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A sociological study about the factors affecting Immunization status of children at POF hospital Wah Cantt, Pakistan

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ABSTRACT:
Immunization assumes a noteworthy part in the aversion of illnesses and grimness and mortality in kids can be highly lessened just by usage and use of EPI (Expanded Program on inoculation). Targets: The goals of the examination were to decide the inoculation status of kids admitted to pediatric ward of tertiary care in POF doctor's facility, Wah Cantt. The purposes behind halfway Immunization and non-Immunization. The sociodemographic factors that influence the inoculation status. Plan, length of the investigation: The examination was Descriptive and span was around a half year Setting: Pediatric and Gynecology wards of POF Hospital Wah Cantt. Examining system: Convenient testing Subjects and Methods: Our investigation included moms of 18 two years matured kids who exhibited to POF Hospital Wah. A pre tried organized survey was filled by the understudies themselves. Results: 87.5% of youngsters were totally inoculated, 9.5% were incompletely vaccinated while 3% were not in the slightest degree. 33.5% of the guardians trusted that there were reactions of immunizations. 44.5% of the guardians suspected that lone oral polio immunization was required and 17% thought about it as annoying. Wellbeing office was distant for19.5% people and 23% face non accessibility of immunizations. Chi square test demonstrated a critical relationship between instructive status of father, mother and place of conveyance with Immunization status. Conclusion: The Immunization status of the kids was satisfactory and there was noteworthy relationship between education status of father, mother and place of conveyance with the inoculation status. The reasons of none and fractional Immunization were unavailability, non-accessibility of immunization, considering polio was the main required antibody and burden for the guardians.
Key Words: Immunization, Children, Non Immunization

INTRODUCTION

It is the way toward fortifying the insusceptibility of a person by immunization. It animates the creation of defensive antibodies and other invulnerable instruments. Antibodies might be created from live altered life forms vaccinated or slaughtered living beings, removed cell divisions toxoid or blend of these. Later arrangements are sub-unit immunizations and recombinant antibodies. The World Health Organization (WHO) propelled the Expanded Program on Immunization (EPI) in 1974 with center around the anticipation of 9 maladies of the youth. In Pakistan, it was propelled in 1978.Global Immunization Vision and Strategy (GIVS) was created by WHO and UNICEF as a structure for reinforcing national inoculation programs [1] and ensure whatever number individuals as could reasonably be expected against more maladies by extending the span of Immunization, including new antibodies, to each qualified individual. In WHO district of Africa (assessed scope 74%) and South-East Asia (evaluated scope 69%).The biggest rate lessening in evaluated measles mortality amid this period happened in the Eastern Mediterranean (90%)[2] and African locales (89%), representing 79% of the worldwide decrease in measles mortality. The areas that are having low routine Immunization scope are Democratic Republic of Congo, Nigeria, Tanzania and Uganda[3]

Pakistan is one of the three nations where polio transmission stays endemic. Pakistan is accomplishing inoculation targets set internationally and has gained ground towards accomplishing Millennium Development Goal 4. Be that as it may, absence of parent learning, constrained access to inoculation administrations and poor administrations are available as hard hindrances before Immunization advance. Consistently antibodies for roughly 5.8 million kids are secured by the program. More than 30 million kids are vaccinated in each round of polio supplemental inoculation exercises. EPI is the select supplier of Immunization in Pakistan and around 3% of inoculation is given by private sector.[4]

Following are the reasons because of which youngsters are either mostly inoculated or not vaccinated by any stretch of the imagination:

- Unawareness among guardians with respect to inoculation programs.

- Fear of symptoms and typical prompt responses because of Immunization.
- Family stretch not to inoculate their kids.
- Vaccines are considered as polluted with human and creature infections and microscopic organisms.
- Considering antibodies in charge of certain lethal illnesses.
- Carelessness towards following appropriate inoculation plan that prompt mostly vaccinated kids.
- Parents' conclusion that youth sicknesses have valuable angles and along these lines anticipation may not be to the greatest advantage of their kid.
- Parents' conviction that completely vaccinated youngsters are among the undesirable and are enduring perpetual ailments.
- Distrust towards pharmaceutical organizations.

The examination is directed to discover the explanations for incompletely inoculated and non-vaccinated kids and the related factors keeping in mind the end goal to discover approaches to adapt to these issues and to prescribe arrangements.

