

Original Research Article

Health seeking behaviour and factors determining it among the parents of under-five children for childhood illnesses in a selected area of Southern Karnataka: a cross-sectional study

Shweta Neminath Kurkuri^{1*}, H. R. Raveendra Reddy², Punith Nanjesh³

¹Department of Community Medicine, JSS Medical College, JSS AHER, Mysuru, Karnataka, India

²Department of Community Medicine, VIMS, Bangalore, Karnataka, India

³Department of Orthopaedics, JSS Medical College, JSS AHER, Mysuru, Karnataka, India

Received: 25 August 2025

Accepted: 16 October 2025

*Correspondence:

Dr. Shweta Neminath Kurkuri,

E-mail: shweta.n.kurkuri@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Child mortality remains a concern worldwide. Health-seeking behavior (HSB) reflects how people make decisions about healthcare. The objectives include assessing the HSB among parents of under-five children for specific childhood illnesses (such as pneumonia, diarrhea, malaria, measles) and identifying the factors determining the HSB.

Methods: A cross-sectional study was undertaken among 215 parents of under-five children in selected areas of Bengaluru rural district. A multistage sampling method was incorporated. Data was collected by the interviewer-administered pre-tested semi-structured questionnaire and analysed using Epi-Info™ software version 7.2.1. Chi-square test was performed to find out the association between where and why parents choose a particular healthcare facility.

Results: Among 215 participants, HSB was 100%. The most commonly perceived cause of illness was contaminated food and water (67.44%), and the most common perceived symptom was fever (62.33%). The majority of children consulted a doctor on the first day of onset of illness (41.86%) and after one episode of onset of symptoms (36.28%). The private sector (80%) was the preferred choice for seeking treatment, followed by the government sector (17.67%) and other health-facility (2.33%). The commonest reason why parents prefer to seek any health-care facility was that the illness can be cured without any complication (33.95%). Factors influencing HSB included fathers' age and the number of episodes of symptoms before seeking treatment.

Conclusions: The HSB among the parents of under-fives was 100%. The private sector was the preferred choice. There was a strong association between where and why parents seek a particular healthcare facility.

Keywords: Health seeking behaviour, Under-five children, Parents, Childhood illness

INTRODUCTION

Child mortality remains a significant concern worldwide. According to the World Health Organization, in 2017, 5.4 million children of the under-five age group had died, and nearly 15,000 die every day, most of them were from low- and middle-income countries. Globally, under-five mortalities have reduced by 58% from 1991 to 2017.¹ Nearly 50% of these under-five deaths are preventable and treatable. Approximately 40% of these deaths are due to

pneumonia, diarrhoea, malaria, meningitis, tetanus, HIV, measles, and >50% are attributable to undernutrition.²

The Sustainable Development Goals aim to reduce under-five mortality to 25 per 1,000 live births.³ According to the National Family Health Survey (NFHS-4), under-five mortality in India remains at 50 per 1,000 live births, with Karnataka reporting 31 per 1,000 live births.⁴ Health-seeking behavior (HSB) reflects how people make decisions about healthcare, including choosing between

government, private, or traditional health services. Understanding these behaviors helps identify gaps in healthcare access and the planning of health interventions.^{5,6} Programs like Integrated Management of Neonatal and Childhood Illness aim to reduce child mortality by enhancing health-seeking behavior.⁷

Studies have shown that health-seeking behavior varies widely across India.⁸⁻¹² In Karnataka, few studies have comprehensively explored these behaviors. With this background, the present study was conducted with the objectives to assess parents' health-seeking behavior for childhood illnesses (pneumonia, diarrhea, fever, malaria, and measles) and to identify the factors influencing these HSB.

