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Case Study

Modern and traditional care practices to childhood Morbidities in rural Odisha, India: A Case study of Rural Jajapur District, India

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Abstract

Odisha has experienced high level of infant and child mortality since long back. According to the recent bulletin of Sample registration System (SRS)- September 2013, Odisha has the third highest IMR with 53 of them dying per 1000 live births among all the states of India after Assam and Madhya Pradesh. The present study tries to understand childhood morbidities, treatment seeking and influence of women's family and outside network members on childhood morbidities. The indigenous treatment behaviour is also assessed in this paper. Jajpur district which has high infant mortality rate was selected and primary data was collected for the present study. Univariate and bivariate techniques were used for the purpose of analysis. The results obtained fever and respiratory problems are more common among children. Three-fourths of children were given treatment for diarrhoea and nearly everyone was treated for fever. However, less than 70 percent of children were given treatment during ARI. For all morbidities, government hospital is the most preferred place of treatment because of location of the health facilities nearby to villages and affordability. On the onset of disease symptoms, they mostly prefers home remedies or traditional healing if not cured within 0-1 days they prefers going to either community health workers, less qualified doctors or buying from medicine store for which they take 2-3 days. Unless cured by home remedies and other health workers they choose going to doctors of primary health centres or other qualified doctors. People go to less qualified doctors for treatment and then go to good allopathic doctors unless cured in Odisha. This study can be concluded that despite of increasing medical awareness in society traditional healing is strongly prevalent.

Keywords: Modern, Traditional, Care, Practices, Childhood, Morbidities, Rural.

Introduction

Infant and child mortality are both relatively high in India, accounting for around one-fifths of the infant deaths in the world[1]. According to Registrar General of India (RGI), infant mortality rate (IMR) in India for the country as a whole is 42 infant deaths for every 1000 live births in 2013. However, there is wide spatial variation across the country with 46 infant deaths for every 1000 live births in rural areas as compare to 28 in infant deaths in urban area[2]. Again we have extremely low IMR in bigger states like Kerala (12 deaths/1000 live births) whereas states like Madhya Pradesh, Odisha (formerly known as Orissa), Uttar Pradesh and Assam where infant mortality rate are on higher side with more than 50 infants dying per 1000 live births[2].

Two-thirds of deaths are preventable by low-tech, evidence-based, cost-effective measures such as vaccines, antibiotics, micronutrient supplementation, insecticide-treated bed nets, improved family care and breastfeeding practices, and oral rehydration therapy[3]. Mother's education enhances her health literacy skills through which they can make simple changes to living conditions such as improving hygiene and enhance their curative care skills in order to increase the health of their children. Beliefs about the causes and symptoms of illness are likely to affect treatment choices and health outcomes, especially in developing countries, where biomedical knowledge is limited and women often rely on traditional beliefs to diagnose and treat sickness. Women with more traditional beliefs may attribute child illnesses to various folk beliefs[4]. In contrast, mothers with modern views of health care are more likely to seek assistance from health care professionals.

In developing nation like India where more only half of the female are literate, social networks are also a key mechanism through which people potentially learn about health etiology and prevention. Right social network, presence of experienced women like mother-in-laws in family, contact and interaction about health with health workers and utilization of natal care are useful factors that affect child care knowledge and practices of women. Family support to caregiver/mother in the form of help provided in childcare, household work, emotional support is an important resource facilitating improved child care by mothers.

In African, Asian, Latin American and the Pacific societies, older women, or grandmothers, traditionally have considerable influence on decisions related to maternal and child health at household level[5].In Indian society, it is assumed that grandmothers are one of the major decision makers of newly born child or infant's health care and feeding. Grandmother's help enabled mother to practice more care-giving behaviours[6]. A study on Brazilian babies shows that grandmothers have a negative influence on breastfeeding, both on its duration and exclusivity[7]. Both support and network size positively influences child health says a Moroccan study. More children had good health when their mother reported larger networks as compared to smaller networks[8].

