

## Original Research Article

# Assessment of beneficiary satisfaction at district early intervention centre, Mysuru district, Karnataka

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## ABSTRACT

**Background:** District early intervention centres (DEIC) are established under Rashtriya Bal Swasthya Karyakram (RBSK), aimed at providing early intervention and screening of the children identified with 4Ds. Aimed to assess the beneficiary satisfaction visiting DEIC. Patient satisfaction was an important and commonly used indicator for measuring the quality of health care.

**Methods:** A cross-sectional study was conducted at DEIC, Mysuru to assess client satisfaction. 276 study participants who visited the DEIC (from January 2021 to June 2021) were selected through the convenience sampling method. A semi-structured questionnaire was administered about the services provided across various departments at DEIC. Data were analyzed by using IBM version 23 SPSS.

**Results:** Among 276 beneficiaries who reached DEIC, about overall client satisfaction, 250 (90.5%) were satisfied and 26 (9.42%) were dissatisfied with the functioning and services provided across various departments at DEIC. 272 (98%) were satisfied more with the information provided about the medications by the pediatric department and 11 (18.0%) were more dissatisfied with the room infrastructure, information provided about treatment adopted and instructions to parents/guardians for regular follow up by the counseling department.

**Conclusions:** Overall, the clients were more satisfied with the services provided by the pediatric department and less dissatisfied with the counseling and psychology department. The findings of this present study will be useful input for the early intervention centers to improve their services and can also give an overview to the healthcare managers and policymakers in developing programs and policies. Improvement in the psychology, counseling, and ophthalmology departments will provide better beneficiary satisfaction.

**Keywords:** Patient satisfaction, Birth defects, Deficiency, Developmental delay disorder

## INTRODUCTION

DEIC have been set up at the district hospital to give medical care and referral support to children who have been identified as having health problems during screening by the RBSK mobile health teams.<sup>1</sup> Early childhood developmental impairments are frequent in India, affecting at least 10% of children.<sup>1</sup> According to SNCU technical reports, almost 20% of the babies

identified to have developmental delays or disabilities were discharged from the health institutions at a later stage.<sup>1</sup> If these delays are not addressed promptly, they may result in lifelong handicap, making children not eligible for appropriate services.<sup>1</sup>

The DEIC, which is comprised of the pediatrician, a staff nurse, a DEIC manager and other paramedical personnel, assists children with health problems to help them

improve their condition. DEIC also provides free referral services for diagnosis and surgical management to children who are unable to be treated at the DEIC.

### ***The rationale behind establishing the DEIC centers***

As the periphery centers lack health professionals and equipment, children referred from the periphery must be mobilized to the district health care facilities. As a result, a center comprised of various domain specialists and equipment must be established.

DEIC is an apex center established in the district's headquarters that provides comprehensive health services to children with health conditions, making it easier for them to visit different departments under a single roof.

### ***Beneficiary satisfaction***

Finding ways to make healthcare providers in developing countries more client-centered is a critical challenge. Indifferent treatment of patients, unofficial payments to providers, a lack of patient privacy and inadequate provision of medicines and supplies are all common, but traditional quality assessment methods rarely acknowledge them.<sup>2</sup>

Assessing patient perspectives provides users with a voice, which, if given systematic attention, has the potential to make services more responsive to people's needs and expectations, both of which are important components of making health systems more effective.<sup>2</sup> Satisfaction is achieved when a patient's or client's perception of the quality of care and services received in a health care setting is positive, satisfactory and meets their expectations.<sup>3</sup>

The quality of service, both technical and functional is a critical component of service Organization's success. Technical quality in health care is primarily defined by the technical accuracy of diagnoses and procedures. Several techniques for assessing technical quality have been proposed and are now in use in healthcare organizations. This information is not generally available to the public and is only available to healthcare professionals and administrators. Functional quality, on the other hand, is concerned with how healthcare services are delivered. Numerous studies have found that providing high-quality services is directly related to higher profits, market share and cost savings.<sup>2</sup>

Incorporating patient's perspectives into quality assessment provides a method of making health services more responsive to people's needs, which in turn improves patient's health and quality of life in the long run. At the same time, it allows users to express their views on their healthcare services.<sup>4</sup>

With this background, this study was conducted to assess the beneficiaries' satisfaction at DEIC.

## **METHODS**

### ***Study design and setting***

A cross-sectional study design was conducted from January 2021 to June 2021.

