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ASSESSMENT OF IMMUNIZATION SERVICE IN PERSPECTIVE OF BOTH THE RECIPIENTS AND THE PROVIDERS: A REFLECTION FROM FOCUS GROUP DISCUSSIONS

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Objective: To assess the immunization services available through expanded program of immunizations (EPI) and national immunizations days (NIDs) and to determine the reasons for incomplete immunization. **Background**: A number of evaluations of the EPI program have been carried out either at a small scale or countrywide in order to identify statistical figures but very few of them reflect population opinions. **Methods**: This study is qualitative, based on eight focus Focus Group Discussions (FGDs) with mothers and fathers as recipients while lady health visitors and vaccinators as service providers. **Results:** Majority of the mother and fathers were aware of the importance of immunization. Overall the failure of immunization was related to low income, inaccessible government dispensaries and occupancy in house hold work. Almost all mothers and fathers were of the opinion that the private clinics are giving service at a higher cost for quality vaccines than that of government dispensaries. Majority of fathers and mothers are ignorant of the advantages of antenatal immunization. Vaccinators and Lady Health Visitors had adequate knowledge and were partly satisfied with the services they provide. Vaccinators identified the need of local vaccinators and well - run vehicles in order to increase immunization rate. **Conclusion**: The quality of immunization services is compromised at the recipient level mainly due to lack of motivation and prevailing doubts about immunization importance. The service providers thought that the problem of incomplete vaccination in rural or remote areas is because of improper vehicles, unavailability of local vaccinators particularly for females and misplacement of cards. Hence solving the problems of the providers at all levels combined with media campaigns to modify rigid behaviour of recipients can significantly improve the immunization coverage in Pakistan.

Key words: vaccination, focus group, qualitative studies, mother's and father's perceptions, immunization

INTRODUCTION

The children under 5 years of age (which constitute 15% of the Pakistani population) contribute 50% of the overall mortality as compared to 8–10% in the developed world[1]. The under-five mortality rate (U5MR) is alarmingly high for Pakistan 136/1000[2]. Majority of under-five mortality is associated with infectious diseases and for its protection; a pilot project of Expanded Program on Immunization (EPI) was launched in 1974. It was further strengthened by Accelerated Health Plan of government (AHP) in 1982 which improved the coverage from as low as 5% in 1982 to as high as 70% in 1984[3,4]. In the last one-decade national immunization days (NIDs) and the 'mopping up' campaigns (door to door vaccination in high-risk areas) are introduced to give maximum coverage[5, 6].

The Multiple Indicators clusters survey[5] reported coverage for all provinces as follows:

- BCG for Tuberculosis: 64%–80%
- DPT for diphtheria, Pertusis and tetanus dose III: 25%–42%
- Polio dose III: 46%–64%
- Measles: 55%

While 1998 report of WHO[6] gave better coverage for all the four provinces of Pakistan, which is as follows:

- BCG: 90%
- DPT III, Polio III and Measles: 74%

It is learnt that 58% of the children at risk remain unimmunized due to lack of quality implementation and monitoring tools[7]. The evidence is strengthened by the EPI report that despite equal distribution of services but varied social conditions there is wide difference in coverage rates[8]. The routine reports from health centers about coverage may be inaccurate rather misleading because the tools adopted for its evaluation are inappropriate like measuring coverage rate 'by card' or by 'verbal history' [9,10,11].

Several factors for failure to be immunized have been identified through mostly cluster survey techniques and others in our population and include lack of awareness of its need, fear of side effects and lack of interest and no faith in immunization[5,12]. A cross-sectional survey of NWFP (rural) also identified lack of information and lack of motivation as the main reasons for immunization failure[13]. Another survey done in Karachi of the health care providers detected low level of knowledge regarding immunization[12].

Independent monitoring of pre-campaign activities, of campaign implementation and of coverage levels has been shown to have a dramatic impact on improving the quality of vaccination activities[14,15,16]. Similarly media campaigns using radio and TV have also shown to improve the coverage in the NIDs[16]. Karachi being an educated city of Pakistan with that largest numbers of radios and TV sets is expected to have good coverage of immunization however it is still not optimal[10,11,15].

