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Research Article

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Abstract:

Pakistan is striving hard to maximize the coverage of the immunization program but still it is facing many barriers and challenges against the diseases which can be prevented through vaccination. There are many barriers other than the administrative and availability of vaccine like parents cooperation is lacking among poor and illiterate community, awareness about the benefits of vaccination plan is missing and also the vaccinator are at high risk in low socio economic areas for their life. Maintaining cold chain in transportation, storage and management is also a challenge for the health officials. The EPI program in Pakistan is sponsored by WHO and UNICEF. The donors are struggling to overcome the management issue and also the coverage enhancement of vaccine especially in areas where the preventable disease were reported. The present study was conducted in Nishter Hospital Multan and total of 200 children were taken as a sample from the time period of July 2018 to March 2019. Majority of the children received the vaccination on time and the few who missed the vaccine dose were due to their lack of attention to the benefits of the plan and also due to the hard access to the area. Poor awareness is the main cause of missing the dose among rural women. Conclusion is to sensitize the mother to avail the full EPI plan for their children under age of 2 years and also the government health official should plan to increase the coverage of the program. Awareness creation about the better child health is the need of the time especially in the areas where the literacy rate is poor and the people are living a life which is below the standard of quality life.

It is concluded from this study that it is the responsibility of Government and Health Professionals to find solutions to increase vaccination rate and coverage. It is the need of hour to find ways for creating awareness among parents and motivate them to follow complete vaccination schedule for the sake of better child health.

Key Words: EPI, Vaccines, mortality, compliance, barriers and morbidity

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INTRODUCTION:

In our body antigenic material is required to develop immunity against diseases is called vaccine. The vaccine helps to fight against pathogens of various diseases and the boost the immunity of body according to research of Lorenz and Khalid conducted 2012. In Pakistan immunization program has reduced the burden of diseases and mortality among children as compared to the past. Government is paying attention to the coverage of the immunization program on priority so that the death rate among children can be reduced significantly. In developed world the coverage rate of vaccine is maximum but in developing countries like Pakistan the documentation of vaccination should be improved and the awareness among masses especially in remote areas is the target of the government. In urban areas the coverage ratio is satisfactory. Millions of deaths in the developing countries can be avoided if the children have the opportunity to get the vaccination at time. The EPI history in Pakistan is long and it was initiated by WHO in 1978 and is continuously improving the coverage, documentation and access to the all over the country. The purpose of the program is to help children in avoiding disease from 0 to 12 months which can be fatal for their life. The diseases which can be prevented by the vaccine are the major cause of early childhood deaths. The requirement of the day is to avoid the preventable diseases in order to decrease the morbidity, mortality and cost of treatment of the disease. According to Rainey et al 2011 the most effective measures and public health intervention is to avoid mortality among children. Immunization in children from private sector is very costly and government with the help of donor is providing free of cost access to everybody so that they can avoid the treatment cost of the disease and also it can be fatal for their child health. From the WHO report every year lives of millions of children are saved due to extensive immunization program. In Pakistan there are many remote areas which are under developed and even infrastructure is poor therefore due to hard access and poor literacy the immunization program face challenges by the community against diseases. They have developed taboos about the vaccination plan and fertility of their child. It becomes hard for the vaccinator to vaccinate the child in those areas. Also some time it becomes life threat for the vaccinator in that area. The highest coverage area in terms of EPI is the Punjab where almost 70 % of the population avail the benefit of vaccination program. While the situation Baluchistan, Sindh and KPK still needs extra attention.

The wonders of the EPI program are considered the significant reduction in mortality of the infants to 60

to 70 per 1000 child births. The maximum coverage of the vaccines is provided by the government hospitals. Private hospital is adding little in the good cause but most of the time they offer paid for vaccine facility.

This study is conducted in Nishter Hospital Multan which is urban area and the coverage of vaccination is almost 90% .It is the requirement to analyze the causes behind the unvaccinated cases and government should come with strategies to overcome their psychological issues and also the availability of the vaccination in remote areas can help in the reduction of un vaccinated cases. All the children less than 2 years of age were included in the study and their vaccination chart was analyzed in terms of total coverage according to their age and vaccine dose. Maintaining cold storage in vaccine transportation and storage is important especially in maintaining the efficacy of the vaccines. Polio vaccine required multiple levels of doses for maintaining the protective level of antibodies in the children

METHODS:

This cross-sectional study is conducted in government Nishter Hospital Multan a tertiary care hospital in South Punjab from the July 2018 to March 2019. The sample size is 200; children less than 2 years of age were included. Their mothers provided the information about immunization program and the medical history of child. The socio-economic status of child and the mother literacy was also jotted down.

