

The Relationship Between Mothers' Interests and Multiple Immunization in Rejoslamet Village

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Abstract

Immunization is a proactive measure to boost the immune system's ability to ward off or significantly reduce the severity of certain illnesses. Infant mortality rate (IMR) and vaccine-preventable disease (VPD3I) risk are both exacerbated by children's incomplete repeated vaccinations. Knowledge, attitude, and interest all have a role on how well a person completes multiple immunizations. community, family, and traditional practices; family variables include mother age, education, hobbies, income, and profession; and community aspects include health care resources. When it comes to making sure that kids are vaccinated, maternal interests play a big role. Using observational analytics and a cross-sectional research methodology, this study seeks to ascertain the association between mother interest and the completion of various vaccines for children at the Rejoslamet Integrated Health Post (Integrated Health Post) in Jombang District. Structured questions on maternal interest in the completeness of multiple vaccines and studying the KIA book were added in the questionnaire that was given to 42 women at the Rejoslamet village Integrated Health Post (Integrated Health Post), Jombang District. A combination of successive sampling and univariate and bivariate statistical analysis was used to analyze the collected data. At the Rejoslamet village Integrated Health Post (Integrated Health Post), Jombang District, a p value of 0.000 indicated a significant association between mother desire and the completion of multiple immunizations for children.

Introduction

A person may be immunized against specific illnesses in the hopes that they would either not become sick at all or just have minimal symptoms when exposed to them (Kemenkes, No. 12, 2017); (Fajriah, Munir, & Lestari, 2021); (Arpen & Afnas, 2023). For optimal protection, children must receive complete multiple immunizations from birth to 12 months of age, as well as follow-up immunizations at 18 months of age, during school, and as adults (UNICEF, 2023); (Suartini, Erawati, & Budiani, 2025); (Maulani, Ristianti, & Yasfa, 2023). Incomplete multiple immunizations in children can increase the risk of contracting vaccine-preventable diseases (PD3I) and increase the under-five mortality rate (IMR) (Lestiani, Hilda, & Putri, 2023); (Rahmadhani, Parellangi, & Syukur, 2024)

There is data on multiple immunization coverage. Data from the United Children's Fund (UNICEF) estimates that 67 million children did not receive complete multiple immunizations from 2019 to 2021, with 8.3 million of them in East Asia and the Pacific.

According to Ministry of Health data, over the past two years, from 2020 to 2021, complete multiple immunization coverage for infants has dropped drastically. In 2020, the immunization target was 92% of 4,416,309 children, or 4,063,004, but coverage was achieved at 84%, or 3,709,670. In 2021, the immunization target was 93% of 4,148,867 children, or 3,858,446, but coverage was achieved at 84.2%, or 3,493,346 children. Approximately 1.7 million infants did not receive multiple immunizations between 2019 and 2021. Immunization data in Rejoslamet Village, According to the statistics collected over the last three months in the Pulo Lor Jombang Community Health Center's service area in Jombang Regency in 2022, the percentage of toddlers who got IDL in October was 96.43%, in November it was 96.43%, and in December it was 98.57%.

A person's interests, attitudes, beliefs, values, traditions, health care, family, and community all have a role in whether or not comprehensive multiple vaccination is successful. A mother's age, education, wealth, and profession are all family aspects that could influence the outcome (Afriza, Handayani, & Djannah, 2023); (Pohan, Harahap, & Hadi, 2023); (Sari, Sayuti, & Andri, 2022); (Rachman & Hapsari, 2022); (Adiwiharyanto, Setiawan, Widjanarko, Sutiningsih, & Musthofa, 2022)

There is research on the relationship between maternal characteristics and the completeness of children's multiple immunizations. A study in the Buntu Community Health Center (Puskesmas) working area, Gadangbatu Sillanan District, Tanah Toraja Regency, showed that mothers with better education had a better understanding of the importance of immunization.

Another study in Malangsari Village, Tanjunganom District, Nganjuk Regency, also showed that complete multiple immunization status was related to the characteristics of age, education, parity, and maternal interests. However, no research has been conducted at the Rejoslamet village Integrated Health Post (Integrated Health Post) in Jombang District. Based on this background, the researcher wanted to conduct a study on the relationship between maternal interests and the completeness of children's multiple immunizations at the Rejoslamet village Integrated Health Post (Integrated Health Post) in Jombang District.