Odisha is one of the backward states of eastern Indiain terms of demographic achievements, and socio-economic performance of the state is not satisfactory as a whole. Nearly 87 percent of Odisha's population is living in rural areas and depends mostly on agriculture. In terms of the Human Development Index, the state ranks at 11thposition, and in the Human Poverty Index its rank is 31st among all states of India[9]. The state has experienced high level of infant and child mortality since long back. According to the recent bulletin of Sample registration System (SRS)- September 2013, Odisha has the third highest IMR with 53 of them dying per 1000 live births among all the states of India after Assam and Madhya Pradesh. Moreover, in rural areas this rate is quite high with 55 children as compared to 39 children per 1000 live births died before completing one year of their birth.

The undernutrition of children in Odisha continues to be serious, probably because of incorrect infant and child feeding practices. Only half of mother's in Odisha practise exclusive breastfeeding for a child's first six months. Linked with these health concerns is the increasing number of children under three and young women who are anaemic or suffering from vitamin deficiencies that make them more likely to suffer or die from common illnesses such as diarrhoea, measles and pneumonia.A low literacy rate and high numbers of school dropouts, particularly among poor and tribal communities, are on-going challenges. Therefore, the present study tries to understand childhood morbidities, treatment seeking and influence of women's family and outside network members on childhood morbidities. The indigenous treatment behaviour is also assessed in this paper.

Methodology

Jajpur district, which ranks 434 out of 593 districts in India in terms of Infant Mortality rate (better to worse) was selected for the present study[10]. The study is based on primary data collected from rural Dharmasala census sub-district of the Jajapur district during April-July 2012. Information was collected from total 379 women with at least one under-five living children.

Study Area and Sampling: The present study was carried out in the rural area of the state of Odisha. As it is known that not only in terms of demographic achievement but also in socio-economic achievement, performance of the state is not satisfactory as a whole. The state has experienced high level of infant and child mortality since long back. The sample design of the present study is based on multiple steps: census sub-district, villages, and households in the selected census sub-district of Jajpur district. Dharmasala sub-district was selected as it is a rural setting (100% rural population). The total population of this census sub-district is 3, 16, 544 of which 19 percent belong to Scheduled Castes and 6 percent are from Scheduled Tribes. Seventy two percentage of the population of Dharmasala are literate. The total under six population of Dharmasala is 42, 467 which accounts for 20 percent of the total under six population of Jajpur district[11]. To make sure the sample represents from heterogeneous facility, four villages with sub centre and four villages without sub-center. The villages were selected on the basis of literacy level and number of 0-6 population in 2001.

After selection of the PSUs, the next task was to select the required sample households. In order to attain the 379 households (where a women with an under-five staying), complete house-listing of the selected villages was done. After the house-listing, only those households were selected for the interview wherein the respondents have under-five children. Hence, out of total identified households, only those households were selected for the interview, which fulfil all the aforesaid criteria. House listing of all houses in the villages were done in January 2012 and eligible women were identified. The household with more than one eligible women respondents the selection of eligible women was done using KISH table. Kish table is a scientific tool for selecting the respondent from households having more than one respondent in one category.

Tools of data collection: Quantitative Data collection and questionnaire: The data for the present study were collected using structured interview schedules. There were two schedules: household schedule and respondent's schedule. Household schedule collected information on household members and socio-economic conditions of the household whereas respondent schedule was divided into 4 sections i) individual section of the respondent which collected information on her socio-demographic background like age, educational attainment, literacy, mobility, and exposure to mass media and decision making power ii) health knowledge section which focused on cognitive ability of women to read health information, preventive and curative care knowledge, and the traditional healing and herbal medicine practice knowledge iii) social networks section which comprises of questions on social networks i.e. the individuals, within and outside the household whom they talk most or seek advice about any issues as well as issues related to child health and care; and iv) Care practices behaviours related preventive and curative care.

Qualitative Data: In-depth interviews of community members were conducted to the use of traditional and herbal practices for treatment of childhood morbidities.

The study analysed the care seeking behaviour related to childhood morbidities like diarrhoea, respiratory infection and pneumonia among mothers. To analyse all the objectives data collected through primary survey was utilized. Data analysis was done using IBM SPSS 20 Package. Univariate and bivariate techniques were used for the purpose of analysis.