This study was planned to assess the opinions of service recipients and the service providers and to search for the loopholes in order to improve the coverage of immunization through means, which are both acceptable and convenient for all stakeholders.

The main objectives of the study were to assess the quality of immunization service and to identify the reasons of incomplete immunization in all five districts of Karachi. The reason for selecting a qualitative design of the study was to assess diligently in a subtle way the level of awareness regarding immunization among recipients and as well as providers.

METHODS AND MATERIALS:

This qualitative study was based on focus group discussions (FGDs). The study was carried out in June 2001 in Karachi and its suburbs.

SAMPLE

A total of eight focus groups were done. Two focus groups were identified in each category of mothers, fathers (as recipients), vaccinators and lady health visitors (as service providers). The recipient's groups are selected from urban squatter settlements of mixed ethnicity. The provider's groups are selected one each from government and private establishments.

PROCESS

Before the study the authors themselves identified the groups and selected 10 participants in each group. The participants were invited to a common site after discussing the moist suitable spot and three persons used to conduct the focus group. The authors took the role of facilitator and reporter handling the tape recorder and the third person from the department used to work as observer who used to develop the sociogram to later identify the power structure in the group. Each focus group was held from three to four hours.

For facilitation following 'Topic guides' were developed for discussion:

For the lady health visitors and vaccinators:

1. Opinion regarding existing services.
2. Suggestions for improvement of services.
3. Suggestions for increase of immunization.
4. What facilities do they get?
5. What facilities do they want?
6. Impact of NIDs on immunization coverage.

For mothers and fathers:

1. Knowledge of Immunization.
2. Access to immunization.
3. Opinion regarding immunization services.
4. Perceived advantages of immunization.
5. Perceived disadvantages of immunization.
6. Gender bias in immunization.
7. Opinion regarding improvement of services.

RESULTS

a) Recipient group:

All of the mothers are well aware of the importance of immunization that it should be given to all the children whether born in the hospital or in the home:

"*The first baby boy was born 10 years back in a village in Punjab and nobody told them about vaccination so at the age of 3 years he got affected by polio. Later on they were shifted to Karachi in this kachi abadi and other two girls are born here in the home and vaccinated in a private clinic so they are healthy."* **[mother]**

While fathers though appreciate the advantages of vaccination but majority of them think that TT immunization for mothers is of no benefit.

"The important thing for mothers' health is rest and good diet to have safe pregnancy." **[father]**

Most of the mothers know that at least eight vaccines are given till four years of age whereas the fathers have very vague ideas regarding number and name of vaccines. Mothers responded that three preventable diseases, i.e., polio, TB and Measles are covered during vaccination. Only two of the respondents said that vaccines to the mothers given during pregnancy prevent their children from some sort of disease. They are not aware of the vaccination schedule of the pregnant mothers and the children:

" A woman receives two injections in 7th and 8th month in every pregnancy irrespective of the number of pregnancy." **[two mothers]**

Table-1: Mothers and fathers knowledge of Immunization

Questions regarding Information of immunization	Mothers response	**Fathers response**
1. Importance of childhood vaccination	Well-informed and convinced	Well-informed but not convinced
2. Importance of TT vaccination	Partly informed	Not aware rather denial fo its use.
3. Schedule of primary vaccines	Few are aware	Not aware at all
4. Schedule of TT vaccine	Sure of the time but not of the total number of doses	*
5. Importance of NIDs	Very effective and convenient	Very effective
6**.** Names of preventable diseases	Polio, T.B, Tetanus	Polio

* No compatible response.

Most of the mothers prefer to go to private clinics for vaccination despite of its high cost because government dispensaries are quite far and they can barely snatch time from their daily routine work. Furthermore there are no lady vaccinators in these centers to vaccinate pregnant mothers:

*"The vaccines are of better quality in private clinics than in government dispensaries and they don't have to wait hours for their turn."***[mother]**

"Private clinics are easily accessible and they feel more satisfied with the care and advice provided there usually" **[mother]**

"The cost of immunization in private clinics is high but all money they earn is for their children and they can't compromise on quality." **[mother]**

*"Husband remained jobless for about one year and she had no money for vaccination at private clinic but did not go to government hospital because of fear of waiting and poor quality of vaccines."***[father]**

Fathers held mothers responsible for children's health and care.

