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Short report

Factors Related To Delayed Immunisation Among Children Below 5 Years

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ABSTRACT

Delay in immunization leads to the decreased level of protection against disease. The present study was done at the immunisation clinic at Nellimarla to document age & gender-wise distribution of cases of delayed immunisation and to study common causes of delay. A questionnaire answered by the parents accompanying immunisation delay children was analyzed. Delayed immunisation was observed in 12.8% children. Most common causes showed primary maternal education (41.1%), low socioeconomic status (67.9%), children of higher birth order (69.6%), ignorance (51.8%). Delayed immunization was more during primary immunization.. One should realize that with hesitance or delaying vaccinations, the period that the child is at risk increases.

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1. Introduction

Under Health for All by 2000 AD, a target of 100% coverage of children with vaccine against the six vaccine preventable diseases namely tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles is kept [1]. In spite of implementation of Universal Immunisation Programme, since 1985 and extensive immunisation campaign in last two decades, approximately 20% of the children are not immunised currently and 10% to 20% receive delayed immunisation [2]. It is associated with a number of risk factors namely parental specifically maternal education, family size, number of children [3, 4, 5]. Despite the delays, which widen the critical period in which kids are most vulnerable to vaccine-preventable diseases, the percentage of children who got all their basic vaccinations went up to 76% from 73%. Some parents feel it's not necessary to vaccinate their child because so many other children are vaccinated. But this so-called "herd immunity" does not protect individual children. Parents who do that are putting their child at risk and they are putting their peers and neighbors at risk as well.

2. Materials and Methods

A descriptive cross sectional study was undertaken at a immunisation clinic at Nellimarla which is the primary health centre attached to Maharajah's Institute of Medical Sciences, Nellimarla. Total children who attended for immunisation were 439 over a period of three months. Immunisation delay cases comprised of children with delay of 45 days for the scheduled immunisation. Parents accompanying immunization delay children participated in the study who were subjected to a questionnaire regarding age of the child, gender, birth order of the child, illness of the child, maternal education, whether the parents are working, socio-economic status, awareness of immunisation. The data was analysed and expressed in percentage.

3. Results

Delayed immunisation was observed in 56 children (12.8% of 439). The age-wise distribution of children with immunisation delay revealed that those between 0-1 years were 37 (66.1%), 1-3 years were 15 (26.8%) and 3-5 years were 4 (7.1%). Gender wise, delay among male children was 29 (51.8%) and among female children was 27 (48.2%). Children of 1st birth order were 7 (12.5%), 2nd birth order 10 (17.9%), 3rd birth order 27 (48.2%) and 4th birth order 12 (21.4%).

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Illiterate mothers were 6 (10.7%), who took primary education were 23 (41.1%), educated up to secondary education 13 (23.2%), up to higher secondary education 4 (7.9%) and graduates 10 (17.1%). In this study, 38 (67.9%) belonged to low socioeconomic class, 15 (26.8%) to middle class and remaining 3 (5.3%) to upper class.

Figure 1

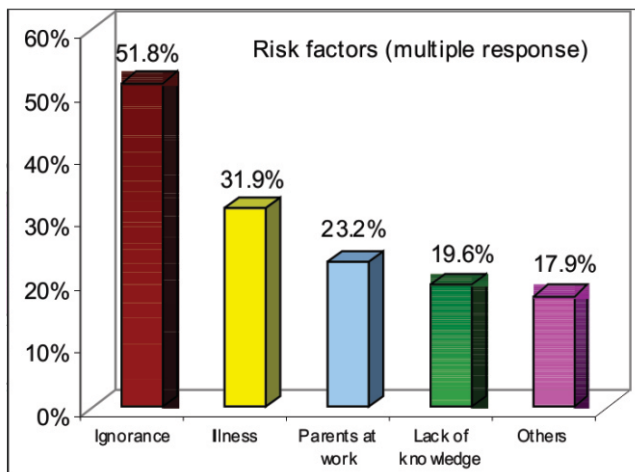


Figure 1 shows factors related to delayed vaccination

Table 1. shows consistency of the present study with another study

Study factor	Present study	Tiwari RR study
Immunisation delayed children	56	57
Age of the child	Under 5 years	Under 5 years
Gender (male & female)	29 & 27	24 & 33
Common risk factors		
1. Birth order >2	69.6%	66.6%
2. Illness of the child	31.9%	22.8%
3. Maternal education <10th std	75%	84.3%
4. Low socio-economic status	67.9%	89.4%
5. Ignorance	51.8%	36.8%

4. Discussion

Delayed immunization was more commonly observed during primary immunisation (0-1 year) which is similar to the finding in other studies [2,6]. In contrast to other studies [2,6], which reported female predominance in delay, the present study had more male children in delay. But the gender difference was not significant. Bigger family size and higher birth order i.e. more than 2 were also noticed in the immunization delay. Children with low socioeconomic status and whose parents were less educated were also a contributory factor. The risk factor most commonly observed was ignorance about the doses and recommended age of vaccines. Even minor ailments or parents perceived suspicion of illness in child as contraindication for immunisation. Results of our study are comparable with those of Tiwari RR et.al study [2].

5. Conclusion

Understanding the risk of immunisation delay is important since many children experience lengthy delays before eventually receiving the vaccine doses that bring them up-to-date. Risk

models based simply upon up-to-date status offer limited insight toward improving vaccination levels and minimizing delays. Health education of the parents by giving more stress on common factors to reduce the frequency of delayed immunization also has a major role. Medical personnel should try to develop an open relationship and provide parents with information so that they can make an informed decision. Due emphasis should be given to administration of the vaccines at the recommended time. Improving knowledge about vaccines will reduce the ignorance and hence decrease the occurrence of immunization delay in a long run.

Limitations of the Study

Interviews were conducted in the immunization clinic in a limited time period. Furthermore to avoid inconvenience to the informants accompanying the children for immunisation only relevant important questions were included in the questionnaire.

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