QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

KNOWLEDGE, ATTITUDES, AND PRACTICES REGARDING THE EXPANDED PROGRAM ON IMMUNIZATION (EPI) AMONG CHILDREN IN DISTRICT FAISALABAD, PUNJAB

Dr. Sajida Parveen[1] , Ambreen[2] , Muhammad Usman[3], Tehreem Nawaz[4]
In-charge/Lecturer, Department of Sociology, Government College women University Faisalabad
sajidaparveen@gcwuf.edu.pk
Visiting lecturer, Department of sociology Government college University Faisalabad
ambreensardar143@gmail.com
Visiting Lecturer, University of Agriculture Faisalabad Sub Campus Toba Tek Singh
usmanrasheed1133@gmail.com (corresponding author)
M.Phil. Scholar, Department of History, Govt. College University Faisalabad.
fatimatehreem919@gmail.com

Abstract

Immunization is a process that protects a person against getting a contagious disease, usually via the use of vaccines. Antibodies wake up the body and act as a "cover" strategy to protect the person from being ill or infected again. The main goals of the present research were to look at what parents know about vaccination, how they feel about it, and what they should do about it. The aim of this study was to look at "An Attitude and Practice of the Parents towards Immunization of their Adolescents." The Faisalabad area was chosen as the study's target population. Researcher used the systematic sampling method to choose 9 union councils. A total of 720 people were chosen from the populace. Structured questionnaires were used to gather data. We used SPSS to look at the data. This research shows that there is a link between the man having control over domestic tasks related to EPI. Pakistani culture is patriarchal, which means that men are in charge of the household and are the most important people. Men have the power to make decisions in the family. That's why most men chose whether or not to vaccinate their children via EPI, and women had no power to question, oppose to, or propose anything against the men's beliefs. The research shows that most of the people who were polled are young, male, and live in rural areas. A large number of them live in joint families. Most of the people who answered the survey had little education, and many of them were unemployed. Most people have modest incomes, while a tiny number make more money. Most parents know a little bit about vaccinations, but a significant number don't know about preventative vaccinations. Set up programs to teach mothers about child health and vaccinations. Add information on immunization to current women's literacy and skills initiatives. Add more mobile immunization units so they can reach homes in distant areas. Add more outreach clinics so that people don't have to travel as far to get health care. Give vaccinators and health workers instruction on how to talk to people and get them involved in the community to make them seem more willing to work together.

Introduction

Children who are healthy and well-fed learn and grow best when they do things in diverse ways and see things from multiple points of view. Getting vaccinated is a safe and effective way to avoid many serious infections. Immunity is the body's ability to fight off a certain sickness or infection. The goal of immunisation is to protect against many diseases and infections by establishing a protective immune system, often via the use of a vaccine. In order to protect against infectious diseases such as diphtheria, pertussis, measles, tetanus, hepatitis B, polio, and tuberculosis, vaccination is administered (WHO, 2010).

Immunization saves billions of children throughout the world from becoming sick or dying every year. Vaccines have gotten rid of smallpox, stopped the wild polio virus from spreading in industrialized countries, and greatly reduced the figure of cases of measles, diphtheria, pertussis, and other infectious illnesses in developing countries. Vaccines protect people and provide them a strong resistance against illnesses that may be spread (CDC, 2009).

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

With the aim of decreasing the number of fatalities and illnesses caused by six vaccine-preventable diseases, Pakistan's expanded immunization program was still going strong in 1978.. The governments of Pakistan worked hard to make this happen. EPI also began offering vaccinations against Hepatitis B in July 2001. In 1980, just 2% of people were protected against polio. By 1990, the government of Pakistan had raised that number to 54%. But even after 26 years of the vaccination, deaths from illnesses that might be avoided are still prevalent in Pakistan. In Pakistan, child mortality is greater than in other poor nations (Mangrio et al., 2008).

The investigators were particularly interested in finding out what parents knew, believed, and felt about immunizing their children since a mother's attitude and belief system directly affect whether or not she has her kid vaccinated. Researchers also wanted to know how minorities felt about childhood vaccinations since in many areas of the globe, minority groups are not given the same access to health care as other groups. There are also big differences between industrialized nations like the U.S. and other Western countries. In the United States, fewer minorities than whites are vaccinated. In a lot of areas of health care, there are big differences and inequality between minorities and other Americans. Infant mortality is a global measure of a country's health. The biggest difference is between blacks and whites. In 1996, the mortality rate for blacks was 14.2 per 1,000 live births, which is over 2½ periods greater than the death rate for whites (6 deaths per 1,000 live births). In 1995, the baby death rate for American Indians as a whole was 9 fatalities per 1,000. However, certain Indian residents had an newborn death rate that was nearly twice as high as the national average (United States, 1999).

