

KNOWLEDGE AND COMPETENCE OF COMMUNITY HEALTH OFFICERS (CHO's) REGARDING MANAGEMENT OF NON-COMMUNICABLE DISEASES (NCD's)

Vikas Bhaskar¹, Prof (Dr) Pity Koul²

¹Vikas Bhaskar, Faculty at Nursing College, Uttar Pradesh University of Medical Sciences, Saifai, Etawah (UP)

²Prof (Dr) Pity Koul, Director, School of Health Sciences, IGNOU, New Delhi.

Corresponding Author:

Mr. Vikas Bhasker

Email: vickey.bhaskar@gmail.com

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ABSTRACT

Indian health system has a wide gap of health services in relation to geographical distribution. To reduce the gap in health services, several policies and scheme like primary health care concept (1978), national health policy (NHP)-1983, 2002 and national rural health mission (NRHM,2005) implemented in country but health services were not much improved as expected by policy makers at peripheral level. Recently NHP (2017) discusses again about comprehensive primary health care and to achieve the universal health coverage in the country mid-level health provider (MLHP)/community health officer (CHO) has cadre developed and launched under Aayushman Bharat scheme. Aim of the present study was to know the knowledge and competence of CHO regarding non communicable disease (NCD) management. Quantitative research approach was used for study. Sample was CHO's who are posted at the health and wellness centre's (HWC's) and sample size was 15 CHO. Sample was selected by simple random sampling method. setting of the study was HWC of Etawah district. Tool and techniques of study was questionnaire for knowledge and observation check list for competence. Knowledge questionnaires was self-reported by CHO (includes information regarding diabetes, hypertension and cancer and its management) whereas observation check list was observed by researcher (include screening techniques and management skills of CHO). Obtained score of knowledge and competence are categories in three parts below average, average and good based on score. Finding of the study shows that 73.33% of them are having adequate level of knowledge and 26.67% of them having moderate level of knowledge whereas competence scores found that 66.67% of them are having good level of score and 33.33% of them having moderate level of score. Study finding also analysis that there is a significant positive moderate correlation between knowledge score and competence score. Study concluded that CHO are having good knowledge and having good competence of NCD screening and management.

Keywords: National health policy, Community health officer, Mild level health provider, non-communicable disease, knowledge, competence.

INTRODUCTION

Health services are planned to meet the health needs of the community through the use of available knowledge and resources. Indian health system has distributed in three levels of health services which are namely as primary care level, secondary care level and tertiary care level to meet the need of Indian population.¹ Indian health system has a wide gap of health services in relation to geographical distribution where three fourth of the population residing in rural area whereas health resources are limited to one fourth only. To reduce the gap in health services the primary health care concept (1978) was revitalizing the health for all (HFA) but HFA not achieved as planned.

In, 2005 National rural health mission (NRHM) program focus on rural health services and Subcentres / Sub health centres (SHC) was strengthened by developing human resources and infrastructure development as per IPHS norms that was renamed as national health mission.^{2&3} The findings of IPHS norms showed that health services are having very poor condition especially at peripheral level. High level expert group (HLEG, 2011) on health stressed on that to achieve universal health coverage India should develop a cadre of mid-level health practitioner (MLHP) at Sub Centres / Sub health centres (SHC) level. Mid level health care provider cadre was to enhance the access of health services and health status.²

Globally many high income and low income countries are using these MLHP and making up the scarcity of health professionals as stop- gap measures. African and Asian country has showing very effective results a compare to technical or professionally compact provider. WHO& GHWA review mention that in a conducive environment, mid-level worker make a vital contribution to improving access & quality of health care.⁴National health policy (NHP)2017 discusses the comprehensive primary health care to achieve the universal health coverage in the country and improve health services.

