

ORIGINAL RESEARCH

Assessment of the immunization status of children aged 1-5 years & the awareness level of the parents regarding the immunization of their children

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ABSTRACT

Background: The process of generating immunity against a particular disease is known as immunization. The present study was conducted to assess the immunization status of children aged 1-5 years & the awareness level of the parents regarding the immunization of their children. **Materials & Methods:** 152 children aged 1-5 years of both genders were selected. Parameters such as religion, socio-economic status, etc. were recorded. **Results:** out of 152 patients, males were 80 and females were 72. The age group 1-2 years had 56, 2-3 years had 36, 3-4 years had 32, and 4-5 years had 28 subjects. The difference was non-significant ($P > 0.05$). In Hindu, immunization status was complete in 65, partial in 10, and unimmunized in 8. In Muslim in 31, 4 and 5 and in Sikh in 10, 16, and 3 subjects respectively. The difference was significant ($P < 0.05$). In upper SES, immunization status was complete, partial, and unimmunized seen in 46, 9, and 5 subjects. In the middle was 36, 6, 4 and lower in 24, 15 and 7 respectively. The difference was significant ($P < 0.05$). **Conclusion:** Age, religion, and socioeconomic level all had a big impact on vaccination rates. According to our study, the main causes of partial immunization were the children's present diseases and ignorance of the vaccine schedule.

Keywords: Antisera, immunoglobulins, immunization

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INTRODUCTION

The process of generating immunity against a particular disease is known as immunization. Antisera, immunoglobulins, and vaccinations can all help. There are two kinds of immunity: passive immunity and active immunity.^{1,2} A vaccination or toxoid is given to induce active immunity. It incites the immune system to mount a sustained cellular or humoral defense. Antisera, immunoglobulins, and vaccinations can all help. Immunization is a key factor in lowering death and morbidity.³ Its national and local policies mostly determine any nation's immunization program's chances of success. An effective immunization program is crucial for India, since the nation accounts for one-fifth of the world's under-five mortality rate, with a high proportion of deaths from diseases that can be prevented by vaccination.⁴

Every nation has a different vaccination regimen. A well-considered vaccination schedule must be immunologically effective, operationally viable,

socially acceptable, and relevant to epidemiology.⁵ The National Immunization Schedule bases its vaccine selection on factors such as disease burden, vaccination accessibility, and cost-effectiveness.⁶ Approximately 3 million children die as a result of VPDs, with a disproportionate share of those children living in poor nations. Ninety percent of the approximately 34 million youngsters who lack full immunity live in underdeveloped nations. Public health facilities in India provide free vaccination treatments however, the country's vaccination rate has not reached its goal.⁷ The present study was conducted to assess the immunization status of children aged 1-5 years & the awareness level of the parents regarding the immunization of their children.

MATERIALS & METHODS

The present study consisted of 152 children aged 1-5 years of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender, etc. was recorded. Parameters such as religion, socio-economic status, etc. were recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of subjects

Total- 152		
Gender	Male	Female
Number	80	72

Table I shows that out of 152 patients, males were 80 and females were 72.

Table II Age-wise distribution of subjects

Age group	Number	P value
1-2 years	56	0.17
2-3 years	36	
3-4 years	32	
4-5 years	28	

Table II shows that the age group 1-2 years had 56, 2-3 years had 36, 3-4 years had 32, and 4-5 years had 28 subjects. The difference was non- significant (P> 0.05).

Table III Immunization status according to religion

Religion	Complete	Partial	Unimmunized	P value
Hindu	65	10	8	0.05
Muslim	31	4	5	
Sikh	10	16	3	
Total	106	30	16	

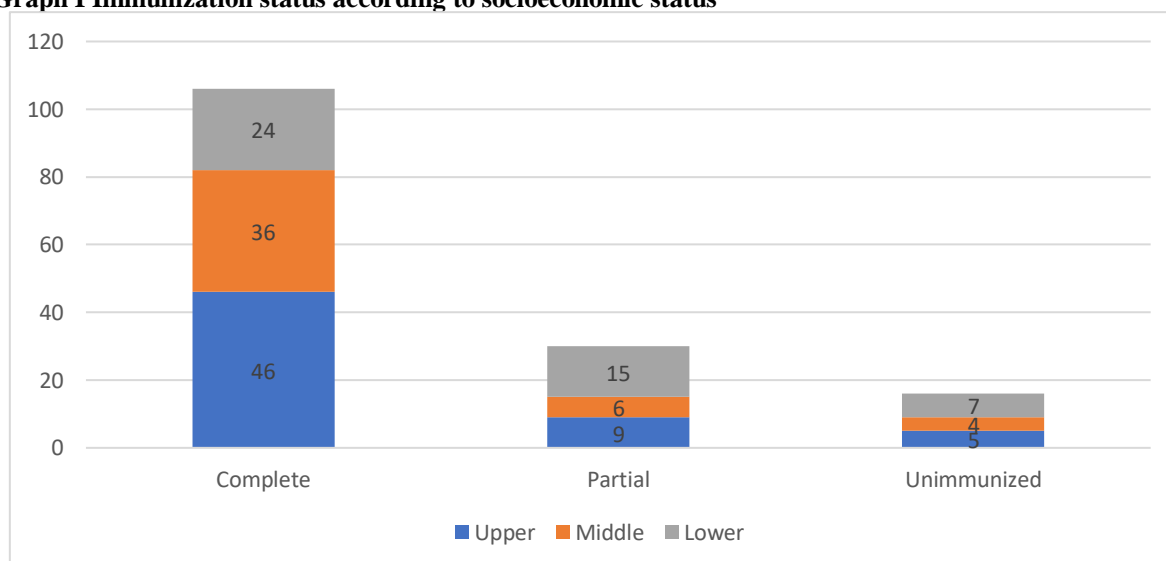
Table III shows that inHindu, immunization status was completein 65, partial in 10, and unimmunized in 8. In Muslim in 31, 4 and 5 and in Sikh in 10, 16, and 3 subjects respectively. The difference was significant (P< 0.05).

