Case Study

Quality healthcare services and its access in a village: A case study

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Abstract

Objective: The study analyzes the awareness of healthcare facilities among rural people. The already existing infrastructure and various provision mechanisms of healthcare facilities are adequate but still require massive programs to educate rural people. There is also a need to make the ruralites awareness on Government health schemes, usage of natural remedies, self-treatment. **Materials and Methods:** The analysis sample consists of 80 subjects, aged between 20 to 90 yrs and living in a rural community in Narsampet mandal of Warangal district, India. Attendees queried for the availability of health services, and recorded in proforma prepared. **Results:** The results showed the awareness about availability of the medical facilities provided by the Government. Majority in numbers are unaware about existing Primary Healthcare Center (PHC) or physicians availability in selected rural area. The association between laboratory facilities and PHC was evident from the studies. **Conclusion:** One notable relief observed among villagers that many are not preferring self-treatments for their ailments with modern medicines.

Keywords: Health camp, Body Mass Index, Anaemia

Introduction

Past twenty years the enormous opportunities, changes and growth observed in parts of India by globalization being secured by citizens living in urban areas rather than rural area citizens, which makes up over 70% of population of India (Kumar et al., 2012).The deficient rural health care services in India is due to serious resource shortfall and underdeveloped physical and social infrastructure, apart from shortfall in trained medical practitioners willing to work in rural areas (Yadav et al., 2009). Privatization and corporatization in health systems may more lead to reduced human resources for services in rural areas in future. This may sequence for more quasi-trained practitioners in rural areas for indiscriminate and injudicious use of medicines sometimes (Yadav et al., 2009). Overall, rural residents should be ensured for primary care services, dental, behavioural health, emergency and public health services conveniently and confidently for detection, prevention and treatment of any illness provided with a better quality of life and life expectancy. Rural isolated villages have limited access to most of the medical advice and to the trained doctors, which requires few hours of walk or mode of transportation to access the services and medications. Indian health care system faces multiple challenges in health care system, while there are multiple challenges among ruralites. Villagers mainly encounter unique barriers when attempting to get benefit from healthcare services. These includes limited awareness, local available folklore medicine, application of traditional medical knowledge, superstitious practice, lack of common education on Indian health education system and personal health care practices makes this population to medical mistakes. Presence of unattended diseases among them, poverty, education and infrastructure limits to health care exacerbates health care inequalities. Number of charities and projects has been established to provide health care to the isolated and poverty stricken members of society (Pambos et al., 2012).

The chosen village for medical camp is not accessible to PHC or sub-center for curative, preventive or to the promotive health care. The meticulous preparation for the medical camp made for the volunteers and to the team members at camp venue. The camp arrangements publicized through local head of the village and through personal contacts with the healthcare providers. The camp was organized to provide healthcare needs to the rural community, with an objective to provide comprehensive healthcare through a group of physicians. The selected

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physicians and volunteers are highly motivated people who are committed to provide healthcare at medical camps and are trained. The camp has a team that includes a diabetologist, chest care physician, primary healthcare physicians and two nurses personnel's received specific education to work at camp. Volunteers were given leaflets to record demographic information, vitals and physical examination. The participants screened by the doctors for general health checkups. Children excluded from the medical camp. The aims of the camp is to provide a shared educational experience for Pharm D students of the college and also to support the rurally isolated with specific medical care, and to deliver free health care. The health camp was set up in Ladaigadda village on a need previously assessed by group of doctors and pharmacists. The village chosen based on its location due to potentially unmet healthcare needs. Local advertisement was done in the form of beating drums and word of mouth used to generate awareness about the medical camp. All the equipment's, staff and medical equipments supplied by the Rotary club, Narsampet. The camp comprised of five doctors, twenty Pharm D students and two local village organizers. The health camp conducted from 8am to 4pm, provided free medical care, counseling and free medication to all the patients who turned up. Venue was fixed based on the availability of safe working routes or trails of different distances and are self-organized by participants.

Materials and methods

The study was done in the month of July 2016, at Ladaigadda. All the subjects attending for general health check up and are aged between 20-90 years. Children of age 16 and below were excluded from the study. The subjects attending the health camp screened for inclusion, exclusion criteria. Institutional human ethics committee approval was taken (JCP/IHEC/2016-02) for the study. The individuals briefed about the study and informed consent was taken. The demography of the patients, diseases encountered, treatments pattern and the team attended to the health camp were depicted. A total number of 150 patients included for the study, but the data was retrieved from 80 subjects. Before each subject medical examination, routine observation such as Blood Pressure (BP), body temperature, height, weight, hemoglobin percentage and random blood sugar assessed, as suggested by the physicians. Attendees subjected for clinical investigations and laboratory investigations. Complaints recorded on a proforma after the assessment by a doctor. The clinical examination included a detailed history of any past diseases and followed by a thorough systemic examination. Basal Metabolic Rate (BMI) measurement was made to all applicable subjects. Height and weight measured manually. BMI calculated by Adolphe Quetelet formula. Blood Pressure (BP) was recorded in sitting position on left arm. BP measured using standard mercury sphygmomanometer. Random blood sugar levels checked via finger prick using lancet and One touch® produced by Life scan®. If the medication prescribed, patient collected it free of charge from medical camp pharmacy. Each patient consultation would last between 5 – 10 min. If any patient requires further medical attention at a local hospital, help was provided for further investigation and treatment.