In order to protect oneself against infectious diseases and other ailments, it is common practice to immunize oneself, often using a vaccination. In order to protect against infectious diseases including diphtheria, pertussis, measles, tetanus, Hepatitis B, polio, and tuberculosis, the immune system of the body is trained by vaccination (WHO, 2010). Vaccines have been the best way to stop the spread of infectious illnesses since they were first made. They not only lower the number of sick people and the costs of treatment, but they also make life better. This has led to the creation of vaccinations for a lot of illnesses that affect both kids and adults (Trushitkumar et al., 2017).

Since it has a lasting impact, the vaccination rate has been the best indication of public health outcomes and services during the past century. Getting your child vaccinated as a child nearly guarantees that they won't become sick with a lot of serious diseases. Statistics show that it saves 2 million lives per year throughout the globe, thus it is widely acknowledged as a very useful and effective part of scientific therapies (Awadh et al., 2014). Immunizing children is very important for stopping the spread of infectious illnesses and lowering the death rate in children. But in impoverished third-world nations like Pakistan, these vaccination programs face a lot of problems that make them less likely to work (Bukhsh et al., 2018).

Literature Review

Expanded Immunisation Programme—Government of Pakistan (2021) declared that Pakistan embraced the EPI with its aims and tactics, following global and regional priorities. The trial programme started in 1976 and was extended nationwide in 1978. After much debate, the Pakistani government proposed the NISP to finance a comprehensive multi-year plan (CMYP) for immunisation. It requested funding from Gavi, the World Bank, and the Bill & Melinda Gates Foundation. The nation implemented the same donor-approved plan in 2016. NISP intended to boost the EPI project via capital expenditure, programmatic down change, and

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

operational improvement to achieve equitable VPD immunisation coverage. Instead of fragmented financing, the NISP uses the Multiple Donors Trust Fund (MDTF) to co-finance with several funders and the Government of Pakistan (GoP).

Sankar et al. (2018) found that urban Pakistani parents' knowledge and attitude regarding new vaccinations affects their practice and their children's immunisation status. A comparable Indian survey found insufficient parent knowledge and attitude. Bukhsh et al. (2018) found that childhood immunisation reduces infectious illnesses and childhood mortality. These immunisation programmes face significant challenges in emerging third-world nations like Pakistan.

Awadh et al. in Malaysia revealed strong favourable relationships between parents' cognition, particularly mothers', and their habits, corresponding with research performed in China and Iraq (Vonasek et al., 2016). Awadh et al. (2014) mentioned that immunisation rate is the greatest global health consequence and delivery indicator of the previous 100 years since it influence travels far. Childhood immunisation nearly prevents several serious diseases. Statistics show it prevents 2 million fatalities every year, making it a good and effective scientific intervention. Al-Lela et al. (2014) claimed that parents, especially mothers, are the key stakeholders in their children's well-being, therefore their expertise and mindset affect their healthcare measures.

Asimet al. (2012): Yousif et al. (2013) revealed that guardians' lack of knowledge and wrong convictions are the main causes of immunisation failure in Pakistani children. Parents with good immunisation knowledge will have favourable immunisation habits. Devkota et al. (2013) Nisar et al. (2010) argued that Pakistan's patriarchal system masks maternal child healthcare. Nisar et al. (2010) compared Pakistani and Saudi Taif study results. A Karachi survey of 209 mums found that immunisation knowledge was not sufficient to succeed. Malilay et al. (1996) included vaccinations to EPI in high-disease countries. WHO has used a modified regional sampling survey approach to monitor and evaluate immunisation programmes in countries without health infrastructure.

