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Original Research Article

Non Communicable Disease (NCDs) Control Activities by Female Health Workers (FHWs) and Availability of Related Facilities at Selected Sub Centres of DK District, Karnataka, India

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ABSTRACT

Introduction: The burden from NCDs in the productive middle ages results in major economic burdens on the affected individuals, their families, and society as a whole. At the sub centre level the female health workers have the responsibility of providing services for almost all health problems including non communicable diseases. With the inception of the national NCD program it is imperative to examine how such services are provided and what support facilities are available at the grass root level. This study was carried out to identify the self reported practices of female health workers and the availability of equipments/drugs and supplies in their sub centres for the provision of services towards non communicable diseases.
Methods: Descriptive approach was used. Necessary permission and ethical clearance was obtained. A checklist of equipments, supplies and facilities adapted for use in NCDs at sub centre was prepared adhering to Indian Public Health Standards. Tools were validated and reliability was established. Tools were pretested and pilot study was carried out. Cluster sampling technique was employed to choose 100 FHWs .Information on self reported practices of female health workers and the availability of equipments/drugs and supplies were collected.
Results: The mean population per sub centre was 4708. Maximum (41%) sub centres had their own permanent building, 5% functioned from other government building and 22% from rented buildings. Thirty two percent of sub centres did not have any building. Only 17% had male health worker at their sub centre. Self reported practices regarding non communicable diseases were graded excellent (98.20%). None of the supplies was found to be present in all sub centres. BP apparatus and stethoscope (89%), Uristix (48%), Diastix (15%) and Benedict's lotion (35%) were found available in the sub centres studied.
Conclusion: Female health workers have inadequate facilities in sub centres even though they reported their practices towards NCDs as excellent.

Key words: Non communicable diseases, public health nursing services, sub center facilities, female health workers (auxiliary nurse midwife/ junior public health nurse)

INTRODUCTION

We live in an ageing world, in which better public health has resulted in longevity. By 2030, those over 60 will outnumber those under 15years, with the fastest growth in the developing world. With this demographic change there is an epidemiological transition. The predominance of infectious diseases is shifting to non communicable or chronic disease due to a combination of demographic and lifestyle changes that result from socio-economic development.[1] NCDs are replacing communicable diseases, maternal and child health as well as malnutrition as the leading cause of death.[2] Epidemics of non-communicable diseases (NCD) are presently emerging or accelerating in most developing countries. Even as infections and nutritional deficiencies are receding as leading contributors to death and disability, cardiovascular diseases (CVDs), cancers, diabetes, neuropsychiatric ailments, and other chronic diseases are becoming major contributors to the burden of disease. 60% of all deaths in the world are caused by NCDs. 80%, or 38 million, of these deaths are in people from low- and middle-income countries.[3] WHO estimates one thirds of the 177 million people with type-2 diabetes are estimated to live in the developing world.[3]

India is experiencing a rapid health transition with a rising burden of Non Communicable Diseases (NCDs). According to Registrar General of India, NCDs are emerging as the leading causes of death in the country accounting for over 42% of all deaths. According to the recent statistics on NCDs 53 percent of the deaths were due to NCDs in India. Cardiovascular disease (CVDs) alone account for 24 percent of all deaths. Chronic respiratory diseases (CRDs), cancers and diabetes accounted for 11, 6 and 2 percent of all deaths, respectively.[4] It is estimated that the overall prevalence of diabetes, hypertension, Ischemic Heart Diseases (IHD) and Stroke is 62.47, 159.46, 37.00 and 1.54 respectively per 1000 population of India. There are an estimated 25 Lakh cancer cases in India.[5] In 1990, India accounted for 19 % of all deaths, 16 % of all NCD deaths, and 17 % of all CVD deaths in the world. CVDs in India alone accounted for around 2.4 million deaths, in contrast to nearly 3.2 million deaths due to that cause in all the industrialised countries together.[6] While the present high burden of NCD deaths is itself an adequate reason for public health attention, a greater cause for concern is the early age of these deaths in India compared to the developed countries. More NCD deaths in India occur in middle age (35–69 years) than in industrialised countries, where they occur largely in old age (> 70 years).[7]

