

Assessment of Mothers' Satisfaction regarding Child Vaccination Services in the Community Health Department of Selected Hospital in Aizawl.

Ramdinmawii¹, K.Laltanpuui², Malsawmtluangi³, Zion Lalramengi⁴

¹(Tutor Department of Community Health Nursing, College of Nursing Synod Hospital, Durtlang, Aizawl, Mizoram)

^{2 3 4}(VIIIth Semester B.Sc Nursing, College of Nursing, Synod Hospital, Durtlang, Aizawl, Mizoram)

Abstract:

Background: Immunization, also referred to as vaccination, is a medical technique that employs a vaccine to strengthen the immune system in order to avoid infectious diseases. An important consideration in the delivery of healthcare services is the extent to which mothers feel that the services they received met their needs and expectations. Maternal satisfaction is a key indicator of the quality and effectiveness of immunization programs. Understanding how mothers see immunization programs might help improve service delivery and utilization. Mothers' satisfaction with the child immunization services provided at a specific Aizawl hospital was assessed in this study. Immunization programs for children are essential for preventing infectious diseases. Compliance, follow-up visits, and overall use of immunization programs are all impacted by mothers' satisfaction with these services

Aims: The purpose of this study is to evaluate mothers' satisfaction with the child immunization services provided by a specific Aizawl hospital's Community Health Department. It also searches for key factors that impact mothers' satisfaction, like waiting times, staff behavior, communication about vaccinations, infrastructure, and service accessibility. The study also seeks to determine whether there is a relationship between mothers' satisfaction with immunization services and specific socio-demographic characteristics.

Settings and Design: Using a descriptive cross-sectional research design, the study was carried out in the Community Health Department of a particular hospital in Aizawl. **Methods and Materials:** Seventy moms who attended the immunization clinic were chosen using a non-probability purposive sample technique. To gauge satisfaction with child vaccination services, data were gathered using a Likert scale and a standardized, closed-ended questionnaire. **Statistical analysis used:** Descriptive statistics were employed to analyze satisfaction levels, and inferential statistics (the Chi-square test) were utilized to determine the link between satisfaction levels and specific socio-demographic factors. The data was collected, assembled, and presented in four sections: findings regarding demographic variables in terms of frequency and percentage; findings regarding the evaluation of factors impacting mother's happiness in terms of percentile; results pertaining to the percentile-based evaluation of factors influencing mothers' satisfaction; mean and standard deviation-based evaluation of mothers' satisfaction with child immunization services; and chi square test of independence-based evaluation of the relationship between satisfaction levels and particular demographic variables. **Results:** 38.57% of moms reported moderate satisfaction, compared to 61.42% who reported high satisfaction. Low or extremely low satisfaction was not reported by any individuals. Mothers were quite pleased with the clinic's cleanliness and personnel conduct. Slightly unsatisfactory aspects of vaccination services were noted, including waiting times, locations, and schedules. The type of family and degree of satisfaction were found to be significantly correlated.

Conclusion: Mothers were largely satisfied with child vaccination services, according to the study's conclusions. Improving maternal satisfaction and increasing the use of immunization services could be achieved by addressing problems with waiting times and vaccination schedules.

Keywords: Community health, mothers, vaccination services, and satisfaction

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I.Introduction:

One of the best ways to reduce childhood morbidity and death from diseases that can be prevented by vaccination is still immunization. Although there have been several national and regional initiatives to increase vaccination coverage in India, the cooperation and satisfaction of service users—mostly mothers—are crucial to the success of these initiatives. Mothers are the major caregivers and decision-makers in a child's early years, and they are vital in ensuring that vaccination schedules are followed. Their desire to give their children the

entire course of immunizations is significantly influenced by their degree of satisfaction with immunization services¹

Assessing maternal satisfaction is crucial to raising the standard of medical care. It functions as a critical performance indicator for healthcare institutions and aids in pinpointing particular areas that require improvement, including staff conduct, vaccination communication, waiting times, infrastructure, and the clinic's general atmosphere. Women who have a great experience are more likely to keep using health services, whereas women who have a negative experience may put their children at danger by delaying immunizations or perhaps dropping out entirely²

