

Factors Determining in the Selection of Pediatrics Health Care Service in Chennai, India

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ABSTRACT

Background: Parents can choose their children's healthcare center; however, the healthcare business struggles to meet the growing health demands of vulnerable groups. Pediatricians now prioritize parental interests to improve their services and healthcare. This study also determined the association of sociodemographic variables with factors influencing the parent's decision.

Materials and Methods: A cross-sectional study was undertaken among 146 parents of children aged 0 to 13 years who sought-patient services at a paediatrics department of a tertiary care center in Chennai between July 2023 to October 2023. The Validated semi structured questionnaire was administered.

Results: In the present study, mean age group of the study population is 29±4, among them 69% were female and 31% were male. Sociodemographic variables, namely younger age, female gender, middle monthly income, and higher educational status, are influential in the parent's decision-making process for selecting a health care center.

Conclusion: Although parents may lack the ability to assess all facets of care and treatment, their perspectives contribute immensely to the interpersonal aspect of care, communication, information, and care organization. The present study has yielded significant results that enhance the knowledge base of practitioners, managers, and other professionals tasked with delivering pediatrics general practice services.

Keywords: Decision-making, Pediatrics, Patient-centered care, socioeconomic factor

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INTRODUCTION

Evaluating patient satisfaction has become increasingly important in assessing the quality of healthcare.¹ Favorable health care outcomes, including increased treatment adherence, improved clinical results, and reduced health care utilization, are linked to a positive performance on patient experience metrics.² In pediatrics, it is common for health legislation and policies to require the involvement of a parent, legal guardian, or surrogate decision maker in treatment decisions when the child is below the legal age of majority, lacks the ability to make independent health decisions, or requires help in giving consent or assent.^{3,4}

Parents expect their child will receive medical care of a satisfactory standard and access the most effective treatment options in order to achieve a cure and secure a healthy future.⁵ It is crucial for health systems to be flexible in meeting the needs of the populations they serve, and addressing the growing health needs of children calls for a systemic approach to enhance child health and ensure accessibility to healthcare services within this population.⁶ The accessibility of healthcare involves a multifaceted interplay between individuals and the healthcare system, encompassing the identification of healthcare needs and their subsequent fulfillment.⁷

According to previous studies, parents have expressed a desire to be involved in decisions about their child's health care in different ways and to different extents, with this desire potentially changing.⁸ Their inclination towards participation appears to be contingent upon various factors, including the demographic attributes of parents (e.g., age, education level, income, and marital status), emotional state, and level of competence.⁹⁻¹⁰ Other factors that contribute to influence include the type of illness, its acute or chronic nature, the severity of the condition, and the parents' prior experiences with health services.¹⁰ The intricacy of health-related decisions has heightened because of enhanced multidisciplinary practice and increased utilization of advanced treatment methods.^{10,11}

The selection of a pediatrics general practice by parents for their first or subsequent visits heavily relies on their expectations of the services provided. Initially, identifying parents' expectations of a pediatrics general practice is crucial in order to deliver personalized primary care services to both children and parents.¹² Currently, there is a lack of comprehensive understanding of the decision-making process employed by parents and families when seeking pediatrics healthcare. The current study seeks to fill this gap in the literature. With this background, we carried the current study to determine the factors influencing the parent's decision to choose the hospital for their children's health care. This study also determined the association of sociodemographic variables with factors influencing the parent's decision.

METHODOLOGY

A cross-sectional study was carried out for parents of children aged 0 to 13 years who sought outpatient services in paediatric department at a private tertiary care hospital in Chennai from July 2023 to October 2023. Grandparents, caregivers and relatives of the children, were excluded.

Sample size calculation and sampling method: Based on the study by Khoo et al. at two urban pediatrics general practice centers in Malaysia by 2021, in which the mean score of doctors attempt to explain my child's problem was 4.66 ± 0.53 .¹², the sample size was calculated as 133 using the formula, $n=3.84 * (S.D)^2/d^2$. By adding 10% of non-response rate sample size was rounded to 146. All eligible consecutive cases visited pediatric OPD and gave consent to participate in the study were included till the sample size was achieved, no other patient was recruited till the data completion of the first patient.

Ethics consideration: Obtained institutional ethical committee clearance from SRM Medical college hospital and research centre on May 27, 2022. Ethics clearance number: 8434/IEC/2022. Consent was obtained from all parents for voluntary participation. Confidentiality and anonymity of the respondents was maintained.