Vaccination card of the children were analyzed to check the 100 percent coverage of the doses of vaccination at time. There are many hindrances in the performance of EPI at the basic and primary health care level. These barriers are security issue of vaccinator, poor demand from the community, lacking knowledge of vaccination benefits, lacking information about preventive diseases and their consequences. Poor socioeconomic factor and poor access to the availability of the services are the main hindrances in the good performance of EPI plan.(Ali et al., 2015., Al-lela et al., 2014).

After vaccination many children develop fever and mild illness which irritate parents and they are unwilling to give vaccination to their children. Educating parents about vaccine should be the priority of the government and the vaccinator because a satisfied customer can spread the information in their community and hence can help in the reduction of barrier in the success of the program. (Al-lela et

al., 2014).

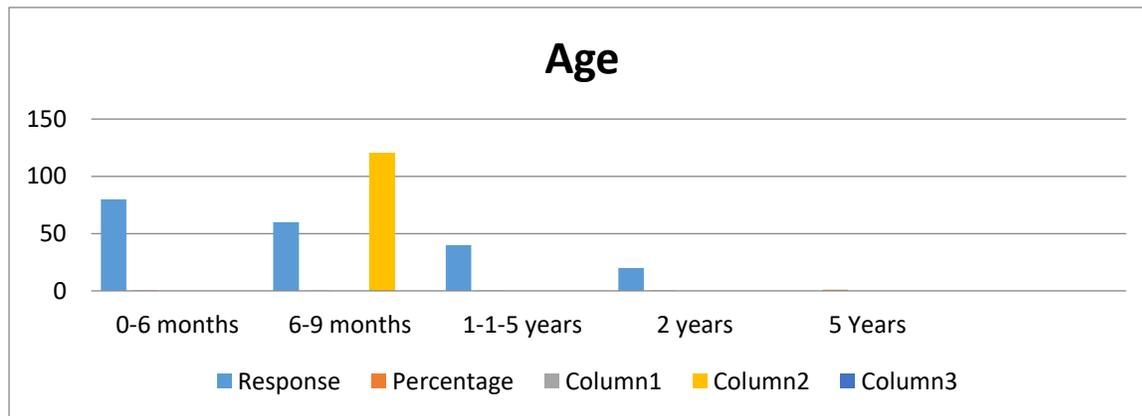
RESULTS:

From the total 200 children 40 percent of them were male and remaining 60 percent of them were female which shows that female ratio in child birth is high as

Table 1

Age	Response	Percentage
0-6 months	80	40 %
6-9 months	60	30%
1-1-5 years	40	20%
2 years	20	10%
5 Years	200(Polio)	100%
Gender		
Male	80	40%
Female	120	60%

The graphical illustration is as follow.