Significance of the Study

KAP studies are instrumental in identifying the level of awareness (knowledge), the perceptions and beliefs (attitudes), and the actual behaviors (practices) of a population concerning a specific health issue. By understanding these three domains, health programs can pinpoint the barriers and facilitators to the adoption of recommended health practices, such as childhood immunization. The insights gained from KAP studies are invaluable for designing targeted interventions and communication strategies aimed at enhancing immunization coverage, making them an essential tool for public health practitioners. This study focuses on District Faisalabad in Punjab, a region with a significant population and a diverse socio-economic and health profile. Faisalabad exhibits a blend of agri-industrial activities and a notable urban and rural population distribution. The healthcare infrastructure in Faisalabad comprises a mix of public and private facilities, providing a range of services to its residents. Like many districts in Pakistan, Faisalabad also experiences poverty, with variations in poverty rates between its urban and rural areas. Conducting a KAP study on the EPI in District Faisalabad is essential for several reasons. It will provide specific insights into the knowledge levels, attitudes, and practices of parents in this district concerning child immunization, which may not be fully captured by broader national or provincial studies. Identifying the unique barriers to immunization uptake prevalent in Faisalabad can inform the development of targeted strategies to improve immunization coverage rates. Furthermore, this study will

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

contribute to a more nuanced understanding of immunization behaviors in Pakistan, particularly within a large district of Punjab that encompasses both urban and rural populations. The findings of a localized KAP study in Faisalabad can offer actionable data to the district health authorities, enabling them to refine and enhance the effectiveness of the EPI program in their specific context.

Objective

- To study the parent's knowledge practice. attitude regarding the immunization

Methodology

The Faisalabad district was selected as the focus of this study. In this study, every respondent from the population was included as a sample for this research, regardless of their experience or knowledge related to immunization practices and behaviors. The researcher employed multi-stage sampling techniques to define the trial size for this study. Nine union councils were selected utilizing the systematic sampling technique. To implement the Systematic Random Sampling Technique, begin by selecting the first number at random. The researcher employed convenient sampling of the union councils to select the final respondents for this research. A overall of 720 respondents were particular from the total population. To obtain the most accurate information regarding the EPI, the structured questions are designed to ensure that the respondent feels the greatest opportunity and provides a response that reflects their own preferences. The entire process was conducted with the assistance of a software program known as SPSS. Using SPSS, we generated tables and frequencies, and conducted an analysis utilizing the Binary Logistic Regression test.

Results and Discussion

Univariate Analysis

Section 1: Socio-Economic features of the respondents		
Characteristics	**Frequency**	**Percentage**
Gender		
Male	475	66.0
Female	245	44.0
Age		
Below then 20	245	34.0
20-35	322	44.7
Above 35	153	21.3
Type of family		
Nuclear	245	34.0
Joint	322	44.7
Extended	153	21.3
Place of Residence		
Urban	243	33.8
Rural	477	66.3
Educational level of the respondents		
Illiterate	385	53.4
Primary	146	20.2
Middle	129	17.9
Secondary	91	12.6

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

Intermediate	31	4.3
Graduation and All Above	20	8.3
Occupation of the respondents		
Unemployed	409	56.6
Self Employed	170	23.6
Govt. Employed	116	16.1
Privately Employed	84	11.6
Labor	59	8.1
Income of the respondents		
Up to 40,000	135	18.7
40001 to 80000	379	52.6
80001 to 120000	165	22.8
Above 120000	41	5.9
Total	**720**	**100.0**

The data gives a thorough picture of 720 respondents, including their gender, age, family type, where they live, their education, job, and income levels. This data shows that the people that were polled come from a wide range of backgrounds and income levels. Most of the people who answered the survey were men (66.0%, or 475 people), while 34.0% (245 people) were women. This means that there are roughly twice as many men as females in the sample that was polled. This kind of distribution might show how easy it is for male respondents to do the poll, how ready they are to do it, or how available they are. The age breakdown reveals that the biggest group is those between the ages of 20 and 35, with 44.7% (322 responses) in this category. After then, 34.0% (245 people) of respondents were under 20 years old, while 21.3% (153 people) were over 35 years old. The data shows that most of the people who answered are young adults or teenagers, which is a time when people are frequently quite involved in social and economic activities. Joint families make up the largest group of families in the sample, with 44.7% (322 respondents) among them. There are 245 people who said they lived in nuclear families (34.0%), and 153 people who said they lived in extended families (21.3%). This shows that conventional family structures are still the most common, although nuclear family structures are still quite common. A total of 477 people, or 66.3%, live in rural regions, while 243 people, or 33.8%, live in cities. The fact that most of the people in the sample live in rural areas might affect socio-economic indices including income levels, job possibilities, and levels of education. There is a big difference in the education levels of the people who answered the survey. 53.4% (385 people) were not educated. The rest of the respondents had different levels of education: 20.2% have elementary school, 17.9% have middle school, 12.6% have secondary school, 4.3% have intermediate school, and 8.3% have graduated or more. The data shows that more than half of the sample did not go to school, which might affect their job prospects and salary.

