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## Original Research Article

# Caregiver's satisfaction regarding immunization services in a tertiary care Institute, Punjab

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## ABSTRACT

**Introduction:** Childhood immunizations have been claimed to be the most appropriate and effective technology for child survival. Determination of the degree of care giver's satisfaction towards immunization will provide evidence as to whether or not the right immunization services are being provided.

**Methodology:** A cross-sectional study was conducted in the immunization clinic attached to tertiary care institute. Care giver's (Mother, or accompanying person) of children aged up to 5 years visiting immunization clinic were included in the study. Proforma contained details of socio- demographic profile of care giver and satisfaction of care giver towards immunization services received at immunization clinic. Study was conducted for a period of two weeks in October 2019. Data was collected by using standard proforma from the guide for conducting an Expanded Programme on Immunisation (EPI) Review. By adopting convenient sampling, total of 75 responses of caregiver's were recorded. The data collected was compiled and statistical analysis was done using SPSS 20.

**Results:** The study revealed that maximum mother's (57.3%) accompanied children as caregiver's for immunization in the clinic. Complete satisfaction with registration process was seen in 14.7% of respondents. As regards to vaccination services in the immunisation clinic 17.3% of caregiver's were somewhat satisfied while 46.7% were neutral about the vaccination services.

**Conclusions:** In our study most of the caregiver's were satisfied with registration process, seating arrangement ,attitude of service provider and waiting time. But dissatisfaction was still observed in our study.

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## 1. Introduction

Patient satisfaction is an important indicator of quality of health care. Health care quality in many countries in the world is assessed by means of patient satisfaction.<sup>1</sup> Satisfaction of patients is used as a yardstick for measuring success of the service delivery system functional at hospitals.<sup>2</sup>

The gap between the expected and perceived characteristics of health service is stated by satisfaction of patients.

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Satisfaction being a subjective phenomenon can be extracted by asking simply how satisfied or not patients may be about the service.<sup>3</sup>

Monitoring of customer's perception is important and simple strategy to assess and improve the functioning of health care organisation.

Health care organisation provide health care services and immunisation is one of the important health care services.

Immunization is one of the most cost-effective interventions to prevent the suffering that comes from avoidable sickness, disability and death.<sup>4</sup> Immunization improves not only health and life expectancy but also has social and economic impact both at community and national

level.

Each year 25 million children are born in India and this accounts for nearly one fifth of the world's annual child births.<sup>5</sup> The highest burden of under-five deaths in the world is seen in India.<sup>6</sup> Routine immunization is provided to 2.67 crore newborns and 2.9 crore pregnant women annually under UIP (Universal Immunisation Programme).<sup>7</sup>

A large proportion of vulnerable infants & children in India remain unimmunized despite the concrete efforts of government & other health agencies. Vaccination coverage vary from one state to other state. Geographical, regional, rural-urban, poor-rich and gender-related differences are observed in utilisation of immunisation services.

On average, girls receive fewer immunizations than boys and higher birth order infants have lower vaccination coverage.<sup>8</sup>

Amongst the interventions for child survival tried across the world, the childhood immunization has been claimed to be the most appropriate and effective technology. Immunization is in fact one of the 'best buys' in public health.

For assessment of the quality of health care and the personnel, the degree of patient satisfaction is an important measure.<sup>9</sup> The degree of parental satisfaction emulate the ability of the provider to meet patients' needs. Satisfied patients are more likely to continue using health care services than unsatisfied ones.<sup>10</sup>

One of the important indicator of provider quality is parental satisfaction with child care and it has been relatively unexplored in relation to childhood immunization.

Studies related to parental satisfaction are scarce in this part of country. So this study was planned to assess the satisfaction of caregiver's accompanying under five children.

## 2. Materials and Methods

A cross-sectional study was conducted in the immunization clinic attached to tertiary care institute. Ethical clearance was obtained from Institutional Ethical Committee for conducting this study. Care giver's (Mother, or accompanying person) of children aged up to 5 years visiting immunization clinic were included in the study. The primary care giver was the mother of the child, and in case of her absence, the father acted as the next respondent. In case of absence of both of them, an adult accompanying the child was interviewed.