Results and Discussion

Childhood Morbidities and Socio-Economic Differentials: The Figure-1 shows the occurrences of three childhood morbidities in last six month reference period in the study area. The result shows that fever (36 percent) and respiratory problems (28 percent) are more prevalent among children in the study area than diarrhoea (18 percent).

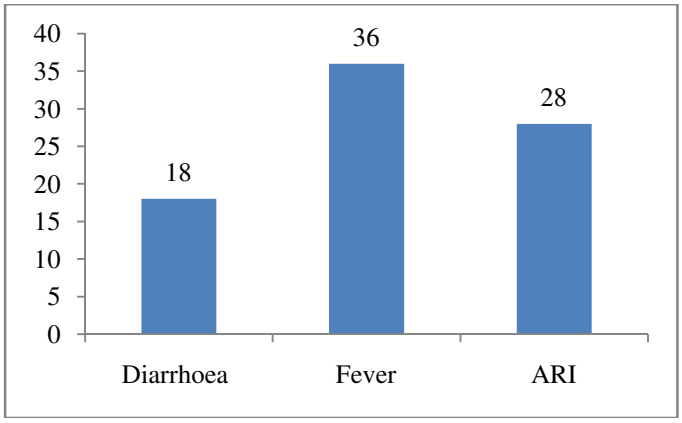

Figure-1
Percentage of Children afffected by Morbidities at the study area

Treatment Seeking Behaviour: The first aid treatment received during diarrhoea among children is presented in Figure-2. It is observed that more than three fourth of children (88 percent) were given only plain water as first aid treatment during diarrhoea whereas meagre of 6 percent of children were given gruel made from water. However, 78 percent and nearly half (51 percent) of women were given salt and sugar solution and home remedy respectively as first aid treatment during diarrhoea. Nearly, one-fifths of children were given fruit juice during diarrhoea in rural area of Jajpur district.

The treatment seeking of children with morbidities is given in Table-2. It is evident in the table that one-third of children were given treatment for diarrhoea and nearly everyone was treated for fever in rural area of Jajapur district. However, less than 70 percent of children were given treatment during ARI. Government hospital is the most preferred place of treatment for all the three selected morbidities in rural area of Jajpur district. Around 57 percent of the children were treated in government hospital for diarrhoea and 73 percent of them were treated in the government health facilities for fever. Nearly one-fifths of the children were treated in private hospitals for these selected childhood morbidities in rural area of Jajpur. Most of them were cured after the treatment.

Table-1
Percentage children suffering of different childhood morbidities in last six months in the study area by different socio-economic characteristics

Background	Diarrhoea in last Six months	Fever in last Six months	ARI in last Six months	N
Age of respondent				
20-24	21.7	30.4	28.3	46
25-29	20.6	36.5	28.8	170
30-34	17.6	35.3	24.2	119
35+	4.7	41.9	34.9	43
Education				
No Education	11.6	38.4	32.6	86
Primary	26.9	34.3	26.9	67
High School	16.4	32.7	23.3	159
Above Matriculation	21.2	42.2	34.3	66
BPL card				
No	17.3	41.1	28.1	185
Yes	18.7	31.1	27.8	193
Caste Group				
Scheduled Castes	15.5	32.1	38.1	84
Scheduled Tribes	11.8	29.4	26.5	34
Backward Classes	20.6	35.6	22.7	180
Others	17.5	43.8	30.0	80
Source of Drinking Water				
Tap Water	9.6	31.4	32.5	51
Hand Pump	19.4	43.0	22.7	186
Well Covered	21.4	32.1	26.5	28
Well uncovered	21.5	27.4	30.0	113
Wealth Index				
Poorest	14.7	29.3	26.7	75
Second	26.0	48.1	32.5	77
Middle	13.3	34.7	24.0	75
Fourth	26.0	42.9	35.1	77
Richest	9.5	24.3	21.3	74