METHODS

The study was conducted in the rural field practice area of a Medical College in Bangalore, Karnataka, India. A community-based cross-sectional study was carried out over two months, from August 2022 to September 2022. Parents or caregivers of children under five years of age who had been residing in the study area for at least six months and who provided written informed consent were included in the study. Caregivers who were unavailable at their residence even after three home visits were excluded. The sample size was calculated based on the National Family and Health Survey– 4 data, where the prevalence of children with fever who were taken to a health facility for treatment was 73%.⁴ With a precision of 6%, 95% Confidence Interval, the required sample size was 211, which was rounded off to 215. A multistage sampling method was employed for the study as depicted in Figure 1. One sub-center was randomly selected from the four sub-centers in the rural field practice area. From the selected sub-center, a list of villages was prepared, and one village was randomly chosen for the house-to-house survey. Households with children under-five years of age were identified, and the youngest child in the household was selected for the study if there were multiple eligible children. If a household was locked, it was revisited up to three times. Additional villages were randomly selected as needed until the required sample size of 215 was achieved. The research proposal was reviewed and approved by the Institutional Ethics Committee (IEC) of before the initiation of the study. Written informed consent was obtained from all participants, and data were collected using a pre-tested, semi-structured questionnaire administered by trained interviewers. The questionnaire included four sections: Sociodemographic details, Knowledge about childhood illnesses, Health-seeking behaviour, and Reasons based on perception for not seeking and seeking a particular health-care facility like government, private or other health-care facility.

The data were entered and analyzed using Epi Info™ version 7.2.1. Descriptive statistics such as percentages, proportions, means, and standard deviations were used to summarize the data. The Chi-square test was applied to

determine associations between health-seeking behaviour and participant characteristics. A p value of <0.05 was considered statistically significant.

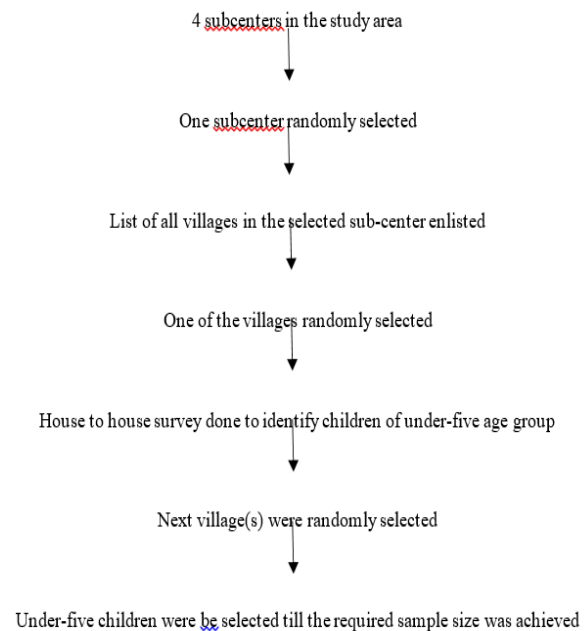


Figure 1: Multistage sampling method.

RESULTS

The total sample size comprises 215 participants, with 112 males (52.1%) and 103 females (47.9%). The mean age of the children was 30.09±17.77 months.

Table 1 presents parental knowledge of illness causes in children. Most (67.44%) cited contaminated food or water as the primary cause. Other factors included poor sanitation (8.84%), insects/vectors (8.37%), and undercooked food (4.19%). Less common responses (8.36%) included poor hygiene, weaning/teething, and uncertainty. Rare beliefs (2.79%) linked illness to divine punishment, past sins, or impure blood. This indicates a high awareness of contamination-related illnesses. Most (62.33%) of the parents sought treatment for fever, followed by loose stools (11.16%), cough and cold (10.70%), vomiting (6.51%), and other concerns (9.30%). Fever is the primary reason for medical help. Treatment-seeking varied: 36.28% visited a healthcare facility after one episode, 34.88% after two, 18.14% after three, and 10.70% only after four or more, indicating delays due to awareness or access issues. Only 13.96% seek a doctor immediately after the illness onset, while 41.86% do so on the first day. Others delay until the second day (28.37%) or beyond (15.81%). Regarding healthcare access, 50.7% have subcenters and 49.3% have private clinics as their nearest option to the residence.

Table 2 shows healthcare preferences. Most parents prefer private hospitals/nursing homes (42.33%) or clinics (27.91%). Government facilities like CHCs (11.16%) and

PHCs (6.51%) are less utilized. Some (9.77%) use both private and government services, while 2.32% seek

ayurvedic treatment. Despite the proximity of government hospitals, private setups remain the preferred choice.

Table 1: Distribution of study subjects based on knowledge about cause of illness (n=215).

Causes of illness	N	%
Poor sanitation at home and environment	19	8.84
Insects/vectors	18	8.37
Consumption of undercooked food	9	4.19
Poor personal hygiene	8	3.72
Weaning/teething	5	2.32
Don't know	5	2.33
Other causes	6	2.79
Total	215	100

Table 2: Distribution of study subjects on the facility where they usually seek the treatment (n=215).

