

Self-reported Training Needs among Physicians in a Tertiary Institution, Southwest, Nigeria: An Application of Hennessy-Hicks Training Needs Assessment Tool

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Abstract

Background: To keep pace with existing as well as emerging public and population health challenges, continuing in-service professional development (CPD) of physicians is paramount. This study assessed the training needs of physicians in a tertiary hospital in Ibadan, South-West, Nigeria. **Methods:** This study utilized a descriptive cross-sectional design. Three hundred and fifty-five physicians were randomly selected. Data were collected with the aid of the Hennessy-Hicks Training Needs Assessment tool. The instrument has five broad sub-sections: Research/audit, communication/teamwork, clinical tasks, administration, and management/supervisory tasks. In all, these subsections are made up of 30 items with their roles/tasks and were used to assess the training needs of individual study respondents. Charts and proportions were utilized to present the CPD training needs reported by physicians. Mann-Whitney U test was used to examine the difference in training needs between consultants and resident doctors. **Results:** A larger proportion of the study respondents were middle-aged adults. Respondents' ages were fairly distributed across the varying age brackets. Respondents within the age bracket 35–39 were the highest (30.36%), followed by those within ages 30–34 years (24.09%). With regard to training needs and capacity development, research/audit skills had the highest need (0.83). Furthermore, training that enhances managerial/supervisory skills had a rating of 0.68. Clinical tasks and administration tasks have the same rating (0.63), whereas communication/teamwork had the lowest rating. Consultants expressed higher training needs compared with resident doctors across all task domains. **Conclusion:** Quest for skills in research had the topmost priority among physicians, and thus, majority were likely to be receptive to training and acquisition of new skills. Future CPD training should reflect the critical needs for performance improvement, as indicated in this study.

Keywords: Continuing Professional Development, Health-care, Hennessy-Hicks Training Needs Assessment, Physicians, Nigeria

INTRODUCTION

To keep pace with existing as well as emerging public health challenges, continuing in-service professional development (CPD) of physicians is paramount. The concept of CPD involves the continuous and systematic acquisition of relevant professional knowledge and skills.^[1] Policies that target CPD of health-care workers are necessary for improving the quality of health-care services provided, which in turn will have an impact on the overall health outcome of the population.^[2,3]

In addition, continuing education is not only beneficial for the health-care sector as a whole, it is similarly important for maintaining, developing, and updating the skills of health-care practitioners as well as for the general career advancement of

individuals. Despite the enormous significance of CPD, staff training need is often determined by the management with little or no contribution from the frontline workers. Thus, it is usually conducted without systematically determining the genuine professional training needs expressed by employees, especially in developing countries.^[3,4]

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How to cite this article: Adewole DA, Adeniji FI, Makanjuola AV. Self-reported training needs among physicians in a tertiary institution, Southwest, Nigeria: An application of Hennessy-Hicks training needs assessment tool. *Niger J Med* 2020;29:396-400.

Submitted: 09-Apr-2020 **Revised:** 02-May-2020

Accepted: 23-Jul-2020 **Published:** 18-Sep-2020

Access this article online

Quick Response Code:



Website:
www.njmonline.org

DOI:
10.4103/NJM.NJM_27_20

Nigeria, like most other developing countries, is faced with an inadequate number of medical doctors and poor health outcomes. In essence, CPD can serve as a mechanism for ensuring that available physicians continue to have access to current professional knowledge and practices around the world. In 2012, the Medical and Dental Council of Nigeria, which is the regulatory organization for medical training and practice in Nigeria, provided guidelines for CPD that should guide medical practitioners. Yearly, medical doctors are required to obtain 20 Continuing Medical Education (CME) units or, in some cases, 40 CME units bi-annually.^[5] In the guideline for CPD developed by MDCN, recommendations were made regarding the set of training that should be undertaken by its members.