Proforma contained details of socio-demographic profile of care giver and satisfaction of care giver towards immunization services received at immunization clinic. Data was collected by using standard proforma from the guide for conducting an Expanded Programme on Immunisation (EPI) Review.<sup>11</sup>

Study was conducted for a period of two weeks in October, 2019. By adopting convenient sampling, total of 75

responses of caregiver's were recorded. The data collected was compiled and statistical analysis was done using SPSS 20. Questions related to satisfaction were included after peer validation.

The questionnaire included questions about registration process, seating arrangement, waiting time, staff attitude, technique of giving injection. Informed consent was taken before filling the proforma and those care giver's who did not give consent were excluded from the study. Total of 75 responses were recorded.

The questions related to satisfaction were divided into good, fair and poor.

## 3. Results

Our study revealed that children 29% belonged to age group of 0-1 year, 48% of children were in the age group of 1-2 years and 23% belonged to more than two years of age as depicted in Table 1. Out of total children, 60% were males while 40% were females. Majority of children were accompanied by mothers (51.3%). More than half of caregivers belonged to rural area (53.3%).

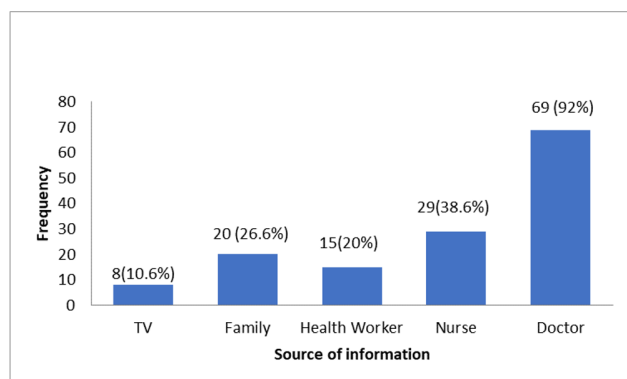
**Table 1:** Sociodemographic profile of children and their caregiver's

	Frequency	Percentage
<b>Age distribution of children</b>		
0-1	22	29%
1-2	36	48%
>2	17	23%
<b>Sex distribution of children</b>		
Males	45	60%
Females	30	40%
<b>Place of residence of children</b>		
Rural	40	53.3%
Urban	35	46.7%
<b>Relation of children to caregiver</b>		
Mother	43	57.3%
Father	20	26.7%
Grandparent	9	12%
Other	3	4%
<b>Education of caregiver</b>		
Below matric	17	22.4%
Matric	34	42.6%
Graduate and above	24	32%
<b>Occupation of caregiver</b>		
Employed	22	29
Unemployed	53	71

As far as services availed at the canter are concerned, apart from immunisation services other services availed were growth monitoring (57.3% respondents), curative care (21.3% respondents) and family planning services (4% respondents).

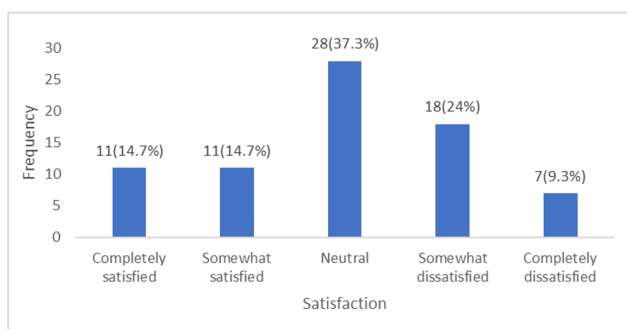
Majority of caregivers cited doctor as source of information about immunisation services (Figure 1). Nurses

were described as source of information by 38.6% followed by family (26.6%), health worker (20%), T.V.(10.6%).



**Fig. 1:** Source of information about immunisation services

Satisfaction of caregiver’s with registration process is shown in Figure 2. Complete satisfaction with registration process was seen in 14.7% of respondents. Maximum caregiver’s (37.3%) were neutral about satisfaction with registration process. 24% of caregiver’s were somewhat dissatisfied and 9.3% were completely dissatisfied with registration process.