REVIEW OF LITERATURE

An investigation was directed at Dow Medical College, Dow University of Health Sciences, Baba-e-Urdu Road, Karachi by Sheik An and his partners to decide the explanations behind non-immunization in pediatric patients going to tertiary care focuses in a polio-inclined nation. The aftereffects of the exploration were out of 1044 patients, just 713(68.3%) were completely immunized, 239(22.9%) were incompletely inoculated while 92(8.8%) had never been immunized. The inoculation status indicated factually noteworthy relationship with ethnicity, wage, living arrangement, number of youngsters and fatherly occupation ($p < 0.05$ for all). The most widely recognized essential purpose behind non-immunization was absence of learning (18.1%), while the most well-known auxiliary explanation behind non-inoculation was religious taboos (31.4%). Lion's share of the respondents showed poor learning of EPI schedules.[5]

An investigation was directed at Department of Pediatrics, NIMS Medical College and Hospital, Jaipur by Masand R and his colleagues to evaluate the Immunization status of rustic youngsters (12-23 months age) of locale Jaipur, Rajasthan and variables impacting it. The aftereffects of the examination were inoculation status was fundamentally impacted by the visit of the wellbeing laborer at home, social class, religion, place of conveyance, and separation from the immunization focus to youngster's home, rank and instruction. Sex of the tyke, birth request and kind of the family had no effect. The most widely recognized purposes behind halfway Immunization (n = 144) were: Parents' 'absent mindedness' of the timetable, unfavorable impacts watched and not reviewed by the wellbeing laborer. The most well-known explanations behind non-inoculation (n = 56) were absence of learning with respect to antibodies and timetable, dread of 'infusion' and occupied in profession.[6]

An examination was led at Department of Pediatrics, University College of Medical Science and Guru Teg Bahadur Hospital, Delhi 110 095, India. by Kumar D and his partners to survey the Immunization status of youngsters admitted to a tertiary-mind doctor's facility of north India and explanations behind fractional Immunization or non-inoculation. The outcomes were out of the 325 kids (148 guys, 177 females), 58 (17.84%) were totally vaccinated, 156 (48%) were somewhat inoculated, and 111 (34.15%) were non-inoculated. Moms were the essential respondents in 84% of the cases. The Immunization card was accessible with 31.3% of the patients. The Immunization status changed fundamentally ($p<0.05$) with sex, training of guardians, urban/provincial foundation, course and place of conveyance. On calculated relapse, place of conveyance [odds proportion (OR): 2.3, 95% certainty interim (CI) 1.3-4.1], maternal training (OR=6.94, 95% CI 3.1-15.1), and religion (OR=1.75, 95% CI 1.2-3.1) were critical ($p<0.05$). The most well-known purposes behind incomplete or non-inoculation were: deficient learning about Immunization or ensuing measurement (n=140, 52.4%); conviction that antibody has reactions (n=77, 28.8%); absence of confidence in inoculation (n=58, 21.7%); or oral polio immunization is the main immunization required (n=56, 20.9%. Most (82.5%) youngsters admitted to a tertiary-mind healing center were halfway vaccinated or non-immunized. [7]

An examination was led at US Centers for Disease Control and Prevention, Global Immunization Division, USA. By Rainey JJ and his partners with the point of evaluating the reasons identified with non-inoculation and under-immunization of kids in low and center pay nations: discoveries from an orderly audit of the distributed writing, 1999-2009. The outcomes were among 202 important articles, we dreamy 838 reasons related with under-inoculation; 379 (45%) were identified with Immunization frameworks, 220 (26%) to family qualities, 181 (22%) to parental demeanors and learning, and 58 (7%) to confinements in inoculation related correspondence and data. Of the 19 reasons preoccupied from 11 distinguished articles portraying the non-inoculated tyke, 6 (32%) were identified with inoculation frameworks, 8 (42%) to parental states of mind and learning, 4 (21%) to

family attributes, and 1 (5%) to correspondence and data is expected to reach under-immunized and unvaccinated children. [8]

A research was conducted at Department of Community Health Sciences, The Aga Khan University, Karachi. By Shaikh S and his colleagues to assess the coverage and predictors of Immunization among children of 1-4 years of age in a rural sub-district of Sindh. The results were the scope for finish immunization was 71.9% (95%CI=68.1%-75.7%). Instructive level of mother (p=0.042), father (p=0.001) and labor at doctor's facility (p=0.006) were altogether connected with the immunization status. Mother's instructive level of halfway or more was the most grounded indicator (OR=12.19, 95%CI=1.57-94.3) for inoculation. Training of guardians, especially mother's instruction was vital determinant of immunization status of the youngsters. What's more, remove from taluka wellbeing office and misguided judgment of guardians were among the fundamental reasons of not getting the kids vaccinated.[9]

