

AN EMPIRICAL STUDY ON PARENTSAWARENESS AND ATTITUDE TOWARDS CHILD VACCINATION

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ABSTRACT: Vaccination protects the child health and it prevents them from spreading disease to other people. In India, vaccination is only an money oriented but in the foreign countries vaccination play a crucial role because they have an in depth knowledge on vaccination. The study has enlightened the essential and safety measures to vaccinate their child. The study reveals the parents attitude towards vaccination and the problem faced by them. Under this background, of the study has focused on to analyze the knowledge of the parents towards vaccination. The data has been collected from 220 respondents by applying purposive sampling technique. Statistical tools such as descriptive, ANOVA, chi-square have been used to analysis the data. Findings of the study reveal that there is no significant relationship between demographic factors and the attitude level of parents towards child vaccination. The study suggested that inclusion of vaccination certificate in school enrolment will make the parents to give the vaccination at right time. Hospitals can be provided with vaccination booklets, explaining about the importance of vaccination and how to manage its side effects. So the government has formally launched a special immunization drive in high focus area in the country with an aim to reach 90 per cent coverage by 2020.

Key Words: Vaccination, child, Attitude and Parents.

INTRODUCTION

A vaccination is a treatment which makes the body stronger against a particular infection. The body fights infections using the immune system, which is made up of millions upon millions of cells including T cells and B cells. Vaccination involves showing the immune system something which looks very similar to a particular virus or bacteria, which help the immune system, be stronger when it is fighting against the real infection. Vaccination is when a person is given something to make the immune system learn to fight an infectious disease. In 2015, about 85 per cent of the world's children received one dose of measles vaccine by their first birthday through routine health services up from 73 per cent in 2000. The World Health Organisation estimates that vaccination averts an estimated 2 to 3 million death every year. However, if vaccination coverage is improved an additional 1.5 million death could be avoided. Government has formally launched a special immunization drive in high-focus area in country, with an aim to reach 90 per cent coverage by December 2018.

STATEMENT OF THE PROBLEM

Parents have to make many decisions about their child health one of important decision is vaccination. Vaccination protects the child health and it prevents them from spreading disease to other people. In India, vaccination is only an money oriented but in the foreign countries vaccination play a crucial role because they have an in-depth knowledge on vaccination. The study has enlightened the essential and safety measures to vaccinate their child. The study reveals the parents attitude towards vaccination and the problem faced by them. Under this background, of the study has focused on to analyze the knowledge of the parents towards vaccination.

SCOPE OF THE STUDY

The scope of the study covers the exploration of parents' knowledge towards child vaccination. It also covers about the awareness of the parents towards child vaccination. The study is also made to analyze the problems faced by the parents due to their child vaccination.

OBJECTIVES OF THE STUDY

- ❖ To determine the parents knowledge towards child vaccination.
- ❖ To analyse the attitude of parents towards vaccination.

RESEARCH METHODOLOGY

Research methodology is a science of studying of how research is done scientifically and the various steps that are generally adopted by a research in studying the research problem. Primary data has been collected from the respondents to gather first hand information, through structural questionnaire method. Secondary data has been collected from Journals, Magazines and other Websites. Purposive sampling technique has been used to collect the data from the respondents. The size of the sample for this study is 220 respondents. The data has been collected through questionnaire from the respondents in Coimbatore city. The study has been conducted for a period of six months from September 2017 to March 2018. The data collected for the study have been analyzed using Simple percentage, Descriptive analysis, ANOVA and Chi-square test.

LIMITATION OF THE STUDY

- ❖ The respondents are restricted to Coimbatore city.
- ❖ Due to time constraints the sample size has been limited to 220 respondents.
- ❖ The survey has done only in Coimbatore city so the result obtained may not be taken as universal suggestion.

REVIEW OF LITERATURE

Eva Borràs et al., (2009) in their study on “The Parental knowledge of pediatric vaccination”. The main objective of the study is to assess the parental knowledge of pediatric vaccines and vaccination in Catalonia. A retrospective, cross-sectional study was carried out in children aged lesser than 3 years recruited by random sampling from municipal districts of all health regions of Catalonia. Data has been collected from 630 parents using a standard questionnaire for each child, which included vaccination coverage and knowledge about vaccination. Mean median, standard deviation and chi-square has been used to analyse the data. The study concluded that, higher vaccination coverage is associated with older maternal age and greater knowledge of vaccination.

Awodele et al., (2010) in their study on “The knowledge and attitude towards childhood immunization among mothers attending antenatal clinic in Lagos University Teaching Hospital, Nigeria”. The objective of the study aimed to assess the knowledge and attitude of mothers attending antenatal clinic in Lagos University Teaching Hospital in Nigeria, towards childhood immunization. Chi-square tool was used to test the significance relationship between the socio-demographical variables and awareness and attitude to immunization. The findings of the study reveal that most mothers do not know appropriately the time schedule for vaccine administration. The study concluded that, majority of the mothers had good knowledge of immunization and that immunization could prevent childhood diseases, their knowledge of immunization schedule as well as of vaccine preventable diseases is poor.

