

Original Research Article

Study of health care seeking behaviour for illnesses among malnourished children of age 06-59 months in rural and urban areas of Jabalpur district, Madhya Pradesh

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ABSTRACT

Background: Even though appropriate medical care seeking could prevent a significant number of child deaths, significant numbers of children die without ever reaching a health facility or due to delays in seeking care.¹ This study aimed to compare health seeking behaviour among malnourished children in rural and urban areas.

Methods: Cross sectional study carried out in rural and urban areas of Jabalpur district among 1237 children of age group 06-59 months in randomly selected in eight wards and two blocks of Jabalpur District. Where 720 children were from urban wards and 517 from rural villages. Multistage random sampling technique was used for the selection of study subjects. Predesigned questionnaire used to collect data.

Results: Out of 720 children of urban area, percentage of acute malnutrition (low weight-for-height) was 136 (18.8%) while in rural area, out of 517 children percentage of acute malnutrition (low weight-for-height) was 102 (19.7%). Out of 136 malnourished children in urban, 32 (23.5%) were having illness while in rural out of 102, 43 (42.1%) were having illness. In rural areas, the mother or primary care giver of the study subjects preferred nearby government hospital (21.9%) the most during illness. While in urban, registered private practitioner (47%) were mostly preferred for consulting during sickness. Still 16.3% of the caregiver in rural area preferred quacks.

Conclusions: This shows that the approach of health seeking behaviour is better in urban areas as compared to rural as people still prefer quacks in rural areas.

Keywords: Health seeking behaviour, Illnesses, Malnutrition, Rural, Urban

INTRODUCTION

Malnutrition and Infection goes hand in hand. Studies have shown that the immunological response in malnutrition is impaired, immune mechanism of the body also goes down and hence child becomes more vulnerable for infection thus malnutrition and infection forms a vicious cycle. Furthermore, during illness partial or complete restriction of solid foods in the diet, which if

repeatedly followed with recurrence of episodes is likely to affect the nutrition of the child. Thus, the cumulative effect of all these factors associated with loss of appetite and increased requirement during illness leads to varying grades of malnutrition.²

If the malnourished child with infection gets the proper treatment then his chances of survival increases and if not, the condition may get worse and this cycle of

infection and malnutrition continues which may result in death of the child.

Globally, the total number of under-five deaths declined from 12.7 million in 1990 to 5.9 million in 2015.³⁻⁵ Despite these achievements and the fact that most of child deaths are preventable or treatable, many countries still have unacceptably high levels of under-five mortality.⁵ Of the global under-five deaths, most deaths (98.7%) arise in developing countries.³ A large proportion of under-five deaths were from preventable and treatable diseases like acute respiratory infections, diarrheal diseases and malaria.³⁻⁸ Most of these lives could have been saved through affordable treatment measures like antibiotics for acute respiratory infections, oral rehydration for diarrheal diseases and the use of appropriate drugs for malaria.^{4,9-11} However, significant numbers of the children continue to die without appropriate treatment and ever reaching health facility or due to delays in seeking care in developing countries.^{4,8,11,12}

According to NFHS-4 data Children with diarrhoea in the last 2 weeks taken to a health facility (%) in rural and urban areas are 65.8% and 74.1% respectively.¹³ Willis et al found that 26% of rural mothers do not seek treatment at a health care centre for the illness of their new-born child. 37% follow only home remedies and only 28% of mothers approach health care centre for treatment.¹⁴ Reasons for these observations are usually a poor socio-economic status, lack of accessibility, cultural beliefs and perceptions, low literacy level of the mothers and large family size.¹⁵

There hasn't been much focus on research regarding the rural-urban differentials in terms health seeking behaviour. Identifying these differentials will help the policy makers to make necessary changes in policies for urban and rural areas before implementation of programmes. This will in turn help in proper allocation of resources according to the felt need of the people.

Objectives

To explore the rural-urban differentials with respect to treatment seeking behaviour among under-five children and to find out the factors associated with their treatment-seeking behaviour.

METHODS

It was a cross sectional study conducted among children of age group 06-59 months in rural and urban areas of Jabalpur district from 1st April 2016 to 31st March 2017.

Sample size for urban and rural area was calculated separately according to the formula

$$N = \frac{Z^2 pq}{d^2}$$

where; p=prevalence, we have taken prevalence of malnutrition of urban and rural area, q=(100-p), d=margin of error, Z=Confidence level (for 95% confidence level it is 1.96).