One of the main providers of mother and child health services in Mizoram is the Community Health Department. Despite its significant importance, little is known about mothers' perceptions of the accessibility and quality of the immunization services offered. Assessing their level of satisfaction can assist pinpoint areas that need improvement, such as staff communication, waiting times, vaccine availability, or clinic cleanliness, as well as service strengths and bottlenecks. This study sheds important light on how mothers view the child immunization services provided by the Community Health Department of particular Aizawl hospitals. In addition to enhancing institutional service delivery, knowing their degree of satisfaction and the variables that affect it would help achieve the more general public health objectives of raising immunization rates and lowering child death. Additionally, the results can help health policymakers and hospital managers create more client-centered and culturally sensitive treatments, which will ultimately increase the efficacy and reliability of immunization programs in the area. The results of this study can assist the Community Health Department of a particular hospital in Aizawl in designing more client-centered, effective, and reliable immunization services—improving child health and community wellbeing—by identifying the elements that affect maternal satisfaction.

Aims: The purpose of this study is to assess how satisfied moms are with the child immunization services offered by the Community Health Department of a particular Aizawl hospital. Additionally, it looks for important variables that affect mothers' happiness, such as waiting times, staff conduct, vaccination-related communication, infrastructure, and service accessibility. The study also aims to ascertain whether certain socio-demographic factors and mothers' satisfaction with immunization services are related.

Objectives

1. To assess the level of mothers' satisfaction with child immunization services provided at the Community Health Department of selected hospital in Aizawl.
2. To identify the factors influencing mothers' satisfaction, such as waiting time, staff behavior, communication about vaccines, infrastructure, and service accessibility.
3. To determine the association between socio-demographic variables and the level of satisfaction with immunization services

II. Material and method

Study settings: On September 1st, 2025, samples were taken at the Community Health Department of Synod Hospital in Durtlang. The ward supervisor granted permission, and mothers who attended for their children's vaccinations provided written approval for the study. All required supplies, including stationery and copies of the questionnaires, were prepared by the researchers. Purposive sampling was used to choose the samples based on inclusion and exclusion criteria. Each subject was personally contacted by the researchers in a composed and cordial manner. Mothers completed the questions on a sheet of paper with the tools printed on it. Every mother received guidance on how to respond to the questions. It took 15 to 20 minutes on average to finish all of the tools. After the session, completed questionnaires were gathered right away. Before the subject departed, each questionnaire was reviewed for completeness. Throughout the data gathering process, the researchers protected each participant's privacy, respect, and comfort. The gathered information was kept private and safely retained for examination.

Study design and period: Starting on September 1st, a cross-sectional descriptive design was used.

Study population: Mothers who visited the Community Health Department of a particular hospital in Aizawl for child vaccinations are the study's target group. Mothers who visited Community Health Synod Hospital in Durtlang and Dr. Fraser's Clinic in Mission Veng, Aizawl, Mizoram for child vaccinations during the data collecting period make up the study's accessible population.

Sample size of the study: The study's sample size was determined by using the Non-Probability Purposive Sampling Technique. Seventy mothers who satisfied the inclusion criteria made up the study's sample .

Study variables:

Research variable : The evaluation of mothers satisfaction with child immunization services is the study's research variables

Demographic variables: age ,marital status, educational attainment, occupation, number of children and family structure are among the demographic variable

Development of data collection tools

Research tools are an instrument or equipment used for data collection of data, that broadly facilitate research and related activities.

The data collection tools were developed by the investigator after an extensive review of related literature, research articles, and consultation with experts in community health nursing. The tools were designed to gather information related to mothers' demographic characteristics and their satisfaction regarding immunization services.

Description of data collection tool

The tool consists of 3 parts

Part 1: Socio-Demographic Data

It consists of item such as age of mother, marital status, educational level, occupation, number of children and type of family.