However, it has been argued that such recommendations should be made on those training needs identified by individual practitioners themselves.^[3] This is because the effectiveness of CPD programs is optimized when it is designed with consideration of the training preferences of the individuals who are saddled with the responsibility of maintaining the health of the population.^[6] Another important consideration is that to ensure the cost-effectiveness of CPD programs, it should be driven by the beneficiaries of the training themselves so that the resources or program will be highly valued and optimized, especially in low-resource settings.^[3] Recently, this has been the focus of some studies.^[6-8]

The need for CPD among health workers remains in the front burner of the discussion on how to improve health-care service delivery in Nigeria. As such, it is important to ensure that physicians are required to undertake training that they deem necessary to enhance their professional practice. Such can be designed appropriately based on evidence-based findings. Therefore, this study assessed the self-reported training needs of physicians in a tertiary hospital facility in Ibadan, South-West, Nigeria.

METHODS

Study design

This study utilized a descriptive cross-sectional design. The minimum sample size for the study was determined using the Kish and Leslie (1956) sample size formula. The proportion of physicians who had undergone work-related training was assumed to be 70% based on a previous study.^[3] After adjusting for 10% nonresponse rate, the estimated minimum sample size for the study was 355.

At the time of data collection, there were a total of 745 physicians which include 430 resident doctors, 268 honorary consultants and 47 hospital consultants in the University College Hospital (UCH), across all departments. Proportional allocation of the estimated sample size was done to reflect the distribution of physicians in the different departments. Finally, a simple random sampling technique was used to sample the participants from all departments. This ensured that 355 physicians were randomly selected for the study.

Data collection instrument and analysis

This study utilized the Hennessy-Hicks Training Needs Assessment (H-HTNA) instrument/questionnaire to determine and prioritize the CPD training needs of the study participants.^[9] The tool is a structured, self-administered questionnaire. It was utilized to elicit information on participants' sociodemographic profile and CPD training needs. The instrument has five broad subsections (referred to as "super-ordinate categories"), which represent core aspects of physician or health worker functions within any given hospital facility. These sub-sections are research/audit, communication/teamwork, clinical tasks, administration, and management/supervisory tasks. In all, the sub-sections comprise 30 items that captured in-service roles/tasks of physicians. For details of these items, the subsections they belong, and how they were implemented, see the instrument.^[10]

To contextualize the instrument to different health-care environments, up to 8 items can be modified or changed completely and a further 10 items can be added without necessarily compromising the validity and psychometric features of the tool,^[9] thus, the instrument was adapted for the study. Concerning each task domain, the instrument has two components, rating A and rating B, where rating A represents the level of importance attached to a job task, and rating B represents how well that task is currently carried out among physicians (consultants and resident doctors).

Following the definition provided in Martelli and James,^[11] training need was computed as the level of importance attached to a task minus how well the task is currently performed.

The higher the difference in scores, the higher the training needs as well as the priority that should be attached to that training and vice versa. Similarly, the following four possibilities exist: A task is rated high on A but low on B (i.e., critical task but performed poorly), then this reflects a high need for training for that task; A task is rated low on A and B (i.e. not that important task and not well performed), then this presupposes that there is no critical need for training; A task is rated high on A and B (i.e., very important and performed well), then this shows that there is no need for training; A task is rated low on A but high on B (i.e., not important but performed well), also, no need for training. Although, the CPD training needs can be reported for individuals as well as for groups, for ease of reporting, the mean/average of the differences in importance and performance scores cross task domains were ascertained and reported accordingly. Since the training needs scores were not normally distributed across respondents, the Mann-Whitney U test was conducted to ascertain the mean difference in training needs expressed by the cadres of physicians included in the study (i.e., consultants and resident doctors).

Three hundred and fifty-five H-HTNA questionnaires were distributed to participants, out of this, 303 were duly filled and returned, which represented about 85% response rate. This is satisfactory and higher compared to that reported in previous studies conducted elsewhere.^[12-14]

Ethics approval and consent to participate

This study obtained ethical approval from the UI/UCH Ethics Committee. Written consent was obtained from participants. Data collected were anonymized, and the paper does not contain the individual information of participants. Thus, consent for publication was no necessary.

RESULTS

The mean age of participants was 37.6 ± 6.8 , 50.3% were in the 30–44 age group and 186 (61.39%) were female. The distribution of the physicians is such that the majority, 249 (82.18%) were resident doctors, whereas 54 (17.82%) were consultants. Of the physicians, majority (76.95%) had been on their current job for between 1 and 5 years, whereas only five participants had between 21 and 25 years of working experience in their current job. Regarding the postqualification years, 173 (58.64%) respondents became qualified in the past 9 years or less before the study and only 7 participants had been qualified for between 30 and 39 years [Table 1].