Statistical methods

The filled-in patient proforma sheet entered and analyzed using Microsoft excel. Data generated based on gender, chief complaints, body mass index, hemoglobin percentage, random blood sugar, BP, medications. The questionnaire to know the medical facilities functioning nearby village, Government or private medical facilities and villagers access to basic medicines or medical facilities and women health care services was enquired and documented.

Results

One hundred and fifty patients screened at health camp and considered for symptomatic treatment. A total of 80 recorded for their chief complaints and given medications. During the health camp 80 patients screened with their past history and current complications. The queries posed to the patients. Their medical and medication history recorded to rule out any comorbidity. Working pattern enquired for sluggish or work bound. The average age of the patients attending health camp was 49.27 years (range 20 - 90 years old), of the attendees, n=60 (75%) female and n = 20(25%) male. Majority of the participants gave their occupation as agriculture workers and daily wagers. All the individuals subjected for the study never diagnosed for hypertension and are not on any antihypertensive therapy. The Mean Arterial Pressure calculated using systole and diastole obtained from the subjects by ausculatory method, noted two recordings at an interval of 5min. Respondents aged between 22-40, male n=4 (25%), female n=13 (27.6%) for a total of male n=16 (80%) and female n=47 (78.3%) aged between 22-90 at the risk of Hypertension. It was noticed that early 30s n=10 (12.5%) diagnosed pre-hypertensive n=8 (80%) and stage-1 hypertensive in which n=2 (20%). Among screened female patients, it was observed that age group of greater than 25years susceptible to general weakness and comorbidities are also responsible for anemia in women n=55 (91.6%) due to their food habits iron deficiency observed, and is preventable. It was commonly noticed among female screened patients and same is responsible for general weakness among the population. Very less number of patients recorded for obesity, four female patients shown to be overweight. As obesity

Table 1. Clinical Characteristics in Study Population

Parameters	Male		Female		Total	
	n	%	n	%	n	%
Body Mass Index						
Under	10	50	11	18.33	21	26.25
Normal	7	35	37	61.66	44	55
Preobese	3	15	8	13.33	11	13.75
Obese	0	0	4	6.66	4	5
Random Blood Sugar						
Low	1	5	3	5	4	5
Normal	16	80	54	90	70	87.5
Pre-diabetic	2	10	2	3.33	4	5
Diabetic	1	5	1	1.66	2	2.5
Mean Arterial Pressure						
Normal	4	20	13	21.6	17	21.25
Pre-HTN	9	45	32	53.3	41	51.25
Stage 1	4	20	11	18.3	15	18.75
Stage 2	3	15	3	5	6	7.5
HTN crisis	0	0	1	1.6	1	1.25
Haemoglobin %						
Male <13.5=20 (100)			Female <12=55 (91.6)			
13.5-17.5=0			12-15.5=5 (8.3)			

associated with elevated risk of other chronic diseases with latest burden on knees and other body pains was observed. Among total number of 80 adult patients screened for the possible diabetes by analyzing random blood sugar. Two attendees for the first time, diagnosed with diabetes mellitus, and is not so common prevalent condition among the patients screened. Details of the recordings are given in the table 1.

After a brief past medical history, physical examination was conducted by the physicians to record signs and symptoms. It was observed among participants, during health camp general weakness, fever, cough, dizziness and cold. General weakness n=31 (38.75%), fever n=16 (20%) dizziness n=7 (8.75%), cough n=7 (8.75%) are the most common complaint noticed in adults. The overall in adults general weakness was common complaint among men n=8 (40%) this was more common than adult women n=22 (27.5%). Often patients presented with more than one health related problems. Details of the recording are given in the table 2 and 3. Majority of the patients either agricultural labourers or daily wage labourers and are below 60 age group. They complained the pains of neck, stomach, chest, ankle, and general pain. The medicine distribution among attendees in medical camp clearly shows the prevalence of general weakness and pains of unknown etiology. The results of dispensed medicines during health camp are mentioned in the table 4.