Indian concept of mid-level health provider (community health officers) has recommended in NHP 2017. MLHP was created to strengthen the health services in rural India by establishing of health and wellness centre. These centers are proposed to provide comprehensive primary health care. These health and wellness centre was launched under the Ayushman Bharat Programme.²The CHO's and his team at health and wellness center are to provide patient centred care and improve the patient amenities at HWC by adhering standard treatment guidelines and clinical protocols for care provision so that patient satisfaction can be achieved.⁵

Need of Community Health Officer /MLHP in India

According to Rural Health Statistics (2016-17), India has 156,231 Sub-centres / Sub health centres (SHC) and among them only 21, 551(13.80%) are only functioning as per IPHS norms. In relation to availability of human resources country has deficiency of one lakh male health workers and 26, 172 ANM at subcentres. 4,243 subcentres are running without a single ANM. In Uttar Pradesh, 20521 subcentres are on paper among them none of the subcentre is functioning as IPHS norm.^{6&7}

WHO (2010) highlight that evidence although limited but shows that where mid-level provider are adequately trained, supported and supervised, they can deliver essential health services. WHO (2014) study shows that nurse-based care have a positive outcome on satisfaction of patient, admission of hospital and death by reducing overall risk of hospital admission and by reducing mortality. Mid-level health care provider has various success histories in African and Asian country.^{3&6}

A systematic review was conducted to assess services of the mid-level health workers (MLHWs). Review analysis that MLHWs provided various types of services in community. The skilled care carryout by mid-level health workers was found as effective as care provided by medical practitioner, and often more approachable to patients perspective. Study concluded that Services provided by MLHWs were effective.⁷

Knowledge of CHO is the important domain which will affect the practical skill of these mid level health care providers. Proficient knowledge is also affecting the satisfaction level. CHO or health and wellness centre functioning is in initial phase which require depth knowledge so that 8 health access can be improved. This study tries to find knowledgeand competence of community health officers (CHO's) in selected health facility of Uttar Pradesh.

OBJECTIVES OF THE STUDY

1. To assess the knowledge and competence of community health officers (CHO's) regarding management of non-communicable diseases (NCDs) in selected health and wellness centre (HWC's) of Uttar Pradesh.
2. To examine the correlation between knowledge and competence of community health officers (CHO's) in management of non-communicable diseases (NCDs) at selected health and wellness centre (HWC's).

HYPOTHESES :

H1 =There are significant associations between knowledge and competence of CHO's in management of NCD's.

H2 = CHO who have good knowledge will have good competence in management of non-communicable diseases (NCDs) at selected health and wellness centre (HWC's).

RESEARCH METHODOLOGY

Research Approach:Quantitative approach was used to evaluate the knowledge and competence of CHO's.

Research design:The quantitative research design helps to observe, describe and document the activity of community health officers.

Sample :CHO's who are posted at the health and wellness centre's (HWC's) in Uttar Pradesh with inclusion and exclusion criteria.

Inclusion criteria

- CHO's posted with nursing qualification.
- CHO's posted after completion of Bridge program CCH.
- CHO's posted at health facility till February 2021.
- CHO's available at the time of study.
- CHO's willing to participate in the study.

Exclusion criteria

- CHO's who are not willing to participate.
- CHO's posted at HWC after February 2021.
- CHO's who have less than 3-month experience.

Sampling technique: Selection of sampling unit is by Multi stage - probability sampling techniques whereas sample is selected by simple random sampling method.

Sample size: A current research problem is the new concept where researcher doesn't found research on the present concept so the sample size of present study was 15 CHO.

Setting : The setting for present study is health and wellness centres (HWC's) which are developed as per norms of health and wellness centre (HWC) under Aayushman Bharat scheme (ABS) in Etawah district of Uttar Pradesh .

Research variable: Knowledge and Competence of CHO's,

Research Tool & techniques of data collection: Data collection tools employed to collect the data for conducting the present study included questionnaire for knowledge, observation check list for competence assessment. These tools were found to be practicable and suitable.

Tool is consisting in five parts

Table: Research variable, tools and techniques of data collection

Tool	Techniques
Structured questionnaire to assess knowledge	Self-report
Check list to assess competence	Structured observation

Reliability and validity. Research instrument validity and reliability was measure to check the stability, internal consistency and equivalence. The research instrument stability was measured by Pearson product moment correlation(r) test.