Unemployment is the most prevalent status among respondents, with 56.6% (409 people) being jobless. The remainder of them work for themselves (23.6%), the government (16.1%), a commercial company (11.6%), or do labor work (8.1%). A high unemployment rate is a significant social and economic trait of the people who were questioned. There are several income levels, however the biggest group of those that answered, 52.6% (379 people), makes between 40,001 and 80,000 PKR a month. 18.7% (135 respondents) make up to 40,000 PKR, 22.8% (165 respondents) make between 80,001 and 120,000 PKR, and just 5.9% (41

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

respondents) make more than 120,000 PKR. This illustrates that most people make a reasonable amount of money, while fewer people make more than that. The people who answered the survey are mostly men, live in rural areas, and are relatively young. A large number of them live in joint families. There are a lot of people that are unemployed and not educated. Most of the people who answered make a decent amount of money, while just a tiny number make a lot of money. These social and economic traits provide us a basic knowledge of the people we surveyed and set the scene for further research that is related to the study's goals.

Section 2: Parent's Knowledge, Practice, Attitude towards the Immunization		
Characteristics	**Frequency**	**Percentage**
Distribution of children by frequency and percentage"		
0-3	337	46.8
4-6	139	19.3
Above 6	244	33.9
Level of knowledge on immunization		
Yes	509	70.7
No	211	29.3
Vaccination status of respondents' children		
Fully vaccinated	356	49.4
Partially Vaccinated	334	46.4
Unvaccinated	30	4.2
Perceived reasons for non-vaccination among respondents		
Non cooperative Services	135	18.7
Lack of awareness	379	52.6
Lack of interest	165	22.8
Lack of trust on Services	41	5.9
Distance of nearest health facility from respondents' residence		
Less than 1-5 Km	145	20.1
Greater than 1-5 Km	575	79.9
Awareness of preventive vaccination among respondents		
Yes	337	46.8
No	139	19.3
Do not know	244	33.9
Satisfaction with vaccination among respondents		
Strongly satisfied	441	61.2
Satisfied	122	16.9
Dissatisfied	94	13.0
Strongly dissatisfied	75	10.4
Neutral	12	1.6
Respondents' behavior in support of vaccination		
Yes	346	48.1
No	214	29.7
Don't Know	160	22.2
Sample distribution for adverse effects after immunization		
Yes	398	55.3

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

No	322	44.7
Perceived side effects of vaccination among respondents		
Rash	103	14.3
Headache	135	18.7
Fever	430	59.7
Diarrhea	52	7.2
Post-vaccination side effects among respondents		
Contact with Doctor	356	49.4
Adapt precaution at home	334	46.4
Do nothing	30	4.2
Contact with Doctor	356	49.4
Awareness of post-vaccination precautions among respondents		
Yes	466	64.7
No	254	35.3
Perceived importance of vaccination among respondents		
Yes	398	55.3
No	322	44.7
Respondents' views on vaccination effectiveness for all age groups		
Yes	398	55.3
No	322	44.7
Experience of vaccination at home among respondents		
Yes	466	64.7
No	254	35.3
Respondents' views on the most appropriate place for vaccination		
Home	466	64.7
Health center	254	35.3
Preference of type of vaccination used among respondents		
Public vaccination	547	76.0
Private vaccination	173	24.0
Respondents' views on the most skilled person for administering vaccination to children		
Doctors	123	17.2
L.H.V	120	16.6
Vaccinator	374	51.9
LHW	103	14.3
Respondents' perceptions regarding staff behavior		
Cooperative behavior	346	48.1
Non cooperative behavior	214	29.7
Don't Know	160	22.2
Behavioral response to delayed vaccination among respondents		
Wait	337	46.8
Call	139	19.3
Visit to health facility	244	33.9
Respondents' views on the role of media in raising vaccination awareness		
Yes	515	71.5

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

No	205	28.5
Respondents' views on the best medium for promoting immunization		
Education of people	135	18.7
Education of mother	379	52.6
Promotion through media	165	22.8
Improving facilities	41	5.9
Total	**720**	**100.0**