Table 2. Chief complaints reported by the patients attended

Complaint	%	Complaint	%
Gen. Weakness	38.75	Giddiness	3.75
Fever	20	Indigestion	3.75
Cough	8.75	GI Irritation	2.5
Dizziness	8.75	Vomiting	2.5
Head ache	6.25	Numbness	1.25
Cold	6.25	Pain in micturition	1.25
Anorexia	5	Shortness of breathe	1.25
Other	3.75	Total	100

Table 3. Percentage of subjects responded to different body aches

Type	%	Type	%
Body	26.25	Stomach	7.5
Back	12.5	Chest	6.25
Leg	12.5	Neck	6.25
Knee	12.5	Ankle	2.5

An effort was made to analyze about accessibility to the rural health services among participated patients. A known set of questions posed regarding the provisions for health care system. The startling revelation noticed during survey

Table 4. Dispensed medicines in health camp

Category	n	%	Category	n	%
B Complex	68	23.5	Antibiotics	24	8.3
Folic acid	20	6.9	Antiallergics	8	2.76
Antihypertensives	9	3.11	Antiulcer	56	19.37
Appetite syrup	5	1.73	Expectorants	15	5.19
Analgesics	72	24.9	Eye drops	1	0.34
Antidiabetics	5	1.73			
Calcium	6	2.07	Total	289	100

Table 5. Responses obtained from subjects during interactive session

Queries	Male				Female			
	Yes		No		Yes		No	
	n	%	N	%	n	%	n	%
PHC availability	4	20	16	80	12	20	48	80
Doctor availability	4	20	16	80	17	28.3	43	71.66
Women health care services	1	5	19	95	4	6.66	56	93.33
Availability of medicines	4	20	16	80	8	13.33	52	86.66
Vaccination facilities	17	85	3	15	46	76.66	14	23.33
Lab facilities	0	0	20	100	0	0	60	100
Self treatment	1	5	19	95	0	0	60	100
Usage of natural remedies	1	5	19	95	3	5	57	95
Awareness on govt. health care schemes	13	65	7	35	44	73.33	16	26.66

as majority of the attendees are unaware of the health care services of Government, doctor availability in and around rural area or women healthcare services provided by Government. The women patients responded well for the awareness on vaccination facilities nearby to their village. Among the surveyed patients the poor availability of medicines or pharmacies in the nearby areas made them to adopt to the natural remedies for various ailments. Female patients responded about the available Government health care schemes compared to male attendees.

Discussion

The study was done to determine the available health care awareness among rural backward area. Jayamukhi college of Pharmacy in association with Rotary Club, Narsampet conducted free medical camp among villagers residing in rural and backward area who had rarely ever visited hospital to get benefited. The study discusses about the access to health care services in rural area and conscious about rural hospitals, managed care in rural areas, treatment and about ignorance of villagers about Government medical health schemes.

The study conducted in a small population. In the chosen village wide variety of ailments observed. Many of these could be managed at PHC. None of the conditions serious in nature required immediate health care attention in urban areas. Professional bodies like Rotary Club always play a major role by organizing health camps at rural places and giving opportunities to other allied health care professionals. Health camp has given an opportunity and equally important role in ensuring medical safety and educating villagers about health care management by the Pharm D students.

The quality health care services and its access to the rural communities have long struggle. The extensive of this study has shown the problem faced by the rural people. The result has shown variety of factors contributing for their personal self-health care in rural areas because of economic stagnation, dearth of physicians and other health care professionals, disproportionate young and old with old high rates of chronic illness. Majority of ruralites are still travelling more than 100km to avail health care facilities of which 70-80% expenditure landing them in poverty (Singh and Badaya, 2014). Infrastructures well developed in urban areas by the Government but failed to do in rural which sustains 70% Indian population. The qualitative and quantitative availability of PHC facilities is far less than the defined norms of World Health Organization. Our study has given an impression about reaching the goal of the health inclusion by incorporating impoverished and needy rural population through community participation (Bhandariand Dutta, 2007). The multilayered concept of access to health care is use of health care by those who need it (Dilip, 2005). Disproportionately concentrated hospitals and clinics are in urban centers, neglecting rural areas. The submissive gender roles translating women and girls to have control over household resources and restricted in decision making and much of women time and energies spent on house work and care giving roles reflect in their inferior health and access to healthcare.

The study also examines women perspective of available women health care services and utilization of health care services during various health issues be it pregnancy and child birth, vaccination or availability of medicines in a rural community. Because of complications associated with pregnancy and childbirth (WHO 2009) worldwide, over half a million young women die every year. Inefficient health care services and accessibility of services lead to health issues for pregnant women (Nagdeve, 2003).The hindrances to spreading of rural health insurance and other schemes of the Government due to lack of awareness. Our finding suggests that based on the 'yes' response by the maximum participants about immunization coverage by the hospitals, PHC, allied health care workers and Government advertisements made women to have awareness about vaccination program and

facilities. One notable fact that nearby PHC or hospital within one hour reach significantly increased likelihood of full-cover for various vaccinations. Our results highlighted about many facts in chosen rural area about vaccination facilities among women is more than their counterpart. As lack of general awareness about usage of modern medicine delegated and sticking to the natural remedies even with expanding availability of physicians at PHC in rural areas many respondents not knowing availability of medicines and hospital with physicians facilities.

Conclusion

This study showed the lack of utilization of educational resources, distance to travel to meet a health service for their ailments, cultural, religious and family influences had an impact on the people of the village. Our finding suggests that in expanding rural health infrastructure especially PHC, Government should take few more measures for achieving healthy rural India. In conclusion, fixed infrastructure for the expansion of health care facilities in rural areas requires financial support and a strong political commitment from the state Governments.

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