A research was conducted at Gondar College of Medical Sciences, Ethiopia by Gedlu E and his colleagues to assess the Immunization coverage and identification of problems associated with Immunization delivery in Gondar, North West Ethiopia. The results were out of the two hundred and thirteen children aged 12-24 months who were enrolled into the study 101 (47.4%) were fully immunized while 64(30%) were not immunized at all. Only 38% of the mothers had received tetanus toxoid Immunization more than once. Reasons given for not immunizing a child were lack of knowledge (39.8%), social problems (38.7%) and various obstacles (22.8%), such as child sickness and health institution related problems.[10]

A study was conducted at Department of Epidemiology, Michigan State University, USA by Siddiqi N and his colleagues for the assessment of EPI (expanded program of immunization) vaccine coverage in a peri-urban area**.** The outcome was forty five percent of the babies were age-fittingly immunized. The TT scope of moms for the list pregnancy was 57.3% for the two measurements of the antibody. In the multivariate model four elements i.e., kind of house development (intermediary marker of financial status), mother's TT inoculation status, years since marriage and guardians' instructive status were observed to be altogether connected with kids' Immunization status.[11]

A study was conducted at Department of Community Medicine, Khyber Medical College, Peshawar, Pakistan by Naeem M and his colleagues to assess the inequity in childhood immunization between urban and rural areas of Peshawar**.** The outcomes were the Immunization scope in urban territories was 76.5% while in country zones it was 48.8%. Reasons for non inoculation were distinctive in urban and country regions. In urban territories, absence of mindfulness and overseers/guardians being occupied were the primary explanation behind non Immunization. In provincial regions, notwithstanding formers, absence of availability to wellbeing focuses and misinterpretations about inoculation were real purposes behind non-Immunization. Guardians were more instructed in urban zones than rustic territories. [12]

OBJECTIVES:

The objectives of the study were to determine:

- The Immunization status of kids admitted to pediatric ward of tertiary care in POF clinic, Wah Cantt.
- The explanations behind incomplete Immunization and non inoculation.
- The sociodemographic factors that influence the inoculation status.

MATERIALS AND METHODS:

STUDY DESIGN: Descriptive.
PLACE OF STUDY: The study was conducted in the pediatric and gynecology wards of POF Hospital Wah Cantt.
DURATION OF STUDY: 6 months i.e. 1st February to 31st July 2013.
SAMPLE SIZE: 200
SAMPLING TECHNIQUE: Convenient.
SAMPLE SELECTION
Inclusion Criteria: Mothers of children aged 1.5 to 2 years.
Exclusion Criteria: Not willing to take part or not able to understand the questionnaire.
DATA COLLECTION PROCEDURE:
Our study included mothers of 18-24 months aged children who presented to POF Hospital Wah Cantt during the study period into pediatric and gynecology wards. A structured questionnaire was prepared in English. The exploration targets and techniques were disclosed to the people and verbal assent was gotten from them before information accumulation. Convenient sampling method was used to select the target population for the survey.

The questionnaire consisted of details about the patients background characteristics (Age, Sex, Education of parents, birth order, religion, place of delivery, family system i.e nuclear or joint), their knowledge about immunization, EPI schedule, and the reasons for partial and non-immunization.

DATA ANALYSIS:

Frequencies and rates were ascertained. Cross classifications were done between place of conveyance, birth arrange, training of father and mother with inoculation status. Chi square test were connected on various sociodemographic variables and inoculation status.

