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Knowledge Attitude and Practice Factors on Parents Regarding Immunization

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ABSTRACT

Immunization is a process by which people get immunity against infectious diseases. **Objective:** To assess the Knowledge, Attitude and Practice Factors of parents regarding immunization. **Methods:** A descriptive cross sectional research study design was used to assess "knowledge, attitude and practice factors of parents regarding immunization" conducted among 134 people at EPI center of Jinnah Hospital, Lahore. The population was targeted through convenient sampling technique. **Results:** The overall result of study shown that parents having good knowledge (70.1%), positive attitude (83.6%) and good practice factors (59%), toward infant Immunization. Parent of child had good knowledge and positive attitude about infant immunization. Immunization was significantly associated with people education. The Cronbach alpha, Bartlett's and KMO values have been checked to ensure the validity and reliability in our context. The values showed that positive and significant results and tool were considered as reliable and valid for performing statistical analysis. **Conclusions:** The findings of this study showed that the most of the participants have good knowledge and positive attitude towards the immunization, but still the one third population having the poor knowledge and negative attitude toward immunization due to the lack of knowledge and religious beliefs about the immunization were reported as the major barriers towards the immunization. The study results showed that health related practice factors were appropriate as health care worker who were daily at EPI center and give significant guidance to the parents.

INTRODUCTION

Immunization protects life and saves from infectious diseases. People are more prone to infection who are un-immunized. Immunization is a process by which people get immunity against infectious diseases. Through immunization most of childhood diseases may be protected and eliminated [1]. In 1978, The Extended Program on Immunization (EPI) was begun in Pakistan. The reason of this program is to anticipate the children by immunizing them against numerous illnesses like diphtheria, tuberculosis, poliomyelitis, pertussis, lockjaw and measles [2]. Officially, Polio vaccine was introduced in 1994 in Pakistan [3]. Respectively, Routine Immunization is provided to the public through The Expanded Program on Immunization (EPI). But there are many weaknesses of routine immunization and polio campaigns [4]. Through immunization people is vaccinated against many diseases and make body as stronger enough to resist an infectious disease. Vaccine stimulates the human body to make antibodies against infectious diseases [5]. Vaccine contains the same germ that causes the disease. But in vaccine germ in killed or weekend form so that it does not make you sick. When your body is immunized, body thinks that it has been infected with disease and body make antibodies against antigen. These antibodies live in your body for a long time and memory cells helps to fight against antigen of many different diseases [6]. If an infected germ enters in your body, your body already have antibodies against that germ and it will reduce the symptoms of disease before it occurs. So, vaccination is much safer than disease [7]. In Pakistan, polio cases are still present. In recent times, immunization is one of the most successful ways to treat Polio. Therefore, there is need to learn about the importance of vaccination in Pakistan [8]. In other countries many diseases have been easily and successfully

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eliminated through immunization. Although, polio is vanished all over the world, but countries like Pakistan, Afghanistan, India and Nigeria, these are still facing the cases of polio. Therefore, in 3rd world countries should implement immunization programs for public health. Make immunization is a critical activity for all wellbeing. Through schedule immunization millions of children prevent from irresistible illness and death. But in creating nations more than one million deaths annually occur [9]. Pakistan still not so good. In Pakistan 84 polio cases still present in 2020 [2]. Roughly, 90,000 children are still facing polio and measles and 20,000 children pass yearly. This mortality rate is due to negative attitude about immunization. This can be treated by vaccination and people priority to health care system. In few regions of Pakistan immunization scope is expanded from 5% to 84% in spite of this 58% of children at right now unimmunized [10]. Pakistan has the third most burden of child mortality. Death rate can be reduced by modifying the behavior and people's attitude that specially effect child health. This way, health status of nation can be improved [11]. Literature has discussed about the many studies on immunization but the rate of unimmunized children is still high. The study aimed to check the knowledge, attitude and practice factors of parents because they have very important role in child immunization. The point to assess is why Pakistan not succeeded with respect to immunization. Although, Pakistan Government is working hard to immunize every child of country, social media are also motivating and inspiring individuals about immunization but still individuals' behavior toward immunization is very poor [12, 13].

METHODS

The descriptive cross sectional research study design was used. The study setting was the EPI department of Jinnah Hospital Lahore. The study took approximately 09 months. The study targeted population of study was the parents along with children visiting to the EPI center of Jinnah Hospital Lahore. The study sample was calculated by using Slovin's formula. A questionnaire was used to assess knowledge, Attitude and Practice of parents towards vaccination.

RESULTS

Table 1 shows that age group 20-30 years were 83(61.9%), those with age group 31-40 years were 40(29.9%), those with age group 41-50 were 9(6.7%) and those having age group above >50 years were only 2(1.5%), those who were male 29(21.6%) and those who were female 105(78.4%), those who were single 11(8.2%), those who were married 121(90.3%) and those were widows 2(1.5%), who were uneducated 38(28.4%), those who have primary education were 8(6.0%), those who have middle education were 8(6.0%), those who have Matric education were 19(14.2%), those who have intermediate education were 24(17.9%), and those who have bachelor's education were 37(27.6%).

