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# Training Need Assessment among Health Care Providers in Public Health Facilities of Benishangul Regional State, North West Ethiopia, 2018

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***Abstract***
***Background:****Continuing education is crucial for quality improvement in health care. The needs assessment of CE helps to ensure effectiveness. However, such an assessment necessitates certain techniques that are unfamiliar to health care communities in developing countries. This study identifies the needs of providing training to health care providers in Benishangul Gumuz regional sate.*
***Objective:****The aim of this survey is to assess training needs among health care providers in Benishangul Gumuz regional state health facility, North West Ethiopia, 2018*
***Methods:****An institution based cross-sectional study was conducted from Jun first to July 30, 2018 inpublic health facilities ofBenishangul Gumuz regional state.This study was designed as a questionnaire survey to investigate the demographics, training needs, and preferred approaches to improve performance of the target population. The study population included the health care providers of public health care facilities in Benishangul Gumuz regional sate. We used the World Health Organization– adopted Hennessy Hicks Training Needs Analysis Questionnaire, a self-reported close-ended structured questionnaire with a core set of 30 items.*
***Results:*** *In total, 450 questionnaires were distributed; the response rate was 86 %, and most respondents were nurses. Neonatal care , Gender based violence, Emergency care , Maternal care ,Public health promotion /Disease prevention/ ,TB /Leprosy, Malaria, ART ,Treatment of intensive care patients (ICU) and Leadership and system thinking was found to be the most required training needs among health care providers in the public health facilities of Benishangul Gumuz regional state*
***Conclusions:****Providing training according to needs is vital, particularly in developing countries like Ethiopia where resources are extremely limited. The assessment result offersperspective on how to conduct needs assessment and serve as a reference for the region. Planning to provide training to health care providers, particularlyfor Neonatal care, Gender based violence and Emergency care take a priority for the region*
***Keywords:****Continuing education, continuing professional education, Training needs assessment*

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## I. Background

Training Need Assessment (TNA) is defined as an investigation, undertaken to determine the nature of performance problems in order to establish the underlying causes and the way in training can address the gap. It is recognized as the first step in any Human Resource Development intervention in any organization. Training needs come from under developed skills, insufficient knowledge or inappropriate worker attitudes. The assessment begins with a "need" which can be identified in several ways, but is generally described as a gap between what is currently in place and what is needed, now and in the future (1,2,3).

Any need assessment must address three key areas: the organization, the job and the individual. Organizational level considers the proposed training within the context of the rest of the organizations within it. Training is an important activity within an organization and it's aimed at effecting positive changes in the trainees in terms of their knowledge, skills and attitudes, and making the level of performance better. By its nature, Training Needs Assessment refers to the organizational process of collecting and analyzing data that supports decision making about when training is the best option or not to improve individuals' performances, define who should be trained, and exactly what content should be taught (1, 5, and 6).

Despite its importance, research shows that training needs assessment has been done in an unsystematic manner in organizational settings of the developing countries. Training is often provided without much planning which happens in developing countries including Ethiopia. In Management, studies lack systematic theoretical and methodological approaches which may provide consistency of training need assessment research and practices (7, 8, and 9).

Continuing education (CE) is crucial for quality improvement in health care. However, CE is often provided without much planning,which happens in developing countries. A needs assessment of CE of all the involved parties is crucial to ensure CE effectiveness. Health care professionals in low-resource countries oftentimes do not have the obligation to demonstrate ongoing education or competence; Past research had found low levels of provider training and huge quality gaps in less developed countries [10, 11, and 12].

As the world health organization (WHO, 2007) recommendations, the health workforce is one of the six building blocks of the health care system if countries need to strengthen the objective of universal equitable access to good quality health services is to be achieved. A difficultenvironment and many challenges still remain to achieve Health care provider capacity building successfully.

Ambivalent political will, as well as the hostility of health care provider towards other community stakeholders compromised participation and accountability in delivering their role and responsibility, especially in relation to their roles in decision-making. Other problems like: lack of information; poor knowledge of the legal framework;lack of adequate skill; lack of motivation andinadequate positive attitude are also remain as adifficulty in achieving competent health care provider [13, 14, and 15].