Table III Immunization status according to socioeconomicstatus

Socioeconomic status	Complete	Partial	Unimmunized	P value
Upper	46	9	5	0.05
Middle	36	6	4	
Lower	24	15	7	
Total	106	30	16	

Table III, graph I shows that in upper SES, immunization status was complete, partial, and unimmunized seen in 46, 9, and 5 subjects. In the middle was 36, 6, 4 and lower in 24, 15 and 7 respectively. The difference was significant (P< 0.05).

Graph I Immunization status according to socioeconomic status



DISCUSSION

One of the most potent and economical tools in contemporary medicine for the fight against infectious diseases is vaccination.⁸ Immunization is the only means of controlling certain infectious diseases, such as measles, tetanus, diphtheria, and polio.⁹ Although vaccination rates have been rising quickly in recent years, the average level is still considerably below what is ideal. Only 62% of Indian infants (National Family Health Survey,) have received all recommended vaccinations, far short of the target of 100% coverage.^{10,11} Since vaccination is a primary level preventive measure, the Indian government has initiated numerous efforts to increase coverage of this important aspect of child health. When vaccination rates exceed 80%, the pattern of disease transmission is seriously disturbed.¹² The present study was conducted to assess the immunization status of children aged 1-5 years & the awareness level of the parents regarding the immunization of their children.

We found that out of 152 patients, males were 80 and females were 72. Singh et al¹³ found that 51.2% children were fully immunized, 45.6% were partially immunized and 3.2% of children were unimmunized. The study showed a significant association between immunization status and the age of children, according to religion, socio-economic status, and birth order. Association with type of family and immunization status, area, according to gender is statistically non-significant. The majority of the parents (40.8%) gained knowledge of immunization from ASHA/ health workers, 32% from doctors, 16% from media (newspaper, television), 7.2% from relatives and neighbors, and only 2.6% of parents were themselves aware of immunization.

We found that the age group 1-2 years had 56, 2-3 years had 36, 3-4 years had 32, and 4-5 years had 28 subjects. Kumar et al¹⁴ found that of the 325 children (148 males, 177 females), 58 (17.84%) were completely immunized, 156 (48%) were partially immunized, and 111 (34.15%) were non-immunized. Mothers were the primary respondents in 84% of the cases. The immunization card was available with 31.3% of the patients. All 214 partially- or completely-immunized children received BCG, 207 received OPV/DPT1, 182 received OPV/DPT2, 180 received OPV/DPT3, and 115 received measles vaccines. Most (96%) received pulse polio immunization, including 98 of the 111 non-immunized children. The immunization status varied significantly ($p < 0.05$) with sex, education of parents, urban/rural background, route and place of delivery. On logistic regression, place of delivery [odds ratio (OR): 2.3, 95% confidence interval (CI) 1.3-4.1], maternal education (OR=6.94, 95% CI 3.1-15.1), and religion (OR=1.75, 95% CI 1.2-3.1) were significant ($p < 0.05$). The most common reasons for partial or non-immunization were: inadequate knowledge about immunization or subsequent dose ($n=140$, 52.4%); belief that vaccine has side-effects ($n=77$, 28.8%); lack of faith

in immunization ($n=58$, 21.7%); or oral polio vaccine is the only vaccine required ($n=56$, 20.9%).

We found that In Hindu, immunization status was complete in 65, partial in 10, and unimmunized in 8. In Muslim in 31, 4 and 5 and in Sikh in 10, 16, and 3 subjects respectively. In upper SES, immunization status was complete, partial, and unimmunized seen in 46, 9, and 5 subjects. In the middle was 36, 6, 4 and lower in 24, 15 and 7 respectively. Goyal et al¹⁵ found that 395 (73.15%) of 12-23 months old children were fully immunized and the rest 145 (26.85%) were partially immunized. The major reason for the drop-out rate was found to be unawareness regarding the need for immunization. Immunization coverage was found to be significantly associated with the presence of immunization cards and the literacy level of mothers.

The limitation of the study is the small sample size.

CONCLUSION

Authors found that age, religion, and socioeconomic level all had a big impact on vaccination rates. According to our study, the main causes of partial immunization were the children's present diseases and ignorance of the vaccine schedule.

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