NCDs cause significant morbidity and mortality both in urban and rural population, with considerable loss in potentially productive years (aged 35–64 years) of life. Death/disability and burden from NCDs in the productive middle ages results in major economic burdens on the affected individuals, their families, and society as a whole. the tertiary care management of NCDs, often drawing scarce resources away from the unfinished agenda of infectious disease and nutritional disorder control. This positions NCDs as a major public health challenge of growing magnitude in the twenty-first century.[7]

Sub centre the most peripheral village based unit, covering population of 3000 to 5000 population[8] where the first contact with the community occurs.[9] Sub-center is ideally manned by a male health worker and a female health worker (FHW) providing round the clock services at the village level. [10, 11] Female Health workers are the pillars in India's health care system[12] in terms of their numbers, closeness to prevailing health problems &

understanding community's needs.[10] FHW perform wide range of duties like maternal and child health (RCH) and family planning services including medical termination of pregnancy (MTP), control of communicable diseases, nutrition & immunization services, record keeping, treatment of minor illnesses disease control, health education , maintenance of records and referral of those beyond her capabilities.[13] A cross sectional study to evaluate role & participation of health workers in implementing national health programs found FHW focuses on family welfare and immunization programs.[14] Another study to identify profile of work of health workers through observation, record review and interview found highest performance in family welfare (68%) and treatment of ailments(64%).[15] Yet another study on functioning of sub centres found, of the productive 60% time more than 45% was devoted to directive services-family planning, MCH and medical services.[16] A study of time utilization of multipurpose health workers in the field found Child care (immunization, Vitamin A & folifer distribution) were the main activities. Other important activities for female health workers were antenatal care (25%), family welfare (20%).[17] The above literature shows that services towards non communicable diseases are seldom noticed and is also linked to availability of equipments for service delivery. This study was carried out to identify the self reported practices of female health workers and the availability of equipments/drugs and supplies in their sub centres for the provision of services towards non communicable diseases.

METHODOLOGY

Descriptive approach was conducted with the aim to identify the self reported practices of female health workers and the availability of equipments/drugs and supplies in their sub centres for the provision of services towards non communicable diseases. The study was conducted in 100 sub centers selected using cluster sampling technique. From the selected PHC all the health workers who met the inclusion criteria were chosen. Permission was obtained from the district health office for the study. Ethical clearance was obtained from the institutional ethical committee. Tools were validated by experts and translated to Kannada by language expert. Tools were pretested and stability of the tools was ascertained. Reliability of reported practices(r=0.95) and checklist on equipments and supplies (r=0.922).Demographic data of female health workers was collected using a structured baseline proforma. Checklist was prepared to identify the self reported practices of female health workers in terms of their activities towards non communicable disease. A checklist of equipments, supplies and facilities available at the sub centre keeping IPHS for sub centres as a standard was also prepared by the investigator. Tools were pretested and pilot study was carried out among 13 female health workers. As there were no major difficulties in the tools the same tools were used for the final study.

RESULTS

Population of the sub centre: Maximum (30%) had population between 5000-7000, 26% between 3000-5000, 16% had population over 7000. Only 28% had population less than 3000. The mean population per sub centre was 4708.

Ownership of sub centre building: Maximum (41%) sub centres had their own permanent building, 5% functioned from other government building and 22% from rented buildings. Thirty two percent of sub centres did not have any building.

Presence of male health worker at the sub centre: Only 17% reported to have a male health worker at their sub centre.

Table1: Grading of self reported practices of female health workers for NCDs. N=100

Domain of work	Min	Max	Max possible score	Mean	SD	Median	Mean %	Grading
Noncommunicable diseases	15	20	20	19.64	0.89	20	98.20	Excellent

Table 1 shows the self reported practices of female health workers regarding non communicable diseases. The mean was found to be 19.64±0.89 and mean percentage score of 98.20% which is graded excellent.

