



RESEARCH PAPER

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A sociological study about the characteristics of Measles patients admitted in Tertiary care hospitals, Pakistan

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Abstract

Measles is exceptionally transferable viral sickness that has a tendency to show up in epidemics each 2-3 years and essentially influences the offspring of 2-20 years old influencing incredibly guys. Inoculation gives compelling invulnerability against the sickness. Targets: The goals of the examination were to decide distinctive qualities of Measles in the patients of Tertiary Care Hospital and their relationship with the Vaccination status. Strategies: A cross-sectional examination was completed at Paediatric Wards of Children healing center Lahore, Services Hospital Lahore, PIMS Islamabad and BBH Rawalpindi, amid January and June 2014. A 138 patient example was taken by back to back non likelihood inspecting. A pre-organized survey was filled by the Medical understudies themselves, and the information was dissected by utilizing SPSS V-21. Results: Among Measles cases, 58.7% were Males and 41.3% were females among age bunch between 2months to 13years old with 40.6% of the patients immunized and 59.4% not inoculated. There was huge relationship of creating Measles among patients with family introduction (41.3%). The outcomes in regards to relationship between immunization status and sexual orientation (p-esteem 0.23), home (p-esteem 0.35), father's instruction (p-esteem 0.33) and mother's training (p-esteem 0.69) were irrelevant. Conclusion: Lack of inoculation is by all accounts critical factor, albeit factually inconsequential because of absence of vaccination, for Measles and is expected due to lack of mindfulness of Health offices and somewhat being guardians uneducated.

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Introduction

Prevalence in the World: In 2012, there were 1,220,000 measles passing all around – around 330 passing consistently or 14 passing consistently. Measles inoculation brought about a 78% drop in measles passing in the vicinity of 2000 and 2012 around the world. In 2012, around 84% of the world's youngsters gotten one measurements of measles immunization by their first birthday celebration through routine wellbeing administrations – up from 72% out of 2000. Since 2000, more than 1 billion youngsters in high risk nations were immunized against the illness through mass inoculation campaigns about 145 million of them in 2012. Prevalence in South Asia: The frequency rate per 100,000 populace was 4.14 and there were 36 episodes In Pakistan: 4386 cases in 2011^[1]

For the inoculation, the consolidated immunization for assurance of youngsters against measles, mumps and rubella is called as MMR. MMR immunizations are known about:

- (1) Triviraten Berna immunization
- (2) M-M-R by Merck
- (3) Morupar by Chiron
- (4) Priorix immunization, Glaxo SmithKline Beecham (GSK)
- (5) Trimovax by Pasteur-Merieux Serums

Measles, mumps and rubella are three extremely unsafe irresistible infections which cause an overwhelming sickness, incapacity and passing weight in the creating world. MMR secures kids against contaminations of the upper airway routes yet infrequently may cause a kindhearted type of seeping under the skin because of benevolent thrombocytopenic purpura, partitas, febrile shakings inside 2 weeks of inoculation and much milder types of measles, mumps and rubella as they are live weakened antibodies however the effect of mass vaccination on the disposal of the illnesses has been exhibited around the world.^[2]

A Descriptive cross-sectional examination was led in Nylon wellbeing area portraying the study of disease transmission and clinical qualities of the measles flare-up from 27 January-30 June 2011 in urban ghetto Nylon.

Female and newborn children matured 9-59 months spoke to (63.4%) and (49%) of cases respectively. They gave rash, fever with one of the accompanying side effects of hack, coryza and conjunctivitis. The problematic measles containing immunization scope rate in the Nylon wellbeing locale prompt amassing of defenseless people which combined with the poor natural conditions favored entomb human spread of measles.^[3]

Another case arrangement consider was directed in Nigeria optional social insurance organization assessing clinical profile of kids gave measles. From confirmation of 2522 youngsters 3.1% (77 cases), 33.7% out of 12-23 months, male to female proportion was 1.03:1, 67.5% (52 cases) lived in urban region, 29.8% (23 cases) had history of contact, of them 82.6% (19 cases) contacts were relatives, 80.5% detailed in dry season, 22.1% (17 cases) were inoculated, 77.9% (50 cases) were not immunized, and 35% were not inoculated on account of ailment. Symptoms of fever, cough, coryza, conjunctivitis began 2-8 days before affirmation, 58% created bronchopneumonia as a complication.^[4]

Another engaging investigation was led in France assessing measles disposal endeavors amid January 2008 – December 2011 episode. More than 20,000 cases happened amid this outbreak. Adolescent and youthful grown-ups represented the greater part of cases. Median persistent age ranges from 12-16 year. Most elevated rate was seen in offspring of under 1 year. 5000 patient hospitalized, including 1023 for serious pneumonia. More than 80% cases were not vaccinated, reflecting heterogeneous immunization scope, where pockets of helpless people still remain.^[5]

In another examination assessing measles episode in uprooted populace: an audit of transmission, grimness and mortality related variables. Episode happened in the vicinity of 1979 and 2005 in Asia and Africa. A sum of nine articles depicting 11 measles flare-up examines were chosen. 7 flare-ups were related with poor immunization status (inoculation scope 17-75%). One was dominantly because of one measurement scope.