Data collection Tool & Procedure: Data was collected by semi structured questionnaire. Questionnaire was translated into Tamil language, and content validity has been checked with expert member. Questionnaire consist of two parts, The first section of the questionnaire comprised Demographic information, including parental age, gender, highest level of education, monthly household income (modified Kuppusamy Scale)²³, occupation, as well as the age and gender of the children.

The second section of the questionnaire contained evaluations of crucial factors affecting pediatric care services. Five essential factors in the decision-making process, including consultations, facilities and services, fees and charges, social media engagement, and doctors' attitude was framed, and evaluated using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data analysis: The data was entered into MS Excel and analyzed using IBM SPSS Statistics for Windows, version 20.0. Continuous variables were reported as mean and standard deviation in the descriptive statistics, while categorical variables were expressed as frequencies and percentages. Deciding factors responses was categorized into two groups (i.e.) Agreed and Disagreed, by adding agree, strongly agree and neutral groups under agreed groups. Disagree and strongly disagreed groups under disagreed groups for further application of statistical procedures. Chi-square test at 95% confidence interval was used to observe statistical significance between the categorical variables.

RESULTS

In the present study, mean age group of the study population is 29±4, among them 69% were female and 31% were male. Most of them were homemakers (51.4%) and belongs to lower class (52.7%). Majority of them completed their undergraduate degree (44.5%). Parents with children in the age group of 1-3 years (34.2%) are most frequently utilized the health care services (Table-1).

Table -2 shows, most of the participants are preferring the health care services due to less waiting time (78%), consultation privacy (77.4%), doctors listened to their complaints patiently (77.4%), polite behavior of staff (76.7%), doctors explained health information in mother tongue (71.2%), availability of doctors on public holidays (63.7%). Majority of them (80.9%) agreed that hospital has universal precautions and sterilized equipment's in paediatric OPD. Only 50% of the study participants felt that easy OP registration process, clean and comfortable waiting room, easy accessibility of the hospital, and hospital was equipped with interactive technology such as floor based virtual playground and sufficient parking area.

Table-3 reveals that when compared to male participants, female participants are interested in checking hospital updated web page, and influenced by positive reviews over social media it shows statistically significant (p-0.05 & p-0.009). Most of the them in the age group of 31-40 years reported that hospital has collected reasonable treatment charges when compared to other age groups, it shows statistically significant (p-0.035). Upper middle class participants were attracted by hospital equipped with interactive technology such as floor based virtual playground and transparent billing charges when compared to

other income groups, it shows statistically significant (P-0.046 & p-0.04) lower middle class attracted by sufficient parking area when compared to other income groups, it shows statistically significant (p-0.012), upper class inspired by positive reviews over media when compared to other income groups, it shows statistically significant (P-0.000).

Table 1: Distribution of socio- demographic characteristics of the parents (N=146)

Parent's Characteristics	Parents (%)
Gender	
Male	46 (31.5)
Female	100 (68.5)
Age group	
21-30 years	94 (64.4)
31-40 years	35 (24)
41-50 years	16 (11)
above 50 years	1 (0.6)
Occupation	
Government employee	14 (9.6)
Private employee	28 (19.2)
Self-employee	29 (19.9)
House wife	75 (51.36)
Monthly Income (Modified Kuppaswamy Scale)	
Lower class	77 (52.73)
Lower middle class	48 (32.9)
Upper Middle class	13 (8.9)
Upper class	8 (5.5)
Educational status	
High school	10 (6.9)
Higher secondary	50 (34.2)
Under graduate	65 (44.5)
Post Graduate	21 (14.38)
Age group of children	
0-6 months	29 (19.9)
7-12 months	10 (6.8)
1-3 years	50 (34.2)
4-6 years	45 (30.8)
Above 6 years	12 (8.2)