The study was conducted in the DEIC, Mysuru. The DEIC provided services covering the children across the 7 talukas of the Mysuru district.

### ***Sampling technique and size***

According to the study of Parmar, a convenience sampling method was employed in this study.<sup>5</sup> 272 study participants, who reached the and accessed the services at different departments in DEIC and were willing to participate in the study were selected.

### ***Data collection***

The data was collected from the parents/guardians by administering the semi-structured questionnaire after taking informed consent. The questionnaire consisted of the different aspects of the quality of services provided across different departments in the DEIC, every participant was encouraged to express themselves freely and fairly. Precautions were also taken to ensure that the results were unbiased. The questionnaire was explained by the researcher personally in a vernacular language and was filled by the researcher. Respondents were assured of the confidentiality of their responses.

### ***Methodology for data analysis***

The questionnaire consisted of the questions related to the quality of services provided across various departments in DEIC contained 15 variables in total. Descriptive statistics like frequencies, percentages were used, and to find out the association between the client satisfaction and father's education status was done by using the Chi-square test. Data was entered in MS excel and analyzed by using IBM SPSS version 23 (licensed to JSSAHER).  $P < 0.05$  was considered a statistically significant.

## **RESULTS**

A total of 276 study participants who were parents/guardians of the children who visited the DEIC were selected. Among 276 children, 152 (55%) were male and 124 (45%) were female children. Out of which 12 (4.34%) belonged to the age group of 0 to 6 weeks, 244 (88.4%) belonged to 6 weeks to 6 years and 17 (6.15%) belonged to the age group of 6 years to 18 years.

### ***Educational status of the parents/guardians of the children***

129 (46.73%) of the parents/guardians who visited DEIC had high school education, 106 (38.40%) had

PUC/diploma education, 16 (5.79%) were graduates, 15 (5.43%) were having primary school education, 10 (3.62%) were having middle school education.

**Table 1: Socio-demographic characteristics.**

Gender	Frequency, N	Percentage
<b>Male</b>	152	55
<b>Female</b>	124	45
<b>Age distribution</b>		
0-6 weeks	12	4.34
6 weeks-6 years	244	88.4
6 years-18 years	17	6.15
<b>Parent's/guardian's education</b>		
Primary school	15	5.43
Middle school	10	3.62
High school	129	46.73
PUC/diploma	106	38.40
Graduates	16	5.79
<b>Parent's/guardian's occupation</b>		
Unemployed	10	3.62
Farmers	38	13.76
Unskilled	28	10.14
Skilled	72	26
Semi-skilled	103	37.31
Semi professionals	22	7.97
Employed	3	1.08

**Table 2: Distribution of children based on their visit to various departments.**

Departments	Male N (%)	Female N (%)	Total N (%)
<b>Pediatric</b>	152 (55.07)	124 (44.92)	276 (100)
<b>Physiotherapy</b>	43 (56.5)	33 (43.4)	76 (27.53)
<b>Speech therapy</b>	37 (59.6)	25 (40.3)	62 (22.4)
<b>Psychology</b>	29 (54.7)	24 (45.2)	53 (19.2)
<b>Counselling</b>	28 (45.9)	33 (54)	61 (22.1)
<b>DEIC manager</b>	152 (55)	124 (44.9)	276 (100)
<b>Staff nurse</b>	152 (55)	124 (44.9)	276 (100)
<b>Optometrist</b>	6 (50)	6 (50)	12 (4.34)

#### **Distribution of parents/guardians visiting DEIC based on their occupation**

Among 276 parents/guardians, 103 (37.31%) were semi-skilled workers, 72 (26%) were skilled workers, 38 (13.76%) were farmers, 28 (10.14%) were unskilled workers, 22 (7.97%) were semi-professionals, 10 (3.62%) were unemployed and 3 (1.08%) were employed.

A total of 276 children visited the different departments of DEIC, all the 276 (100%) consulted the pediatrician,

DEIC manager and staff nurse and 76 (27.5%) to the physiotherapy, 62 (22.4%) to the speech therapy, 53 (19.2%) to the psychology, 61 (22.1%) to the counseling department and 12 (4.3%) consulted the ophthalmology department.

#### **Beneficiaries satisfaction across various departments**

##### *Pediatrics department*

Among 276 participants, about 272 (98%) were satisfied with the information provided about the medications and 18 (6.5%) were dissatisfied with the courtesy and helpfulness of the paediatric department.