Table-2
Treatment seeking behaviour of three childhood illness in the study area

Treatment	Diarrhoea	N	Fever	N	ARI	N
Sought treatment	**75.0**	**68**	**99.3**	**136**	**68.5**	**108**
Source						
Government	56.9	51	72.6	135	58.1	74
Private	21.6	51	21.5	135	24.3	74
Medical Store	13.7	51	3.0	135	4.1	74
Others	7.8	51	2.9	135	13.5	74
Child cured after the treatment	**92.2**	**51**	**89.6**	**135**	**81.1**	**74**
Blood test			18.5	135		
Care sought within 24 hours	43.1	51	57.8	135	28.4	74

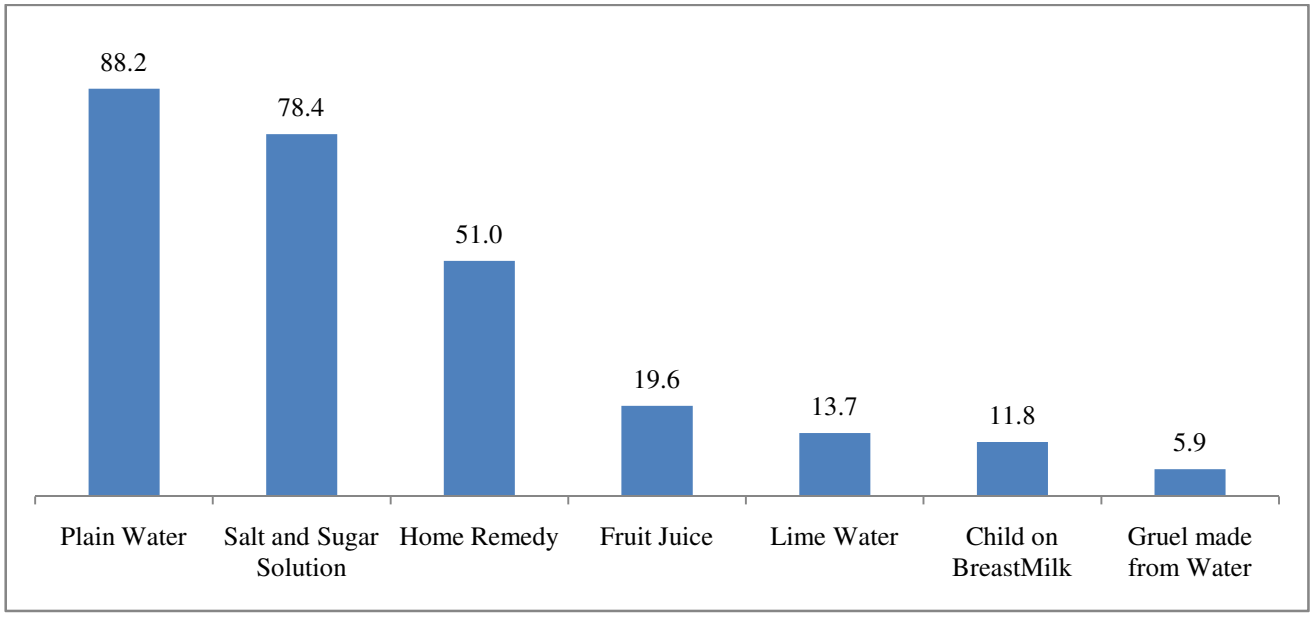

Figure 2
Percentage of children received First aid treatment during diarrhoea

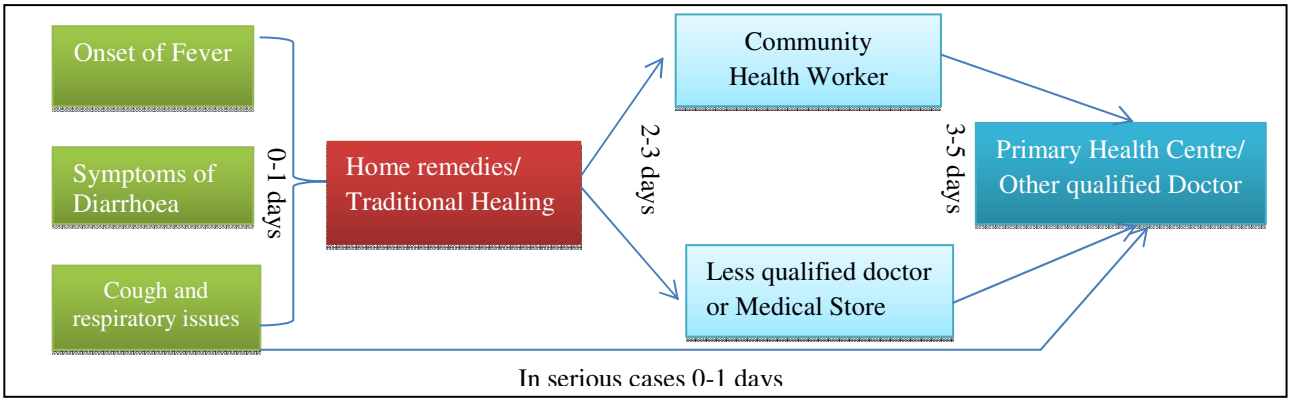

Figure-3
Reported common pathways and duration to care seeking for common illness, Notes: Number of days denotes duration of care seeking from the day of onset of symptoms; in serious cases they prefer to go directly to PHCs/a qualified doctor sooner

Timing of treatment: Although the treatment seeking looks pronounced in the study area, we tried a qualitative assessment of the timing and process of the treatment seeking behaviour. The common procedure and timing followed by the respondents for treatment is given in the Figure-3.

On the onset of disease symptoms, they mostly prefers home remedies or traditional healing if not cured within 0-1 days they prefers going to either community health workers, less qualified doctors or buying from medicine store for which they take 2-3 days. Unless cured by home remedies and other health workers they choose going to doctors of primary health centres or other qualified doctors. However, in case they feel the symptoms are dangerous, they directly prefer going to qualified doctors.

Appropriate Care: Appropriate care is defined as care sought from qualified medical professionals in government health facilities and private hospitals/clinics.

More than three-fourth women have sought an appropriate care from government among those who sought care for diarrhoea and ARI. Most of the women have gone for appropriate care for fever.

Inappropriate care: Inappropriate care is defined as other types of care such as purchasing medicines from pharmacy, home remedies, visiting pharmacies, temples and traditional healers were defined as inappropriate care.