This study identified the needs of providing CE to healthcare personnel in the Benishangul Gumuz regional state. The results are expected to provide insight to policy makers, financiers, and health care organizations for guiding, training planning and funding allocation required for continuing professional education. In addition, this study offered perspectives on how to conduct training needs assessment and serves as a reference for developing countries whose environments are similar to that of Benishangul Gumuz regional state.

In Benishangul Gumuz regional state, training need assessment is not done yet to produce scientific evidence to plan future training need in the region for short term and long term training at the regional and organizational level. Therefore Training need assessment at the regional level was conducted to improve the quality of health care by improving health care provider performance.

## II. Methods and Materials

An institution based studywas conducted from Jun to July 30/2018 in public health facilities of Benishangul Gumuz regional state. Benishangul-Gumuz Regional State is one of the nine regional states of the federal democratic republic of Ethiopia. The capital city of the region, Assossa is 675 km far from Addis Ababa to the North West. The region is administratively composed of 3 zones, 20 woreda (with one of the special woreda) and 470 Kebeles. The region shares common borders with the state of Amhara in the East, the Sudan in the North-East, and the state of Oromia in the South.

The region has a total area of approximately 50,380 $km^2$ with altitude ranging from 580 to 2,731 meters above sea level. The population size of the region is estimated at 1,000,000 and the proportion of male and female is 50.7% and 49.3% respectively.

The annual population growth rate is estimated at 3% per annum. About 13.5% and 86.5% of the population are living in urban and rural areas respectively.

According to 2010 EFY regional health Bauru there are Two general hospitals, four primary hospitals (Two of them are nonfunctional) 45 health centers and 402 health posts.

The regional health system is staffed with 3766 health care providers, including health extension workers. Among this there are 5 specialist; 47 general practitioner; 210 health officer; 222 BSc nurse; 1043diploma nurse; 165 BSc midwife, 242 diploma midwife, 52 laboratory technologist, 92 laboratory technicians, 56 pharmacists, 149 pharmacy technicians and 57 environmental health professionals.

**Study Design**

An institution based cross-sectional study design was conducted.

**Source population**

The source population was all health care providers working as staff in public health facilities of Benishangul Gumuz regional state.

**Study Population**

The study populations wereall health care providers those actively working in selected public health facilities of Benishangul Gumuz regional state during the data collection period.

**Study variables**

- ✓ Socio demography
- ✓ Short term training
- ✓ Long term training

**Inclusion and exclusion criteria**

**Inclusion criteria**

Employed health care provider staff working in public health facilities of Benishangul Gumuz regional state and available during the study period will be included in the study.

**Exclusion criteria**

The health care provider who is on annual leave and maternity leave during the data collection periodwas excluded from the study.

**Sample size determination and sampling procedure**

Since there is no similar study conducted on this topic so that we use 50% proportion, so the preferred sample size determination method is a single population proportion with an estimation of 95% level of confidence and maximum tolerable error 5%.

$$n = (Z\alpha/2)\ 2\ p\ (1\text{-}p)\ /d2$$

Where Z = Standard normal distribution of 95%

P = population proportion (50%)

d = margin of error (5%),

$1.\ 96^2 * 0.\ 5\ (1\text{-}0.5)^2/0.05^2 = 384$, by adding 10% non-response rate our sample size was 423.

The purposive cluster sampling technique was employed to select the public health facilities in the region. All health care providers in the selected public health facilities was participated during data collection.

## III. Results

**Socio-demographic characteristics**

A total of 383health care workers participated in the study with 90.54% response rate. Out of total participants 211 (55.1%) were males, age of the participants included in the range of 20 to 45 with a mean age of 29 (SD=±4.91) years. Accordingly, most respondents in this study were229 (60%) married and144 (37.6%) single.

Regarding Profession, most respondents were nurses, 173 (45.2%). 38 (15.8 %), pharmacy 53 (13.8%) midwifery 55 (14.4%) and laboratory 36 (9.4%) and 143 (37.3%) participants had 1 to 6year work experience and among respondents 275 (71.8%) had not taken any additional education but 91 (23.8%) had taken additional education which is relevant to their profession.