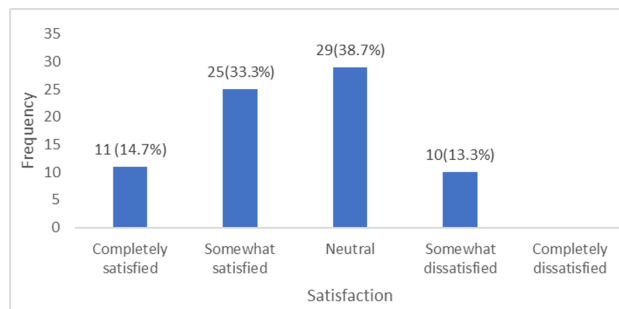


**Fig. 2:** Satisfaction of caregiver with registration process

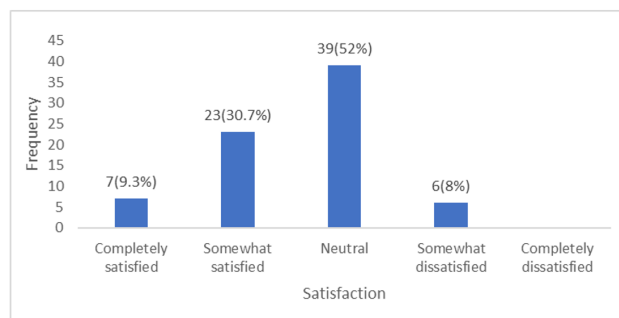
Figure 3 shows satisfaction of caregiver with seating arrangement process. Complete satisfaction was seen in 14.7% of caregiver’s. Almost one third of caregiver’s were somewhat satisfied with seating arrangement.

Figure 4 illustrates satisfaction of caregiver with attitude of service provider. Complete satisfaction was seen among 9.3% of caregivers. 30.7% showed some satisfaction with the attitude of service provider. Half of the respondents were neutral about the attitude of service provider. Around 8% of the respondents were dissatisfied with the attitude of service provider.

Satisfaction of caregiver’s with technique of giving injections is shown in Figure 5. Complete satisfaction was seen in 9.3% of caregiver’s. 37.4% respondents were somewhat satisfied whereas 36% were neutral. Complete

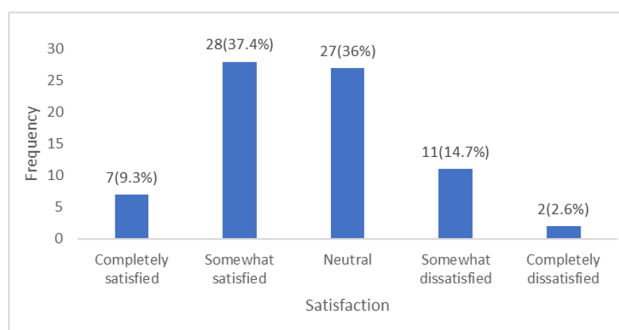


**Fig. 3:** Satisfaction of caregiver with seating arrangement



**Fig. 4:** Satisfaction of caregiver with attitude of service provider

dissatisfaction was observed in only 2.6% of respondents and 14.7% were somewhat dissatisfied.



**Fig. 5:** Satisfaction of caregiver with technique of giving injections

Figure 6 reveals satisfaction of caregiver’s with vaccination services. Complete satisfaction was replied by only 5.3% of respondents. Complete dissatisfaction was responded by 14.7% of caregiver’s whereas 16% were somewhat dissatisfied with the vaccination services. 17.3% of caregiver’s were somewhat satisfied while 46.7% were neutral about the vaccination services provided at the immunisation clinic.

Maximum (45%) respondents had to wait for less than 15 minutes. 39% respondents had to wait for more than 30 minutes (Figure 7).