Variables	Frequency (%)	Cumulative percentage
Age		
20-30	83(61.9%)	61.9
31-40	40(29.9%)	91.8
41-50	9(6.7%)	98.5
>50	2(1.5%)	100.0
Gender		
Male	29(21.6%)	21.6
Female	105(78.4%)	100.0
Marital status		
Single	11(8.2%)	8.2
Married	121(90.3%)	98.5
Widow	2(1.5%)	100.0
Education		
No Education	38(28.4%)	28.4
Primary	8(6.0%)	34.3
Middle	8(6.0%)	40.3
Matric	19(14.2%)	54.5
Intermediate	24(17.9%)	72.4
Bachelors	37(27.6%)	100.0

Table 1: Demographic variables of participants

Table 2 shows that from total participants who respond about the question, "Vaccination prevents infectious diseases", those who respond "yes" were 128(95.5%) and those who respond "no" were 6(4.5%). About the question, Infants should start a vaccination program just after birth", those who respond "yes" were 123(91.8%), and those who respond "NO" were 11(8.2%). About the question, "Is it necessary to vaccinate a breast feeding infant", those who respond "Yes" were 121(83.6%) and those who respond "No" were 22(16.4%). About the question, "Is vaccination harmful", those who respond "Yes" were 17(12.7%) and those who respond "No" were 117(87.3%). About the question, "Do you know about the side effects of EPI vaccines", those who respond "Yes" were 88(65.7%) and those who respond "No" were 46(34.3%). About the question, "Do you know when the next vaccination date is for your infant", those who respond "Yes" were 127(94.8%) and those who respond "No" were 7(7.2%).

Questions	Frequency (%)	Cumulative percentage
Vaccination prevents infectious diseases		
Yes	128(95.5%)	95.5
No	6(4.5%)	100.0
Infants should start a vaccination program just after birth		
Yes	123(91.8%)	91.8
No	11(8.2%)	100.0
Is it necessary to vaccinate a breast feeding infant		
Yes	112(83.6%)	83.6
No	22(16.4%)	100.0

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Questions	Frequency (%)	Cumulative percentage
Is vaccination harmful		
Yes	17(12.7%)	12.7
No	117(87.3%)	100.0
Do you know about the side effects of EPI vaccines		
Yes	88(65.7%)	65.7
No	46(34.3%)	100.0
Do you know when the next vaccination date is for your infant		
Yes	127(94.8%)	94.8
No	7(5.2%)	100.0

Table 2: Response to the questions regarding vaccination

Table 3 Shows that from total participants who respond about the question, "Do you think vaccination side effects are dangerous", those who respond "Yes" were 28(20.9%) and those respond "No" were 106(79.1%). About the question, "Do you think vaccination important only for non-serious diseases", those who respond "Yes" were 33(24.6%) and those respond "No" were 101(75.5%). About the question, "Do you think vaccination makes infant sick", those who respond "Yes" were 44(32.8%) and those respond "No" were 90(67.2%). About the question, "Do you think all children should be vaccinated", those who respond "Yes" were 123(91.8%) and those respond "No" were 11(8.2%). About the question, "Do you think vaccination makes infant for death", those who respond "Yes" were 24(17.9%) and those respond "No" were 110(82.1%). About the question, "Have you recommended vaccines to others", those who respond "Yes" were 110(82.1%) and those respond "No" were 24(17%).

Questions	Frequency (%)	Cumulative percentage
Do you think vaccination side effects are dangerous		
Yes	28(20.9%)	20.9
No	106(79.1%)	100.0
Do you think vaccination important only for non-serious diseases		
Yes	33(24.6%)	24.6
No	101(75.4%)	100.0
Do you think vaccination makes infant sick		
Yes	44(32.8%)	32.8
No	90(67.2%)	100.0
Do you think all children should be vaccinated		
Yes	123(91.8%)	91.8
No	11(8.2%)	100.0
Do you think vaccination makes infant for death		
Yes	24(17.9%)	17.9
No	110(82.1%)	100.0
Have you recommended vaccines to others		
Yes	110(82.1%)	82.1
No	24(17.9%)	100.0

Table 3: Response to the questions regarding vaccination

Table 4 shows that from total participants who respond about the question, "Are you given information about the current vaccine", those who respond "Yes" were 80(59.7%) and those respond "No" were 54(40.3%). About the question, "Did the health care worker tell you the next immunization schedule", those who respond "Yes" were 130(97.0%) and those respond "No" were 4(3.0%). About the question, "Did your infant develop a problem after vaccination", those who respond "Yes" were 25(18.7%) and those respond "No" were 109(81.3%).