##### *Physiotherapy department*

Out of 76 participants, all of them were satisfied with the information provided about the future condition of the child after treatment and feeling secure during treatment. 12 (15.8%) were dissatisfied with the waiting time in the physiotherapy department.

##### *Speech therapy department*

Out of 62 participants, 57 (91.9%) were satisfied with courtesy and helpfulness, the information provided about the parent's role in the child's recovery, instructions given to the parents for regular follow up. 9 (14.5%) were dissatisfied with the information provided about the treatment adopted by the speech therapy department.

##### *Psychology department*

Out of 53 participants, 48 (90.6%) were satisfied with the information provided about the treatment given to the child. 9 (17.0%) were dissatisfied with the information provided about the future condition of the child after treatment and information provided about the parent's role in the child's recovery by the psychology department.

##### *Counselling department*

Out of 61 participants, 55 (90.2%) were satisfied with the information provided about the parent's role in a child's recovery. 11 (18.0%) were dissatisfied with the information provided about the treatment adopted, room infrastructure and instructions given to the parents for regular follow up by the counseling department.

##### *DEIC manager*

Out of 276 participants, 261 (94.6%) were satisfied with the information provided about the parent's role in child recovery. 29 (10.5%) were dissatisfied with the courtesy and helpfulness of the DEIC manager.

*Staff nurse*

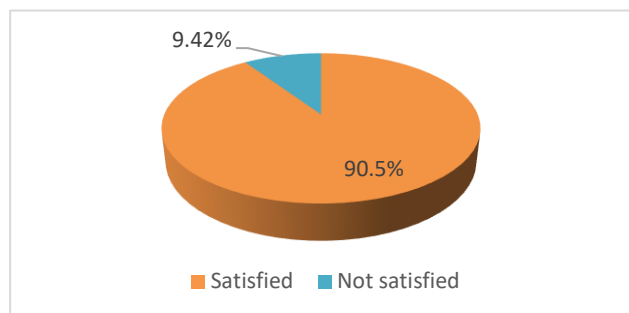
Out of 276 participants, 257 (93.1%) were satisfied with ease and assurance, availability of treatment facilities, room infrastructure and involving parents in decision making. 31 (11.2%) were dissatisfied with the courtesy and helpfulness of the staff nurse.

*Ophthalmology*

Out of 12 participants, all of there were satisfied with the available treatment facilities. 4 (33.3%) were dissatisfied with the courtesy and helpfulness of the ophthalmology department.

**Table 3: Association of educational status with client satisfaction.**

Educational status	Satisfied N (%)	Dissatisfied N (%)'	Chi-square	P value
Primary school	13 (86.7)	2 (13.3)	0.464	0.977
Middle school	9 (90)	1 (10)		
High school	117 (90.7)	12 (9.3)		
PUC/diploma	96 (90.6)	10 (9.4)		
Graduate	15 (93.8)	1 (6.3)		



**Figure 1: Overall satisfaction.**

Among 276 study participants, 250 (90.5%) were satisfied and 26 (9.42%) were dissatisfied with the functioning and services provided at DEIC.

Among 276 participants, 117 (90.7%) with high school education were more satisfied and 10 (9.4%) with PUC/diploma education were more dissatisfied with the services provided across various departments of DEIC. The educational status of the beneficiaries was not associated with satisfaction and was not statistically significant also. Chi-square was 0.464, p value=0.977.

**DISCUSSION**

DEIC were established at the district level equipped with different domain specialists to provide screening, medical management and referral support to the children identified with the 30 disease conditions. The DEIC of Mysore was initially proposed at Cheluvamba hospital.

But, the scarcity of space, forced the authorities to reconsider the plan and established it in the building attached to primary health centre, Nachanahalli Palya.

*Pediatric department*

In this study, it was observed that 272 (98%) were satisfied with the information provided about the medications and, 18 (6.5%) were dissatisfied with the courtesy and helpfulness. This could be probably due to the communication barrier between the pediatrician and parents/bystanders.

*Physiotherapy department*

In the present study, all the clients were satisfied with the information provided about the future condition of the child after treatment and feel secured during treatment. 12 (15.8%) were dissatisfied with the increased duration of waiting time. This could be probably because of the parent's/bystander's lack of awareness of the time consuming procedures in the department.

