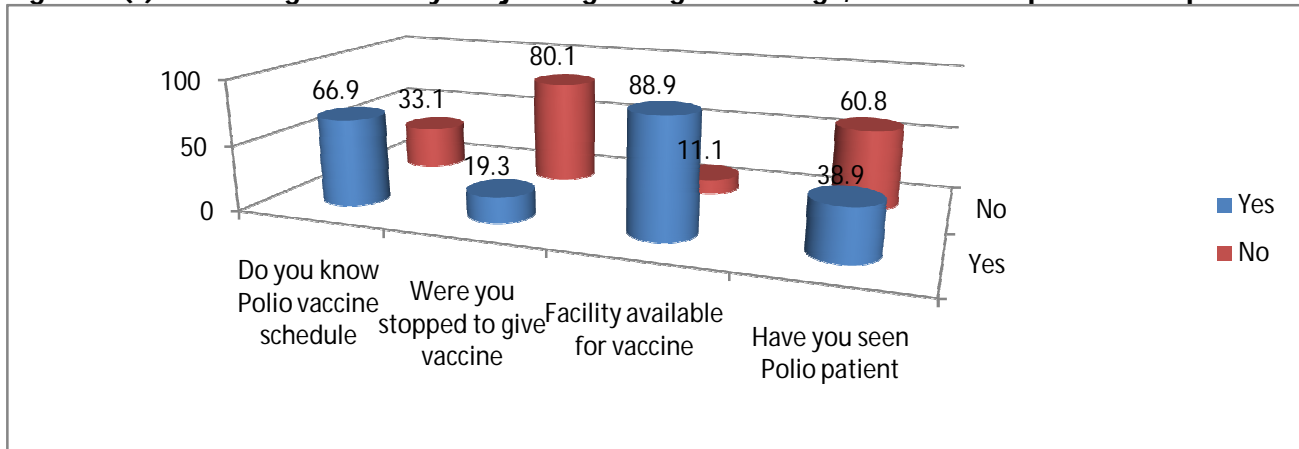


Figure- 2(b): Percentage of knowledge and practice of people.

zones, namely, Federally Administered Tribal Areas (FATA) and associated areas of central Khyber Pakhtunkhwa (KP) province, Quetta Block (Quetta, Pishin and Killa Abdulla) and Karachi. The central Pakistan zone of South Punjab, North Sindh and East Baluchistan⁴.

Among the 36 states and Federal Capital Territory of Nigeria, wild polio virus (WPV) transmission has persisted in eight northern

other northern states were considered at high risk for WPV transmission. In these 12 high-risk states, type 2 circulating vaccine-derived poliovirus (cVDPV2) transmission was also observed during 2005-2011. This report updates Global Polio Eradication Initiative (GPEI) progress in Nigeria during January 2010-June 2011 and describes activities required to interrupt transmission⁵.

Poliomyelitis eradication activities in Egypt were reviewed to identify the critical factors for the progress seen by 1995 and to highlight problems that could be avoided in other countries in which poliomyelitis is endemic. National immunization and surveillance data demonstrate that the combination of high routine immunization coverage (>85%) with oral polio vaccine combined with two properly conducted rounds of national immunization days (NIDs) resulted in a 75% reduction in reported polio cases between 1992 and 1993. Proper implementation of the World Health Organization's recommended strategies can eliminate wild poliovirus circulation in the large, densely populated tropical countries in which poliomyelitis remains endemic⁶.

In this study more than 80% people know about disease. In one of the study that identified the knowledge, attitude and beliefs of the parents regarding vaccination of the children in Spain found it to be satisfactory and this improved the vaccination coverage⁷. In another study carried out in Nigeria it was revealed that 65% people have good knowledge⁸. Study carried out in Uganda also revealed that child vaccination was associated with knowledge of the parents regarding vaccination⁹. In another study conducted at Karachi 41% people never heard of the disease¹⁰.

This study also revealed that about 70% people knew about the schedule of the vaccination. In one of the studies conducted in Rajasthan, India it was found that although people knew about disease in general but lack the specific knowledge about vaccination schedule¹¹. In a study conducted in Italy about 57% mothers had knowledge of the mandatory vaccine that is practiced for the region¹². In this study 11.1% people don't have access to Polio vaccination. Study conducted in North India revealed that 9.6% people have difficulty in getting vaccine¹³.

CONCLUSION

The results of the study highlighted that general population had adequate knowledge about Polio and wanted to eradicate it from Pakistan by participating in vaccination activities but still there are few people who believe that Polio vaccine cannot prevent disease leading to failure of vaccination of their children. Few were also stopped from giving vaccine considering it, not allowed in religion and containing harmful ingredients. It is recommended that these gaps in knowledge should be addressed by use of print and electronic media for creating awareness of the disease.

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