RESULTS

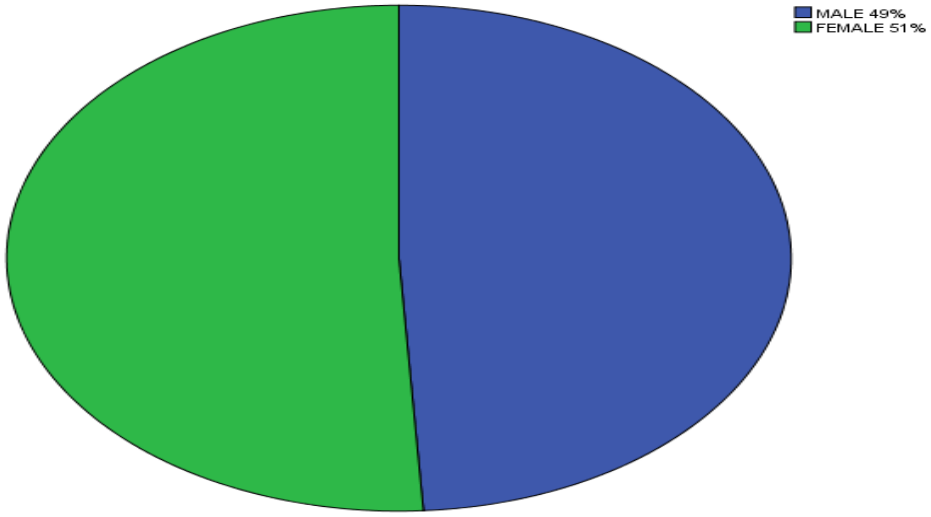

FIGURE.1 GENDER OF CHILD

In Figure green color representing female percentage while blue color representing male percentage and which showed 51% were females and 49% were male children.

Table.1 Availability of Vaccine

Availability	Frequency	Percentage
Yes	154	77.0
No	46	23
Total	200	100

Table showed vaccine was available for 77% of children while for 23% it was unavailable.

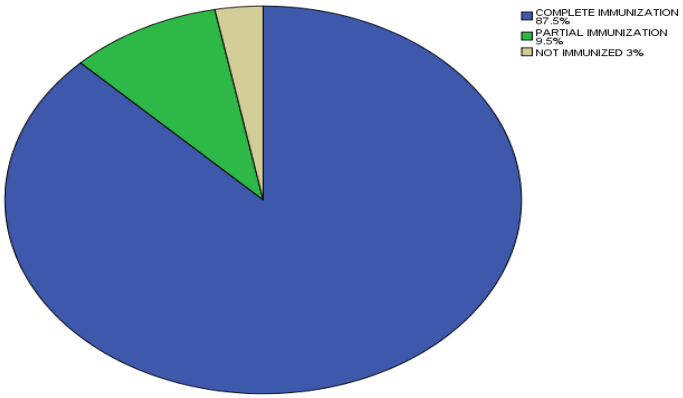

Figure.2 Status of Immunization

Figure showed 87.5% of children were completely immunized, 9.5% were partially immunized while 3% were not at all.

Table.2 Education of Father and Status of Immunization

Education Of Father	Status of Immunization			Total
	Complete Immunization	Partial Immunization	Not Immunized	
Illiterate	5	3	6	14
Primary	29	7	0	36
Secondary	81	5	0	86
Bachelors	54	4	0	58
Masters	6	0	0	6
Total	175	19	6	200

8 cells (53.3%) have expected count less than 5. The minimum expected count is .18.
Cross tabulation and application of Chi square test .000 showed that there is significant association between educational status of father and immunization status.

Table.3 Education of Mother and Status Of Immunization

Education Of Mother	Status of Immunization			Total
	Complete Immunization	Partial Immunization	Not Immunized	
Illiterate	15	10	6	31
Primary	40	3	0	43
Secondary	72	5	0	77
Bachelors	27	1	0	28
Masters	21	0	0	21
Total	175	19	6	200

9 cells (60.0%) have expected count less than 5. The minimum expected count is .63.
Cross tabulation and application of Chi square test.000 showed that there is significant association between educational status of mother and immunization status.

Table.4 Sex of Child and Status of Immunization

Sex Of Child	Status of Immunization			Total
	Complete Immunization	Partial Immunization	Not Immunized	
Male	93	3	2	98
Female	82	16	4	120
Total	175	19	6	200

2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.94.
Cross tabulation and application of Chi square test .006 showed that there is low significant association between gender of the child and immunization status.

Table.5 Birth Order of Children And Status Of Immunization

Birth Order Of Children	Status of Immunization			Total
	Complete Immunization	Partial Immunization	Not Immunized	
Less Than 2	107	11	2	120
Greater Than 2	68	8	4	80
Total	175	19	6	200

2 cells (33.3%) have expected count less than 5. The minimum expected count is .240
Cross tabulation and application of Chi square test .385 showed that there is no significant association between birth order of the child and immunization status.

Table.6 Place of delivery and Status of Immunization

Place of Delivery	Status of Immunization			Total
	Complete Immunization	Partial Immunization	Not Immunized	
Hospital	160	17	0	177
Home	15	2	6	23
Total	175	19	6	200

2 cells (33.3%) have expected count less than 5. The minimum expected count is .69
Cross tabulation and application of Chi square test .000 showed that there is significant association between place of delivery and immunization status.

