Research Paper

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A Study of Manpower And Infrastructure Facilities of Community Health Centres in Nellore District, A.p as Per Indian Public Health Standards.

Medical Science

KEYWORDS :

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Introduction

Health care delivery in India has been envisaged at three levels namely primary, secondary and tertiary. The secondary level of health care essentially includes Community Health Centres (CHCs), constituting the First Referral Units (FRUs) and the District Hospitals. The CHCs were designed to provide referral health care for cases from the primary level and for cases in need of specialist care approaching the centre directly. In order to provide expected quality of care in the CHCs, Indian Public Health Standards (IPHS) have prescribed certain standards at CHC level, so as to maintain acceptable services in the qualitative care which will help monitor and improve the functioning of CHCs.[1]

The CHCs are still being criticized for their inability to perform up to the expectations due to various reasons like non-availability of specialists at CHCs, inadequate physical infra-structure and facilities, insufficient supply of drugs and lack of community participation, etc. To provide accessible and adequate specialist health care to the rural population, it is necessary to assess the overall functioning of the Community health centres (CHCs) and hence there is a need to evaluate CHCs. In the light of the above considerations, the present study is taken up to provide some useful inputs regarding the existing level of infrastructure and manpower facilities at CHCs. This study will also provide some useful insights and suggestions to the policy makers so that the necessary measures can be implemented to strengthen the CHCs for effective health care delivery at the secondary level.[2]

Methodology

The District of Nellore has fifteen designated Community Health centres (CHCs) across. All the Fifteen Community Health centres were included and a cross sectional study was done in all fifteen centres. Data collection was done for a year starting from July 2012 to July 2013. Institutional Ethical Committee of Narayana Medical College, Nellore, accorded ethical clearance for this study. Permission was obtained from the District Medical and Health Officer (DM&HO) for studying the infrastructure and manpower of CHCs. The list of medical officers along with their phone numbers was obtained from the office of DM&HO. The medical officers were informed the previous day about the visit. After confirming their convenience and availability, the CHCs were visited and data was collected. Pre-tested questionnaire for Community Health Centres based on Indian Public Health Standards 2012 was used for this study. The data was analyzed using SPSS software version 18.

Results and Discussion

The findings of the study are discussed separately in terms of availability of infrastructure and manpower. If the availability is more than 75% in majority of the CHCs then it is considered to be good, if the availability is 50-75% in majority of the CHCs then it is considered to be average, if the availability in majority of the CHCs is 25-50% then it is considered to be below average and if the availability is <25% then it is considered to be poor.

Our present study shows that 80% of the CHCs had all weather road communication and all the CHCs (100%) had electricity in all parts of the building which is good. All the 15 CHCs (100%) had uninterrupted water facilities. Around 47% of the CHCs had telephone facility and 80% CHCs had Emergency lighting facility. Fire fighting equipments were found in around 13% of the CHCs and Generator for power back up was present in above 73% of the CHCs. Around 13% of the CHCs had Laundry and Transport facilities were present in about 33% of the CHCs.

Bajpai N et al in their study of all CHCs (2008) of A.P, noted that, 85.7% of CHCs in Andhra Pradesh had telephone facility, 95.2% had generators and 1.4% CHCs were without electricity. Since this is the picture of the entire state, in comparison we can say that Nellore is able to keep up its standards with state's standards. When compared to the study of Bajpai N et al, our findings seem to show that the availability of amenities is low in CHCs of Nellore district except electricity supply which was 100%.[3]

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Findings of our study show that among the surgical equipments overall availability of all the surgical equipments was poor except Standard surgical set 1, which was (50-75%) in 80% of the CHCs. The availability of surgical sets-2 and 3 was only 25-50% in 60% and 50-75% in above 46% of the CHCs which is below average. As far as the availability of surgical sets 3 and 4 go, only around 25-50% availability of surgical sets 3 and 4 was noted in around 53% of the CHCs which is below average. There was a gross deficiency in the availability of surgical sets 5 and 6 which was only 25-50% in around 66% and 73% of the CHCs respectively.