Around one-fifths of them sought in inappropriate care for diarrhoea and respiratory problems whereas very low percentage of women had sought inappropriate care for fever of their children.

Prompt care: Any type of care those were sought/given within 24 hours from the recognition of the illness is considered as prompt care. Only 43, 58 and 28 percent women provided prompt care with a qualified doctor for diarrhoea, fever and cough and respiratory issues.

Simultaneous Treatment: Many of them also give some herbal treatment while using modern medicines expecting that one of them will work. For example, a women 24 year old women from Daulatpur (Education: 12th) told:

"My child had diarrhoea last time two months back. We took him to Dharmasala hospital where doctor wrote for some tonic. Although we regularly gave medicines, my mother-in-law kept giving him ***Dalimba rasa*** *(Pomegranate juice) expecting early cure. She is of belief that either of them will work and he will be cured soon"*

Traditional healing and herbal medicines: Traditional healing is common among most community for fevers, respiratory problems and diarrhoea. According to a school teacher from Panturi village, "The people here are of belief that fever and respiratory issues can be caused due to loud knowledge or bad/witch eyes. The bad eyes on food and health of children can also cause diarrhoea. For this elderly women from family heals them with Jhadu (broom),*Tulsi, Belapatra or Sigraharapatra* (locally found leaves) or goes to professional healer who takes out the impact of bad eye from the child."

Common herbal medicines use child cold, cough and fever are lamiaceae (Tulsi) leaves, verbenaceae (Nirgundi) and Asteraceae (Gandhari) leaves. Moraceae (Dimbiri), Poaceae (Dubaghasa) and Pomegranate (Dalimba) is used for curing child diarrhoea. Some of the herbal medicine and procedures are discussed in the Table-3.

Discussion: This study tried to understand the child morbidities and treatment seeking behaviour of women. The results obtained fever and respiratory problems are more common among children.

Three-fourths of children were given treatment for diarrhoea and nearly everyone was treated for fever. However, less than 70 percent of children were given treatment during ARI. For all morbidities, government hospital is the most preferred place of treatment because of location of the health facilities nearby to villages and affordability.

