

Exploring Mothers Awareness of Optional Vaccines for Children at the Age of Five in Selected Anganawadies

Boramma Sanageri^{1*}, Jayashri G Itti², Jahnvi K³, Saniya B³, Tejaswini U³, Vishwanath³, Abhishek J³, Siddalingesh G³

¹Lecturer, Dept of Pediatric Nursing, Shri B.V.V.S Institute of Nursing Sciences, Bagalkot, Karnataka, India

²Principal, Dept of Community Health Nursing, Shri B.V.V.S Institute of Nursing Sciences, Bagalkot, Karnataka, India

³Student, Dept of Nursing, Shri B.V.V.S Institute of Nursing Sciences, Bagalkot, Karnataka, India

*Address for Correspondence: Boramma Sanageri, Lecturer, Department of Pediatric Nursing, Shri B.V.V.S institute of nursing sciences, Bagalkot-587101, Karnataka, India

E-mail: borammasanageri@gmail.com

Received: 05 Aug 2023 / Revised: 06 Oct 2023 / Accepted: 14 Dec 2023

ABSTRACT

Background: A vaccination boosts immunity, shielding the recipient from bacterial, viral, or fungal infections in the future. This study aimed to determine how much moms knew about particular aspects of child immunization. Investigations were to be conducted into the following topics: mothers' vaccination coverage and knowledge, vaccination delays, schedule adherence, vaccination during pregnancy, and mother-pediatrician relationships. It also looked at the relationship between moms' degree of skill and specific socio-demographic traits.

Methods: This is a descriptive study in which 120 subjects were selected using a stratified random method. The researchers used a survey to collect data regarding mothers' awareness of vaccine options for children under 5. Analyze data with descriptive and statistical methods such as frequency distributions, percentages, medians, percentiles, standard deviations, and chi-square tests.

Results: The study of 120 mothers with children under five in Bagalkot revealed that 58.33% possessed a high level of knowledge about optional vaccination, while 41.66% had an average knowledge level; none exhibited poor knowledge. The mean percentage of knowledge scores was 67.94%. Significant associations were identified between mothers' knowledge levels and their occupations ($\chi^2=13.85$; $p<0.05$), emphasizing the role of employment in influencing maternal knowledge on optional vaccination.

Conclusion: This study concluded that majority of mothers were aware of vaccinations, according to the study's findings. This investigation can effectively identify the knowledge of mothers.

Key-words: Anganwadi, Knowledge, Mother-pediatrician Socio-demographic, Vaccination

INTRODUCTION

One motivation that keeps parents from choosing not to vaccinate their children's is their knowledge. This survey assessed mothers' knowledge about specific factors related to their children's vaccination ^[1].

Greece's vaccination program includes Hepatitis-B, diphtheria, tetanus, inactivated polio, measles, mumps,

rubella, and hepatitis vaccines for young people ^[2]. The motive of this observation was to perceive incomplete youngster's vaccination amongst moms of youngster's elderly 12–23 months within the Amhara region's Worebabo district, South Wollo zones ^[3]. These days, quadrivalent and bivalent clinically authorized HPV vaccines are used internationally. Within 2014, the sector fitness company (WHO) advocated 2-dose schedules for two types of HPV vaccines at a long time nine–to 14 ^[4].

The World Health Organization defines a vaccine as a biological preparation that offers active acquired immunity against a specific infectious or malignant disease. The widespread dissemination of information

How to cite this article

Sanageri B, Itti JG, Jahnvi K, Saniya B, Tejaswini U. Exploring Mothers Awareness of Optional Vaccines for Children at the Age of Five in Selected Anganawadies. SSR Inst Int J Life Sci., 2024; 10(1): 3532-3536.



Access this article online

<https://ijls.com/>

and the outreach of anti-vaccination campaigns have been enabled by the ease of use of the internet these days^[5]. The social, demographic, and geographic aspects of a region influence the immunization rates among teenagers. Vaccination coverage is a crucial measure of the utilization of immunization services. The vaccination offerings are furnished and freed from value^[6].

MATERIALS AND METHODS

This assessment used a descriptive study style that started in February 2023. A convenience sample of 120 mothers from various Bagalkot Anganwadi was selected for the study. The study includes women with less than five children and mothers who were present when the data was being collected. Mothers, who were not physically fit during data collection are excluded from the study.

Socio-demographic information reveals how socially aware mothers are. Factors such as age, religion, the mother's employment status, educational attainment, family type, monthly income, place of residence, total number of children, and age of the mother's last child are all considered.