Availability of equipments for IUD insertion kits were average and better when compared to the availability of surgical equipments, around 93% of the CHCs showed 50-75 % availability of equipments for IUD insertion. A very less number of CHCs showed poor availability of equipments for normal delivery and an availability of 75-100% was recorded in over 86% of the CHCs which is considered to be good.

The availability of Anaesthetic equipments were below average overall, and majority of the CHCs (80%) had only 25-50% availability of anaesthetic equipments in them which show a huge lag. Equipments for Neonatal Resuscitation was 25-50% on around 33% of the CHCs and 50-75% in 40% of the CHCs. Above 66% of the CHCs had >75% of availability of Equipments for Newborn care corner. Material kits for blood transfusion was absent in majority (73%) of the CHCs and rest of the CHCs had only 25-50% availability in them which is poor and shows a huge gap in equipment availability in the CHCs. Availability of labour room equipments was 50-75% in 40% of the CHCs and >75% in 60% of the CHCs. X-Ray room equipments were not present in 40% of the CHCs and rest of the CHCs had >75 % availability.

Satyasekhar P et al in their Andhra Pradesh facility report in the year 2008 mentioned that 85 % centres have auto clave HP (Vertical 2 bin), 84 % centres have operation table (Hydraulic Major), 84% centres equipped with suction apparatus (electrical), 81% centres have shadow-less lamp ceiling type, 50% centres have sterilizer (big) equipment and 18% centres have bowl sterilizer. Out of 62 CHCs, 79% have MTP sets, 31% have biopsy cervical set, 71% centres have D&C sets and 33.9% have IUCD kit. Wide variations of different surgical equipment kits were observed in the districts of Andhra Pradesh. The X-ray accessories and hospital plants were commonly available in all centres. Availability of equipment sets ranged from 65-75 % - imaging equipment, dental equipments, refrigeration and AC plants. The availability of equipment kits in the centres were cardiac equipments (31%), labour ward & neonatal equipments (29%), surgical equipments (32%), PM equipments (25%), in few centres in the state. However, the Eye equipment, Physiotherapy equipments, Endoscope equipments, teaching equipments are not available in any centres as recommended under IPHS norms for CHC.[4]

A Community Health Centre needs to be managed by the following specialists. Physician, Surgeon, Paediatrician, Obstetrician, and an Anaesthetist. Apart from specialists the CHC should also have a Block Medical Officer, General Duty Medical Officers, Public Health Specialist and Dental surgeon.

Findings of our study were as follows. Availability of Physicians in the CHCs were very poor that only 13% of the CHCs had a physician in them, which makes a deficiency of 87%, Surgeons were found only in 6% of the CHCs and rest 94% of the CHCs had no surgeon in them. Paediatricians were found only in 13% of the CHCs and were absent in 87% of the CHCs. Availability of Obs & Gyn specialists in CHCs were 47% and rest 53% CHCs were lacking a Obs & Gyn specialist. Anaesthetists were found in 26% of the CHCs while 74% of the CHCs did not have an Anaesthetist. Availability of Block Medical Officers and General Duty Medical Officers were comparatively better than specialists which were 100% and 83% respectively. Only gynaecologists seem to be present in about half of the CHCs. Availability of all other specialists is grossly deficient. However the availability of GDMO's and BMO's is alright, but unfortunately they are less important.

Sodani P R et al in their study (2010) to identify the availability of infrastructure facilities, human resources and facilities based on newborn health services with respect to Indian Public Health Standards at Community Health Centres of Bharatpur District of Rajasthan state, mentioned that the availability of specialists in CHCs was, General surgeon - 30.8%, Physician – 38.5%, Gynaecologist (OBG) – 38.5 %, Paediatrician – 30.8%, Anaesthetist – 7.7%, and the availability of Medical officers was 41%. When compared to findings of our study, CHCs of Nellore had a better availability of medical officers, OBS&GYN specialist and anaesthetist but lesser number of physicians and surgeons