Figure 1 depicts the average CPD training need reported among physicians. The research/audit had the highest rating (0.83). Furthermore, training that enhances managerial/supervisory skills has a rating of 0.68. Clinical tasks and administration tasks have the same rating (0.63), and communication/teamwork has the lowest rating (0.48).

The consultant reported higher training needs across the five domains of training needs compared with resident doctors. For the research/audit domain, the mean training need reported by consultants was 1.1 ± 0.9 relative to 0.9 (1.1) for resident doctors. However, there was no statistically significant difference in the training needs between consultants and resident doctors in four of the task domains: Research/audit, communication/teamwork, administration, and management/supervisory task. However, training need in terms of clinical tasks expressed by consultants was significantly different from that expressed by resident doctors [Table 2].

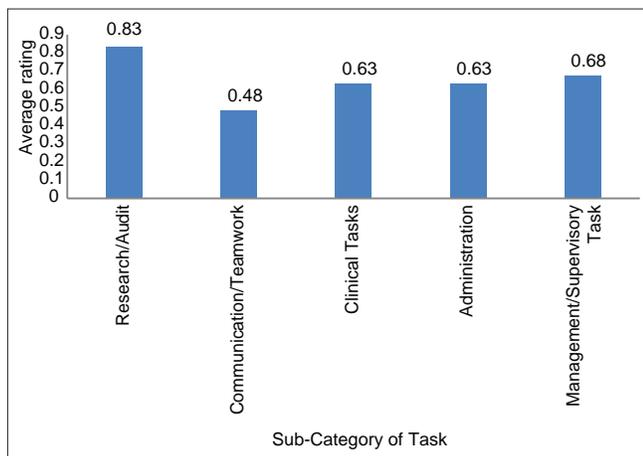


Figure 1: Average continuing in-service professional development training needs for each sub-category of task

Table 1: Sociodemographic profile of respondents

Variables	Frequency (%)
Age	
25-34	100 (33.9)
35-44	162 (54.92)
45-54	22 (7.46)
55-64	11 (3.73)
Mean age	37.6±6.8
Gender	
Male	186 (61.39)
Female	117 (38.61)
Job title	
Consultant	54 (17.82)
Resident doctor	249 (82.18)
Years in post	
1-5	227 (76.95)
6-10	53 (17.97)
11-15	6 (2.03)
16-20	4 (1.36)
21-25	5 (1.69)
Years since qualified	
0-9	173 (58.64)
10-19	106 (35.93)
20-29	9 (3.05)
20-29	9 (3.05)
30-39	7 (2.37)

Table 2: Mean difference in training needs scores for each subcategory of task by physician’s cadre

	Mean±SD		P
	Consultant	Resident doctors	
Research/audit	1.1±0.9	0.9±1.1	0.1
Communication/teamwork	0.6±0.5	0.5±0.8	0.2
Clinical tasks	0.9±0.7	0.6±0.9	0.02
Administration	0.8±1.0	0.6±1.2	0.3
Management/supervisory task	0.8±0.7	0.6±0.9	0.1

SD: Standard deviation

DISCUSSION

This study examined the CPD training needs of physicians currently working in a tertiary hospital facility, Ibadan, South West, Nigeria. A set of training needs were expressed by physicians, and these performance improving areas of need were ranked. Research methods/financing, use of technical/modern technology and public health, promotion, and management were the highest-rated training preferences. This finding is not unexpected, given the circumstances surrounding the discharge of the duties of physicians in Nigeria. Oftentimes, physicians also have a joint appointment in Universities where a lot of emphasis is placed on research outputs. Similarly, research work is an important component of the residency training program in Nigeria. Thus, the highest priority was expressed for this sub-category of need by the majority of the

study respondents. Therefore, this finding is an indication that there is a critical need to provide in-service training that will improve the research capabilities of consultant physicians and resident doctors in the country.