Part 2: Structured Close-ended Questionnaire

This tool consists of 10 statements related to factors influencing mothers' satisfaction with immunization services, such as:

1. Information about immunization schedule
2. Waiting time
3. Staff behaviour
4. Cleanliness of the clinic
5. Availability of vaccines
6. Information about vaccine side effects
7. Organization of registration & Immunization process
8. Information on follow up
9. Location and timing of immunization
10. Overall immunization services

Each item has three response options: Yes, No, and Not Sure, making it a trichotomous questionnaire.

Part 3: Likert Scale

This tool assesses the overall level of satisfaction with immunization services using a 5-point Likert scale:

- Very Satisfied (5)
- Satisfied (4)
- Neutral (3)
- Dissatisfied (2)
- Very Dissatisfied (1)

This scale consists of 15 positive statements in which the total score being 75 and least score ≤ 30

Table 1

Interpretation of Satisfaction score

LEVEL OF SATISFACTION	SCORE RANGE
High satisfaction	61-75
Moderate satisfaction	46-60
Low satisfaction	31-45
Very low satisfaction	≤ 30

Table 1 shows the interpretation of satisfaction score of mothers regarding vaccination services.

Methods and procedures of data collection

Samples were collected from 1st September 2025 at Community Health Department, Synod Hospital, Durtlang. Permission was taken from the ward in charge and written consent was taken from the mothers who came for child vaccination for the study. The researchers prepared all necessary materials, such as copies of the questionnaires, and stationery. The samples were selected using the purposive sampling technique based on inclusion and exclusion criteria. The researchers personally approached each participant in a calm and friendly manner. Mothers were given the tools printed on a sheet of paper where they answered the questions. Each mother was guided on how to answer the questions. On average, 15–20 minutes were taken to complete all tools. Completed questionnaires were collected immediately after the session. Each questionnaire was checked

for completeness before the participant left. The researchers-maintained privacy, respect, and comfort for each participant throughout data collection. The collected data were kept confidential and stored securely for analysis.

Plan for data analysis

Analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, discovering conclusions and supporting decision making.

The plan for data analysis involved both descriptive and inferential statistics. Descriptive statistics were used to describe sample characteristics and satisfaction levels, while inferential statistics (Chi-square test) were used to find associations between satisfaction and selected demographic variables. Frequency and percentage were used to describe demographic variables such as age, education, occupation, and income. Mean and standard deviation were used to assess the overall satisfaction level of mothers. A p-value < 0.05 was considered statistically significant.

III.Results

Frequency and percentage distribution of mothers according to their demographic variables

Table 1

Frequency and percentage wise distribution of mothers with their demographic characteristics

n =70

Characteristics	Category	Frequency (f)	Percentage (%)
Age of mother (in years)	<20 Years	0	0
	21-25 Years	1	1.43%
	26-30 Years	16	22.8%
	31-35 Years	28	40%
	36 Years or above	25	35.71%
Marital status	Married	67	95.71%
	Divorced	1	1.43%
	Separate	2	2.86%
	Single	0	0
	Others	0	0
Educational level	No formal education	0	0
	Primary	0	0
	Middle school	2	2.86%
	High school	12	17.14%
	Higher secondary	12	17.14%
Occupation	Graduate and above	44	62.86%
	Housewife	29	41.43%
	Government employee	16	22.86%
	Private employee	12	17.14%
	Self-employee	9	12.86%
Number of children	Others	4	5.71%
	1	23	32.86%
	2	24	34.28%
	3	17	24.29%
Type of family	>4	6	8.57%
	Nuclear	32	45.71%
	Joint	33	47.14%
	Extended	5	7.14%

Table 1 shows the frequency and percentage wise distribution of mothers with their demographic characteristics.