*Speech therapy/audiology department*

In this study, out of 62 respondents, 57 (91.9%) were satisfied with courtesy and helpfulness, the information provided about the parent's role in a child's recovery, instructions given to the parents for regular follow up. 9 (14.5%) were dissatisfied with the information provided about the treatment adopted by the speech therapy department. This dissatisfaction could be probably because the clients were unable to understand the technical terms which are used by the speech therapist/audiologist.

*Psychology department*

In the current study, it was seen that, out of 53 respondents, 48 (90.6%) were satisfied with the information provided about the treatment given to the child. 9 (17.0%) were dissatisfied with the information provided about the future condition of the child after treatment and information provided about the parent's role in the child's recovery.

This dissatisfaction could be probably because the parents/bystanders could not understand the technical terms used by the psychologist and the communication barriers.

*Ophthalmology department*

In this study, it was seen that, out of 12 respondents, all of them were satisfied with the available treatment facilities. 4 (33.3%) were dissatisfied with the courtesy and helpfulness of the ophthalmology department. This dissatisfaction could be probably because of the hectic schedule of the optometrist and lack of supporting manpower.



### **Department of counseling**

In the present study, it was observed that, out of 61 respondents, 55 (90.2%) were satisfied with the information provided about the parent's role in a child's recovery. 11 (18.0%) were dissatisfied with the information provided about the treatment adopted, room infrastructure and instructions given to the parents for regular follow up by the counseling department. This dissatisfaction could be probably because of a lack of necessary equipment and infrastructure and a weak follow up system in the counseling department.

### **Services provided by the DEIC manager**

The present study observed that out of 276 respondents, 261 (94.6%) were satisfied with the information provided about the parent's role in child recovery. 29 (10.5%) were dissatisfied with the courtesy and helpfulness of the DEIC manager. This could be probably because of the patient load and multitasking by the DEIC manager.

### **Services provided by the staff nurse**

In this study, it was seen that out of 276 respondents, 257 (93.1%) were satisfied with the ease and assurance, provision of treatment facilities and involving parents in decision making. 31 (11.2%) were dissatisfied with the courtesy and helpfulness of the staff nurse. This dissatisfaction could be probably because of the increased workload of the staff nurse.

### **Overall client satisfaction**

Among 276 study participants, 250 (90.5%) were satisfied and 26 (9.42%) were dissatisfied with the functioning and services provided at DEIC. This was supported by the study conducted by Parmar et al who mentioned that 76.92% of beneficiaries were dissatisfied with the referral service and DEIC staff (behavior and availability) in Indore while in Ujjain 65.3% were dissatisfied. Beneficiaries remained dissatisfied about expenses, 71.1% in Indore and 63.4% in Ujjain.<sup>5</sup> Also, in a study conducted by Prabhu et al 53.0% beneficiaries were satisfied with the services at DEIC.<sup>6</sup>

### **Association of educational status with client satisfaction**

In this study, among 276 participants, 117 (90.7%) with high school education were more satisfied and 10 (9.4%) with PUC/diploma education were more dissatisfied with the services provided across various departments of DEIC. The educational status of the beneficiaries was not associated with satisfaction and is not statistically significant also.

### **Limitations**

The present study was done with small sample size. A larger sample size would give a better picture of client

satisfaction. Subjective differences in determining satisfaction were a limitation as individual expectation and perception vary.

### **CONCLUSION**

Among 276 study participants, overall 250 (90.5%) of the clients were satisfied and 26 (9.42%) were dissatisfied with the services provided at the DEIC. 9 (17.0%) were dissatisfied with the information provided about the future condition of the child after treatment and information provided about the parent's role in the child's recovery by the psychology department. 11 (18.0%) were dissatisfied with the information provided about the treatment adopted, room infrastructure and instructions given to the parents for regular follow up by the counselling department.

This institution aimed at improving the survival outcome of children through screening, early identification and management of four D's.

The findings of the present study will be useful input for the early intervention centers to improve their services and can also give an overview to the healthcare managers and policymakers in developing programs and policies to address the challenges identified at the DEIC.

### **Recommendations**

Capacity-building training should be conducted for the counseling and psychology department. Better coordination and review meetings with District authorities, ICDS departments and RBSK teams should be encouraged. A client feedback mechanism should be entertained concerning different departments at DEIC to improve the quality of care. Proper scheduling of patient visits will help to reduce the waiting time in the physiotherapy department at DEIC.

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