The survey encompasses a sample of 720 respondents, examining their awareness, practices, attitudes, and challenges associated with childhood immunization. The family sizes of respondents show considerable variation: 46.8% (337) report having 0–3 children, 19.3% (139) have 4–6 children, and 33.9% (244) indicate having more than 6 children. This suggests a notable percentage of larger households within the examined demographic. A significant portion of the respondents, specifically 70.7% (509 individuals), possess knowledge regarding immunization, whereas 29.3% (211 individuals) lack this knowledge. This indicates that although awareness levels are elevated, almost one-third of parents possess insufficient understanding of the topic. A significant proportion of children, specifically 49.4%, have received full vaccinations, while 46.4% are partially vaccinated, leaving 4.2% unvaccinated. This indicates significant advancements in vaccination coverage while also revealing existing deficiencies. The primary reason identified for children not receiving vaccinations is a lack of awareness, accounting for 52.6%. This is followed by a lack of interest at 22.8%, non-cooperative services at 18.7%, and a lack of trust in services at 5.9%. A significant portion, specifically 79.9%, resides at a distance greater than 1–5 km from a health facility, whereas 20.1% are located within that same distance. The proximity of individuals can affect both the accessibility and regularity of vaccination services. A mere 46.8% possess awareness regarding preventive vaccination for diseases, while 19.3% lack this knowledge, and 33.9% remain uncertain. This suggests that, even among individuals knowledgeable about immunization, there is a deficiency in comprehensive preventive understanding.

A significant majority of respondents express strong satisfaction (61.2%) or satisfaction (16.9%) with the vaccination services provided. Nonetheless, 13.0% express dissatisfaction, 10.4% indicate strong dissatisfaction, and 1.6% remain neutral. A significant portion, specifically 48.1%, supports vaccination, while 29.7% express opposition, and 22.2% remain uncertain. This indicates a varied perspective that may influence adoption rates. Just over half of the participants (55.3%) reported experiencing side effects following vaccination, whereas 44.7% did not report any side effects. The prevalent adverse effects include fever (59.7%), headache (18.7%), rash (14.3%), and diarrhea (7.2%). In response to experiencing side effects, 49.4% seek medical advice, 46.4% implement home precautions, while 4.2% take no action. A significant portion (64.7%) is aware of the essential precautions to take following vaccination, while 35.3% lack this knowledge. A majority of participants (55.3%) consider vaccination to be significant and effective across all age demographics, whereas 44.7% hold a differing perspective. A significant majority, specifically 64.7%, have engaged in home vaccination practices, whereas 35.3% have not participated in this activity. A majority of respondents, specifically 64.7%, view home as the optimal location for vaccination, whereas 35.3% favor health centers. A significant portion, specifically 76.0%, utilizes public vaccination services, whereas 24.0% choose private providers. More than half of the respondents (51.9%) expressed a preference for vaccinators, with doctors following at 17.2%, LHV at 16.6%, and LHW at 14.3%. Nearly half of the respondents (48.1%) perceive the staff

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

as cooperative, while 29.7% view them as non-cooperative, and 22.2% remain uncertain. In instances where vaccinators do not arrive as scheduled, 46.8% of individuals choose to wait, 33.9% opt to visit a health facility, and 19.3% make a phone call to reach them. A significant majority (71.5%) hold the view that the media contributes positively to vaccination awareness, whereas 28.5% disagree. A majority of respondents, specifically 52.6%, identify the education of mothers as the most effective strategy. This is followed by media promotion at 22.8%, general public education at 18.7%, and enhancements to facilities at 5.9%. The results reveal a strong overall awareness, yet there are deficiencies in specific preventive knowledge. Satisfaction levels vary, with a clear inclination towards home-based services, dependence on public health providers, and considerable experiences related to side effects. Media and maternal education play crucial roles in enhancing immunization coverage and shaping attitudes.