Assessment of factors influencing mother's satisfaction

Table 2

Assessment of factors influencing mother's satisfaction

Sl. No.	STATEMENT	Yes	%	No	%	Not Sure	%
1.	You were informed in advance about the immunization schedule	68	97.1%	1	1.4%	1	1.4%
2.	Waiting time was reasonable (≤ 30 minutes)	64	91.4%	5	7.1%	1	1.4%
3.	The staff were polite, respectful and approachable	70	100%	-	0%	-	0%
4.	The environment of the clinic was clean and comfortable	70	100%	-	0%	-	0%
5.	Vaccines were available as per the schedule	68	97.1%	2	2.8%	-	0%

	without stock-out						
6.	You were given adequate information about the vaccine & possible side effects	68	97.1%	1	1.4%	1	1.4%
7.	The registration & immunization process was organized	69	98.5%	1	1.4%	-	0%
8.	You were given a proper follow-up or next visit date	69	98.5%	-	0%	1	1.4%
9.	The location and timing of the immunization services were convenient for you	66	94.2%	2	2.8%	2	2.8%
10.	Overall, the immunization services met your expectations	69	98.5%	1	1.4%	-	0%

Table 2 shows the assessment of factors influencing mother's satisfaction

Assessment of level of mothers' satisfaction regarding child immunization services

Table 3

Assessment of level of mothers' satisfaction regarding child immunization services

Satisfaction level	Score range	Frequency	Percentage
High satisfaction	61-75	43	61.42%
Moderate satisfaction	46-60	27	38.57%
Low satisfaction	31-45	0	0
Very low satisfaction	≤ 30	0	0
MEAN SCORE		66.51 ± 7.09	

Table 3 shows that the mean score (66.51) indicates that, on average, mothers had a high level of satisfaction (since it falls in 61–75 range). The standard deviation (7.09) shows that there was moderate variation in satisfaction levels among mothers, most rated services similarly, but a few gave lower scores.

Association between satisfaction level with selected demographic variables

Table 4

Association between satisfaction level with selected demographic variables

Demographic variables	Mothers	Calculated χ^2 value	df	Tabulated value	P-value
n=70					
AGE					
<20 years	0				
21-25 years	1	6.583	12	21.03	0.883
26-30 years	16				NS, p>0.05
31-35 years	28				
>35 years	25				
MARITAL STATUS					
Married	67				
Divorced	1	0.737	12	21.03	0.99
Separate	2				NS, p>0.05
Single	0				
Others	0				
EDUCATIONAL LEVEL					
No formal					
Primary	0				
Middle	0	1.571	15	24.996	0.999
High	2				NS, p>0.05
Higher	12				
Graduate or above	12				
	44				
OCCUPATION					
Housewife	29				
Govt employee	16	2.701	12	21.03	0.997
Pvt employee	12				NS, p>0.05
Self-employee	9				
Other	4				
NUMBER OF CHILDREN					
1					
2	23				0.967
3	24	2.909	9	16.919	NS, p>0.05
>4	17				
	6				
TYPE OF FAMILY					
Nuclear	32				0.002
Joint	33	20.55	6	12.592	S, p<0.05

Table 4 shows the association between satisfaction level with selected demographic variables

IV. Discussion

Discussion on the basis of frequency and percentage distribution of mothers according to their demographic variables

Seventy women participated in the current study to gauge their level of satisfaction with child immunization treatments at the Dr. Frasers Clinic in Mission Veng, Aizawl, Mizoram, and the Community Health Department of Synod Hospital in Durtlang.

The results showed that the majority of mothers (40%) were between the ages of 31 and 35, with 35.7% being 36 or older. None of the respondents were younger than 20, and only one (1.4%) was between the ages of 21 and 25. 95.7% of the mothers were married. While 17.1% of respondents had completed high school and higher secondary education, respectively, the majority of respondents (62.9%) were graduates or above. In terms of occupation, 17.1% worked for private companies, 22.9% worked for the government, and 41.4% were housewives. The majority of mothers (32.9% and 34.3%, respectively) had one or two children. The majority came from joint (47.1%) and nuclear (45.7%) families.

These results are in line with research by Sultana et al. (2020) and Patel and Singh (2021), which found that the majority of moms who attended immunization clinics were homemakers and in the 25–35 age range. This study's high educational level supports the findings of Choudhary, Sharma, and Gupta (2018), who discovered that moms with higher levels of education were more likely to frequently use immunization services.