Method

The research used a cross-sectional design and was based on observations. At the Pulo Lor Community Health Center (Puskesmas) working area, Jombang District, it was carried out at the Integrated Health Service Post (Integrated Health Post) with 42 participants. Mothers whose children were between the ages of 9 months and 5 years old and who were willing to take part in the research were included if they attended the Rejoslamet Integrated Health Post. One of the criteria for elimination was incomplete data. In this research, maternal interest served as the independent variable. Full series of vaccines served as the dependent variable. A KIA book and a questionnaire with structured questions on mothers' interest in the completeness of various validated immunizations served as the study instrument. There was strong interest and bad interest in the study's outcomes.

After that, SPSS (Statistical Package for the Social Sciences, Version 27) was used to process the data. Data from categorical scales are shown as frequencies and percentages, whilst vulnerable (min-max) and mean \pm SD are used to portray numerical scales in univariate analysis. The chi-square test was used in a bivariate study to find out if there is a correlation between mothers' interest and their children's adherence to their recommended schedule of numerous vaccines.

Result and Discussion

1. Result

Research conducted on mothers with children aged 9 months-5 years at the Deenanayar Pulo Lor Integrated Health Post, Jombang District in August 2025 obtained a total of 42 respondents with an average mother age of 21-35 years and an average child age of 2 months-5 years.

Table 1
 Characteristics of Research Subjects

| Characteristics | Number (n) | Percentage (%) |
|--|------------|----------------|
| Maternal Age (years) | | |
| < 20 | 1 | 2.4 |
| 21-35 | 36 | 85.7 |
| > 35 | 5 | 11.9 |
| Education | | |
| Elementary School/equivalent | 1 | 2.4 |
| Junior High School/equivalent | 14 | 33.3 |
| Senior High School/equivalent | 21 | 50 |
| College | 6 | 6 |
| Employed | | |
| Employed | 12 | 28.6 |
| Unemployed | 30 | 71.4 |
| Activity in Attending Integrated Health Posts | | |
| Always | 41 | 97.6 |
| Sometimes | 1 | 2.4 |

Table 1 shows the characteristics showing that almost all of them are aged 21-35 years (85.7%), half of the respondents have a high school education/equivalent (50%), and almost all respondents are always active in visiting Integrated Health Post (97.6%).

Table 2
 Mothers' Interests Regarding Complete Multiple Immunization

| Mother's Interest | Number (n) | Percentage (%) |
|-------------------|------------|----------------|
| Interest | 30 | 71.4 |
| Less | 12 | 28.6 |
| Total | 42 | 100 |

Based on Table 2 regarding mothers' interest scores regarding multiple immunization, 30 mothers (71.4%) had a good interest, while the remaining 12 respondents (28.6%) had a poor interest.

Table 3
 Implementation of multiple immunization

| Multiple Immunizations | Number (n) | Percentage (%) |
|------------------------|------------|----------------|
| Complete | 31 | 73.8 |
| Incomplete | 11 | 26.2 |
| Total | 42 | 100 |

Based on Table 3 regarding the implementation of multiple immunizations, the results show that the majority of respondents (31 people) had complete multiple immunizations. This data was obtained from the KIA book brought by their mothers. An interesting fact is that almost half of the respondents (26.2%) had incomplete immunizations.

Analysis of the relationship between maternal interest and the completeness of children's multiple immunizations shows that 63 samples with poor interest received multiple immunizations on time, compared to 8 samples with good interest.

Table 4
 Relationship between maternal interest and the completeness of children's multiple immunizations

| | Complete Multiple Immunization | Incomplete Multiple Immunization | P | Fisher exact |
|---------------|--------------------------------|----------------------------------|-------|--------------|
| Good Interest | 30 | 0 | 0.000 | 0.000 |
| Poor interest | 1 | 11 | | |

The predicted value was less than 5 (more than 20% of the cell count), hence Fisher's exact test was used, according to the chi-square test findings. The results of the Fisher's exact test showed a significant link between mother interest and the completion of children's multiple immunizations at the Rejoslamet hamlet Integrated Health Post, Jombang District. The p value was 0.000, which is more than the significance level of 0.05.