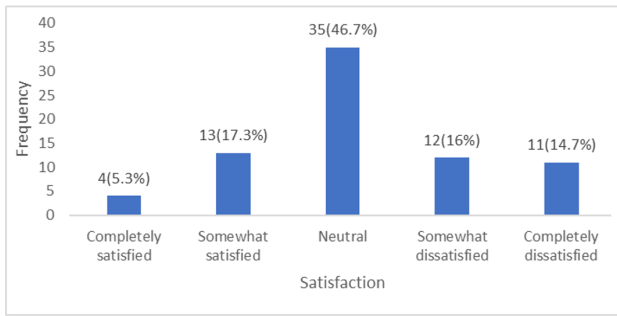


Fig. 6: Satisfaction of caregiver with vaccination services

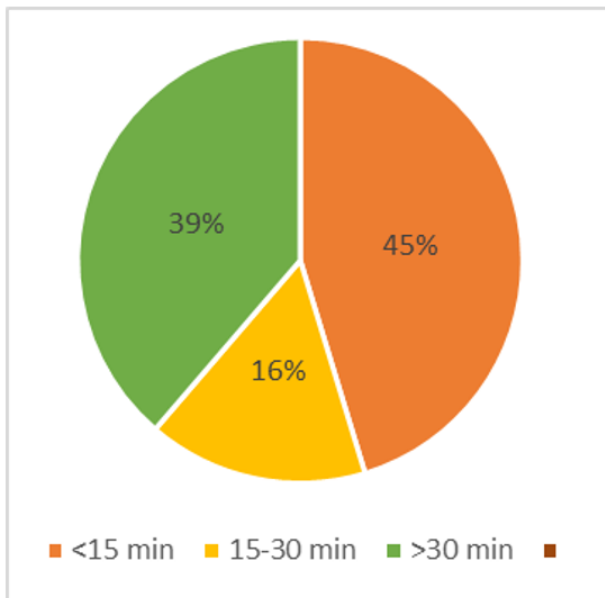


Fig. 7: Distribution of caregiver according to waiting time

Table 2: Association of satisfaction with relation of caregiver with child

Relation of caregiver with child	Caregiver’s Satisfaction			Total
	Poor	Fair	Good	
Mother	7	26	10	43
Father	1	5	14	20
Grandparent	1	5	3	9
Other	1	1	1	3

Chi square -14.01, df- 6, p = 0.029

Maximum number of children were accompanied by mothers for immunisation. A significant association was observed between satisfaction level and caregiver’s relation with the child.

Satisfaction was observed to increase with the increase in education level of caregiver’s. Significant association of satisfaction level of caregiver was observed with education level of caregiver.

Table 3: Association of satisfaction with education of caregiver

Education of Caregiver	Caregiver’s Satisfaction			Total
	Poor	Fair	Good	
Below matric	2	11	4	17
Matric	5	20	9	34
Graduate & above	1	7	16	24

Chi square- 11.96, df -4, p= 0.018

4. Discussion

The present study attempted to assess the satisfaction of the caregivers’ with immunisation services provided in the immunisation clinic attached with SGRDIMSAR, Amritsar. The study revealed that 29% of children belonged to age group of 0-1 year, 48% of children were in the age group of 1-2 years and 23% belonged to more than two years of age. Out of total children 60% were males while 40% were females.

More than half of children were accompanied by mothers (51.3%) as caregivers’. 26.7% children were accompanied by father, 12% were accompanied by grandparents and 4% were accompanied by other relatives. Similar findings were observed in study conducted by Hussien A et al. among caretakers in rural area, Ethiopia where majority of caretakers were mothers (95.9%).<sup>12</sup>

Our study revealed that majority of caregivers belonged to rural area (53.3%). The study observed that maximum (45.4%) of caregiver’s were educated till matric. Level of education was observed to be graduate and above in 32% caregiver’s and below matric in 22.6% of caregiver’s. Almost similar findings were revealed in a study conducted among mothers who were attending urban primary health care center, Egypt.<sup>13</sup> Findings of the study revealed that education level was of Intermediate level (Primary/Secondary) in 54.6% mothers, high education (University education) was observed in 33.7% mothers, while 8.1% of mothers could read & write only and 8.1% of them were illiterate.