Tools- A structured questionnaire was used to assess knowledge among mothers. There are 30 questionnaires to assess their understanding as follows: Yes or No, the knowledge reliability of a mother with less than five children was determined by the questionnaire.

Data collection- Before beginning the data gathering process, prior clearances were secured from the relevant Anganwadis. Participants in the study went to Anganwadi when the rations were being collected. All mothers who satisfied the inclusion criteria were contacted to gather data. We asked the mothers if they would agree. Before distributing the questionnaires, the participants were informed of the study's purpose.

Inclusion Criteria

- Children aged up to five years
- Children attending Anganwadi

Exclusion Criteria

- The study excluded the children above 5 years
- At home

Statistical Analysis- The acquired data was analyzed using descriptive and inferential statistics by the study's objectives. The master data was created by leveraging the responses submitted by the participants. Demographic information is analyzed using frequency and percentage calculations. The mean and standard deviation of the questions were provided. The Chi-square test was used to determine the correlation between the amount of knowledge and specific demographic characteristics displayed in the tables and graphs.

Ethical Approval- The institutional ethics committee of BVVS Sajjalashree Institute of Nursing Sciences, Bagalkot has approved.

RESULTS

The data obtained from a sample of 120 mothers with small children residing in the Bagalkot Anganwadies is displayed in Table 1. A systematic questionnaire was employed to gather data to assess vaccination knowledge. The data analysis encompassed the utilization of both descriptive and inferential statistics. An analysis of maternal knowledge levels reveals that 41.66% of mothers had average knowledge, while 58.33% had excellent knowledge. Not a single mother displayed a lack of knowledge.

Table 1: Knowledge of mothers with children under age of five

knowledge level of mothers	No of participant mothers	Percentage (%)
Poor knowledge	0	0
Average knowledge	50	41.66
High knowledge	70	58.33

Table 2 presents the mean knowledge percentage of mothers, which was recorded as 67.94%. The calculation used the mean, standard deviation, and average percentage of the teenagers' emotional competency evaluations.

Table 2: Mean, SD and Mean percentage of knowledge of mothers

Area	Maximum Score	Mean	S. D	Mean (%)
Knowledge of mothers	60	40.76	2.50	67.94

The association analysis of selected socio-demographic variables reveals a statistically significant relationship ($\chi^2=13.85$; $p<0.05$) between maternal employment and levels of knowledge, as evidenced by the data presented in Table 3.

Table 3: Selected socio-demographic variables

Socio-demographic variables	DF	Chi-square value	Table value	p-value
Age	4	7.85	3.84	$p>0.05^*$
Religion	6	10.68	3.84	$p>0.05^*$
Education	6	4.8	3.84	$p>0.05^*$
Occupation	6	13.85	3.84	$p<0.05^{**}$
Family monthly income	4	3.74	5.99	$p>0.05^*$
Type of family	2	0.02	5.99	$p>0.05^*$
Area of residence	2	0.72	5.99	$p>0.05^*$
Total No. of children	6	4.02	5.99	$p>0.05^*$
Vaccination status of child	2	5.45	5.99	$p>0.05^*$
Age of last child	6	2.71	3.84	$p>0.05^*$

DF=Degrees of freedom; *All the values are statistically non-significant; **All the values are statistically significant

DISCUSSION

In discussion, the sample distribution indicates that 11.66% of children are not immunized and 88.33% are, based on the children's immunization status. The sample distribution demonstrates that 11.66% of children are not immunized, and 88.33% of children are based on the children's immunization status. An evaluation of mothers' knowledge revealed that no mothers had poor

knowledge, 41.66% had average ability, and 58.33 had good information^[7-9].

Based on information verified by Lamiya *et al.*^[10] and Wani *et al.*^[11], average age was 27.30 ± 5.42 years; 74.5% were homemakers, and 40.3% had completed up to the tenth grade of schooling. The diseases that vaccines can prevent were not well-known to mothers. It was discovered that, in the meantime, little was known about the specific vaccinations, including how much and when to receive them. Mothers were mostly in favor of immunizations. The neighborhood's immunization rate was a rather high 87.7%. It was found that there was a strong correlation between implementation and mindset. Diseases that developed during the vaccination period were the primary cause of the majority of cases of partial immunization (68.96%). Increase the number of talks about vaccine awareness that moms and religious leaders participate in. The level of education attained by moms and the chosen socio-demographic traits are correlated.