A considerable number of respondents were not in any management or supervisory position at the time of the survey 297 (77.5 %). Among surveyed health care professionals, 228 (59.5%) had undergone previous work-related training; of these, 130 (33.9 %) of them had undergone more than 2 sessions.

**Table 1: Sociodemographic characteristics of health care providers in public hospitals of Benishangul Gumuz regional state Western, Ethiopia, August 2018**

| Variable | | Frequency (n=383) | Percent (%) |
|---|---|---|---|
| Sex | Male | 211 | 55.1 |
| | Female | 172 | 44.9 |
| Age | <= 28 years | 218 | 57.0 |
| | 29-39 years | 147 | 39.0 |
| | >= 40 years | 18 | 4.0 |
| Marital states | Married | 229 | 59.8 |
| | Single | 144 | 37.6 |
| | Divorced | 10 | 2.6 |
| Qualification | Certificate | 13 | 3.4 |
| | Diploma | 190 | 49.6 |
| | Bachelor degree | 165 | 43.1 |
| | Master's degree | 10 | 2.6 |
| | Other | 5 | 1.3 |
| Experience | <1 year | 51 | 13.3 |
| | 1-6year | 230 | 60 |
| | 7-9year | 44 | 11.5 |
| | ≥ 10 years | 58 | 15.14 |
| | Physician | 38 | 9.9 |
| | Pharmacist | 53 | 13.8 |
| | Laboratory | 36 | 9.4 |
| Profession | Nurse | 173 | 45.2 |

| | | | |
|---|---|---|---|
| | Midwifery | 55 | 14.4 |
| | Other | 25 | 6.5 |
| Upgrade | Yes | 94 | 24.6 |
| | No | 289 | 75.4 |
| Reason for delays | Lack of motivation | 27 | 9.3 |
| | Family responsibilities | 48 | 16.6 |
| | Financial problem | 32 | 11 |
| | Lack of sponsor | 157 | 54.3 |
| | Other | 25 | 8.6 |
| Relevance | Relevant | 60 | 63.8 |
| | Not relevant | 10 | 10.6 |
| | Somewhat relevant | 24 | 25.5 |
| Work Place | General hospitals | 178 | 46.5 |
| | District hospitals | 17 | 4.4 |
| | Primary health center | 188 | 49 |
| Work-related training | Yes | 228 | 59.5 |
| | No | 155 | 40.5 |
| Number of Training session | One | 130 | 57 |
| | Two | 74 | 32.4 |
| | Three | 21 | 9.2 |
| | Above three | 3 | 1.3 |
| Managerial position | Yes | 86 | 22.5 |
| | No | 297 | 77.5 |

**Short term training**

As table, two shows, the thirty training area was provided for the health care provider respondent to express their area of training need as not important, neutral and important to their current job in the health facilities for each training area independently. Based on the respondents' preference; Neonatal care, Gender based violence, Emergency care, Maternal care, Public health promotion /Disease prevention/, TB /Leprosy, Malaria, ART, Treatment of intensive care (ICU), and Leadership and system thinking was found to be the most required training areas among health care providers in the public health facilities of the region.

The most top three required area of training need among the thirty training tittle chosen by the respondent as important for their current job was Neonatal care, 318 (83%), Gender based violence 316 (82.5%) and Emergency care, 315 (82.2%) respectively (Table: 2).

**Table 2: Expressed short term training need of respondents in public health facilities of Benishangul Gumuz regional state North West Ethiopia, August /2018 (N=383).**

