Original Article

Training needs assessment of national non-communicable disease program managers in India

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Background: One of the important reasons for health programs working sub-optimally in real life is the lack of management skills among program managers. Non-communicable disease (NCD) control program in India was launched in 2010 and many changes have been introduced in program scope and guidelines. This along with frequent turnover of trained staff has necessitated development of effective training programs. This Training Needs Assessment (TNA) was conducted to identify gaps which could be addressed through training of program managers.

Methods: Twenty-four districts from 12 states across India were included in the TNA to ensure geographic representation. A TNA tool was developed by a group of experts along with program managers of non-participating states keeping in mind the managerial responsibilities under the program. Tool had qualitative, quantitative and self-rated competency components. Experts carried out in-depth interviews of NCD program officers. A descriptive analysis was carried out to identify training needs.

Results: TNA was carried out in 12 states spread in all six zones of the country. A total of 41 persons were interviewed, 38% had a postgraduate degree (MD/MS/Diploma), median number of years of employment in the state service was 16 years (range, 2–39 years), median duration of posting under program was 3 years (0.3–6 years). Major areas of training needs were communication skills, training in basic inventory management methods, finance management, standard protocols for management of NCDs, standardized reporting system and referral mechanism among others.

Conclusions: The TNA brought out important gaps in managerial skills which were relevant for developing a need-based training programme. The study also threw light on numerous program implementation challenges from the program managers' perspective.

Keywords: Training Needs Assessment (TNA); noncommunicable diseases; health program; management

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Introduction

Training of personnel is a crucial step in the successful implementation of any health program and it is not a one-time activity. As a program evolves, a continuous process of training, assessment, adaptation and evaluation is needed as the program is rolled out. Continuity is essential for two reasons: firstly, turnover of program managers and induction of new staff takes place frequently; secondly, the program may undergo changes over a period of time with introduction of new components, existing staff will need to be retrained on new aspects of the program.

Therefore to design an effective training program, it is important to assess what is the current situation and gaps

need to be identified which could be addressed through training. "Training Needs Assessment" (TNA) is the method of determining if a training need exists and if it does, what training is required to fill the gap (1).

India responded to the rising non-communicable diseases (NCDs) burden by launching the National Program for Prevention and control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) in 2010 providing a range of services include health promotion, psychosocial counselling, management (out-and-in-patient), home based care and palliative care as well as referral for specialized services (2). According to program guidelines, approximately 32,000 health personnel require to be trained at various levels. There was a need for capacity building at all levels as the program was implemented throughout the country. With this background, we carried out TNA of program managers in the country in the year 2017. The objectives of TNA were to identify the performance gaps and training-needs of program managers at state level for efficient discharge of their managerial responsibilities through a TNA.

Methods

All NPCDCS implementing States and Districts were considered for the TNA Assessment. This assessment was carried in view of preparation of training manual for program managers under NPCDCS. Under the program, State Programme managers/programme co-ordinators are to be in-charge of programme at State and District level respectively.

Selection of districts

Twenty-four districts from 12 states across India were included in the TNA to ensure geographic representation. Within each selected state, list of districts where NPCDCS Program is being implemented was sought from Ministry of Health & Family Welfare. Stratification of districts was done on the basis of the year of implementation of NPCDCS with the year 2014 as cut off. All districts in the selected state were categorized as pre & post 2014. One district each was randomly selected from each category for TNA. NPCDCS districts in which program officers should be working for at least three months were selected for assessment. Information about District Programme Officer was sought from State NCD Cell.

Study method

Mixed method approach was adopted for collecting information. In depth interview of state program officer/coordinator & district program officer/coordinator were carried out.

The interviews were conducted by faculty identified from medical colleges across the country on the basis of geographical location, public health expertise and knowledge of the NPCDCS program. The period of data collection was between September to October 2016. Prior appointments were taken from the selected program officials. They were also requested to provide relevant documents like minutes of meetings, monthly report, financial records etc. whenever possible. Filled forms were mailed back to the central team in Delhi. Quality control of data collection was carried out by a central team (BN, HS, KA) through field visits in five states (Uttarakhand, Bihar, Tripura, Haryana and Uttar Pradesh) and at least one in-depth interview of program officers was carried out in the presence of a central team member.

Study tool

A detailed TNA tool for state and district level program managers was developed by the core team from AIIMS, New Delhi. A workshop for finalization of the tool was organized in August 2016 at AIIMS New Delhi. The TNA tool consisted of both quantitative and qualitative components It consisted of a general section where information about the program officer was collected (e.g., duration of posting, previous training, years of service etc.). This was followed by questions of qualitative nature on different aspects of program management. There were different sections on human resources management, materials management, financial management, patients screening & referral, management information system, special activities and convergence with other National Health Mission activities, communication skills, report writing skills, basic data analytical skills, inter-sectoral networking skills. A second part of the tool was on self-rated assessment of training needs. In this section, the program officers were asked to rate their competencies and skills with respect to program management and to indicate their training needs. The tool was pretested in another state which was not included in the main study.