Preferred healthcare facility	N	%
Private hospital/nursing homes	91	42.33
Private clinic	60	27.91
Community healthcare centre	24	11.16
Both (government and private)	21	9.77
Primary healthcare centre	14	6.51
Ayurveda doctor	5	2.32
Total	215	100

Chi-Square test =92.62, p value <0.0001.

Figure 2 shows reasons for seeking healthcare. The largest group (33.95%) sought care to prevent complications, followed by 32.10% fearing their condition would worsen. Proximity to the healthcare centre influenced 19.53%, while 5.58% sought help when the child refused feeds. Advice from others or media exposure prompted 5.12%, and 3.72% cited persistent crying or failed home remedies.

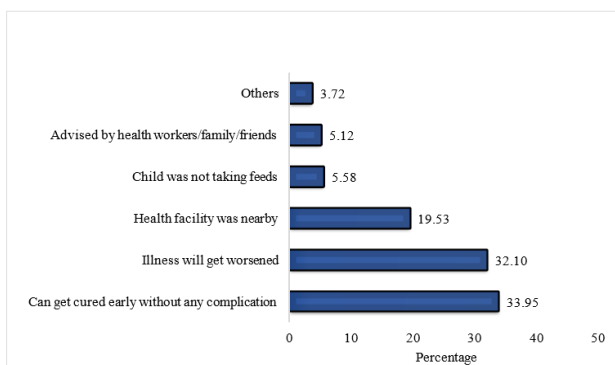


Figure 2: Reasons based on perception of seeking a health care facility (n=215).

Among children in the past month and at the time of the interview, of 79 (36.74%) sick children, most had cough and cold (53.16%), followed by fever (30.38%), diarrhea (11.40%), and pneumonia (5.06%). Among them, 60.75% sought treatment from private providers, 24.05% from pharmacies, and only 15.20% from government facilities. This highlights a strong preference for private and pharmacy-based care over government healthcare services.

Table 3 highlights the association between healthcare facility choice and reasons for selection. Among 38 individuals using government healthcare, most (25) chose it for affordability, while fewer cited good treatment (8), shorter wait times (4), or proximity (1). In contrast, 122 of 177 individuals preferred private healthcare for better treatment. Smaller groups cited proximity (29), shorter wait times (18), or affordability (8). Chi-square test ($p<0.0001$) shows a significant association between healthcare choice and the reasons for seeking care.

Table 4 analyzes socio-demographic factors influencing health-seeking behavior. Most factors, including the child's age, gender, maternal age, birth order, parental education, family type, socioeconomic status, and treatment delay, showed no significant association with health-seeking behaviour. However, fathers aged ≥ 31 years were more likely to seek private care (85.8%) than those aged 21-30 (74.7%), with a significant association ($p=0.046$). Children experiencing more symptom episodes before seeking treatment were likelier to visit private healthcare (e.g., 39.1% with ≥ 4 episodes), with a significant association ($p=0.009$). The study concluded that the health-seeking behaviour among the parents of under-fives was good and 100%. The private sector was the preferred choice. There was a strong association between where and why parents seek a particular healthcare facility. Age of the father and the number of episodes of symptoms following which a healthcare facility was sought had a strong association with health-seeking behaviour.

Table 3: Association between where and why parents seek a particular health care facility (n=215).

Reasons for seeking	Government	Private/others	Total
	N (%)	N (%)	N (%)
Good treatment	8 (21.05)	122 (68.93)	130 (60.47)
Less expensive	25 (65.79)	8 (4.52)	33 (15.35)
Near to residence	1 (2.63)	29 (16.38)	30 (13.95)
Short waiting queue	4 (10.53)	18 (10.17)	22 (10.23)
Total	38 (100.00)	177 (100.00)	215 (100.00)

Table 4: Relationship between socio-demographic factors and health-seeking behaviour (n=215).