Table-2. Reasons for failure of complete immunization

According to mothers	According to fathers
Lack of money	Problems of food provision is superior to care of already healthy child
Mothers too busy	Mothers can't concentrate
Inaccessible government dispensaries	Local dispensaries are very few
Unavailability of lady vaccinators	*
Don't remember the scheduled dates	
Fear of side effects	Fear of unwanted outcomes
Lack of interest by other senior family members	
Seasonal illnesses of children	Some prevailing myths limit the use of vaccine

* No compatible response.

All of them favored immunization and knew that it prevents them and their children from several diseases and ensures good health.

"The children who previously did not receive polio drops because of no campaigns got paralyzed and never recovered." **[mother]**

"Their children can even be more healthy if along with vaccination they also follow the rules of personal hygiene and are well attended by their mothers." **[mother]**

Most of them responded that high fever and abscess formation is the major side effects of vaccination. Few of them reflected the general concept of their people that the main purpose of vaccination is to limit the race:

*"They have half hearted belief that the children vaccinated today are not going to reproduce later in their lives and furthermore they have quitted the use of Iodized salt for the same fear."***[mother]**

All the mothers strongly disregarded the gender bias in immunization. They think that woman's education and health should be more emphasized.

"A girl child is very dear one and they want to give all possible comfort and care to their daughters because they might not get due care and love at their in-laws." **[father]**

"They and their male family members have full faith in health delivery teams whether at clinics or out reach teams to their homes." **[mother]**

They all had a consensus that government vaccination clinics are to be established nearby so that they can save their money and time. Few of them suggested that it is more important to modify the attitudes of the mother to their child's health and they are to be given awareness. They also identified the risk factors for disease origin and said that efforts are to be laid down to aware the people regarding food hygiene and cleanliness of their premises:

"Prevention from disease is equally important for their children as provision of daily food supply." **[mother]**

b) Service provider group

In general all of the vaccinators are satisfied with the existing services. According to them sufficient quantity of vaccines is available at all the time and they go in out-reach teams daily.

Majorities of the lady health visitors (LHVs) are not fully satisfied with the immunization service. The experienced LHVs with more than five years of work are of the opinion that the output is not in accordance to the efforts laid down by them. The main reason for incomplete immunization, pointed out in the private sector LHVs, is poor record keeping by the recipients.

"*Immunization card keeping is very poor and many of them are not the permanent dwellers of a place, posing more problems for the health visitors to follow the immunization schedule."* **[LHV]**

Importance of TT vaccination is hardly understood by mothers seeking care in government hospitals.

"Very few of the registered pregnant ladies report on their routine ante-natal visits thus fail to receive TT vaccine and they wait till some complication occurs or directly brought in labor". **[LHV]**

"The people can not be blamed all the time for not producing cards because some are ignorant of the importance of these cards so accordingly to be informed by the health team whomsoever they seek care." **[LHV]**

Few of them responded that sometimes they feel that number of vaccinators is not in proportion to that of population they serve:

"In remote areas of Karachi especially they face difficulty while giving coverage to large population with a small team." **[Vaccinator]**.

"Vaccination centers are also very few in rural Karachi." **[Vaccinator]**.

Most of them suggested that number of vaccination centres and vaccinators are to be increased. One young participant reflected that local vaccinators are to be appointed in these centers so as to save government funds and to build more confidence of the people.

Majority is of the opinion that increasing the number of teams, vehicles and vaccinators in each team can increase immunization status of the country.

"By increasing work force we may revitalize our energy and can work more efficiently" **[Vaccinator]**.

Table 3: Constraints for Incomplete vaccination

Lady Health Visitor	Vaccinators
People are not motivated to visit Fixed centers	Very few people report on the fixed centers
*	Local vaccinators are not available to increase motivation among residents.
Unavailability to reproduce cards lead to failure of complete immunization.	underestimation of coverage is due to poor Card keeping in rural and sub urban areas.
Community acceptance is poor.	Difficult to penetrate into the communities living i the tribes and attitudes are rigid.
TT vaccination is poor because of some fears of unwanted effects.	Improper TT vaccination is due to lack of female vaccinators in out reach and mobile teams.
Decision- makers in the family are to be motivated to understand the importance of childhood and women immunization.	*

*No compatible response.

