

ABSTRACT

Background

Immunization is an important aspect of child's health. It protects the child from various vaccine preventable diseases (VPDs), reduces their severity and gives a long lasting immunity to a child. In absence of vaccination these infections can otherwise become very severe and sometimes fatal. India's vaccination coverage is far behind from the global vaccination coverage of 81%. Due to this millions of children succumb to these VPDs due to low coverage. Parents and caregivers awareness and timely decision making hold to key to this problem. The current study was planned to assess effectiveness of an interventional package in terms of primary caregivers' awareness and their self-efficiency. As timeliness and adherence to immunization schedule is necessary for the child to develop age specific immunity. It also aimed at quantifying the vaccine related problems among children and immunization compliance among primary caregivers.

Methods

The approach used for this study was mixed method with an embedded design. The first phase was qualitative and second phase was quantitative. Focus group discussions were conducted in vaccination room of selected health facilities using a semi structured questionnaire. Primary caregivers of children who had previously experienced were included in this phase. Four video-taped focus group discussions were conducted with five participants in each group. One session with each group was done. The verbatim thus obtained was coded and analysed to identify the information deficit, management of vaccine related problems as done by them. Some of their malpractices were also identified. Based on the results of phase I, an interventional package that consisted of the information related to all aspects of vaccination, its schedule and management of vaccine related problems was developed. During the second phase, interventional package was delivered to the interventional group while routine information was provided to the control group by the vaccinators. An awareness questionnaire, self –efficiency tool and a tool on vaccine related problems was administered to both the groups at first immunization and re-administered on subsequent visits till the child's immunization at 9 months.

Results

The results of phase I elucidated that caregivers need balanced information related to various aspects of vaccination. Most were unaware of the immunity provided by vaccines. Many were of the view that limited information is provided during vaccination and felt the need for more specific information about vaccine related problem that may follow immunization. Massaging the area, hot fomentation, application of local ointment were some of the measures taken by the primary caregivers. Most did not know of any specific measure or position to reduce pain during vaccinations, signs of allergic reaction and conditions when immunization can be carried out.

During phase II, effectiveness of interventional package was assessed in terms of awareness and self –efficiency. Awareness was measured at birth, six weeks and nine months. The pre-test awareness level was at good and average level for both the groups with no significant difference statistically. Post intervention, mean awareness for interventional group rose from 19.84 ± 4.39 at birth to 32.76 ± 5.91 at nine months while in case of control group this increased from 19.25 ± 4.24 to 19.33 ± 4.26 . Between groups analysis of awareness according to un-paired T-test was found significant in interventional group after delivery of interventional package. Within group analysis according to repeated measure ANOVA (F-ratio) was significant for interventional group. Self –efficiency was measured at every immunization event till nine months. It was observed that self -efficiency remained stable initially until ten weeks at average and poor level for both the groups. The mean self- efficiency score increased from 12.91 ± 2.255 to 23.17 ± 1.918 in interventional group and from 12.97 ± 2.193 to 13.03 ± 2.196 in control group at birth and nine months respectively. Between groups and within groups analysis, showed significant improvement in self-efficiency in interventional group. Vaccine related problems among children were reported by primary caregivers at every immunization event. Most problems occurred at second immunization event (six weeks). Among the most frequent problems were pain at site of vaccination, redness, swelling feeding problems, irritability and restlessness. Fever and nodule formation occurred mainly at six, ten and fourteen weeks. Birth weight and gender was observed to have association with vaccine related problems. Immunization compliance was found to be good among both the groups.

For both the groups, the number of non-compliant caregivers decreased at every successive immunization. Type of locality, education and occupational status of primary caregiver were found to influence their immunization compliance.

Conclusion

The interventional package proved beneficial in improving the awareness and enhancing the caregiving capacity of mothers/ primary caregivers. The intervention was particularly effective during early postpartum period when the receptivity for such information is high. Parental concerns regarding vaccine related problems also need to be addressed to increase immunization coverage and compliance.

Key words

Primary immunization, primary caregiver, vaccine related problems, awareness, self-efficiency.