Table 1 Results of felt needs and self-rated competency assessment in managerial skills

Topic	Not confident	Area of training required
Preparation of program implementation plan (PIP)	85%	Skill
Inventory control	82%	Cognition
Procurement process	74%	Cognition
Multisectoral coordination	65%	Attitude, skill
Analyzing reports for identifying gaps and action points	65%	Skill
Recording & reporting	63%	Cognition, skill
Awareness of rules & regulations related to human resources	55%	Cognition
Preparing a statement of Expenditure (SOE) and Utilization Certificate (UC)	54%	Skill
Supportive supervisory activities	54%	Attitude, skill
Performance assessment	48%	Skill
Screening of common non-communicable diseases (NCDs) and cancers	34%	Skill, attitude

Data analysis

The data entry of quantitative data was done in Epi Info and analyzed in SPSS 16.0. Mean, median and proportions were calculated. Standard methods for qualitative data analysis were done. Free listing of responses, identification of domains and categorization of responses into domains was carried out. Relevant quotes were identified and extracted. Results are presented as training needs and non-training needs.

The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was cleared by the Institutional Ethics Committee of AIIMS, New Delhi. Informed written consent of the participants was obtained before starting of interview.

Results

TNA was carried out in 12 states spread in all six zones of the country. A total of 41 persons were interviewed which included 13 State Program Officers/ Co-ordinators and 28 District Program Officers/ Co-ordinators. Of 41 respondents, 38% had a postgraduate degree (MD/ MS/Diploma), median number of years of employment in the state service was 16 years (range, 2–39 years), median duration of posting under NPCDCS program was 3 years (0.3–6 years). The majority of the State Program Officers (73%) were regular employees, while 48% of district program officers were contractual. Approximately 35% had received training under NPCDCS. Besides, 55% have also received managerial training from other programs.

The results of TNA are described as current situation/ processes, challenges, local solutions/ practices adopted to overcome challenges and felt needs (training and non-training) by the respondents under the following headings. Qualitative data was supported with quantitative assessment of training needs as reported by respondents (*Table 1*).

A self-rated competency assessment was also done in all domains. There was lack of confidence in crucial activities which were found to be similar to those expressed through the interviews. Some of the areas are shown in *Table 1*.

There is a strong felt need for training in financial management, inventory management, data management among others, as expressed through various anecdotes and statements. Some of them are given below:

"*...there is lack of clarity on how to prepare the preparation of program implementation plan*"

"*…I feel helpless as I don't know anything about financial matters.*"

"*…need to be trained in drug indenting, procurement procedures.*"

"*…I have learnt through my own experience. It would be nice if formal training (in inventory) would be conducted.*"

"*...Sometimes I receive incomplete & wrong data from some districts. Proper training is required.*"

Based on the findings of the interviews, the domains for

Table 2 Domains and priority areas for trainings

Domain	Priority areas for training
Human resources management	• Communication skills with both superiors and subordinates
	• Conflict management
	• Group dynamics and leadership skills
Materials management	• Inventory management methods
	• Procurement process – rate contract, tendering, local purchase. Forecasting and estimating demand
	• Material management in case of shortage and emergency management
	• Annual maintenance contract
Financial management	• Preparation of annual budget
	• Statement of expenditure, utilization certificate
	• Program Implementation Plan
Screening & patient care	• Guidelines/algorithm for management of patient at NCD clinic
	• Methods of screening of oral and cervical cancer
Reporting system, monitoring and supervision	• Reporting formats
	• Systematic reporting mechanism
	• Mechanism for ensuring follow up of patients

focus of training were identified as summarised in *Table 2*.

Discussion

TNA is useful to identify gaps to make the training more effective. A TNA is required to identify the gaps between what is currently in place and what is actually needed. One study reported TNA of health care professionals of major public health care facilities in Saint Lucia using Hennessy Hicks Training Needs Analysis Questionnaire, a self-reported close-ended structured questionnaire with a core set of 30 items. TNA revealed the need for continuing professional education which was rated the highest priority, followed by research/audit activities (3). Another study from Africa reported the use of TNA to explore community health extension worker and community health officers' perceptions of globally accepted competency domains for public health practitioners across the areas of importance and confidence in their ability to demonstrate those competencies (4).

Our study is the first of its kind assessment of training needs of program managers of the national programme in India. The TNA brought out important issues which were not only relevant for training but also served as an evaluation of the programme. The study threw a different light on numerous program implementation challenges from the program managers' perspective.

These results proved beneficial in planning a relevant training program using adult learning principles. This led to a development of a skill-based training program and also utilized varied field experiences as case studies for discussion. This is valuable as participants can relate to real life situations in the field. Often discussion of case studies brings out practical and innovative solutions as participants share their own experiences.

As a result of the TNA, a comprehensive training package which focused on the issues identified through this exercise was prepared which included a training manual, workbook and a facilitators guide (5). A set of slides was also prepared to ensure standardization and uniformity as the training is planned to be imparted across the country by multiple trainers.

Conclusions

TNA was carried out to identify gaps in the current capacities of program managers at the state and district level in relation to the implementation of NPCDCS program activities. This included assessment of knowledge and skills on program management and monitoring and identifying

gaps. Capacity gaps were identified both at Individual and institutional level. Thus TNA guided the development of appropriate training materials that were used in training NCD programs managers in India.

However, it is to be emphasised that training is just one component of program implementation. Many of the issues that we have identified like shortage of staff, bottlenecks in funds allocation availability of drugs and equipment cannot be addressed by training alone. What is more important is that the whole system should be streamlined to provide a supportive environment so as to enable the trained health personnel to carry out their duties according to the program guidelines.

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