Ethical Protocol:

Piolet study Ethical permission was obtained from ethical committee (UP University of Medical Sciences, Saifai, Etawah). Administrative Permission is also obtained from the district medical officer to conduct study. Informed Consent was taken from the CHO and patients visiting HWC for study.

RESULT AND DISCUSSION : Socio- demographic information of community health officers showed that Majority (73.34%) of CHO belong to 26-30 year age while 4 are belonging to 21- 25 year and 31-25 year age group. Study showed that 40% were male and 60% were female participants. 60%. professional qualification of CHO were had completed GNM while 40% belong to BSC nursing qualification. Experience as nurse before CHO includes 26% participants CHO has 1 year experience, 30% CHO has 2 year experience. None of CHO has experience in government sector. Experience after completing CHO data showed that 60% CHO has 1-2 year experience while 40% has 2-3 year experience.

All the CHO were posted at HWC and location of were rural area. Population coverage of HWC ranges from 5000 to 11000 population. 53.33% HWC coverage was up to 5000 population; while 33.33% HWC population coverage has 8000- 11000 population and remaining (13.34%) were 5000-8000 population. Distance of PHC from HWC is play a significant role majority (73.34%) of HWC were 5-10 km from PHC. Distance from CHC to HWC data showed that majority (60%) of HWC were 6-10 km and remaining was within 5 km from HWC. Study also information regarding CCH training of CHO, data observed that 40% were completed their training from nursing college, 46.67% completed from medical college and 13.33% from district hospital.

knowledge and competence of community health officers

Table 1 : showing level of knowledge and competence of CHO regarding NCD and NCD Management

Knowledge		Competence	
Moderate knowledge	Adequate knowledge	Moderate competence	Good competence
26.67%	73.33%	33.33%	66.67%

Table shows level of knowledge and competence score among community health officers. In general, none of the CHO having inadequate level of knowledge score, 26.67% of them having moderate level of knowledge score and 73.33% of them are having adequate level of knowledge score. A similar study was conducted by Brown A et al. and found that trained Mid-level health providers (MLP) are authorized and regulated to work autonomously to diagnose, manage and treat illness, disease and impairments, as well as engage in preventive and promotive care. Evidence shows that where MLP were adequately trained, supported and integrated coherently in the health system, they have the potential to improve distribution of health workers and enhance equitable access to health services.⁴

Competency score of CHO regarding NCD assessment and management percentage mean score observed. In general, none of them are having inadequate level of competency score, 33.33% of them having moderate level of score and 66.67% of them are having good level of score. Overall competency percentage mean score is 76.32%. A similar study was conducted on Nursing clinics in Hong Kong. Study observed that Under these clinics, structured healthcare service will be run by a nurse who possesses the clinical competence and ability to make care decisions, provide advance nursing therapeutics, and make appropriate referrals. These clinics are having a provision of patient education, empowerment, counseling and psychological support greatly improves patient's knowledge and confidence in self-care and satisfaction.⁸

Table 2: Correlation between knowledge and competence score

Correlation between	Mean Gain Score Mean± SE	Karl Person Correlation Coefficients
Knowledge Score Vs Competence Score	37.20±6.28 87.00±15.33	r= 0.58 P=0.001***

Study analysis show that there is a significant positive moderate correlation between knowledge score and competence score. Finding also showing that a moderate positive correlation ($r=0.58 P \leq 0.001$) coefficient between knowledge score and competence score. A similar study was conducted to assess Knowledge and practice (KAP) of health providers towards safe abortion provision in Addis Ababa health centers by Assefa EM and found that 53.1% of respondents had adequate knowledge on safe abortion care and working for 3–5 years had better knowledge on abortion and among trained them 81.9% were practising/used to practice safe abortion services. MLPs who had adequate knowledge on abortion 3.4 times were more likely to practise safe abortion care.⁹

CONCLUSION

Community health officer/ mid-level health providers are having quality knowledge of NCD and they are also having good practices/competence in screening, counselling and management of NCD patients at health and wellness centre.

Conflicts of Interest Disclosure: None.

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