The period of cases went from 1 month to 39 years. 51% of aggregate cases were more seasoned than 5 years old. Predictable elements related with measles flare-ups were immunization status, living conditions, development of evacuees, nutritious status and adequacy of control measures including inoculation crusades, observation and security situations.^[6]

In another investigation assessing epidemiological, measles episode in Macedonia clinical and lab discoveries and ID of helpless partners. Regardless of the 92-99% national inoculation scope since 2000, Macedonia experienced measles flare-up in 2010-2011. Information of 284 patients were gathered. Most influenced bunch were kids upto 4 years old and youthful/grown-ups of 15 years and more seasoned. Most patient were not inoculated (54.93%). Bronchopneumonia and the runs were the most well-known complications.^[7]

Another case control study, evaluated the variables encouraging flare-ups of measles in locale Kangra of North India. For measurable analysis, odds ratio (OR) and balanced chances proportion with 95% certainty interim (CI) among ladies of kids presented and unexposed to choose attributes were Fig.d. Essential huge factors were instructive status OR 27.63 (CI 9.46-85.16), occupation OR 0.35 (CI 0.16-0.75), spread starting with one individual then onto the next OR 5.60 (95% CI 1.40-25.97). The middle age gathering of case and control youngsters was 9 years (go 5-17 years). 35 (51%) cases and control were under 9 years. The extent of guys were (43,62.3%), females (26, 37.7%), 45 cases (65.2%) had atomic families and we prescribed second dosage of measles 9 (MR) in the vicinity of 5 and 17 years.^[8]

Objectives

1. To examination clinical qualities of measles patients admitted in tertiary care healing centers of Rawalpindi and Lahore.
2. To establish and dissect any relationship existing between vaccination status of patients and socio demographical status of under examination Measles' Patients conceded in tertiary care healing centers of indicated zones.

Material and methods

The goals of the examination were to decide distinctive qualities of Measles in the patients of Tertiary Care Hospital and their relationship with the Vaccination status. A cross-sectional examination was completed at Paediatric Wards of Children healing center Lahore, Services Hospital Lahore, PIMS Islamabad and BBH Rawalpindi, amid January and June 2014. A 138 patient sample size was taken by back to back non likelihood inspecting. A pre-organized survey was filled by the Medical understudies themselves and data was collected through well-structured questionnaire

Arithmetical Methods

The facts were examined on laptop by using SPSS package. The following arithmetical implements were applied:

Proportion

For the accomplishment of recurrence circulation of the individual qualities of the defendants, basic rates were computed. Rates were computed specifically with the assistance of the accompanying:

$$p = \frac{F}{N} * 100$$

Chi – square test

$$\chi^2 = \sum \frac{(o - e)^2}{e}$$

To distinguish the importance of relationship among traits, the computed estimations of chi – square were contrasted and comparing table esteems at 0.05 level of note worthiness at a given level of opportunity. Level of opportunity was ascertained as: a. f. = (r-1) (c-1).

$$\text{Mean } X = \frac{\sum X}{N}$$

$$\text{Gamma Fig.s Gamma} = \frac{NS - ND}{NS + ND}$$

Sample Selection

Inclusion criteria

- (1) All patients of measles were incorporated into this paying little mind to what age or sex they have a place.
- (2) Measles were considered based on fever and rash going on for 3 to 4 days along with the cough, fever and rhinorrhea.

Exclusion Criteria

(1) All doubtful cases were excluded

Data Analysis

Data examination was finished utilizing SPSS form 21. We Fig.d the recurrence of various unmitigated factors and results are displayed in diagram, pie graph and table shape

Results

Out of 138 patients that presents in the given tertiary care healing facilities 58.7% were guys and staying 41.3% were females. Age Distribution of patients went from 2 months to 13 years with a mean age of (34.62 ± 32.6) Months. In 65.2% of patients bosom nourishing had been done while rest of the 34.8% patients were not breastfed. 53.6%, 4.3%, 13% and 29% lived in middleclass, urban rich , bring down class/ghettos and rustic territories separately. At the point when relatives were gotten some information about presentation to measles, 41.3% of patients get introduction from family, 16.7% from neighborhood, 3.6% from school, 6.5% from Hospital, and staying 31.9% patients said that they didn't know from where they got presentation.