Among the para medical personnel the availability of Public Health Nurse, Dietician, Dental Assistant, cold chain & vaccine logistic assistant, OT technician and Multi rehabilitation/Community rehabilitation worker was NIL and 100% of the CHCs had Counsellors and Pharmacists. Availability of other para medical personnel and ISM personnel was as follows. MO-Ayush – 40%, staff nurse – 51%, pharmacist Ayush – 67%, Lab technician -47%, Radiographer – 53%, ophthalmic assistant – 53%. Sodani P R et al in their study had mentioned about their findings of support manpower in CHCs and they were as follows. Nursing staff – 78.4%, Pharmacist – 30.8%, Lab technician – 66.7%, Radiographer – 50 %. These when compared with our study findings shows that the CHCs of Bharthpur district of Rajasthan had better availability of paramedical personnel except pharmacist in this regard.[5]

Table: 1 AVAILABILITY OF MEDICAL PERSONNEL IN CHCs (n=15)

S. No	PERSONNEL	REQUIRED AS PER IPHS NORMS	EXISTING	DEFICIENCY
1.	BLOCK MEDICAL OFFICER/ SPHO	15	15(100%)	0
2.	PUBLIC HEALTH SPECIALIST	15	1(6.67%)	14(93.33%)
3.	GENERAL SURGEON	15	1(6.67%)	14(93.33%)
4.	PHYSICIAN	15	2(13.33%)	13(86.67%)
5.	OBS&GYN SPECIALIST	15	7(46.67%)	8(53.33%)
6.	PAEDIATRICIAN	15	2(13.33%)	13(86.67%)
7.	ANAESTHETIST	15	4(26.67%)	11(73.33%)
8.	DENTAL SURGEON	15	10(66.67%)	5(33.33%)
9.	GENERAL DUTY MO	30	25(83.33%)	5(16.67%)

Table: 2 AVAILABILITY OF ISM & PARAMEDICAL PERSONNEL IN CHCs (n=15)

S. No	PERSONNEL	REQUIRED AS PER IPHS NORMS	EXISTING	DEFICIENCY
1.	MO AYUSH	15	6(40%)	9(60%)
2.	PUBLIC HEALTH NURSE	15	0	15(100%)
3.	STAFF NURSE	150	76(50.67%)	74(49.33%)
4.	PHARMACIST	15	15(100%)	0
5.	PHARMACIST AYUSH	15	10(66.67%)	5(33.33%)
6.	LAB TECHNICIAN	30	14(46.67%)	16(53.33%)

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7.	RADIOGRAPHER	15	8(53.33%)	7(46.67%)
8.	OPTHALMIC ASSISTANT	15	8(53.33%)	7(46.67%)
9.	DIETICIAN	15	0	15(100%)
10.	DENTAL ASSISTANT	15	0	15(100%)
11.	COLD CHAIN &VACCINE LOGISTIC ASSISTANT	15	0	15(100%)
12.	OT TECHNICIAN	15	0	15(100%)
13.	MULTI REHABILITATION/ COMMUNITY REHABILITATION WORKER	15	0	15(100%)
15.	COUNSELLER	15	15(100%)	0

Conclusions

Infrastructure and manpower facilities were lacking in most of the Community Health Centres in Nellore District of A.P. Only 6% of the CHCs were having adequate number of surgeons, 87% of the CHCs did not have adequate paediatricians and physicians. Only 27% of the CHCs had anaesthetist and Obs & Gyn specialist was present in only 47% of the CHCs. Infrastructure and equipments were either not up to the standards or grossly lacking in majority of the CHCs. Overall it was found there were only a few CHCs having adequate infrastructure and manpower facilities.

Even though CHCs are first referral units for cases referred from PHCs and an important part of Government's health system, they have not been developed up to the standards and there are not enough facilities to provide specialist care efficiently due to various issues like lack of manpower, infrastructure, equipments and funding. Since majority of the population in India is dependent on Government health facilities for their healthcare there is a need to improve and facilitate CHCs to provide better and efficient specialist care for people.

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