The results indicate that mothers' knowledge and occupation significantly correlate with the chosen socio-demographic variables ($\chi^2=13.85$; $p<0.05$). Total 96.4% of the kids in the research group, according to Momoh *et al.*^[12]; Mphaka *et al.*^[13]; Navaneetha *et al.*^[14]; Trushitkumar *et al.*^[15] have received every recommended vaccination. The study population's mean vaccination knowledge score was 6.45 (SD=1.84). 89% of moms agreed that vaccinations are required. Over half (57.1%) knew about the anti-vaccination movement, and 24.3% had been impacted by it at some point. Mothers' higher occupation, urban residence, and greater educational attainment than fathers were all linked to higher knowledge scores. The child's age, gender, kind of home, and religion had no bearing on the extent of their knowledge. The degree to which immunization is valued depends on the parents' more significant level of education and work performance. It was believed that vaccinations were necessary for a child's health. The immunization rate in the studied population was comparatively high. The study's participants had very little knowledge of vaccinations. Anti-vaccine initiatives have occasionally impacted public opinion^[16-20].

This is consistent with the Momoh *et al.*^[12]. This study used a descriptive cross-sectional survey approach to evaluate mothers' knowledge, attitudes, and practices

regarding the prevention and at-home treatment of diarrheal illnesses in children under five in Lagos, Nigeria.

In the vibrant locale of Kosofe, Lagos State, Nigeria, our study engaged 360 participants with an average age of 32.5 ± 5.5 years. Encouragingly, 59.2% demonstrated good knowledge, 59.2% showcased a positive attitude, and 53.1% exhibited commendable habits in preventing and managing diarrhea at home for children under five. Notably, correlations were discovered, unveiling the impact of age ($p=0.008$) and academic achievement ($p=0.001$) on practices related to treating childhood diarrhea at home. Furthermore, the study highlighted that married mothers with higher education and occupational engagement were more inclined to adopt practical housekeeping and preventive measures in managing diarrhea for their young ones.^[21–24]

CONCLUSIONS

The study concluded that most mothers (58.33%) demonstrated high levels of knowledge, with the remaining 41.66% having average knowledge; no mothers exhibited poor knowledge. To enhance maternal understanding of preventive and promote health practices, the study recommends a curriculum focusing on these aspects, particularly concerning populations lacking sufficient knowledge.

For future endeavors, continued emphasis on targeted educational interventions is crucial to empower mothers with comprehensive knowledge, fostering a community equipped with preventive and promotive health practices.

ACKNOWLEDGMENTS

We thank the anonymous referees for their constructive comments. My heart is filled with gratitude to those who have reached out to help, and no words can express my genuine gratitude.

CONTRIBUTION OF AUTHORS

Research concept: Prof. Jayashri Itti

Research design: All Researchers

Supervision: BorammaSanageri

Materials: All Researchers

Data collection: All Researchers

Data analysis and interpretation: All Researchers

Literature search: All Researchers

Writing article: All Researchers

Critical review: BorammaSanageri

Article editing: Boramma Sanageri

REFERENCES

- [1] Saraswathi KN, Lissa J. A study to assess the knowledge on selected optional vaccine among mothers of under five children in selected immunization centers at Mysore with view to develop information booklet. *Asian J Nur Edu Res.*, 2014; 4(4): 513-15.
- [2] Yprianidou MK, Tzira E, Galanis P, et al. Knowledge of mothers regarding children's vaccinations in Cyprus: A cross-sectional study. *PLOS ONE*, 2021; 16(9): e0257590.
- [3] Konstantins G, Maria K, Andria H, et al. Knowledge of mothers regarding children's vaccinations in Greece: An online cross-sectional study. *BMC Public Health*, 2021; 21(1): 2119.
- [4] Abegaz MY, A Seid, SM Awol, et al. Determinants of incomplete child vaccination among mothers of children aged 12–23 months in Worebabo district, Ethiopia: Unmatched case-control study. *PLOS Glob Public Health*, 2023; 3(8): e0002088.
- [5] Lee KN, Chang KH, Cho SS, et al. Attitudes Regarding HPV Vaccinations of Children among Mothers with Adolescent Daughters in Korea. *J Korean Med Sci.*, 2017; 32(1): 130-34.
- [6] Mugada V, Chandrabhotla S, Kaja DS, Machara SGK. Knowledge towards childhood immunization among mothers; reasons for incomplete immunization. *Pharm Sci.*, 2017; 7: 157–161.
- [7] Matt P, Moullem R, Akel M, et al. Parents' knowledge, attitude and practice towards children's vaccination in Lebanon. Role of the parent-physician communication. *BMC Public Health*, 2020; 20(1): 1439.
- [8] Adefolalu OA, Kanma OJO, Balogun MR. Maternal knowledge, attitude and compliance regarding immunization of under five children in Primary Health Care centres in Ikorodu Local Government Area, Lagos State. *J Clin Sci.*, 2019; 16: 8–14.
- [9] W Simegn, M Diress, YY Gela, et al. Childhood vaccination practices and associated factors among mothers/caregivers in Debre Tabor town, Northwest Ethiopia: A cross-sectional study. *Front Pediat.*, 2023; 11: 1070722.