Vaccination status of patients demonstrates that 40.6% were immunized and 59.4% were not inoculated, and in those patients which were inoculated 66.7% were the individuals who got just a solitary dosage at nine years old months while rest of 33.3% had gotten second measurement of immunization as well. Fundamental explanations behind not inoculating the tyke was absence of mindfulness (22.5%), while 0.7% said that tyke was sick at the season of immunization, 13% were those youngsters who were under 9 months, 6.5% gave the reason of symptoms of immunization, 12.3% were those that can't achieve social insurance office, other people who didn't know the reason were 5.1%, while 39.8% of patients are the individuals who had gotten their antibodies totally so not material on these patients. The outcomes with respect to relationship between immunization status and sexual orientation (p-esteem 0.23), living arrangement (p-esteem 0.35), father's training (p-esteem 0.33) and mother's instruction (p-esteem 0.69) were inconsequential.

Conspicuous manifestations watched were nearness of rash (81.2%) and cough (81.9%) in patients. Different manifestations watched were Diarrhea (50.7%), Conjunctivitis (29.7%), Rhinorrhea (6.5%) and fits (6.5%).

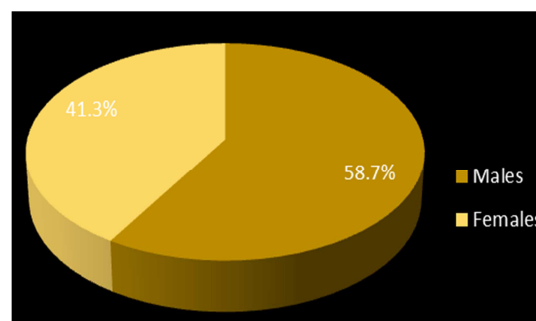


Fig. 1. Gender of Patients.

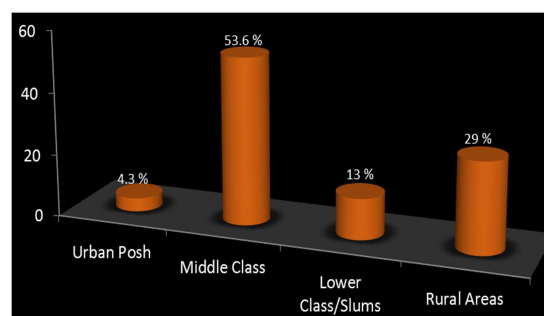


Fig. 4. Residence of Patients.

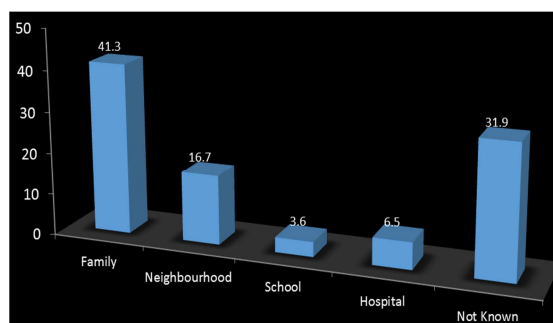


Fig. 5. Exposure to measles.

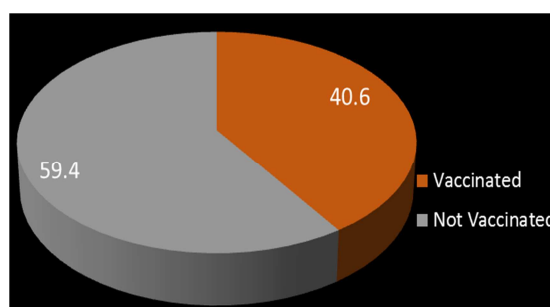


Fig. 6. Vaccinational Status of child.

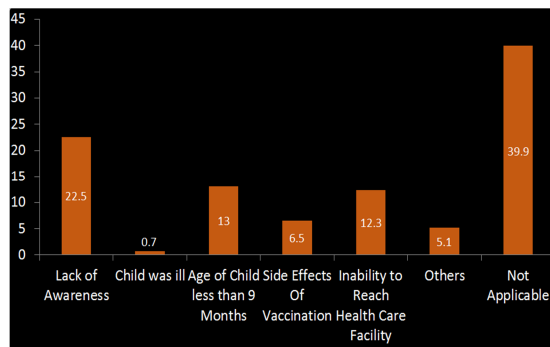


Fig. 8. Reasons for not Vaccinating the child.

