

Assessment of Knowledge and Attitude and Practice of Parents about Immunization in Jeddah City, 2017

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ABSTRACT

Background: Immunization has shown a major preventive aspects of infectious diseases, disability and death.

Objectives: Assessing the Knowledge, attitude and practice (KAP) of Saudi parents in Jeddah City regarding the immunization programs for children, Saudi Arabia (KSA), 2017.

Methods: It is a cross sectional survey study that was carried among 600 different Saudi parents form different parts of Jeddah City for 3 months from May to July 2017. The parents completed a questionnaire that contains 4 different parts about the demographics, knowledge, attitude and practice of parents toward immunization.

Results: The included parents have shown a high level of awareness about vaccination regarding the preventive measures and importance of vaccination which resulted in positive attitudes and practice pattern among most of them. The overall KAP was good among most of parents (87.2%). The higher KAP level was significantly associated with female gender, higher educational degree and having higher number of children.

Conclusion: Most of Saudi parents had good KAP toward immunization which was associated with female gender and higher educational degrees. However, educational programs are still needed to increase the parents' knowledge and practice especially among illiterate and less educated parents living in rural areas.

Keywords: Knowledge, Attitude, Practice (KAP), Immunization, Vaccination, Parents, Children, KSA, 2017.

INTRODUCTION

During the last few decades, the burden of the infectious diseases has been reduced though immunization. Also, immunization has shown major aspects of disease, disability and death prevention. The most common vaccine preventable diseases are Rubella, measles, diphtheria, Tetanus, pertussis and Polio^(1, 2). Giving the child the appropriate vaccine would significantly decrease the costs of disease treatment and rates of disease thus enhance a good quality of life for children⁽³⁾.

The WHO estimated a reduction in the death rate from infectious diseases between 2 and 3 million each year⁽⁴⁾. The main vaccines for children in Saudi Arabia are scheduled from birth to 6 years old by the Saudi Ministry of Health to protect children from the diseases that could be prevented through immunization⁽⁵⁾.

Despite the major efforts of health authorities to keep KSA free of Diphtheria, Pertussis, Tetanus, polio and measles, many physicians face major obstacles from the parents about the safety, efficiency and the necessity of regular childhood vaccines⁽⁶⁾. Most of parents in KSA believed that vaccines can cause autism and disabilities⁽⁷⁾.

Also, in a global report issued by the CDC, it was stated that the general attitude of parents was negative among most of them toward childhood vaccination programs⁽⁸⁾. Moreover, some parents thought that polio immunization will decrease the fertility rate thus the parents attitude plays important role in vaccination process as they are the decision makers for their children⁽⁹⁾. The knowledge, attitude

and practice pattern of parents toward vaccination from the first day of birth could provide early prevention from many communicable diseases, disabilities as well as other causes of death^(10, 11).

AIM OF THE STUDY

This study aimed at assessing the Knowledge, attitude and practice (KAP) of Saudi parents in Jeddah City regarding the immunization programs for children as well as defining the correlation between KAP and parent's demographics.

METHODS

Study design

It is a cross sectional survey study that was carried out in 600 houses that were randomly chosen using stratified sampling technique from the east, west, north and south parts of Jeddah City for 3 months from May to the end of July.

Study population

The study included 600 different parents having at least one child. The participants have been interviewed in their own houses.

Study tools

This survey included an interview with the parents and were asked to complete a questionnaire. The questionnaire was collected and tested after searching the available search engines including Pubmed, Google scholar, science direct,..etc. using the key words including Knowledge, attitude, practice, parents, mothers, immunization, vaccination. The data of the questionnaire were

collected and reviewed by 3 supervisors to test its viability. The questionnaire contained 4 different parts. The first part included questions about the demographics as age, education, working status and number of children. The other 3 parts included questions including the knowledge, attitude and practice of parents toward immunization. The questionnaire were translated into Arabic and distributed among the participants. After finishing the questionnaire, all the respondents took handouts that contain all the available correct information about vaccination of children to enhance their knowledge and decrease the misconceptions about immunization.

Ethical approval

The study protocol and the questionnaire was approved by the supervisors. The participated parents gave a written informed consent for being involved in the study.

Statistical analysis

The collected data were analysed using SPSS, version 24. The descriptive analysis was shown as percentages and frequencies. P-value <0.05 was considered as significant.

RESULTS

Demographics of the studied subjects

The age of included parents ranged from 20-50 years old with a mean of 31.1 years. The majority of respondents were males (68%) and 32% were females. Most of parents had bachelor degree (61%), 33.8% had secondary school and 5.2% went to primary school. About 47% of parents had more than 3 children, 35.2% have two or 3 children and only 17.8% have one child (Table 1).

Table (1): Demographics' of included subjects (600):

	Mean ± SD	Range
Age (years)	31.1± 2.5	20-50
	No.	Percentage (%)
Gender		
Female	192	32%
Male	408	68%
Educational Level		
College	366	61%
Secondary School	203	33.8%
Primary School	31	5.2%
Number of children		
1	107	17.8%
2-3	211	35.2%
>3	282	47%

Assessment of knowledge of included subjects:

The included parents have shown a high level of awareness about vaccination as presented in Table. 2. All the parents have given their children the obligatory vaccination and know the importance of immunization or the child. Also, most of the parents rated that vaccination could prevent infectious disease (79.7%), decrease the mortality rates (76%), maintain child health (87.2%), control diphtheria, tetanus and pertussis (80.2%) and measles (88%) as well as prevention of hepatitis B infection (52.3%). About 89% of parents knew that some vaccines are associated with pain and fever while only 55.5% declared that vaccination is not supposed to cause convulsions and skin rashes. Almost 96.3% of subjects supposed that even healthy child need vaccination.