Our study revealed that majority of the caregivers’ (71%) were unemployed. As far as services availed were concerned, all of the respondents availed the immunization services. Services of growth monitoring were availed by 57.3% respondents; curative care services were availed by 21.3% respondents. Only 4% of caregiver’s availed family planning services along with immunisation services.

Majority of caregivers’ cited doctor as source of information about immunisation services. Nurses were described as source of information by 38.6% respondents followed by family (26.6%), health worker (20%), television (10.6%). In another study by conducted among the parents or guardians of children aged 0-5 years Guatemala, 70% of them reported health centres as means of information about immunization. Television was reported as source of information by 6.3% of participants in the study conducted

in Guatemala.<sup>14</sup>

As far as satisfaction of caregivers with registration process is concerned, complete satisfaction with registration process was seen in 14.7% of respondents.

Our study revealed complete satisfaction in 14.7% of respondents as regards to seating arrangement. Almost one third of caregiver's were somewhat satisfied with seating arrangement, while 38.7% were neutral and 13.3% were dissatisfied with seating arrangement. Similarly in a study by Sarkar D et al, factors like inadequate sitting provisions, improper drinking water and toilet facilities were observed to significantly increase the probability of lesser satisfaction.<sup>15</sup>

Our study revealed complete satisfaction with attitude of service provider among 9.3% of caregivers, 30.7% showed some satisfaction with the attitude of service provider and around 8% of the respondents were dissatisfied with the attitude of service provider. Whereas in another study on utilization of health care facilities by at risk children in India, unpleasant behaviour of hospital staff was cited as reason by 12.03% respondents.<sup>16</sup> The difference could be because the study was conducted in different States. In another study conducted in Nigeria, close to two-thirds of the respondents generally were not satisfied with the attitude of health care workers.<sup>17</sup>

Our study revealed 9.3% of caregiver's were completely satisfied with technique of giving injections. 37.4% of respondents were somewhat satisfied whereas 36% of them were neutral. 14.7% were somewhat dissatisfied and 2.6% of respondents were completely dissatisfied with technique of giving injections.

As regards to vaccination services in the immunisation clinic complete dissatisfaction was observed in 14.7% of caregiver's whereas 16% were somewhat dissatisfied with the vaccination services. Complete satisfaction was observed in only 5.3% of respondents. 17.3% of caregiver's were somewhat satisfied while 46.7% were neutral about the vaccination services provided at the immunisation clinic.

Maximum (45%) respondents had to wait for less than 15 minutes for getting their child immunised and 39% respondents had to wait for more than 30 minutes. Similarly, 57.1% mothers were satisfied with the waiting time in a study conducted at immunisation clinic in a slum area of North Kolkata.<sup>15</sup>

In our study, satisfaction levels were observed more in cases where caregiver was mother as compared with other caregiver's like grandparents. A significant association was observed of satisfaction level with the relation of caregiver with the child.

Also satisfaction level of caregiver was observed to be significantly associated with education level of caregiver. Study conducted by Luman ET et al reported that parental satisfactions with pediatric care and up-to-date immunization at 24 months are independent of maternal age,

race, and education.<sup>18</sup>

## 5. Conclusion

Client satisfaction and dissatisfaction has gained importance in health care. It helps in assessment of quality that concerns both users and providers of health care services. According to our study most of the caregiver's were satisfied with registration process, seating arrangement, attitude of service provider and waiting time. But dissatisfaction regarding these aspects was still observed in our study. So improvement should be done by provision of good infrastructure in the waiting place. Health worker should improve on the service process activities i.e. reduce waiting time.

There is need to conduct regular outreach campaigns activities to enhance mothers' awareness and attitude towards childhood immunization by focusing on the importance of vaccination, its dose, and immunization schedule.

## 6. Source of Funding

None.

## 7. Conflict of Interest

None.

## 8. Author's Contribution

Dr. Harpreet Kaur helped in designing of study. Dr Rana Ranjit Singh helped in data collection and analysis. Dr Harpreet Kaur wrote the manuscript. Dr Rana Ranjit Singh helped in editing and reviewing the manuscript.

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