Table2: Self reported practices of female health workers for NCDs. N=100

No	Items	f / %
1	Early detection, documentation & referral of hearing problems	100
2	Provide information to ASHA & anganwadi workers about hearing problems	100
3	Provide education on prevention of hearing problems	98
4	Organize program for detecting hearing problems in the community	98
5	Provide health education about tobacco control	100
6	Counsel for stoppage of substance abuse/tobacco and refer	100
7	Conduct IEC on iodine deficiency disorders	96
8	Supervise ASHA in iodine testing of salt	94
9	Organize health education on prevention & management of diabetes mellitus	99
10	Detect diabetes using urine sugar test & refer	94
11	Check blood pressure & refer as needed	98
12	Provide information on heart diseases & stroke	100
13	Provide health talk on promotion of mental health	99
14	Identify mental illnesses/epilepsy, refer ,follow up	97
15	Identify signs of cancer & refer	97
16	Provide health information on oral hygiene	100
17	Conduct oral examination & refer	100
18	Promote formation of self help group, for care of elderly	94
19	Refer disabled requiring help to higher level centers	100
20	Provide information on disability	100

Table3: Availability of equipments/supplies and facilities available at Sub centre for service delivery in NCDs (Based on IPHS). N=100

Sl No	Items	f /%
1	Examination table	62
2	Stools/chairs	88
3	Dressing tray /set	64
4	Weighing /bathroom scale	90
5	Sphygmomanometer /BP apparatus	89
6	Stethoscope	89
7	Disposable Syringe	95
8	Disposable gloves	88
9	Disposable lancet	87
10	Torch	77
11	Uristix	48
12	Diastix	15
13	Acitic acid for urine test	28
14	Benedicts lotion for urine test	35
15	Adhesive tape	65
16	Cotton bandage	88
17	Absorbent cotton	78
18	Forceps	73
19	Sponge holder	67
20	Ointment providine iodine	66
21	Savlon solution	35
22	Betadine solution	33

Table 2 depicts self reported practices of female health workers with regard to services under non communicable diseases. Though all the activities were reported to be performed in excellent manner urine testing for diabetes screening, supervision of ASHA in iodine testing of salt and promotion of self help group for care of elderly were carried out by 94%.

Table 3 depicts availability of equipments/supplies and facilities (Based on IPHS) available at Sub centre for service delivery in NCDs. None of the supplies was found to be present in all sub centres. BP apparatus and stethoscope (89%), Uristix (48%), Diastix (15%) and Benedict's lotion (35%)were found available in the above number of sub centres.

DISCUSSION

Ministry of Health and Family Welfare has launched National Cancer Control Programme, National Tobacco Control Programme and National Programme for Prevention and Control of Cancer, Diabetes, CVD and Stroke (NPCDCS) to address NCD such as cancer, CVD, diabetes and stroke. Indian Public Health Standards (IPHS) for services, human resources, drugs, investigations and equipment are developed which helps to provide services for all services including NCDs.[18-20] Current health system in India has many limitations in tackling NCDs like huge shortfall of public health facilities, non- availability of proper infrastructure and poor density of health workforce. Studies to understand the services provided at the sub centre level for NCDs are lacking.

The findings of this study are consistent with the findings of many studies on deficient facilities of sub centres. Studies show availability of physical facilities & basic amenities found 44% of them as good & poor, 12% as average, while none of the sub centres had excellent facilities available.[21] Supply and equipments of sub centres to be very poor. Essential equipments like torch, B.P. apparatus, weighing machine etc were not available in most of the sub centers.[22] Common problems faced by all levels of staff as inadequate supply of drugs/contingencies grants& physical facilities.[23] Sub centre based services were provided only for 2 days in a week. ANMs did not have stethoscope and BP instruments. Few (8.68%) of the centres did not have any building. Facilities related to furniture and equipments were found grossly inadequate in almost all centres. Only 52.94% of health workers female reported to have been staying in the sub centre village and population covered by sub centre is much higher than country average of 5401. In this study 32% of sub centres did not have any building and the mean population per sub centre was 4708.[24]

CONCLUSION

The study concludes that the female health workers have inadequate facilities in sub centres even though they reported their practices towards NCDs as excellent. The investigator admits the weakness of the self reporting tool wherein the possibility of FHWs over reporting their performance cannot be ruled out.