Sylvia Caingles et al., (2011) in their study on “Survey on the knowledge, attitudes and practices of parents regarding their children’s immunization”. The objective of the study is to assess the knowledge, attitudes, and practices of parents regarding immunization of their children. Descriptive study has been used to pre-tested, self-administered questionnaire pertaining to knowledge, attitudes, and practices of parents regarding immunization. Percentage analysis has been used to analyze the data. The study concluded that, Parents still lacked knowledge with regards to their children’s vaccination. The findings reveal that child being fully immunized depends on the availability and affordability of vaccine, as well as, the willingness and effort of their parents.

TABLE : 1 DEMOGRAPHIC FACTORS OF THE RESPONDENTS

Demographic factors	Particulars	Frequency	Percentage
Age	Below 25	45	20.4
	26-30	82	37.3
	31-35	60	27.3
	Above 35	33	15
Gender	Male	83	37.7
	Female	137	62.3
Educational Qualification	No Formal Education	18	8.2
	School Level	44	20.0
	Under Graduate	76	34.5
	Post Graduate	46	20.9
	Diploma	36	16.4
Status	Home maker	62	28.2

	Agriculture	37	16.8
	Business	45	20.5
	Professional	33	15
	Employees	43	19.5
Family Income	Below Rs25000	69	31.4
	Rs25001-50000	91	41.4
	Rs50001-75000	45	20.4
	Above Rs75000	15	6.8
Child Age Group	Below 1 Year	33	15.0
	1-5 Year	93	42.3
	5-10 Year	63	28.6
	Above 10 Year	31	14.1
Awareness toward child vaccination	Doctors	129	34.5
	Pamphlets at hospitals	117	31.3
	Relatives or friends	64	17.1
	Newspapers	22	5.9
	Mass media	42	11.2

Source : Primary Data

The above table reveals that 37.3 per cent of the respondents are the age group of 26 to 30 years, 34.5 per cent of the respondents are under graduates, 28.2 per cent of the respondents are home makers, 41.4 per cent of the respondents' family income ranges between Rs 25001-50000, 42.3 per cent of child are belong to the age group of 1 to 5 years, 34.5 per cent of the parents are aware to vaccinate their child through their doctors.

TABLE : 2 KNOWLEDGE LEVEL OF PARENTS TOWARDS VACCINATE THEIR CHILD - DESCRIPTIVE STATISTICS

Statements	No.	Minimum	Maximum	Mean	Std. Deviation
Knowledge on purpose of vaccination	220	1.00	3.00	2.71	0.512
Correct date on immunization	220	1.00	3.00	2.53	0.568
Vaccination enhance immunity	220	1.00	3.00	2.26	0.642
Vaccination need to be stored at particular room temperature and do not freeze	220	1.00	3.00	2.05	0.854
Knowledge on number of doses	220	1.00	3.00	1.68	0.788
Vaccination should be used within 72 hours of the seal being broken	220	1.00	3.00	1.77	0.813
Vaccination prevent diseases	220	1.00	3.00	2.31	0.707
Healthy child need vaccination	220	1.00	3.00	2.22	0.749
In some health situation vaccination should not be given	220	1.00	3.00	2.02	0.791
Knowledge on duration of vaccination	220	1.00	3.00	2.17	0.745
TOTAL	150	10.00	30.00	21.72	7.16

Source: Primary Data

The total mean score rating of the knowledge of the parents regarding childvaccination is 21.72. The highest mean score (2.71) has been found for 'knowledge on purpose of vaccination' with a standard deviation of 0.512 and the lowest mean score (1.68) has been found for 'Knowledge on number of doses' with a standard deviation of 0.788. Parents have more knowledge about the purpose of vaccination, but they have least knowledge about the number of doses given to their child.

ANOVA TEST

H₀: "The average score of the knowledge of the parents towards vaccination does not differ significantly for the demographic factors".