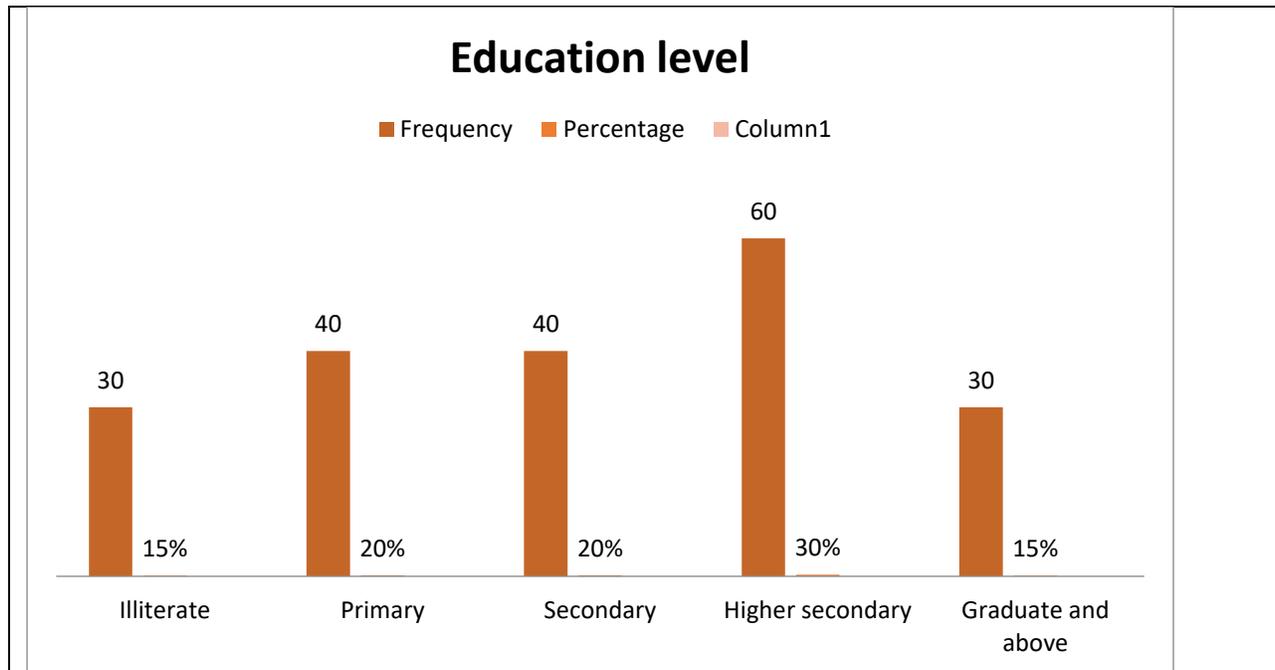


The information about mother education and socio economic factors were also noted the results are given in the table as follow

Table 2 Demographic characteristics

Education	Frequency	Percentage
Illiterate	30	15%
Primary	40	20%
Secondary	40	20%
Higher secondary	60	30%
Graduate and above	30	15%
Income Level		
Lower income	110	55%
Lower middle income	50	25%
Middle income group	40	20%
Location		
Urban	80	40%
Rural	120	60%

The graphical illustration about the education level is as follow.



From the table 2 it is clear that the patient's mothers were from illiterate to graduate level and the level of education increases as the level of the income in the family improves. The higher secondary and graduate mothers were from urban area and the poor literacy belongs to rural areas usually.60% of the respondents were from rural areas and 40 percent of them were from urban area and the majority of the patients 55% belonged to poor income group and hence from lower education group.

Table 3 is about the EPI coverage program and the percentage of the vaccination each child in the sample received. The missing of the vaccine shows the seriousness of the parents and also their awareness level about the benefits of getting vaccine on time. As the age of the child grows the percentage of missing the child also increases and after one year the missing percentage reached 40 %.

Table 3 EPI converge

Age	EPI	Vaccine frequency	Percentage	Missed Vaccine	Percentage
At birth	"BCG +OPV0"	180	90%	20	10%
6 weeks	"Penta1+OPV1+Hib"	160	80%	40	20%
10 weeks	"Penta2+OPV2+Hib"	180	90%	20	10%
14 weeks	"Penta3+OPV3+Hib"	170	85%	30	15%
9 months	"Measles"	130	65%	70	35%
15 months	"Measles"	120	60%	80	40%
Private available Vaccines	"Typhoid, Chicken pox, rotavirus"	10	5%		

When asked about the missing of the EPI dose from the participants their excuses were different.20 percent response was that they just forget about the date and missed it.15 percent of them were reluctant in next dose due to the mild illness child get after the vaccination.30 percent of them were sick of the crowd and long awaiting hours due to short time and long awaiting queues of the patients.20 percent of them were not aware about the benefits of the vaccine and how it can help their child health in future. Only 2 percent of them missed it because of their false believes about vaccination and child future fertility issue.

CONCLUSION:

It is the era of information sharing and people have become more educated and aware. The need of the time is to develop awareness about the importance of the vaccination program for their future child health. Acceptance and awareness among the parents about the vaccination can improve the coverage area and population. Facilitation to the vaccinator in terms of security, transportation and good remuneration can also help to improve the coverage and also they will be motivated to convince the parents about the benefits of getting vaccine. Sensitizing the mother at each dose can help the children to avail all the doses of vaccine at time.

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