According to NFHS-4 M.P, the prevalence of malnutrition among children under five years of age in urban area of Madhya Pradesh was 37%, taking it as prevalence, with the relative error (d) as 10% of Prevalence (P) and Z as 1.96, the sample size for urban area was calculated as 654. After adding 10% non-respondents, the final sample size came out to be 720.

Similarly for rural area, the prevalence of malnutrition among children under five years of age in rural area of Madhya Pradesh was 45%, taking it as prevalence, with the relative error (d) as 10% of Prevalence (P) and Z as 1.96, the sample size for rural area was calculated as 470. After adding 10% non-respondents, the final sample size came out to be 517.

Multistage random sampling technique was used for the selection of study subjects. In the first stage 79 wards under the Jabalpur Municipal Corporation were listed. 8 out of the total 79 wards were randomly selected. From each of the 8 wards three anganwadi centres were selected randomly. All the children in the age group 06-59 months from each anganwadi centre were enlisted. Using lottery method 30 children were selected randomly from each anganwadi centre.

Similarly, in rural area, there are 7 blocks; two out of seven blocks were selected randomly. From each block, five gram panchayats were selected using random table and then from each gram panchayat 52 children were selected randomly.

Pre-designed and pre-tested questionnaire was used for interview.

Face to face interview of the mothers or the primary care giver of the child was conducted after explaining the objectives of the study and obtaining the informed consent.

Data were collected, from the caregivers of under-five children, on history of childhood illnesses and caregivers' health care seeking behaviour for common childhood illnesses. The main suggestive symptoms of common childhood illnesses; cough accompanied with difficulty of breathing for acute respiratory infections (ARI), three or more loose or watery stools per day for diarrheal diseases and fever for febrile illnesses were used to assess caregivers health care seeking behaviour.

Severely ill children and whose parents were not willing to participate in the study were excluded from the study.

Data thus obtained was coded and entered into Microsoft excel worksheet. This was analyzed using Epi Info™

7.1.5 and SPSS 20.0 (free trial version). For determining the association Chi-square test, odds ratio was applied for each of the factor. The statistical significance was evaluated at 5% level of significance. p value less than 0.05 was considered as statistically significant. Microsoft Office Word 2007 and Microsoft Office Excel 2007 were used to generate tables.

RESULTS

According to WHO growth standard (2006) out of total 720 children of urban area involved in the study, percentage of acute malnutrition (low weight-for-height) was 136 (18.9%) while in rural area, out of 517 children percentage of acute malnutrition (low weight-for-height) was 102 (19.7%) (Table 1).¹⁶

Table 1: Distribution of children according to area and malnutrition status.

Area	Undernourished (<-2 SD to -3 SD score) N (%)	Severe undernourished (<-3SD score) N (%)	Total N (%)
Rural	70 (13.5)	32 (6.2)	102 (19.7)
Urban	99 (13.7)	37 (5.1)	136 (18.9)

Table 2: Distribution of children with illness according to area and age group and gender.

	Rural (n=43) N (%)	Urban (n=32) N (%)
Age (in months)		
06 to 12	2 (4.6)	3 (9.4)
13-24	12 (27.9)	13 (40.6)
25-36	11 (25.6)	6 (18.7)
37-48	9 (21)	7 (21.9)
49-59	9 (21)	3 (9.4)
Gender		
Male	20 (46.5)	19 (59.4)
Female	23 (53.5)	13 (40.6)

Table 3: Area wise distribution of malnourished children according to health seeking behaviour during time of illness within last one month.*

Health seeking behaviour	Rural (n=43) N (%)	Urban (n=32) N (%)
No treatment	4 (9.3)	1 (3.1)
Home remedies	7 (16.3)	1 (3.1)
Consultation with AWW/ANM/MPW	6 (14)	3 (9.4)
Went to registered private practitioner	6 (14)	15 (47)
Nearby government hospital	9 (21)	4 (12.5)
Private hospital	2 (4.6)	9 (28.1)
Quacks	7 (16.3)	0 (0)
Faith healers	3 (7)	1 (3.1)

*Multiple responses.

Among 102 malnourished children in rural area, 43(42.1%) were suffering from some kind of illness like diarrhoea, cough, common cold while in urban area, 32 (23.5%) out of 136 were suffering.

It has been observed that most of the malnourished children who are having illness belong to age group 13-24 months in rural and urban area both. In rural area, female were suffering more than male while in urban, male were suffering more than female (Table 2).