DISCUSSION:
When we led our examination, the level of completely inoculated kids was 87.5%,of in part immunized 9.5% and of non-vaccinated was 3%. While in the investigation directed at the Dow Medical College Karachi by Sheik and his associates, level of completely immunized kids was 68.3%, 22.9% were mostly inoculated and 8.8% had never been immunized. [5]

The aftereffects of the investigation led at University College Of Medical Science and Guru Teg Bahadur Hospital, Delhi 110 095, India by Kumar D and his partners, were out of 325 kids (148 male, 177 females), 58 (17.84%) were totally vaccinated, 156 (4850 were in part inoculated and 111 (34.15%) were non inoculated while in our examination 49% of kids were male and 51% female. [7]

The exploration directed at Agha Khan University, Karachi by Sheik S and his partners demonstrated 71.9% scope for finish inoculation [9] Another exploration directed at Gondar College of Medical Sciences,Ethiopia by Gedlu E and his partners to survey inoculation scope gave following outcomes; number of kids enlisted into ponder 101 (47.4%) were completely vaccinated while 64 (30%) had never been immunized.[10]

The variables adding to halfway inoculation or non-Immunization in our investigation were that 44.5% of the

guardians considered that lone oral Polio antibody ought to be given to their kids, 33.5% of guardians trusted that inoculation came about it unfriendly impacts, 12.5% thought of it as a commitment to not to inoculate their youngsters, 17% thought about inoculation as vexatious. 23% of guardians trusted that inoculating a wiped out youngster was dangerous.

While in the examination led at Dow Medical College,Karachi by Sheik An and his associates, the essential purpose behind non-inoculation in pediatric patients going to tertiary care focuses were; Lack of information 18.1%, though the most widely recognized optional reason was religious taboos 31.4%.[5]

In the examination led at NIMS Medical College and Hospital, Jaipur by Masnad R and his associates, uncovered the purposes behind halfway inoculation, (n=144) were guardians' "carelessness" of the calendar, unfriendly impacts watched and not reviewed by the wellbeing laborers. The most widely recognized explanation behind non Immunization (n=56) was absence of information in regards to antibodies and calendar, fear of infusions and occupied proficient existences of parents.[6]

Most (82.5%) youngsters admitted to a tertiary care healing center were somewhat vaccinated or non-inoculated. There were 33.5% of the people who trust that the antibodies has symptoms and 66.5% don't, absence of confidence in Immunization were 2%, and the individuals who have confidence in inoculation were 98%, guardians considering that exclusive oral polio immunization was required were 44.5% and the individuals who don't were 55.5%. The most widely recognized purposes behind halfway or non-inoculation were insufficient learning about Immunization or ensuing measurements (n=140, 52.4%) ; conviction that antibodies have reactions (n=77, 28.8%) ; absence of confidence in Immunization (n=58,21.7%) ;or oral polio immunization was the main antibody required (n=56, 20.9%).[7]

In the exploration directed at Gondar College of Medical Sciences,Ethiopia by Gedlu E and his partners the explanations behind not inoculating their kids were; absence of information (39.8%), social issues (38.7%) and different deterrents (22.8%, for example, youngster ailment and wellbeing organization related issues. [10]

The investigation led at Khyber Medical College Peshawar, Pakistan by Naeem M and his associates to survey disparity in youth inoculation amongst urban and country zones of Peshawar, portrayed after outcomes; 76.5% Immunization scope found in urban zones while 48.8% in provincial zones. The explanations behind this imbalance were absence of mindfulness and overseers/guardians being such a great amount of occupied in their normal/proficient lives. What's more, in provincial regions absence of openness to human services focuses and misguided judgments about immunization. [12]

CONCLUSION:

The examination reasoned that Immunization status of the kids was sufficient and there was noteworthy relationship between proficiency status of father and mother and place of conveyance with the inoculation status. The reasons of non and halfway inoculation were detachment, non-accessibility of antibody, considering polio was the main required immunization and badly arranged for the guardians.

RECOMMENDATIONS:

1) Educational status ought to be moved forward
2) Convince moms to have conveyance in the healing facilities.
3) Awareness about EPI ought to be expanded in those ladies who confront issues of unavailability.
4) The specialists ought to give antibodies in those zones which are far from the wellbeing office.
5) Health training ought to be given to the guardians in regards to self and family mind.
6) Increase mindfulness among guardians to welcome the hazard advantage proportion of inoculation.

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