



A STUDY TO ASSESS THE IMMUNIZATION COVERAGE IN AN URBAN SLUM OF RAIPUR

Community Medicine

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ABSTRACT

Our study was conducted to assess the immunization coverage and the impact of socio-demographic profile on that in an urban slum area in Raipur. A cross-sectional study was carried out in the field practice area of the RIMS,Raipur during the period of January 20017 to October 20018. A total of 352 children in the age group of 12–23 months during the study period were selected by using lot quality technique. Results were analyzed using Statistical Package of Social Sciences (SPSS) version 13.0. In the present study, out of the 352 children taken in to consideration, 55.40% were males and 44.60% were females. The overall coverage of immunization in the urban slum area was 88.07%. The most common reasons for not immunizing the child were: due to the visit to native place/village(14.00%), child was ill, hence not brought (8.20%), unaware of need to return for second and third dose (5.70%), and mother too busy (5.00%). Conclusion: In this study, as the overall coverage of immunization among the urban slum area is good but still it has pockets of non-immunization. Hence, more vigilant surveys should be conducted so that these pockets are identified properly and proper actions can be taken.

KEYWORDS

Immunization coverage, lot quality technique, primary health care ,urban slum

INTRODUCTION

Lot quality technique is the recent technique developed to assess the vaccination performance rapidly. The purpose of utilization of lot quality technique is to identify quickly and scientifically the areas with poor performance and provide information for developing strategies to improve service quality. To evaluate the immunization coverage, the cluster sampling technique has been the most commonly used technique. But of late, lot quality sampling technique, which was commonly used in the industrial set-up to assess the quality of the lots of their products, is now used in the health services such as in evaluation of immunization coverage. Since lot quality sampling method requires only a small sample size and easier for staff to use, it is feasible for routine monitoring of vaccination coverage. Hence the present study attempts to highlight methodology and application of lot quality technique to assess child vaccination performance in an urban slum community of Raipur.

MATERIAL AND METHOD

A population-based cross-sectional survey was carried out in the field practice area of the RIMS Raipur during the period of January 20017 to October 20018. The inclusion criteria for study subjects were those with availability of either an immunization card or a responsible person for key information regarding immunization and who were permanent residents (residing for more than 6 months) of the study area. The area was divided into 16 lots based on geographic divisions. The study population comprised of all children aged 12–23 months. This age group was chosen for analysis because both International and Government of India guidelines specify that children should be fully vaccinated by the time they complete their first year of life. Children who received BCG, measles, and three doses each of DPT and polio (excluding polio 0) are considered to be fully vaccinated. All the vaccines must be administered by the time the child is one year of age. Sample size for the study was calculated to be 352, based on 5% level of accuracy and 95% level of significance. The estimated sample size for each lot was 22. A decision value (highest number of individuals in a lot not receiving a quality service and yet lot is acceptable) of 3 was selected based on lot sample size of 22 and low and high threshold set at 65% and 95%, respectively. Dates of vaccines received were verified from office record in case vaccination card was not available. Response rate was 100%. Criteria that meet the 'Quality' vaccination include those children who have received all vaccinations recommended in

RESULTS

Among the study group, 55.4% were males and 44.6% were females. Majority (70%) of both mothers and fathers of the children under the

study had middle to high school education and 4.9% mothers and 9.1% fathers had education above graduation level, only 12.2% of the mothers and 7.4% of the fathers under the study were illiterate. According to the Kuppuswamy's scale of socioeconomic status classification, nearly 13.35% of the families under study were from class II, whereas 63.57% of the populations were from class IV and class V and not a single family belonged to class I. Higher proportions (92.1%) of women in the study area were of parity 1–3. Immunization cards were available with 87.78% of the mothers' of children aged between 12 and 23 months. Among the study group, the percentage of births occurring in a health facility is 91.9%. Vaccination coverage: 76.99% of the children were fully immunized in less than 1 year, 11.08% of the children were immunized above the age of 1, and 11.93% of the children were not fully immunized among the study group. According to the respondents, the most common reasons for not immunizing the child were: due to the visit to native place/village (14%), child ill and not brought (8.20%), unaware of need for immunization (8%), unaware of need to return for second and third dose (5.70%), and mother too busy (5%). The gender of the child did not significantly affect the immunization status of the child. But there was significant association between religion and immunization status of the children. There was no significant difference between the socioeconomic status and the immunization status of the children even though the study group consisted of 13.35% of the population belonging to higher socio-economic class but still there were 12.80% of the children unimmunized. In the study, it was found that those children born in hospital had a higher immunization coverage rates than those delivered at home. There was significant association between immunization status of the children and the place of delivery of the children. It was also found that, those mothers having the immunization card had immunized their child completely rather than those who did not have the card. There was significant association between immunization status of the children and the presence of the immunization card.

DISCUSSION

Immunization cards were available with 87.78% of the mothers' of children aged between 12 and 23 months. Coverage was better in case of children who had their immunization cards available. This shows that mothers probably were well motivated and have understood the importance of maintaining such records with them for follow-up. Similar results were shown in the studies conducted by Tapare et al. and Kadri et al. in which 81.25% and 88.4% of the mothers possessed the immunization card with them, respectively. Similarly the study conducted by Yadav et al. for evaluation of immunization coverage in

urban slums of Jamnagar city, showed that the immunization card was possessed with 74.28% mothers of children aged 12–23 months. It was also evident from National Family Health Survey III (NFHS-III) survey results that only 12.22% of the mothers did not have the immunization cards with them. In this study, vaccination coverage was: 76.99% of the children were fully immunized in less than 1 year, 11.08% of the children were immunized above the age of 1 year, and 11.93% of the children were not fully immunized among the study group, which is less than the desired goal of achieving 85% coverage. NFHS-III reports that only 54.7% of the urban children are fully vaccinated. Somewhat similar findings were seen in the study by Tapare et al. at Miraj. Yadav et al. revealed that percentage for fully immunized children was 73.3% and for partially immunized children it was 23.8%, and for unimmunized it was 2.8%.

CONCLUSION

Overall coverage of immunization among the urban slum area is good but still it has pockets of non immunization. Immunization is often cited as being one of the most cost-effective public health interventions. Regular health education sessions and motivation through an encouraging and persuasive interpersonal approach, regular reminders and removal of misconceptions prevailing among people and improving the quality of the services at the health facility will solve the problems of non immunization

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