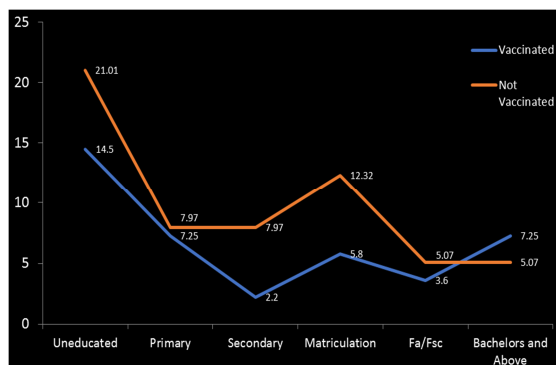


Fig. 9. Education of Father and vaccinal status of child.

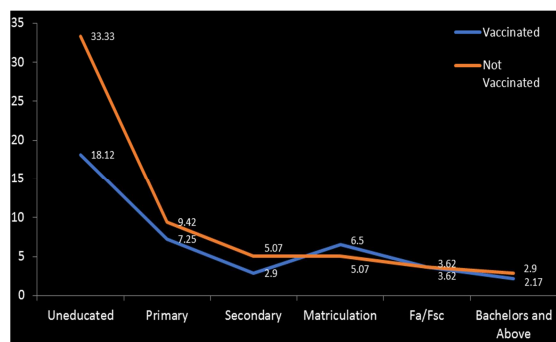


Fig. 10. Education of Mother and Vaccinal status of child.

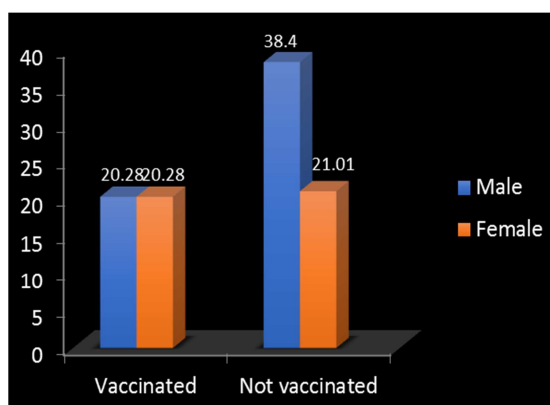


Fig. 11. Relationship of Gender with Vaccinal Status of Patients.

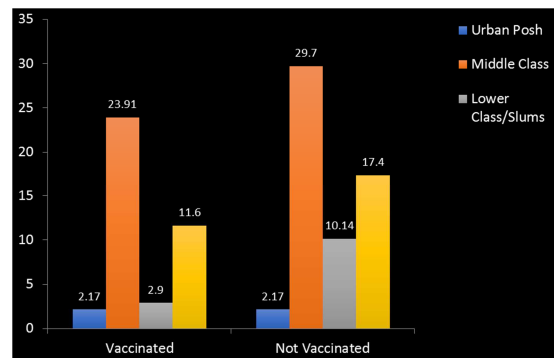


Fig. 12. Relationship of Residence with Vaccinal status of Patients.

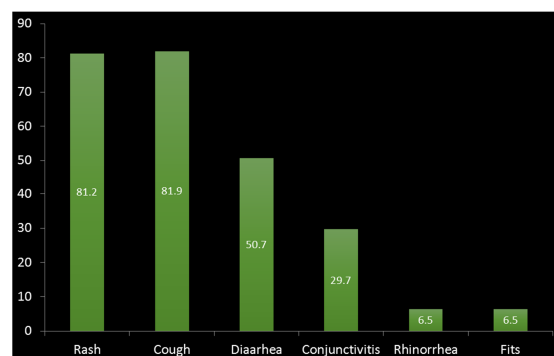


Fig. 13. Frequency of symptoms.

Discussion

Rubeola which is ordinarily known as Measles, is an exceptionally infectious infection especially of respiratory framework, invulnerable framework and skin caused by infection (particularly Paramyxovirus of variety Morbillivirus)[9][10].

Most of patients who endure measles make due through sickness privations. Notwithstanding, the clinical record approves that at times, entanglements may happen like bronchitis and pan encephalitis that is around 1 of every 100,000[11] cases which is normally fatal [12]. The noteworthy danger in such manner is that such patient may spread the malady to an immunocompromised patient who as of now has higher danger of death because of intricacies, for example, goliath cell pneumonia.