Table 2: Parental ratings on choosing Paediatric Health Care

Deciding factors	Strongly Dis-Agree	Dis-Agree	Neutral	Agree	Strongly Agree
Doctors explained the diagnosis and Treatment plan	0 (0)	5 (3.4)	43 (29.5)	52 (35.6)	46 (31.5)
Waiting time is less than 15 min	0 (0)	0 (0)	32 (21.9)	60 (41.1)	54 (37)
Staff's polite behavior	0 (0)	0 (0)	34 (23.3)	52 (35.6)	60 (41.1)
Doctors explained health information in patient's mother tongue	0 (0)	4 (2.7)	38 (26)	54 (37)	50 (34.2)
Easy OP registration process	0 (0)	3 (2.1)	73 (50)	37 (25.3)	33 (22.6)
Clean and comfortable waiting room	0 (0)	9 (6.2)	65 (44.5)	47 (32.2)	25 (17.1)
Easy accessibility of hospital	1 (0.7)	9 (6.2)	57 (39)	48 (32.9)	31 (21.2)
Consultation privacy	0 (0)	3 (2.1)	30 (20.5)	58 (39.7)	55 (37.7)
Availability of doctor during public holidays	0 (0)	2 (1.4)	51 (34.9)	48 (32.9)	45 (30.8)
Availability of Interactive technology, like floor based virtual playgrounds	15 (10.3)	10 (6.8)	48 (32.9)	44 (30.1)	29 (19.9)
Sufficient parking area	8 (5.5)	21 (14.4)	47 (32.2)	38 (26)	32 (21.9)
Universal precautions and sterilized equipment used in the department	0 (0)	0 (0)	28 (19.2)	42 (28.8)	76 (52.1)
Clear and transparency of billing charges	4 (2.7)	28 (19.2)	45 (30.8)	28 (19.2)	41 (28.1)
Reasonable consultation charges	5 (3.4)	34 (23.3)	47 (32.2)	31 (21.2)	29 (19.9)
Reasonable treatment charges	6 (4.1)	34 (23.3)	43 (29.5)	30 (20.5)	33 (22.6)
Updated web page of the hospital	3 (2.1)	29 (19.9)	46 (31.5)	38 (26)	30 (20.5)
Positive reviews about hospital over media	1 (0.7)	8 (5.5)	28 (19.2)	28 (19.2)	81 (55.5)
Patient listening of the doctor	0 (0)	2 (1.4)	31 (21.2)	40 (27.4)	73 (50)
Response of doctor for the queries regarding child's health	0 (0)	3 (2.1)	32 (21.9)	42 (28.8)	69 (47.3)

Figure in the parenthesis indicate percentage.

Table-3 Association between socio-demographic characteristics and deciding factors

Variable	Disagreed (%)	Agreed (%)	Chi-square Value	P -value
Updated web page of the hospital				
Male	30(65.2)	16 (34.8)	3.7535	0.052
Female	48(48)	52 (52)		
Positive reviews over media				
Male	18 (39.1)	28(60.8)	6.7482	0.009
Female	19(19)	81(81)		
It is Reasonable treatment charges				
21-30 years	53(56.3)	41(43.7)	22.189	0.035
31-40 years	16(45.7)	19(54.3)		
41-50 years	13 (81.3)	3(18.7)		
above 50 years	1(100)	0 (0)		
Hospital equipped with interactive technology such as floor based virtual play ground				
Lower class	35 (45.5)	42 (54.5)	26.586	0.046
Lower middle	28(58.3)	20(41.6)		
Upper middle class	4(30.7)	9 (69.2)		
Upper class	6(75)	2(25)		
Sufficient parking area				
Lower class	60 (77.9)	17 (22.1)	31.316	0.012
Lower middle class	20(41.7)	28(58.3)		
Upper middle class	6(46.1)	7 (53.9)		
Upper class	7(87.5)	1(12.5)		
Transparent billing charges				
Lower class	42(54.5)	35(45.5)	27.140	0.04
Lower Middle class	25 (52.1)	23(48.9)		
Upper middle class	6(46.1)	7(53.9)		
Upper class	4(50)	4(50)		
Positive reviews over media				
Lower class	18 (23.4)	59(76.6)	81.107	0.000
Lower middle class	14(29.1)	34(70.8)		
Upper middle class	4 (30.8)	9(69.2)		
Upper class	1(12.5)	7(87.5)		
Billing charges are clear and transparent				
High school	5(50)	5(50)	31.989	0.01
Higher secondary school	32(64)	18(36)		
Under graduate	27(41.5)	38(58.5)		
Post Graduate	13(61.9)	8(38.1)		
Consultation charges are reasonably priced				
High school	7(70)	3 (30)	27.780	0.034
Higher secondary school	33 (66)	17 (34)		
Under graduate	32(49.3)	33(50.7)		
Post Graduate	13(66.7)	7(33.3)		
Positive reviews over media				
High school	1(10)	9 (90)	30.368	0.016
Higher secondary school	15 (30)	35(70)		
Under graduate	17(26.2)	48(73.8)		
Post Graduate	4(19.1)	17(80.9)		

When compared to schooling and other graduates, participants who completed undergraduate reported that hospital billing charges are clear and transparent, consultation charges are reasonably priced, it shows statistically significant ($p=0.01$ & $p=0.034$), and there was also a significant relationship noted with those who completed high school and hospital positive reviews over media ($p=0.016$). All deciding factors compared with socio demographic variables have been attached as enclosure at the end of the article.