TABLE :3 DEMOGRAPHIC FACTORS VS KNOWLEDGE OF THE PARENTS

Personal factors		Mean	S.D	No.	t-value	F-Value	Sig.	S/NS
Age	Below 25	2.1333	0.44467	45	0.409	2.220	0.87	NS
	26-30	2.2159	0.39736	82				
	31-35	2.2267	0.40248	60				
	Above 35	2.0212	0.44704	33				
Gender	Male	2.1578	0.40274	83	0.409	2.220	0.683	NS
	Female	2.1818	0.43118	137				
Educational Qualification	No formal education	1.8389	0.30125	18	0.409	4.175	0.003	S
	School level	2.1295	0.47914	44				
	Under graduate	2.2026	0.40298	76				
	Post graduate	2.2891	0.37549	46				
	Employees	2.1806	0.40975	36				
Status	Home maker	2.2597	0.43058	62	0.409	4.506	0.02	S
	Agriculture	2.0459	0.44696	37				
	Business	2.0578	0.35515	45				
	Professional	2.3667	0.41357	33				
	Employees	2.1279	0.38068	43				
Family monthly income	Below 25000	2.1681	0.43403	69	0.409	1.435	2.33	NS
	25001 – 50000	2.1473	0.40203	91				
	50001 – 75000	2.1600	0.45497	45				
	Above 75000	2.3867	0.31366	15				
	Total	43.2975	8.94042	220				

Source: Primary data

The average mean score has been found for the knowledge of parents towards vaccinating their child is high for the female respondents. The respondents whose age is between 31 to 35 years are found to have the highest mean score of 2.2267. The mean score 2.2891 has been high for the respondents who are post graduates and the highest mean score of 2.3667 is found for the respondents those who are professionals. Respondents whose family monthly income is above 75000 are found to have the highest mean score of 2.3867.

ANOVA results indicate that there is no significant difference in the mean score of knowledge of parents towards vaccinating their child in respect of age and family monthly income. Hence the null hypothesis is accepted. However, in case of educational qualification and status there is a significant difference in the mean score of the knowledge of the parents towards vaccinating their child. Hence the null hypothesis is rejected.

The paired t-test result shows that there is no significant difference in the mean score of knowledge factor of parents in respect of gender. Hence, the null hypothesis is accepted.

Hence, it is concluded that the educational qualification plays a predominated role because, educated parents well know about the purpose and importance of vaccination to their child compared to uneducated parents whereas the other demographic factors namely, age, gender, status, family income does not play a important role to knowledge of the parents.

TABLE:4 ATTITUDE LEVELS OF PARENTS TOWARDS CHILD VACCINATION - DESCRIPTIVE STATISTICS

Statements	No.	Minimum	Maximum	Mean	Std. Deviation
Vaccination is safe and important	220	1.00	5.00	4.42	0.668
Reduce disease spread	220	1.00	5.00	4.05	0.754
Helps healthful adulthood	220	1.00	5.00	3.90	0.886
Recommend others to vaccinate their children	220	1.00	5.00	3.78	0.978
Vaccination must give according to their schedule	220	1.00	5.00	4.08	0.795

Saves parents useful time	220	1.00	5.00	3.49	1.096
It reduce the mortality rate	220	1.00	5.00	3.71	1.054
Reduce hospital attendance	220	1.00	5.00	3.27	1.121
Vaccination is best for each infant	220	1.00	5.00	3.84	.973
Vaccination was not available	220	1.00	5.00	2.51	1.248
Saves family money and resources	220	1.00	5.00	3.12	1.212
Keeps child falling from ill often	220	1.00	5.00	3.36	1.244
Total	220	12	60	43.53	12.029

Source: Primary Data

The total mean score rating of the attitude of the parents regarding childvaccination is 43.53. The highest mean score (4.42) has been found for ‘vaccination is safe and important’ with a standard deviation of 0.668 and the lowest mean score (2.51) has been found for ‘vaccination was not available’ with the standard deviation of 1.248. Parents give more importance to safety and highly essential to their child.

Demographic factors Vs attitude level of parents towards vaccination

H₀: “The average score of the factors influencing the attitude of the parents towards vaccination does not differ significantly for the demographic factors.

TABLE :5DEMOGRAPHIC FACTORS VS ATTITUDE OF THE PARENTS TOWARDS VACCINATION

Personal factors		Mean	S.D	No.	t-value	F-value	Sig.	S/NS
Age	Below 25	3.5963	0.68280	45	0.291	0.291	0.832	NS
	26-30	3.6382	0.61310	82				
	31-35	3.6764	0.57101	60				
	Above 35	3.5631	0.62048	33				
Gender	Male	3.6315	0.57693	83	0.51		0.959	NS
	Female	3.6271	0.63914	137				
Educational	No formal education	3.4120	0.24831	18	1.969	1.969	.100	NS
	School level	3.6932	0.68831	44				
	Under graduate	3.7292	0.67249	76				
	Post graduate	3.6250	0.60852	46				
	Employees	3.4514	0.47575	36				
Status	Home maker	3.7070	0.63010	62	1.737	1.737	0.143	NS
	Agriculture	3.5248	0.55620	37				
	Business	3.4741	0.46187	45				
	Professional	3.7753	0.71123	33				
	Employees	3.6550	0.67836	43				
MonthlyFa	Below25000	3.6896	0.59510	69	1.011	1.011	.389	NS
	25001 – 50000	3.5778	0.60064	91				
	50001 – 75000	3.5759	0.63086	45				
	Above 75000	3.8167	0.73881	15				
	Total	72.4396	11.9993	220				

Source: Primary data S-significance at 5% level Ns- not significant

The average mean score has been found for the attitude of parents is more or less same for both male and female respondents. The respondents whose age is between 31 to 35 years are found to have the highest mean score of 3.6764. The mean score 3.7292 has been high for the respondents who are under graduates and the highest mean score of 3.7753 is found for the respondents those who are professionals. Respondents whose family monthly income is above 75000 are found to have the highest mean score of 3.8167.