S. no.	Variables	Government, N (%)	Private/Others, N (%)	χ^2	P value
1.	Age of child (years)			1.148	0.8865
	<1 (n=45)	10 (22.2)	35 (77.8)		
	1-<2 (n=37)	6 (16.2)	31 (83.8)		
	2-<3 (n=44)	7 (15.9)	37 (84.1)		
	3-<4 (n=40)	7 (17.5)	33 (82.5)		
	4-<5 (n=49)	8 (16.3)	41 (83.7)		
2.	Gender			0.008	0.7759
	Male (n=112)	19 (17)	93 (83)		
	Female(n=103)	19 (18.4)	84 (81.6)		
3.	Age of mother (years)			0.9043	0.316
	21-30 (n=175)	33 (18.9)	142 (81.1)		
	≥31(n=40)	5 (12.5)	35 (87.5)		
4.	Age of father (years)			3.965	0.046
	21-30 (n=67)	17 (25.3)	50 (74.7)		
	≥ 31 (n=148)	21 (14.2)	127 (85.8)		
5.	Birth order			1.043	0.5935
	1 (n=104)	21 (25.3)	83 (79.7)		
	2 (n=101)	15 (14.9)	86 (85.1)		
	≥3 (n=10)	2 (0.2)	8 (0.8)		
6.	Education of parents			6.152	0.1045
	Illiterate (n=26)	8 (30.8)	18 (69.2)		
	Primary school (n=37)	8 (21.6)	29 (78.4)		
	High school (n=277)	50 (18.1)	227 (81.9)		
	>High school (n=90)	10 (11.1)	80 (88.9)		
7.	Type of family			0.8736	0.6461
	Nuclear (n=106)	17 (16)	89 (84)		
	Three generation (n=82)	17 (20.7)	65 (79.3)		
	Joint (n=27)	4 (14.8)	23 (85.2)		
8.	Socioeconomic status (Modified B G Prasad classification)			0.3531	0.8381
	Class III (n=21)	4 (19.1)	17 (80.9)		
	Class IV (n=139)	23 (16.5)	116 (83.5)		
	Class V (n=55)	11 (0.2)	44 (0.8)		
9.	Duration after which parents approached a doctor following the onset of illness			1.18	0.7578
	Immediately (n=30)	5 (16.7)	25 (83.3)		
	1 day (n=90)	16 (17.8)	74 (82.2)		
	2 days (n=61)	9 (14.8)	52 (85.2)		
	≥ 3 days (n=34)	8 (23.5)	26 (76.5)		
10.	Number of episodes of symptoms before approaching a doctor			11.44	0.009
	1 (n=78)	16 (20.5)	62 (79.5)		
	2 (n=75)	7 (9.3)	68 (90.7)		
	3 (n=39)	6 (15.4)	33 (84.6)		
	≥4 (n=23)	9 (39.1)	14 (60.9)		
	Total (215, 100%)	38 (17.68)	177 (82.32)		

DISCUSSION

Health-seeking behavior (HSB) is influenced by several factors such as socio-economic status, education, availability of healthcare facilities, cultural norms, and individual perceptions. In the current study, the health-seeking behavior was found to be 100%, which contrasts with findings from other regions in India where HSB varies. For example, studies show that the percentage of people seeking healthcare facilities is 90.82% in Tamil Nadu, 81% in Davangere, 47% in Himachal Pradesh, and 33.08% in Odisha.⁸⁻¹¹ Minhas et al study observed that 30.5% of participants utilized secondary-level healthcare, and 28.4% preferred private Ayurvedic practitioners.¹⁰ This contrasts with our study, where other healthcare options were considered. Similar trends were observed in the study by Yerapude et al, where a majority preferred private healthcare.⁸ The preference for private healthcare in our study may be due to the perception of higher-quality care and quicker access to treatment. In a study by Yamuna, 53% of children had received some form of treatment within the past two weeks, with 81% seeking treatment from healthcare facilities, predominantly from the private sector. In their study, the most common reason for poor HSB was the continuation of the same medications prescribed for previous illnesses.⁹ In contrast, in our study of 215 children, 79 children were suffering from some form of illness, and all of them sought treatment from healthcare facilities, with a preference for private facilities.

In terms of treatment-seeking timelines, 13.96% and 41.86% of parents in the present study sought treatment immediately following the onset of illness and within 24 hours, respectively. However, in a study by Mishra et al., 84.23% of participants sought treatment within 24 hours, highlighting regional variations in response times.¹¹

Mishra et al reported that the mother's age, education level, Hindu religion, and upper-lower socio-economic status were significantly associated with HSB.¹¹ Yerapude et al also identified exposure to mass media, literacy of the mother, and male gender as significant factors determining HSB.¹² However, in our study, no significant associations were found between gender or religion and HSB. The factors significantly associated with HSB in our study were the father's age and the number of episodes of symptoms before healthcare was sought.