Most hospital facilities in low-income countries, including Nigeria, suffer from a huge deficit in the required state-of-the-art medical equipment and technology. It is common knowledge that access to these facilities will improve physicians' in-service performance and improve individual consumer's health outcomes. As the government strives to procure sophisticated medical equipment, physicians will need to undertake CPD training that will help fill a critical gap in the knowledge and skill required to handle this equipment. Besides, physicians expressed the need for training regarding public health promotion and management. This approach to health-care is cost-effective to both individual health-care consumers and the government.

In the literature, varying training needs have been reported among health-care workers around the world.^[15-19] However, there is a fairly similar pattern regarding the CPD training needs reported. A study carried out to identify the training needs of the health-care workforce in Saint Lucia revealed that health practitioners rated communication, clinical, managerial, and research skills as the core CPD need to improve their professional performance in that order of importance.^[3] This study completely reported different training needs. Furthermore, another research done in Ethiopia to assess the CPD needs of health extension workers found that ongoing update course on clinical and curative skills represent important training priorities among health-care workers in that category,^[20] which is similarly related to the training needs expressed in the study carried out in Saint Lucia.^[3] Furthermore, a survey that assessed the training needs in five European countries (Bulgaria, Greece, Italy, Poland, and United Kingdom) identified training such as communication, emotional management, and time management skills as important training needs expressed by health-care workers.^[15] The authors, however, noted that their findings exhibited country-specific differences in the training needs expressed. The reasons for the difference in the preference for training needs in the present study and the others cited here are not far-fetched. While many physicians in addition to their roles as service providers are usually interested in carrying-out clinical and other health-related research, few nurses and similar other categories of health-care workers are inclined to conducting research, but this category of workers would rather focus on providing services. This can be a plausible explanation for the difference in priorities as expressed by physicians and other allied health-care workers. The application of the H-HTNA tool helped to identify and prioritize self-reported CDP training needs. Furthermore, training that enhances managerial and supervisory tasks was rated high among the professional training needs expressed by physicians. This skill would be needed by physicians in Nigeria for a number of reasons. First, the hierarchical flow of leadership in hospital settings

in Nigeria places physicians as managers of such health-care institutions, and as such, the need to acquire managerial and administrative skills. In addition, many of them, especially those who have joint appointments with universities and related institutions could aspire to administrative positions in such places, and as such, the need to be prepared. In contrast to our findings, a study carried out in Ireland to identify the CPD training needs among medical physicians reported that doctor-patient communication, workload, resilience, and stress management rated the highest in the list of training needs expressed by physicians,^[18] which is a bit different from the findings in the present study. We acknowledge this could be a result of differences in the contextual environments between Nigeria and Ireland. Nonetheless, the study reported a need for training on management and supervisory skills similar to the findings in the present study. Communication/teamwork had the lowest need. It is either that this aspect of need is well developed among these study respondents and other cadres of health personnel that they work with or the importance of it was not appreciated. Further research work will be needed to establish the direction of this outcome.

Finally, the responses of consultants reflect a higher need for training compared with resident doctors. The reason for this could be that consultants believe that even though they are the primary trainers of the resident doctors, they also need to undergo regular structured training to update their knowledge and skills. On the other hand, residency is a form of training for physicians aspiring to become consultants, and as such, the resident doctors in this study believe that they were currently undertaking training, and this reflected in the lower training needs expressed by them, relative to that indicated by consultants.

CONCLUSION

Acquiring new knowledge through CPD for physicians is necessary for achieving improved health-care services delivery. Bearing in mind that CPD is effective when it is tailored towards the self-reported training needs expressed by practitioners themselves, stakeholders in the provision of health-care services in Nigeria should work together to ensure that future CPD training is tailored toward the in-service training preferences of the beneficiaries. This will ensure that resource outlays for the provision of CPD training are cost-effective and, at the same time, improvement in health as well as delivery quality can be guaranteed. This is more important to prioritize training needs, especially in resource-constraint environment such as Nigeria and in similar other settings. It will assist in curtailing wastages and improve the efficient use of scarce resources.

Availability of data and material

The data from which the conclusions of the article were made is available and is attached as Additional file 1.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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