DISCUSSION

In this study, higher participants parents belong to the gender female, when compare to male, similar findings noted in the cross-sectional study Khoo et al.

at two urban pediatrics general practice centers in Malaysia by 2021, in which the study respondents comprised 66.4% of women and 33.6% were men.¹²

Sociodemographic variables influenced the selection of a healthcare center by parents, including younger age, female gender, monthly income, and higher educational status. Parental income levels influence the choice of accessing child healthcare services, same observed by the studies conducted by Khoo et al. and Goff et al.^{12,17} The findings of a study conducted by Rosati et al. in 2018 revealed that parents with a higher level of education showed a higher inclination towards participating in shared decision-making with their healthcare providers, in contrast to those with lower levels of education.¹⁸ The results our study is consistent with these findings.

To decide the pediatrics hospital, over 50% of the parents strongly agree on elements such as positive reviews about hospital over media, universal precautions followed and sterilized equipment used in the department, and patient listening of the doctor. In order to decide the paediatric hospital, over 40% of the parents strongly agree on elements such as response of doctor for the queries regarding child's health and staff's polite behavior.

A study conducted by Davis et al. in 2005, parents considered several factors when deciding the pediatric health center. These factors included short waiting time, off-hours service, walk-in clinic availability, effort made to explain the child's problem, treatment plan effectiveness, recurrence of the problem, doctors' engagement on social media, and doctors' appearance.¹³ A study conducted by Boutopoulou et al. in Greece examined parental satisfaction regarding their child's hospital care. They observed that the key factors contributing to parental satisfaction were the adequacy of care, effective pain management, parental involvement in care, establishment of trust, and staff attitudes.¹⁴ Wun et al. conducted a study that employed both qualitative and quantitative methods, revealing that the most significant factors in doctor selection were the proximity of the clinic's location and the fees and charges of the hospital¹⁵ which are almost identical to this present study.

According to this study the availability of doctors even during public holidays were agreed by 32.9% of parents, it is contradicted with previous study by Samman K, et al, as there is unavailability of primary care physician in holidays hence parents prefer for clinics, it is appreciable that doctors are providing selfless services.²²

In Parish O et al and Polakova K et al study there is lack of medical information provided to parents which interfere in decision making and it also negatively impact the child health,^{24,25} but according to our findings doctors are always willing to provide medical information related to child health which facilitates in decision making among parents.

According to our findings, the factors that are influencing the parent's decision to choose the hospital for their children's health care are facilities and services of the hospital, fees collected as well as social media engagement. Health care providers should consider improvements in "facilities and services" to enhance their competitiveness and desirability in the present, but it is also important to prioritize fundamental elements like effective communication with healthcare professionals, provision of information, involvement in decision-making, physical comfort, emotional support, and seamless care transitions.¹⁶

Family-centered care and services are integral part to promote user involvement, as they aim to facilitate personalized health care planning for both the child and the entire family.¹⁹ As per previous report, it is vital to engage in ongoing role negotiation and maintain open communication with parents in order to

provide family-centered care and services, but at present there appears to be a lack of sufficient inclusion of these elements in clinical settings.²⁰

The decision-making process for parents regarding pediatric healthcare is not isolated, as they contemplate their options, draw from experiences, and make the most suitable choice in each specific situation.⁶ The association between a robust primary care system and improved population health outcomes is well-established, yet it is crucial to address the significant limitations posed by access issues faced by certain population subgroups and the practical considerations of parents.²¹

LIMITATIONS

Used convenience sampling which may lead to selection bias, potentially compromising the accurate capture of different views between parents. Self-reported data on healthcare service provided by hospital providers collected at a single point in time in a private tertiary care hospital, hence generalizability can be compromised.

CONCLUSION

The factors that are influencing the parent's decision to choose the hospital for their children's health care in this study are facilities and services of the hospital, Fees collected as well as social media engagement over media. The sociodemographic variables that are influencing the parent's decision to decide such health care center are parents' age, gender, monthly income, and educational status. While parents may not evaluate all aspects of care and treatment, their viewpoints can significantly contribute to the interpersonal dimension of care, communication, information, and care organization. Although these findings offer insights into potential approaches for reorganizing the provision of clinical service to better accommodate the needs of low-income and multi-ethnic populations, it is crucial to acknowledge that the design process of health care services is inherently human-focused and cannot be uniformly standardized. The present study has put forth significant findings that enhance the knowledge base for practitioners, managers, and other professionals tasked with providing paediatric general practice services.

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