- [10] Lamiya J, Mundodan M. Knowledge, attitude, and practice among mothers of under-five children. *Med Public Health*, 2019; 1252–57.
- [11] Wani RT, Dar H, Raina ZA. Knowledge, Attitude and Practices of Mothers with Children under Five Years of Age about Vaccination. *J Med Sci Clin Res.*, 2017; 5: 24449–54.
- [12] Momoh FE, Olufela OE, et al. Mothers' knowledge, attitude and home management of diarrhea among children under five years old in Lagos, Nigeria. *Afr J Prim Health Care*, 2022; 27: 14(1): 3119.
- [13] Mphaka MR, Moshime M, Reddy C. A Cross-Sectional Study on Caregivers' Knowledge, Attitudes and Practices about the Routine Immunisation Program in Tshwane Sub-District 2, Gauteng, South Africa. *J Environ Sci Public Health*, 2018; 2: 221–31.
- [14] Navaneetha N, Abraham SB, et al. Knowledge and perceptions regarding immunization among mothers of under-five children. A community study from South Kerala. *Int J Contemp Ped.*, 2020; 7: 66-71.
- [15] Trushitkumar PB, Pathak R, Singh R, Alves V, et al. Assessment of Parents' Knowledge, Attitude and Practice about Child Vaccination in Rural areas. *J Pharm Res.*, 2017; 16: 229–236
- [16] Fad KH, Ibrahim AA, Dldoom MMB, Ahmed ZOH. Knowledge, attitude and practice of mothers with children less than five years toward vaccination in khartoum state-ummbada locality-allbugaa-2017. *Nurs Palliat Care*, 2017; 4: 1–4.
- [17] Mahalingam S, Soori A, Ram P, Achappa B, Chowta M, et al. Knowledge, attitude and perceptions of mothers with children under five years of age about vaccination in Mangalore, India. *Asian J Med Sci.*, 2014; 5: 52–57.
- [18] Alshammari TM, Alsubaie Y.S.R, Ali S, Alajmi N.M, et al. Assessment of Knowledge, Attitude and Practice of Parents about Immunization in Hail City, 2018. *Egypt J Hosp Med.*, 2018; 73: 6377D–81D. doi: 10.21608/EJHM.2018.14358.
- [19] Odia OJ, Okafor IP, Roberts AA. Knowledge, attitude and practice of childhood immunization among mothers of under-fives in Kosofe Local Council Development Area, Lagos State. *J Community Med Prim Health Care*, 2015; 27: 55–63.
- [20] Susan C, Shashidhara YN. Awareness of Vitamin A supplementation among mothers of under-five children in selected urban and rural areas. *Int J Sci Res.*, 2014; 22(77): 3-5.
- [21] Habibullah S, Ashraf J. Assessment of Hepatitis B vaccination coverage in children under 5 years of age in two major public sector hospitals of Karachi. *J Med Res.*, 2014; 5(1): 3-7.
- [22] Mahalingam S, Soori A, Ram P, Achappa B, Chowta M, et al. Knowledge, attitude and perception of mothers with children under five years of age about vaccination in Mangalore, India. *Asian J Med Sci.*, 2014; 6(4): 60-65.
- [23] Kane M, Lasher H. The case for childhood immunization. Children's vaccine program at PATH: Occasional paper. Seattle, WA. [Last accessed 2016 May 25]. 2002; 5: 2-15. Available from www.path.org/vaccineresources/files/CVP_Occ_Paper5.pdf.
- [24] Priyanka J. Study on identification of determinants of childhood immunization uptake in the urban slum population of Nadiad city of District Kheda, Gujarat. *Int J Manag Soc Sci.*, 2015; 3(6): 1-24.

Open Access Policy:

Authors/Contributors are responsible for originality, contents, correct references, and ethical issues. IJLSSR publishes all articles under Creative Commons Attribution- Non-Commercial 4.0 International License (CC BY-NC). <https://creativecommons.org/licenses/by-nc/4.0/legalcode>