Questions	Frequency (%)	Cumulative percentage
Are you given information about the current vaccine		
Yes	80(59.7%)	59.7
No	54(40.3%)	100.0
Did the health care worker tell you the next immunization schedule		
Yes	130(97.0%)	97.0
No	4(3.0%)	100.0
Did your infant develop a problem after vaccination		
Yes	25(18.7%)	18.7
No	109(81.3%	100.0

Table 4: Response to the questions regarding vaccination

DISCUSSION

The descriptive cross sectional research study was examining "knowledge, attitude and practice factors of parents regarding immunization". The study results show that total respondents who respond to the study majority were females 105(78.4%) within the age group 20-30 years were 83(61.9%). It showed that people who participated in this study majority were married 121(90.3%). The tool used for "knowledge, attitude and practice factors of parents regarding immunization" was adopted. The KMO, Bartlett's test and Cronbach alpha values has been checked to ensure the validity and reliability in our context. Data normality also checked. Approximately 94(70.1%) participants had a good understanding of the EPI target diseases, 86(64.2%) were aware of the EPI system, and 128 (95.5%) of respondents indicated that immunization protects infectious diseases based on the knowledge item assessment. Similar results were seen by Kagone *et al.*, and Sanou *et al.*, where majority of participants showed positive attitude towards EPI system [14, 15]. While about 40 people (29.9 %) still have inadequate awareness on vaccinations. The majority of respondents 112 (83.6 %), agreed that it is necessary to immunize breast feeding infants, while 117 (87.3%), disagreed. Similar results were seen by Marinati *et al.*, which showed that knowledge influences the basic immunization in infants [16]. About 129(96.3%) of the parents agreed to vaccinate their child fully, while 123(91.8%) believed that children should start an immunization program as soon as they are born. And only 88 of the participants, or 65.7%, are aware of the negative effects of vaccination. Our study revealed that respondents with educated parents who attend higher education are more likely to be knowledgeable than

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respondents without educated parents. Approximately 112 respondents (83.6%) have a positive attitude regarding vaccination, while 22 respondents (16.4%) have a negative opinion. Studies by Zhang *et al.,* and Wu *et al.,* showed similar results in nurses and postpartum mothers respectively [17, 18]. The majority of respondents 126(94.0%) thought that following the recommended immunization schedule was crucial, and 110 (82.1%) indicated that just 24 (17.9%) of immunizations result in baby deaths. About 110 (82.1%) of the parents said they would advise others to get their shots, and 123(91.8%) believed that all infants should get their shots. Moreover, one third of the respondents believed that vaccination side effects are harmful and only significant for minor illnesses. Similarly, 50(37.3%) of parents thought that babies typically received too many vaccinations. The purpose of this study was to determine whether those who were more knowledgeable than illiterate persons were those who had a favorable attitude about new born vaccination. According to our research, married people were more likely to have a favorable attitude toward infant vaccinations. This finding may be related to the fact that mothers are typically the ones who take their kids to their child's immunization appointments. About 79(59.0%) of the study's participants have good practice criteria for immunization. The majority of parents, 128(95.5%), expressed happiness when their children received vaccinations, and 89(66.4%) of them received greetings from the medical staff. In addition, 80(59.7%) of respondents received information about their child's most recent vaccination, while only 52(38.2%) received information about the dose of the vaccine and 130(97%) received information about their child's upcoming immunization schedule. Additionally, 25(18.7%) of the infants had issues after receiving a vaccination. Our study showed that increased immunization knowledge enables people to encourage effective immunization practices. Additionally, as mom's awareness about vaccinations increased, they were also able to adopt a positive outlook. They were then urged to finish the immunization, and as their knowledge grew, so did their capacity to practice more and their trust in immunization of infants [19, 20].

CONCLUSIONS

The results of this study revealed that the majority of respondents had strong awareness of and a favorable attitude toward vaccination. However, it was revealed that the main obstacles to immunization were the one-third of the population who had insufficient information and a negative attitude toward vaccination due to ignorance and religious beliefs regarding immunization. To increase people's acceptance of vaccines, special attention should be paid to educating them about immunization. Interventions should be customized to the target participants who are most likely to be associated with poor knowledge and unfavorable attitudes toward immunization. Our study found that people generally have a favorable opinion about immunization. However, some people still have a bad attitude and insisted to get immunized their child because they think it would make them die, get disabled or get sick. To increase people's knowledge, attitudes, and behaviors about immunization and vaccine-preventable diseases, health education and health promotion activities are required. To confirm the results of this study, however, requires additional findings. The current study targeted only one organization so the result findings are not generalized able. The study recommends that the importance of immunization need to be explain to those who have no knowledge and poor attitude regarding immunization.

Conflicts of Interest

The authors declare no conflict of interest

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