ANOVA results indicate that there is no significant difference in the mean score of age, educational qualification, status, family income, and attitude of parents towards vaccinating their children. Hence the null hypothesis is accepted.

The paired t-test shows that there is no significant difference in the mean score of attitude level of parents in respect of gender; hence, the null hypothesis is accepted.

Hence, it is conclude that the demographic factors do not influence the attitude level of the parents towards vaccinating their children and all parents have the same perception towards vaccination.

Demographic factors and Attitude level of parents towards child vaccination - A Relationship

H₀: There is no significant relationship between attitude of parents towards vaccination and demographic factors.

TABLE :6DEMOGRAPHIC FACTORS AND ATTITUDE LEVEL OF VACCINATION – A RELATIONSHIP

Demographic	Groups	Attitude level						Chi-Square Value	Sig	S/NS
		High	%	Low	%	Total	%			
Age	Below 25	11	24.4	34	75.5	45	100	5.092	0.165	NS
	26-30	11	13.4	71	86.5	82	100			
	31-35	6	10	54	90	60	100			
	Above 35	7	21.2	26	78.7	33	100			
Gender	Male	10	12	73	87.9	83	100	1.485	0.223	NS
	Female	25	18.2	112	81.7	137	100			
Status	Home maker	8	12.9	54	87	62	100	1.519	0.823	NS
	Agriculture	5	13.5	32	86.4	37	100			
	Business	8	17.7	37	82.2	45	100			
	Professional	5	15.1	28	84.8	33	100			
	Employees	9	20.9	34	79	43	100			
Total		35	15.9	185	84.1	220	100			

Source: Primary data S-significance at 5% level Ns- not significant

Age

Ananalysis of the age wise distribution indicates that among 220 respondents, 82 respondents belong to the age group of 26 to 30 years have high level of attitude towards vaccination whereas 33 respondents belong to the age of above 35 years have low level of attitude towards vaccination.

It has been found that, there is no significant relationship between age and attitude level of parents towards vaccination. As the chi-square sig. value (p < 0.165) is more than 0.05, it indicates that the relationship between age and attitude level of the parents towards vaccination is not significant.Hence, hypothesis is accepted at 5% level of significance.

Gender:

The gender wise distribution indicates that among 220 respondents, 137 female respondents have high level of attitude towards vaccination whereas 83 male respondents have low level of attitude towards vaccination.

It has been found that, there is no significant relationship between gender and attitude level of parents towards vaccination. As the chi-square sig. value (p < 0.223) is more than 0.05, it indicates that the relationship between gender and attitude level of the parents towards vaccination is not significant.Hence, hypothesis is accepted at 5% level of significance.

Status:

The status wise distribution indicates that among 220 respondent 62 respondents are homemakers have high level of attitude towards vaccination whereas 33 respondents are professionals have low level of attitude towards vaccination.

It has been found that, there is no significant relationship between gender and attitude level of parents. As the chi-square sig. value (p < .223) is more than 0.05, it indicates that the relationship between status and attitude level of parents towards vaccination is not significant.Hence, hypothesis is accepted at 5% level of significance.

Hence it is concluded that the attitude level of the parents towards vaccination does not influence by the age, gender and status of the respondents.

SUGGESTIONS

- ❖ A health education campaign about vaccination for parents has to be conducted.
- ❖ Hospitals can provide with vaccination booklets, explaining about the importance of vaccination and how to manage its side effects.
- ❖ Government should take effective steps to reduce the cost of vaccination which is highly beneficial for the children.
- ❖ Inclusion of vaccination certificate in school enrolment will make the parents to give the vaccination at right time.

CONCLUSION

Vaccination is a treatment which makes the body stronger against a particular infection. Health organization estimates that vaccination averts an estimated 2 to 3 million deaths every year. However, if vaccination coverage is improved an additional 1.5 million deaths could be avoided. The study reveals that, the parents have more knowledge about the purpose of the vaccination and they give more importance to safety of the child through vaccination. High rate of vaccination is the major problem faced by the parents while they are vaccinating their child. Hospitals can be provided with vaccination booklets, explaining about the importance of vaccination and how to manage its side effects. So the government has formally launched a special immunization drive in high focus area in country, with an aim to reach 90 per cent coverage by 2018.

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