Bivariate Analysis (Hypothesis Testing)

Hypothesis No1

Association between parents' place of residence and vaccination of their children

Hypothesis No2

Association between parents' education and vaccination status of their children

Hypothesis No3

Association between parental economic status and vaccination of children

Binary Logistic Regression for Factors Associated with Awareness of the Expanded Program on Immunization (EPI)

Variables	Participants (N=720)		OR (95%, CI)
	Diarrhea Status		
	Yes, n=509 N (%)	No, n=211 N (%)	
Place of residence			
Urban	232(45.5)	87(41.1)	1.20(0.75-0.93)**
Rural	277(54.5)	124(58.9)	1
Highest Educational Level			
No education	275(54.2)	117(55.8)	1
Primary	25(5.0)	14(6.5)	1.40(1.17-1.68)**
Secondary	42(8.2)	19(9.1)	1.76(1.34-2.32)**
Higher	67(13.3)	21(9.8)	1.50(1.17-1.92)**
Wealth index			
Below 20000	130(26.0)	57(27.0)	1
21000-30000	117(24.0)	56(26.9)	1.46(1.23-1.7)**
31000-40000	139(28.0)	53(25.3)	1.60(1.35-1.91)**
Above 40000	133(27.0)	45(20.8)	1.51(1.26-1.80)**

The study aimed to investigate how factors such as parents' residence place, education status, and economic status affect the vaccination rates of their children. Analysis was conducted using

QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

binary logistic regression to pinpoint predictors linked to awareness of the Expanded Program on Immunization (EPI). The analysis of hypothesis testing reveals a correlation between individuals' socioeconomic factors and their awareness of the Expanded Program on Immunization (EPI). In this analysis, the researcher employed a Binary logistic regression model to examine the data, with EPI designated as the dependent variable. The findings indicate that individuals from urban areas possess a greater understanding of the EPI compared to those from rural areas. In which study did the researcher select the rural option as a reference category? (OR=1.20, 95% CI = 0.75-0.93). Individuals belonging to lower wealth index categories exhibit a reduced level of consciousness regarding EPI when compared to those in higher wealth index classifications. In the study, the researcher utilized the option below 20000 as a reference category (OR=1.46, 95% CI = 1.23-1.73). The uneducated individuals possess a lower level of understanding regarding the Expanded Program on Immunization (EPI) when compared to their educated counterparts. In which the researcher utilized the uneducated option as a reference category. Odds Ratio equals 1.40 with a 95% Confidence Interval ranging from 1.17 to 1.68. The results collectively validate all three hypotheses. The factors of urban living, elevated parental education levels, and improved economic conditions play a crucial role in shaping awareness regarding immunization initiatives, subsequently linked to increased vaccination rates among children. The relationship between education and income was notably robust, underscoring the significance of socioeconomic progress and educational initiatives in enhancing child health results via vaccination.

Conclusion

The study highlights that the surveyed population is predominantly male, rural, and young, with a considerable proportion living in joint families. Educational attainment is generally low, with more than half of respondents being uneducated, and unemployment is prevalent. Income levels are moderate for the majority, but a small fraction earns higher wages. Regarding immunization, most parents have general knowledge about vaccination, yet a notable segment lacks awareness of preventive vaccination. While nearly half of the children are fully vaccinated, a significant portion are only partially vaccinated, and some remain unvaccinated. The leading cause of non-vaccination is lack of awareness, followed by lack of interest and non-cooperative health services. Attitudinally, many parents favor vaccination, and satisfaction with services is generally high, but there is still mistrust and dissatisfaction among a minority. Side effects such as fever, headache, and rash are common, but most parents respond by consulting a doctor or taking precautions at home. Access to health facilities is a barrier for many, as the majority live more than 1–5 km from a vaccination center. There is also a strong preference for home-based vaccination services and reliance on public-sector health facilities. Hypothesis testing confirmed that urban residence, higher parental education, and better economic status significantly improve awareness of the Expanded Program on Immunization (EPI) and, by implication, vaccination rates. Education—particularly secondary-level attainment—and moderate to high income showed the strongest association with positive vaccination outcomes. Conduct targeted awareness campaigns in rural areas focusing on the importance, schedule, and benefits of vaccination. Utilize local leaders, religious figures, and community health workers to build trust. Implement mother education programs on child health and immunization. Integrate immunization awareness into existing women’s literacy and skills programs. Expand mobile vaccination units to reach remote rural households. Increase the number of outreach clinics to reduce travel distance to health facilities. Provide training to

ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 02 (2025)

vaccinators and health staff on communication and community engagement to improve perceived cooperativeness. Ensure consistent vaccine supply and maintain timely services to build reliability. Educate parents on common post-vaccination reactions and home management. Provide a helpline or rapid consultation service for addressing adverse events.