2. Discussion

The results of this study indicate that of the 42 respondents, the average age of mothers visiting the integrated health post (Integrated Health Post) was 21-35 years. The highest level of education for mothers was high school (50%), and 30 (71.4%) were unemployed. This study had a younger average age and unemployed mothers compared to research conducted by Sigit et al.⁹ at the Bandar Khalipah Community Health Center, which showed respondents were >30 (77.3%), with the highest level of education being high school (81.8%), employed (62.8%), and children aged 18 months. Another study

conducted by Astuti¹⁰ at the Tomuan Community Health Center in Pematang Siantar City showed the average age of respondents was 20-35 (48%), with most mothers having few children (1-2) (68%), most having higher education (98%), and being unemployed (82%).

Based on the maternal interest score regarding multiple immunization, it shows that 30 (71.4%) mothers have good interest and 12 (28.6%) have poor interest. The lack of interest in immunization is caused by mothers who have children and bring them to the integrated health post only following the rules or directions given by the cadre mothers without knowing the types and benefits of the immunization. This study aligns with previous research done in the Madurejo Pangkalan Bun Community Health Center Working Area by Hasanah et al. ¹¹. In that study, 56 out of 73 moms (or 76.7% of the total) expressed a strong desire in receiving numerous vaccines. On the other hand, there are findings that contradict this, as the study done by Astuti ¹⁰ at the Tomuan Community Health Center in Pematang Siantar City. The majority of moms, namely 40 out of 50 respondents (80%), shown little enthusiasm for numerous immunizations.

Thirteen participants (73.8%) had given full doses of several vaccines, whereas eleven (26.2%) had given partial doses, according to the study's 42 replies. The results of this study are consistent with those of a previous study by Gaeahanny¹³ in the Limo Community Health Center Working Area, which found that out of 71 participants, 56.3% had administered full series of vaccines, while 43.7% had not.

Using the chi-square test, the expected value is below 5 ($> 20\%$) of the number of cells, so the fisher's exact test is employed. The study found a significant relationship between maternal interest and the completeness of children's multiple immunizations at the Rejoslamet village Integrated Health Post, Jombang District, with a p value of 0.000 ($p < 0.05$). Consistent with previous research, this study found that education ($p = 0.005$), interest ($p = 0.000$), income ($p = 0.018$), and the completion of multiple vaccines are significantly related at the Wonokusumo Health Center in Surabaya City (Rakhmanindra et al., 2015). A different study carried out by Astuti¹⁰ at the Tomuan Community Health Center in Pematang Siantar City found that interest was significantly related to the completeness of children's multiple immunizations ($p=0.011$), but education ($p=0.225$), occupation ($p=0.467$), and number of children ($p=0.054$) were not.

Conclusion

Based on the results conducted on mothers who have children aged 9 months-5 years at the Rejoslamet village Integrated Health Post, Jombang District in August 2025, it was shown that there was a significant relationship between maternal interest and the completeness of children's multiple immunization with a p value = 0.000 ($p < 0.05$).

This research is expected to enable health workers or Integrated Health Post cadres to provide education on the importance of providing and the benefits of immunization through counseling or in collaboration with educational institutions, and further research can be carried out by conducting experimental studies in the form of providing education on the importance of providing and the benefits of immunization in the community.