In urban area, Of the 32 sick children, 9 (28%) had cold n cough accompanied with difficulty of breathing, 20 (62.5%) had diarrhea and 5 (15.6%) had fever.

While in rural area, Of the 43 sick children, 17 (39.5%) had cold n cough accompanied with difficulty of breathing, 22 (51.2%) had diarrhea and 15 (35%) had fever.

This study reflected that in rural areas, the mother or primary care giver preferred nearby government hospital (21%) the most during illness.

While in urban area, registered private practitioner (47%) were mostly preferred for consulting during sickness and 28.1% of the study subjects were taken to private hospital for treatment.

Still 16.3% of the caregiver in rural area preferred quacks and home remedies while 7% preferred faith healers in contrast to urban area. This shows that still in rural area health seeking behaviour of the parents is not good as most of the people are preferring quacks, faith healers and home remedies as compare to urban area (Table 3).

Reason for the preference of particular consultation in rural and urban area

Majority of the people in rural area who consulted quacks and faith healers are due to trust in them and some of them also tell about proximity while the reason for consulting government hospital by most of the people

were free t/t and some prefer because of availability of specialist.

While in urban area, most of the people preferred registered private practitioner because of good quality care, comfortable timings and proximity while availability of specialist, proper attention in private hospital and good quality care are most of the reasons for their preference in private hospital.

The availability of free t/t, proximity and trust are the reasons which actually influence the health seeking behaviour of the rural people while most of the people in urban area gives importance to proper attention and quality services given by private hospital

This is the reason why health seeking behaviour of urban area is better than rural.

Table 4: Association of socio- demographic characteristics of caregivers and their health seeking behaviour in rural and urban areas.

Rural (n=43)		P value	Urban (n=32)		Pvalue
N (%)	Health seeking behaviour		N (%)	Health seeking behaviour	
Educational status of mother					
Illiterate	10	Fisher exact value=0.72	3	1=0 2=3 (100)	Fisher exact value=1
Literate	33		29	1=3 (10.3) 2=26 (89.6)	
Educational status of father					
Illiterate	7	Fisher exact value=0.45	1	1=0 2=1 (100)	Fisher exact value=1
Literate	36		31	1=3* (9.7) 2=30* (96.8)	
Occupational status of mother					
Unemployed	26	p value=0.07		1=2* (8.7) 2=23* (100)	Fisher exact value=1
Employed	17		9	1=1 (11) 2=8 (88.9)	
Occupational status of father					
Unemployed or unskilled	24	p value=0.38	10	1=1* (10) 2=10* (100)	Fisher exact value=1
Employed or skilled	19		22	1=2* (9) 2=21* (95)	
Socio-economic class (monthly per capita)					
Lower class	20	p value=0.38	10	1=1* (10) 2=10* (100)	Fisher exact value=1
Upper class	23		22	1=2* (9) 2=21* (95.4)	

*: Multiple responses.

Health seeking behaviour is grouped into two categories: 1=No t/t; home remedies; quacks; faith healers. 2=Consultation with AWW/ANM; Went to RPP; Govt hospital; Private hospital.

According to Table 4, the percentage of illiterate parents were more in rural areas than in urban areas as well as the parents who are illiterate in rural area preferred quacks,

faith healers, home remedies and sometimes no t/t for their children during illness while the parents of urban

areas preferred hospital settings irrespective of their educational status.

With regards to occupational status, in rural area, it has been observed that working mothers do not prefer hospital settings than non-working mothers. Occupational status of mother may enhance the household's income but it also have negative effect as the mother's engagement in some occupation reduces mother's time for child care and they prefer consulting someone who is in proximity rather than quality. While in urban area, majority of mothers prefer hospital settings whether they are employed or unemployed.

Similarly with regards to occupational status of father, proportion of children whose fathers were unskilled labourers or unemployed were higher in rural area as compare to urban area and they more likely to prefer quacks, faith healers.

The above table also demonstrates that the proportion of children belong to lower class were more in rural area and is an important factor which decide the health seeking behaviour of the caregivers during illness because the people belong to lower class give preference to free t/t.

DISCUSSION

This study shows in rural areas, the mother or primary care giver of the study subjects preferred nearby government hospital (21%) the most during illness.

While in urban area, registered private practitioner (47%) were mostly preferred for consulting during sickness and 28.1% of the study subjects were taken to private hospital for treatment.

Still 16.3% of the caregiver in rural area preferred quacks, 16.3% home remedies and 7% preferred faith healers in contrast to urban area.