Begum et al. (2020) and Mwangi et al. (2019) revealed contradictory results, with the majority of participants having younger ages and lower educational levels, perhaps as a result of setting and literacy variations.

Thus, the present study shows that mothers in the study area were generally mature, well-educated, and aware of the importance of child immunization, which might have contributed to their higher satisfaction levels.

Section II: Discussion on the basis of factors influencing mothers' satisfaction

According to the current study, all mothers (100%) reported great pleasure with the environment's cleanliness and staff's politeness. The majority of mothers (98.5%) concurred that the immunization and registration procedure was well-organized, that they received accurate information about the next visit date and follow-up, and that the overall immunization services fulfilled their expectations. On the other hand, waiting times (91.4%) and the location and timing of immunization services (94.2%) were found to be quite unsatisfactory.

Kaur et al. (2019) and Kumar, Yadav, and Singh (2020), who discovered that staff attitude, communication, and vaccination availability had a significant impact on client satisfaction, corroborate these findings. Choudhary et al. (2018) further emphasized that high satisfaction levels were significantly influenced by health personnel' politeness and effective communication.

However, poor organization, crowding, and lengthy wait times were found to have a negative impact on satisfaction by Adeleke et al. (2018) and Mwangi et al. (2019). This is consistent with the minor dissatisfaction areas identified in the current study, indicating that operational variables such as waiting time and follow-up communication still require improvement.

Therefore, it can be concluded that while delays and timeliness of immunization services might negatively impact client experience, effective interpersonal interactions, clean facilities, a well-organized immunization process, and information about follow-up positively influence satisfaction.

Section III: Discussion on the basis of level of mother satisfaction regarding child immunization services

The majority of mothers (61.42%) in the current survey expressed high levels of satisfaction with child immunization services. None of the individuals had low or extremely low satisfaction, while about 38.57% had moderate satisfaction. With mean scores between 61 and 75, the overall results demonstrated that the majority of moms had excellent satisfaction levels. This suggests that the Community Health Department's immunization services are adequate and fulfill moms' expectations.

Similar results were reported by Choudhary et al. (2018) and Bashir, Singh, and Kaur (2020), who discovered that most mothers were very satisfied with immunization services where vaccines were available, staff were friendly, and facilities were clean. However, Mwangi et al. (2019) and Adeleke et al. (2018) found that locations with congested health facilities or inadequate communication had lower satisfaction scores.

Therefore, while time management and vaccine scheduling still require improvement, the current data confirm that the high level of satisfaction may be linked to a clean environment and courteous staff.

Section IV: Discussion on the basis of association between satisfaction level with selected demographics variables

The present study found a significant association between mothers' type of family type of family ($\chi^2 = 20.55$, $p=0.002$) and satisfaction level, but no significant association with other demographic variables such as age ($\chi^2 = 6.58$, $p=0.883$), marital status ($\chi^2 = 0.73$, $p=0.99$), education level ($\chi^2 = 1.57$, $p=0.99$), occupation ($\chi^2 = 2.70$, $p=0.99$) or number of children ($\chi^2 = 2.90$, $p=0.96$).

This finding is supported by Bhatia et al. (2018), who found that family type influences satisfaction levels—joint families tend to share responsibilities, offering better support for mothers during immunization visits.

However, Reddy and Thomas (2020) reported no such association, suggesting that satisfaction is more influenced by service-related factors than by family structure.

Some studies like Begum et al. (2020) found education to be a major factor influencing satisfaction, while others linked it to occupation and income level. The absence of such associations in the present study may be due to the homogeneity of the sample—most participants were educated and shared similar socioeconomic backgrounds.

Therefore, it can be said that mothers' happiness with child immunization services was significantly correlated with the kind of household. Compared to mothers from nuclear or extended families, mothers from mixed families had greater levels of satisfaction. This could be explained by joint families' improved family support, shared obligations, and emotional support, which make it easier and more efficient for moms to use immunization programs.

The results underscore the significance of social and familial support networks in fostering mother contentment and health service utilization. Including family members in child health initiatives and raising community awareness could improve.

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