Table (3): Awareness regarding the complications of diabetic foot

	Yes	No
• Have you given your children the obligatory vaccines	600 (100%)	0 (0%)
• Vaccination is very important for children from the first day of birth	600 (100%)	0 (0%)
• Vaccination prevent infectious disease	478 (79.7%)	122(20.3%)
• Vaccination decreases the rates of mortality and disabilities	456 (76%)	144 (24%)
• Vaccination could maintain child health	523 (87.2%)	77 (12.8%)
• Diphtheria, Tetanus and pertussis could be controlled by vaccination	481 (80.2%)	119 (19.8%)
• Hepatitis B virus could be prevented by vaccination	314 (52.3%)	286 (47.3%)
• The childhood vaccines could control Measles	528 (88%)	72 (12%)
• Malnutrition, low fever and diarrhea are not contraindications for vaccination	486 (81%)	114 (19%)
• Some vaccines are associated with fever and pain	534 (89%)	66 (11%)
• Vaccination could result in convulsions and skin rash	267 (44.5%)	333 (55.5%)
• Even healthy child need vaccination	578 (96.3%)	22 (3.7%)

Evaluation of the subject’s attitude

The parent’s attitude toward vaccination was positive among most of them as all of them declared that the vaccination is beneficial and will advise relatives to immunize their children. Also, 83.5% felt that vaccination is safe and 89.3% are in favor of obligatory vaccination (Table 3).

Table (3): Attitude of parents toward vaccination (n=600)

	No.	Percentage (%)
What do you think about vaccination benefits?		
Beneficial	600	100
Not beneficial	-	-
I don’t know	-	-
What do you feel when vaccinating your child?		
Save	501	83.5
Fear	99	16.5
Are you in favor of obligatory vaccination programs designed by the health authorities?		
Yes	536	89.3
No	64	10.7
Will you advice your relatives and family to immunize their children?		
Yes	600	100
No	--	-

Practice pattern of included parents

The overall practice of parents toward vaccination was good among most of them as all of them followed the obligatory vaccination programs. Also, 81.2% of parents searched for other vaccines. As for pain and swelling management, about 85.2% of parents used cold compresses and 87.2% used analgesics for pain control (Table 4).

Table (4): parents’ practice toward immunization of children (n=600)

	Yes	No
• Do you follow the obligatory vaccination programs?	600 (100%)	--
• Will you search for other available vaccines for your children?	487 (1.2%)	- 18.80%
• Will you manage swelling by cold compress?	511 (85.2%)	- 14.80%
• Will you use analgesics for swelling and pain after vaccination?	469 (87.2%)	- 21.80%

Level of parents’ KAP

The overall KAP was good among most of parents (87.2%) while it was poor among only 12.8% of them (Table. 5).

Table (5): Parents KAP regarding vaccination programs

KAP level	Frequency	Percent (%)
Good	523	87.2
Poor	77	12.8
Total	600	100.0

Association between parents’ KAP and demographics

The higher KAP level was significantly associated with female gender, higher educational degree and having higher number of children (Table. 6).

Table 6: Association between KAP and demographics of included parents

	Good (n=523)		Poor (n=77)		P-value
	No.	%	No.	%	
Age					
20-30	181	34.6%	26	33.8%	0.74
31-40	211	40.3%	30	39%	
41-50	131	25.1%	21	27.2%	
Gender					
Female	179	34.2%	13	16.9%	0.051
Male	344	65.8%	64	83.1%	
Educational Level					
College	327	62.5%	39	50.6%	0.001
Secondary School	196	37.5%	7	9.1%	
Primary School	-	0%	31	40.3%	
Number of children					
1	78	14.9%	29	37.7%	0.001
2-3	186	35.6%	25	32.5%	
>3	259	49.5%	23	29.8%	

DISCUSSION

The childhood vaccination has shown major aspects of disease and death prevention during the last decades especially among children under five years old. Thus the KAP of parents toward vaccination is important issue to enhance the children health as well as prevention of diseases.

The majority of parents had good KAP toward vaccination importance and efficiency. In the same respect, most of parents had vaccinated their children according to the MOH vaccination schedule in Al-Madinah Al-Monawara in KSA⁽¹²⁾. The same aspects of high knowledge, attitude and practice were presented in other worldwide studies⁽¹³⁻¹⁶⁾. The present study showed a significant association between female gender, high educational degree as well as higher number of children with good KAP results. As for the gender, mothers are the care giver of their children and spend more time with their children than fathers. Also, various studies showed a relation between higher educational level of the parents and higher KAP results regarding child immunization^(16, 17). In addition, parents having more children were supposed to have higher KAP results^(14, 18).

The present study showed some limitations. Most of the parents were from urban areas as it was hard to deal with many rural areas thus the results can't be generalized to the whole population.

CONCLUSION

Most of Saudi parents had good KAP toward immunization which was associated with female gender and higher educational degrees. However, educational programs are still in need to increase the parents' knowledge and practice especially among illiterate and less educated parents living in rural areas.

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