REFERENCES

1. http://www.helpage.org/what-we-do/health/non-communicable-diseases/?gclid=CJHi0Kju47sCFUyt4godJGwAXw
2. World Health Organization. Deaths from NCDs. http://www.who.int/gho/ncd/mortality_morbidity/ncd_total/en/index.html. [Last assessed on 2012 July 31].MDG side-event on NCDs (New York, 20 September 2010) background paper
3. World Health Organization: "Facts related to chronic disease". www.who.int
4. World Health Organization. Non-communicable Diseases Country Profile 2011.
5. http://pib.nic.in/newsite/efeatures.aspx?relid=76249 jan4.
6. Murray CJL, Lopez AD. Global Health Statistics: Global Burden of Disease and Injury Series. Volumes I and II. Boston: Harvard School of Public Health, 1996.
7. Reddy KS. Prevention and control of non-communicable Diseases: status and strategies working paper no. 104.Indian council for research on

international economic relations. New Delhi, 2003
8. Health care institutions at grass root level. Available from URL:http://mohfw.nic.in/ NRHM/ state% 20files/ Karnataka. Html [cited 10/11/13]
9. Rural Health Care System in India (pdf) *nrhm-mis.nic.in/.../ Rural% 20 Health%20Care%20System%20in% 20 India[cited 2/1/2014]*
10. Report of Evaluation Study of the Functioning of the ANM School .Rural Health Mission, DGHS, Ministry of Health and Family Welfare, Government of India, New Delhi,1-23
11. Mavalankar DV, Vora K. The challenging role of auxiliary nurse midwife (ANMs)in India: Implications for maternal and child health.[online].2006[cited 2009 Aug20]; available from:URL:http://www.iimahd.ernet.in/publications/data/2008-03-01Mavalankar.pdf
12. Management Training Module for Health Workers. Curricula for training of staff of the primary health centre. Rural Health Division, Ministry of Health and Family Welfare, National Institute of Health and Family Welfare, Government of India, New Delhi, 1987, 42-45
13. Prakashamma M. ANM-Her role in health for all by 2000Ad.Nurs J India,1997,88(3):53-5
14. Nair VM, Thankappan KR ,Sharma PS & Vasan RS.changing roles of grassroot level health workers in kerala,India.health policy and planning,16(2):171-179
15. Narayan R, Jones A, Prabhakar S & Srikantaramu N. A study of tuberculosis services as a component of primary health care. Indian Journal of Tuberculosis, 1983, 30(2) 69-73
16. Report of Evaluation Study of the Functioning of the ANM School .Rural Health Mission, DGHS, Ministry of Health and Family Welfare, Government of India, New Delhi,1-23
17. Kapoor SK, Anand K, Sharmanna BR & Mullick AK. Time utilization pattern of staff of two primary health centers in Ballavgarh, Haryana. Indian J of Public Health. 40(4), October –December 1996, 112-118.
18. Ministry of Health & Family Welfare, Government of India. National Cancer Control Programme. http://mohfw.nic.in/index1.php?lang=1&level=2&sublinkid=323&lid=323
19. Ministry of Health & Family Welfare, Government of India. National Tobacoo Control Programme. http://mohfw.nic.in/index1.php?lang=1&level=2&sublinkid=671&lid=662
20. Directorate General of health Services, Ministry of Health and Family Welfare, Government of India. Operational guidelines for Prevention and Control of Cancer, Daibetes, CVD and Stroke (NPCDCS).
21. Jain S, Singh JV, Bhatnagar M, Garg SK, Chopra H & Bajpai SK. Evaluation of physical facilities available at sub centers in District Meerut. Indian Journal of Community Medicine. 24(1), Jan-March 1999.
22. Kataria SK& Sinha NK. A Study on the Functioning of Sub centers constructed Under IPP-7 in Hazaribagh district of Bihar,

NIHFW (IPP Project & Department of statistics and demography ,1995,
23. IIHMR. Training Needs Assessment of Health System Functionaries In The State Of Maharastra.1991
24. Prasad B, Gupta VM. A qualitative assessment of antenatal care provided by auxiliary nurse midwives. Indian journal of public health, 1999, 43(4), 140-3.

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