The reason for this investigation is to show the qualities of measles patients that are conceded in clinics. In this investigation male to female proportion is 1.42 while in an examination completed in District kangra of north India male to female

proportion was 1.65[8] that was higher than the proportion in this examination. Another investigation was done in France in which male to female proportion is 1.05 that is not as much as the proportion in this study [5].

The vaccination status in our investigation is 40.6%. This when contrasted with examine did in France in which 20.1% [5] are inoculated which is almost half not as much as the incentive in our examination. In a Nigerian optional medicinal services organization, ponder was done in which vaccination status was 22.1% were immunized and 77.9% were not vaccinated [4]. This esteem is likewise not as much as the estimation of our examination. Another examination in area kangra of north India demonstrated that 93.3% patients were vaccinated [8].

In display consider, absence of mindfulness (22.5%), time of tyke under 9 months (13%) , and powerlessness to achieve human services office (12.3%), are the most driving reasons that are given by guardians when we approach about explanations behind not inoculating the kid. However in a Nigerian report most driving reason was kid was sick at time of inoculation (35%)[4] and second driving reason was same like our examination that is time of tyke under 9 months (23.3%)[4]. In another investigation directed by WHO – United states, principle explanation behind not immunizing was philosophical complaint to immunization 76%[13].

Mean age in our investigation is about 34 months (34.2) while in an examination in locale Kangra of north India mean age was 9 yrs[8] and in an examination in Nylon Health District, Douala Cameroon mean age was 56.1 Months[3].

Most extreme number of patients in our investigation was available between 12 two years, while in an examination led in Nepal greatest number of patients were between 5-14 yrs [18]. Another investigation in Nigeria demonstrates that greatest no. of kid is available between 12 to 23 months [4] that was near the estimation of our examination.

In our examination comes about demonstrates that 29% of patients lives in provincial regions while another Nigerian investigation demonstrates that 32.5% [4] patients live in rustic zones which is close to the estimation of our examination.

As indicated by our investigation when we get some information about from where patients were presented to measles greatest 41.3% of patients said that they were uncovered through family while the majority of the people did not know from where they were presented to measles 31.9%. when contrasted with Nigerian investigation in which 82.6% patients said that they are uncovered through family while 17.4% said that they are uncovered through classmate or neighbor [4]. Our investigation demonstrates that through school 3.6% are uncovered while 16.7% through neighborhood.

In conclusion, In our investigation most noticeable Complications watched are loose bowels 50.7%, conjunctivitis 29.7% while in another Nigerian examination looseness of the bowels was available in 15.9% of patients while conjunctivitis is available in 10.20% of patients [4]. In our investigation hack is available in 81.9% of patients while another investigation of Nylon wellbeing area, Douala Cameroon hack was available in 88.9% of patients and conjunctivitis was available in 83% of patients [3] that is particularly higher than the estimation of our examination and even Nigerian investigation.

Conclusions

A considerable lot of the measles patients have not been inoculated according to timetable and restorative prerequisite. It has been learned that non inoculating pattern is in reality inferable from fundamentally absence of medicinal mindfulness when all is said in done masses. However other contributing variables are poor proficiency in our general public and lack of essential restorative offices especially in remote regions/towns. The mindfulness and instruction of guardians is of central significance in controlling regular maladies particularly having pestilence issues. The examination obviously mirrors that offspring of uneducated guardians have endured

a ton when contrasted with those whose parent spouses instruction and mindfulness. In like manner, occupants additionally influences vaccination status as the majority of patients settled in country/remote regions have not been inoculated. Subsequent to above, it is additionally to be noticed that however every one of these affiliations are not measurably noteworthy as Measles trouble is high in our groups because of Low inoculation status.

Recommendations

1. Therapeutic mindfulness projects ought to be directed at various levels of our society through after techniques:-
 - a. Publication of flyers and its dispersion particularly in rustic/remote zones.
 - b. Awareness battle through woman wellbeing guests.
 - c. By broadcasting reputation ads on TVs, radio and print media.
2. Medical Budget of rustic zones ought to be significantly expanded as far as rate when contrasted with urban regions.
3. The general training level of masses settled in rustic zones ought to be upgraded by opening schools/universities.
4. The subtle elements and preventive measures particularly identifying with pestilence sicknesses might be incorporated into syllabus with a view to create mindfulness among kids/older folks.
5. There ought to be Community support as it is vital in preventing, controlling and diminishing the rate of this malady.

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