These findings highlight regional variations in HSB and the influence of multiple factors, including the preference for private healthcare, the timing of treatment, and socio-demographic factors such as parental age and episodes after which the treatment was sought. Interventions tailored to address these multifaceted determinants—such as improving accessibility, educating caregivers on the importance of prompt healthcare, and leveraging trusted local systems like Ayurveda—are crucial to improving health outcomes.

The study's limited sample size and regional focus restrict generalizability to areas with different socio-cultural or economic contexts. Reliance on self-reported data may have introduced recall bias. Additionally, the cross-sectional design captures only a snapshot of health-seeking behavior, without accounting for temporal or seasonal variations. Integrating qualitative methods (e.g., in-depth interviews) alongside surveys could enhance understanding. Longitudinal studies would provide deeper insights.

CONCLUSION

Public health efforts should prioritize awareness campaigns to reduce healthcare-seeking delays and promote government facilities. Mobile health (mHealth) and telemedicine could improve access in underserved areas. Addressing these limitations and implementing recommendations can help refine future research and public health strategies to enhance healthcare utilization among vulnerable populations.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. World Health Organization. Global Health Observatory Data [Internet]. Geneva: 2016. Available from: http://who.int/gho/child_health/mortality/mortality_under_five_text/en/. Accessed on 08 May 2019.
2. United Nations International Children's Emergency Fund (UNICEF). Levels and trends in child mortality Report 2018; 2018. Available from: <https://data.unicef.org/wp-content/uploads/2018/10/Child-Mortality-Report.2018.pdg>. Accessed on 05 August 2019.
3. World Health Organization. SDG 3[Internet]. Geneva: 2018. Available from: <https://www.who.int/sdg/targets/en>. Accessed on 18 May 2019.
4. Ministry of Health and Family Welfare Government of India. India Fact Sheet, National Family Health Survey (NFHS-4): 2018. Available from: <http://rchiips.org/NHFS/pdf/NHFS4/India.pdf>. Accessed on 02 May 2019.
5. Park K. Park's textbook of preventive and social medicine. 25th edition. Jabalpur India: Banarasidas Bhanot; 2019: 730p.
6. Department of health. Basic principles of healthy cities. Community diagnosis ; 2018. Available from : https://www.chp.gov.hk/files/pdf/hcp_community_diagnosis_en.pdf. Accessed on 08 May 2019.
7. World Health Organization. Integrated Management of Childhood Illness. Geneva: 2018. Available from: http://who.int/maternal_child_adolescent/topics/child/imci/en. Accessed on 05 May 2019.

8. Annadurai K, Venkatesh S, Ramasamy J. Health Seeking Behavior on Child Care Among Fishermen Community of Kovalam Village, Tamil Nadu, India. *Online J Health Allied Scs*. 2015;14(3):5.
9. Yamuna BN, Ratnaprabha GK, Kengnal P. Prevalence of acute morbidities and their health seeking behaviour among under-five children of urban slums in a city in Karnataka. *Int J Community Med Public Health* 2017;4(7):2449-56.
10. Minhas A, Chander V, Sharma S, Bansal P. Health care seeking behavior of parents of under five in District Kanga, Himachal Pradesh. *Int J Community Med Public Health* 2018;5(2):561-8.
11. Mishra K, Mohapatra I, Kumar A. A study on the health seeking behavior among caregivers of under-five children in an urban slum of Bhubaneswar, Odisha. *J Family Med Prim Care* 2019;8(2):498-503.
12. Yerpude PN, Jogdand KS, Shah JH, Thacker KB. A study of factors which determine health seeking behavior of mothers for their under five children in rural area of Gujarat. *Int J Community Med Public Health* 2017;4(11):4169-73.

Cite this article as: Kurkuri SN, Reddy HRR, Nanjesh P. Health seeking behaviour and factors determining it among the parents of under-five children for childhood illnesses in a selected area of Southern Karnataka: a cross-sectional study. *Int J Community Med Public Health* 2025;12:5132-7.