On the onset of disease symptoms, they mostly prefers home remedies or traditional healing if not cured within 0-1 days they prefers going to either community health workers, less qualified doctors or buying from medicine store for which they take 2-3 days. Unless cured by home remedies and other health workers they choose going to doctors of primary health centres or other qualified doctors.

However, in case they feel the symptoms are dangerous, they directly prefer going to qualified doctors. Only 43, 58 and 28 percent women provided prompt care with a qualified doctor for diarrhoea, fever and cough and respiratory issues respectively.

Herbal treatment is also simultaneously used while using modern medicines expecting that one of them will work. Traditional healing is common among most community for fevers, respiratory problems and diarrhoea in the present study. The study by Gautham et al 2011 found that people go to less qualified doctors for treatment and then go to good allopathic doctors unless cured in Odisha[12].

Conclusion

This study can be concluded that despite of increasing medical awareness in society traditional healing is strongly prevalent. The high prevalence of fever and respiratory problems indicates the environmental issues prevailing in the area due to existence of stone crushers unit in the nearby areas of the villages. However, the delay in appropriate treatment seeking requires attention among parents for better care of children in the villages.

Table-3
Herbal Medicines and traditional healing for pregnancy related and child care in the study area

Problems/ Diseases	Name of the plant/ Medicines used	Procedure	Practiced by
Root Dysentery and quick delivery	Achyranthes aspera (Amaranthaceae); ***'Apamaranga'***	25 g of root juice with 50 g of sugar in water is taken twice a day until relief from dysentery. Root is boiled in water and decoction is given orally with honey to pregnant mothers. This helps in quick delivery of child.	Practised among tribal women of Subhadrapur and scheduled caste women of Pakhar
Post natal Complications	Tephrosia purpurea (Fabaceae); *'Gileri/Soropunkha'*	Decoction of leaf (5 ml) mixed with honey (2 ml) given to women twice a day continuously for one month against post natal complications	Mostly among all villages
Lactation	*Crateva magna* DC. (Capparidaceae), *Baruna*	Cakes of equal size prepared from paste of seven leaves with 150 gm wet rice are taken thrice daily to cure fissure. Bark paste with cow urine is applied locally on breasts for lactation after childbirth.	Women of Rekhideipur village
Cough and cold fever	*Vitex negundo* L (Verbenaceae) ***Nirgundi***	Crushed and warmed leaves are plastered on the body part with thin cloth to get relief from pain. Watery sap from warmed stem is given to children to cure cough, catarrh and cold fever.	Women of Daulatpur and Aurangabad villages
Fever and all types of skin diseases	*Ageratum conyzoides L. (Asteraceae), Pokasungha, Gandhari*	Paste of leaf mixed with turmeric is given to children to cure fever and all types of skin diseases. Leaf and black pepper paste is prescribed to stop dysentery.	Mostly among all villages and community
Child Diarrhoea and indigestion	Ficus racemosa L. (Moraceae), *Dimbiri/Dumberi*	Stem bark paste in mother's milk is given to small child to cure diarrhoea and indigestion	Women of Rekhideipur villages
Cough and cold.	Ocimum tenuiflorum (Lamiaceae) *'Tulsi'*	Fresh leaves of Ocimum tenuiflorum are crushed and juice from it is mixed with honey are given to child orally twice a day for one or two days to cure from cough and cold.	Mostly among all villages and community
Child Diarrhoea	Cynodon dactylon (Poaceae) *Dubaghasa*	Leaves juice with sugar candy is prescribed to small kids to cure diarrhoea and vomiting. Plant powder is taken with honey in the morning in empty stomach to cure bile	Mostly among all villages and community
Child Diarrhoea	Punicagranatum (pomegranate) Dalimba	Pomegranate juice	Daulatpur, Madhupurgada, Panturi
Children intestinal worms.	*Curcuma domestica* Valeton (Zingiberaceae), *Haladi, Singanga*	About 10 gm fresh rhizome paste is given orally to small children to cure intestinal worms.	Mostly among all villages and community

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