Most of them are not at all satisfied with the facilities they get now. They said that they are solely receiving their monthly salaries with out any over time, medical and other allowances.

They all want to get over-time compensation, medical facility, and also pick and drop service.

"Many a times it is very late in the evening and it becomes very awesome especially for lady vaccinators to go back home by public transport." **[LHV]**

Few of the old vaccinators raised the issue of occupational heritage and they stressed that their children should replace these jobs on their retirement.

"They want to secure the future of their children in their own field and they feel that it is their right." **[Vaccinator]**

Table 4: Problems at Work

Lady Health Visitors	**Vaccinators**
Government sector	
Poor record retrieving	Problems in card reproducing Difficulty in motivation due to language barrier Lack of female vaccinators for out-reach teams.
Insufficient staff for out-reach teams.	Insufficient staff Ill trained or sometimes proxy vaccinators Insufficient mobile centers Debilitated condition of the vehicles
Low salary structure	Low salary structure
Private Sector	
Card system ineffective in remote areas.	
Difficult to follow up the families because of frequent migration	
People don't follow one center	
Rigid attitudes of the communities	Rigid attitudes of the communities Fixed centers are less effective

Government sector LHVs demanded increase in salary and more recognition of their work.

"*More jobs are to be created for the lady health visitors and accordingly salaries are to be increased as most of us are the sole earning members of the family".* **(Vaccinator)**

"As part of the health team more social and moral commitments are to be fulfilled". **[Vaccinator]**

DISCUSSION

This study identified the reasons for incomplete immunization and deficiencies of the service at the recipient and provider's level. Qualitative assessment of the recipients revealed that mothers were found to have more knowledge and concern for their children's health. But their acts were dependent on their husband's decision; moreover their restricted mobility and fear of

expenses lead to ineffective utilization of health services. Whereas fathers understood the importance of immunization for their children but denied recognition of the need for vaccination particularly for mothers. This has lead to low level of knowledge and decrease immunization coverage of the children less than five years of age in Pakistan which is conformity with the previous studies[7,8,9,10].

The Lady Health Visitors pointed out the need of organized community involvement including sessions with the decision-makers (husbands/grand mothers) regarding all levels of information, education and motivation as has been seen in earlier studies that lack of information and lack of motivation are the main reasons for immunization failure[13].

The vaccinators in our discussion group identified that the recruitment of local persons and their proper training is mandatory especially for NIDs. The need of female vaccinators is also emphasized along with increase in the number of government vaccination centers. These aspects were also pointed out in some earlier studies and hence importance should be given to their recognition and incorporation in the EPI regular plan for immunization[8,9,13,16].

The source of information is television in most of the responses; therefore the message should be made more precise and frequently aired. This has been pointed out before by other researchers and scientist looking at the reasons of reduced coverage and its probable solutions in Pkistan[8,16].

The problems identified by the field staff regarding vaccination in the field site related to their almost unavailable supportive supervision and scanty facilities like vehicles and other supplies. Strict monitoring, supervision and solving the problems of the field staff are the key factors in increasing immunization coverage as evidenced by others as well[10]. The field staff also said that at times they are unable to vaccinate even during campaign times even if they have available supplies due to limited support from the superiors and media like TV and radio. Various authors in Pakistan and the region have identified the need for supporting the campaigns with TV and radio, which can positively affect the rigid attitude of the communites[14,15].

CONCLUSION

The key to improving the coverage in Pakistan is to first solve the problems of the providers particularly the field staff (vaccinators and LHVs) like:

- mproving the salary and other facilities of the field staff
- egular and consistent supply of

vaccines and development of more centers in each area

- Hiring local staff for vaccination as they can more effectively deal with their own communities
- Developing a strict and vigilant supervision and monitoring system for field staff
- Continuous training of the field staff with inclusion of incentives for good performers

For modifying the beliefs of the communities regarding immunization constant TV and radio messages should be aired specially during the campaign days to improve coverage during the campaigns. Plays and other similar programs could be developed to increase awareness of masses regarding the importance of vaccination and its role in prevention of diseases.

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