References

Al-Lela OQ, Bahari MB, Al-Qazaz HK, Salih MR, Jamshed SQ, Elkalmi RM. Are parents' knowledge and practice regarding immunization related to pediatrics' immunization compliance? A mixed method study. BMC pediatrics 2014; 14(1): 20.

Al-lela OQB, Bahari MB, Al-abbassi MG, Basher AY. Develop ment of a questionnaire on knowledge, attitude and practice about immunization among Iraqi parents. J Public Health 2011; 19(6): 497–503. doi: 10.1007/s10389-011-0411-9.

Asim M, Malik N, Yousaf H, Gillani I, Habib N. An assessment of parental knowledge, belief and attitude toward childhood immunization among minorities in rural areas of district Faisalabad, Pakistan. Med iter J Soc Sci 2012; 3(1): 153-159.

Awadh AI, Hassali MA, Al-lela OQ, Bux SH, Elkalmi RM, Hadi H. Immunization knowledge and practice among Malaysian parents: A questionnaire development and pilot-testing. BMC public health 2014; 14(1): 1107.

Awadh AI, Hassali MA, Al-lela OQ, Bux SH, Elkalmi RM, Hadi H. Immunization knowledge and practice among Malaysian parents: A questionnaire development and pilot-testing. BMC public health 2014; 14(1): 1107.

Bukhsh A, Rehman H, Mallhi TH, Ata H, Rehman IU. Parents' attitude, awareness and behaviour towards influenza vaccination in Pakistan. Hum. Vaccines Immunother 2018; 14(4): 952-957.

CDC. 2009. NationalCenter for Immunization and Respiratory Diseases (CDC). Department of Health and Human Services.http://www.cdc.gov/vaccines/events/niam/default.htm

Devkota S, Simkhada P, van Teijlingen E, Rai LD. Parents' Knowledge and Practices to childhood immunisation in Nepal: implications for health policy. Health Sci J 2013; 7(4): 370.

Expanded Immunization Programme -Government of Pakistan. (2021, March 1). Retrieved from EPI Background: http://www.epi.gov.pk/about-epi/our-background/

Malilay, J., Flanders, W., & Brogan, D. (1996). A modified cluster-sampling method for post-disaster rapid assessment of needs. Bulletin of the World Health Organization, pp. 399-405.

Mangrio, N.K., M. M. Alam, B. T. Shaikh. 2008. Is Expanded Program on Immunization Doing Enough? Viewpoint of Health. Journal of Pakistan Medical Association. 58(2):64-67

Mathew JL. Inequity in childhood immunization in India: a systematic review. Indian Pediatr 2012; 49(3): 203-223.

Nisar N, Mirza M, Qadri MH. Knowledge, Attitude and Practices of mothers regardingimmunization of one year old child at Mawatch Goth, Kemari Town, Karachi. Pak J Med Sci 2010; 26(1): 183-186.

Sankar BK, Rameh S, Sunny A. A Study to Assess and Correlate the Knowledge, Attitude and Practices of Vaccination among Mothers with Educational Status in a Teaching Hospital in South India. Prim Health Care 2018; 8(290): 2167-1079.

The Expanded Program on Immunization and the National Immunization Support Project (NISP): An Economic Analysis. The World Bank Group. (2016).

Trushitkumar BP, Pathak R, Singh R, Alves V, Mahesh NM, Chaluvaraj TS et al. Assessment of parents' knowledge, attitude and practice about child vaccination in rural areas. J. Pharm. Res 2017; 16(3): 229-236.

United States.1999. United States Department of Health and Human Services. The Initiative to Eliminate Racial and Ethnic Disparities in Health. Available http://raceandhealth.hhs.gov/home.htm.

Vonasek BJ, Bajunirwe F, Jacobson LE, Twesigye L, Dahm J, Grant MJ et al. Do maternal knowledge and attitudes towards childhood immunizations in rural Uganda correlate with complete childhood vaccination?. PloS one 2016; 11(2): e0150131.

WHO. 2010. World health organization (WHO). Available at this cite. Assessed date 22/06/2012. http://www.who.int/topics/immunization/en/

Yousif M, Albarraq A, Abdallah M, Elbur A. Parents' knowledge and attitudes on childhood immunization, Taif, Saudi Arabia. J Vaccines Vaccin 2013; 5(215): 2.