Availability of free t/t, proximity and trust are the reasons which actually influence the health seeking behaviour of the rural people while most of the people in urban area gives importance to proper attention and quality.

This shows that the approach of health seeking behaviour is better in urban areas as compared to rural areas.

The result of the present study were in concordance with that of the study done by Majumdar et al in 2014 among under five children in Puducherry who found in their study that for consultation, majority preferred the government sector (63%) in rural and private sector in urban areas (51.2%) and the main reasons for preferring type of consultation were proximity (61.1%) and trust (51.2%) in rural areas and urban slums respectively.¹⁷ The trust on the health care provider, availability, and proximity to the health centre/health care provider are

important factors . Excessive referral also leads to lack of building of trust. Similar results were reported by Rotti et al and Dongre et al.^{18,19} Previous studies have shown that referral from government hospital to higher centre was a hindrance for health centre preference.²⁰⁻²²

Study done by Adane et al on topic Utilization of health facilities and predictors of health-seeking behaviour for under-five children with acute diarrhea in slums of Addis Ababa, Ethiopia: a community-based cross-sectional study also found that government health facilities (76.9%) were more utilized than private (18.0%) and informal (5.1%) health facilities.²³ Nearly all (93.9%) of the mothers/caregivers used government health facilities.

A study by Mishra et al on topic "A study on the health seeking behaviour among caregivers of under-five children in an urban slum of Bhubaneswar, Odisha", the place of preference for seeking care was Government Hospital (30.59%) followed by medicine store, private clinics, anganwadi centers and quacks (2.28%).²⁴ Another study done in Assam by Borah et al reported that Government facilities was preferred by majority (41.8%), followed by health worker (17.5%), family member (16.8%), and private doctor (9.6%) of the participants during any childhood illness.^{8,25}

With regards to socio-demographic characteristics of caregivers, it has been observed that, percentage of illiteracy for both mother and father were more in rural areas than in urban areas which might be the reason that health seeking behaviour of rural is not better than urban and most of the parents prefer quacks and faith healers as compare to health facility.

The mothers with higher education are more aware about the health facility and are capable to look after their children better while the paternal education is very important due to the fact that in patriarchal society all decisions of the family are taken by the father. So, if they are well educated and aware then they can take care of their ward in better manner and can take right decisions.

Bo-rah et al, Ghosh et al in their studies also found significant association between education of parents and care seeking behaviour.^{25,26}

Study done by Kalita et al on topic primary care givers health seeking behaviour for under five children, a study in a rural block of Assam India also analysed that literacy significantly influence the health seeking behaviours of the caregivers those who demonstrated appropriate health seeking behaviours (n=176) maximum (41%) belonged to the group who were atleast educated upto high school.²⁷

With regards to occupational status, in rural area, it has been observed that parents of rural children are more engaged in unskilled occupation and it might be the reason they have scarcity of time which influence their health seeking behaviour.

Occupational status of mother may enhance the household's income but it also have negative effect as the mother's engagement in some occupation reduces mother's time for child care and they prefer consulting someone who is in proximity rather than quality.

While in urban area, majority of mothers prefer hospital settings whether they are employed or unemployed, this is in concordance with the study done by Sulaimon et al.²⁸

It might be the reason that in urban area more mothers are exposed to mass media, the more they utilizes health care service for their children. Mass media provide readers, listeners or viewers access to information. Since information is often seen as a necessary determinant of behaviour, mothers who have access to information on good child care practices would seek medical treatment for their sick children.

The study also observed that financial status of the rural area is low; most of the people belong to lower class, which imparts greater burden to the family and results in compromising the health of their wards.

A study done by Rehman et al on topic Health care seeking patterns and out of pocket payments for children under five years of age living in "Katchi Abadis" (slums), in Islamabad, Pakistan also reported that Health care seeking behaviours and patterns are dependent on a host of factors; amongst which the financial status of the household is a major determinant, hence reinforcing the association between family income and socio-economic status of the household with the choice of health care provider to be consulted.²⁹

CONCLUSION

This study found that in rural areas, the mother or primary care giver preferred nearby government hospital the most during illness. While in urban area, registered private practitioner were mostly preferred for consulting during sickness.

But the caregivers in rural area also give preference to quacks, faith healers and home remedies as compare to urban area. The availability of free t/t, proximity and trust are the reasons which actually influence the health seeking behaviour of the rural people while most of the people in urban area gives importance to proper attention and quality services given by hospital settings. This is the reason why health seeking behaviour of urban area is better than rural.

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