Reference

- Adiwiharyanto, Kristianto, Setiawan, Henry, Widjanarko, Bagoes, Sutiningsih, Dwi, & Musthofa, Syamsulhuda Budi. (2022). [Faktor-faktor yang mempengaruhi ibu dalam melaksanakan imunisasi dasar lengkap pada anak di Puskesmas Miroto Kota Semarang](#). *Jurnal Epidemiologi Kesehatan Komunitas*, 7(2), 522–529.
- Afriza, Nur, Handayani, Lina, & Djannah, Sitti Nur. (2023). [Analisis Kepatuhan Ibu dalam Pemberian Imunisasi Dasar Lengkap pada Anak: Literature Review](#). *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(9), 1728–1734.
- Arpen, Ratih Septiana, & Afnas, Nur Hidayah. (2023). [Analisis Faktor-Faktor Yang Mempengaruhi Pemberian Imunisasi Dasar Lengkap Pada Bayi](#). *Fakultas Kesehatan Universitas Sumatera Barat. Maternal Child Health Care*, 5.
- Fajriah, Sabilla Nur, Munir, Rindasari, & Lestari, Fitria. (2021). [Hubungan Pengetahuan Ibu Tentang Imunisasi Dasar Dengan Kepatuhan Ibu Melaksanakan Imunisasi Dasar Pada Bayi 1-12 Bulan](#). *Journal of Nursing Practice and Education*, 2(1), 33–41.
- Lestiani, Lilik, Hilda, Hilda, & Putri, Rosalin Ariefah. (2023). [The Relationship Between Mother's Attitude and Giving Complete Basic Immunization to Infants Aged 12-24 Months](#). *KESANS: International Journal of Health and Science*, 3(1), 55–62.
- Maulani, Denia, Ristianti, Diah Ayu, & Yasfa, Maria. (2023). [Sosialisasi Bulan Imunisasi Anak Nasional Dan Edukasi Pentingnya Imunisasi Dasar Lengkap Pada Anak Di Desa Cibanteng](#). *Jurnal Pengabdian Masyarakat UIKA Jaya SINKRON*, 1(3), 133–141.
- Pohan, Ikrimah, Harahap, Alprida, & Hadi, Anto J. (2023). [Faktor yang berhubungan dengan imunisasi dasar lengkap pada bayi di wilayah kerja Puskesmas Padangmatinggi Kota Padang Sidempuan](#). *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(8), 1668–1677.
- Rachman, Abang Witiza, & Hapsari, Dian Indahwati. (2022). [Faktor-Faktor yang Berhubungan dengan Pemberian Imunisasi Dasar Lengkap pada Bayi di Wilayah Kerja Puskesmas Nanga Pinoh Kabupaten Melawi Tahun 2020](#). *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 5(1), 50–57.
- Rahmadhani, Youris Frastica, Parellangi, Andi, & Syukur, Nursari Abdul. (2024). [The Relationship Between Socio-Cultural, Accessibility and Motivation of Mother with Complete Basic Immunization Status](#). *KESANS: International Journal of Health and Science*, 3(4), 310–322.
- Sari, Puspita, Sayuti, Solihin, & Andri, Andri. (2022). [Faktor yang Berhubungan dengan Pemberian Imunisasi Dasar pada Bayi di Wilayah Kerja Puskesmas PAAL X Kota Jambi](#). *Jurnal Kesmas Jambi*, 6(1), 42–49.
- Suartini, Ni Wayan, Erawati, Ni Luh Putu Sri, & Budiani, Ni Nyoman. (2025). [HUBUNGAN ANTARA PENGETAHUAN IBU TENTANG IMUNISASI LANJUTAN DENGAN STATUS IMUNISASI PADA ANAK USIA 25-30 BULAN](#). *Journal of Innovation Research and Knowledge*, 4(12), 9555–9566.
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 12 Tahun 2017 Tentang Penyelenggaraan Imunisasi
- United Nation Children's Fund (UNICEF). Jadwal imunisasi anak dan penyakit yang dicegah oleh vaksin. <https://www.unicef.org/immunization>

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Rejoslamet Village

United Nation Children's Fund (UNICEF). Region brief: East Asia and The Pacific the state of the world's children 2023. <https://www.unicef.org/reports/state-worlds-children-2023>

Badan Pusat Statistik Kota Jakarta Barat. Imunisasi anak 2020. <https://jakbarkota.bps.go.id/id/statistics-table/2/MTI2IzI=/imunisasi-anak>

Kementerian Kesehatan. Pentingnya imunisasi bagi anak [Internet]. [dikutip 23 November 2023]. Tersedia pada: https://yankes.kemkes.go.id/view_artikel/1331/pentingnya-imunisasi-bagi-anak