| Skill area | | Not important | Important | Neutral |
|---|---|---|---|---|
| 1. | Clinical skills | 19(5%) | 56(14.6%) | 308(80.4%) |
| 2. | Proper documentation | 31(8.1%) | 282(73.6%) | 70(18.3%) |
| 3. | Public health promotion /Disease prevention/ | 18(4.7%) | 309(80.7%) | 56(14.6%) |
| 4. | Use of medical equipment | 31(8.1%) | 266(69.5%) | 86(22.5%) |
| 5. | Disaster management | 44(11.5%) | 222(58%) | 117(30.5%) |
| 6. | Health information management | 29(7.6%) | 270(70.5%) | 84(21.9%) |
| 7. | Stress management | 41(10.7%) | 230(60.1%) | 112(29.2%) |
| 8. | Communication skills | 30(7.8%) | 267(69.7%) | 86(22.5%) |
| 9. | Palliative care | 36(9.4%) | 244(63.7%) | 103(26.9%) |
| 10. | Culturally competence skill | 31(8.1%) | 230(60.1%) | 122(31.9%) |
| 11. | Administrative, Supervisory or Management | 26(6.8%) | 257(67.1%) | 100(26.1%) |
| 12. | Gender based violence | 16(4.2%) | 316(82.5%) | 51(13.3%) |
| 13. | Neonatal care | 17(4.5%) | 318(83%) | 48(12.5%) |
| 14. | Maternal care | 11(2.9%) | 311(81.2%) | 61(15.9%) |
| 15. | Computer skills | 16(4.2%) | 296(77.3%) | 71(18.5%) |
| 16. | Leadership and system thinking | 20(5.2%) | 271(70.8%) | 92(24%) |
| 17. | Emergency care | 21(5.8%) | 315(82.2%) | 47(12.3%) |
| 18. | Treatment of intensive care patients | 22(5.7%) | 292(76.2%) | 69(18%) |
| 19. | Quality improvement assurance | 14(3.7%) | 292(76.2%) | 77(20.1%) |
| 20. | Program planning skill | 18(4.7%) | 271(70.8%) | 94(24.5%) |
| 21. | Counseling | 15(3.9%) | 267(69.7%) | 101(26.4%) |
| 22. | Treatment of patients with mental health needs | 22(5.7%) | 268(70%) | 93(24.3%) |
| 23. | Clinical laboratory skill | 37(9.7%) | 231(60.3%) | 115(30%) |
| 24. | TB /Leprosy | 19(5%) | 306(79.9%) | 58(15.1%) |
| 25. | ART | 16(4.2%) | 304(79.4%) | 63(16.4%) |
| 26. | Malaria | 21(5.5%) | 296(77.3%) | 66(17.2%) |
| 27. | Logistic system(IPLS) | 19(5%) | 292(76.2%) | 72(18.8%) |

| | | | | |
|---|---|---|---|---|
| 28. | Auditable pharmaceutical transaction and service(APTS) | 33(8.6%) | 241(62.9%) | 109(28.5%) |
| 29. | Drug safety | 28(7.3%) | 240(62.7%) | 115(30%) |
| 30. | Preventable adverse events of drugs | 28(7.3%) | 244(63.7%) | 111(29%) |

**Table 3. Ten prioritized training need of need of respondents in public health facilities of Benishangul Gumuz regional state North West Ethiopia, August /2018 (N=383).**

Based on the respondents preference; Neonatal care (82.5%), Emergency care (81.2%), Maternal care

| Training title/training area | | Not important | Important | Neutral |
|---|---|---|---|---|
| 1. | Neonatal care | 17(4.5%) | 318(83%) | 48(12.5%) |
| 2. | Gender based violence | 16(4.2%) | 316(82.5%) | 51(13.3%) |
| 3. | Emergency care | 21(5.8%) | 315(82.2%) | 47(12.3%) |
| 4. | Maternal care | 11(2.9%) | 311(81.2%) | 61(15.9%) |
| 5. | Public health promotion /Disease prevention/ | 18(4.7%) | 309(80.7%) | 56(14.6%) |
| 6. | TB /Leprosy | 19(5%) | 306(79.9%) | 58(15.1%) |
| 7. | Antiretroviral therapy(ART) | 16(4.2%) | 304(79.4%) | 63(16.4%) |
| 8. | Malaria | 21(5.5%) | 296(77.3%) | 66(17.2%) |
| 9. | Treatment of intensive care patients (ICU) | 22(5.7%) | 292(76.2%) | 69(18%) |
| 10. | Leadership and system thinking | 20(5.2%) | 271(70.8%) | 92(24%) |

(80.7%),Public health promotion /Disease prevention/(80%) ,Treatment of intensive care (ICU)(77%) was found to be the most required long training areas among health care providers in the public health facilities of the region.**(Figure: 1)**

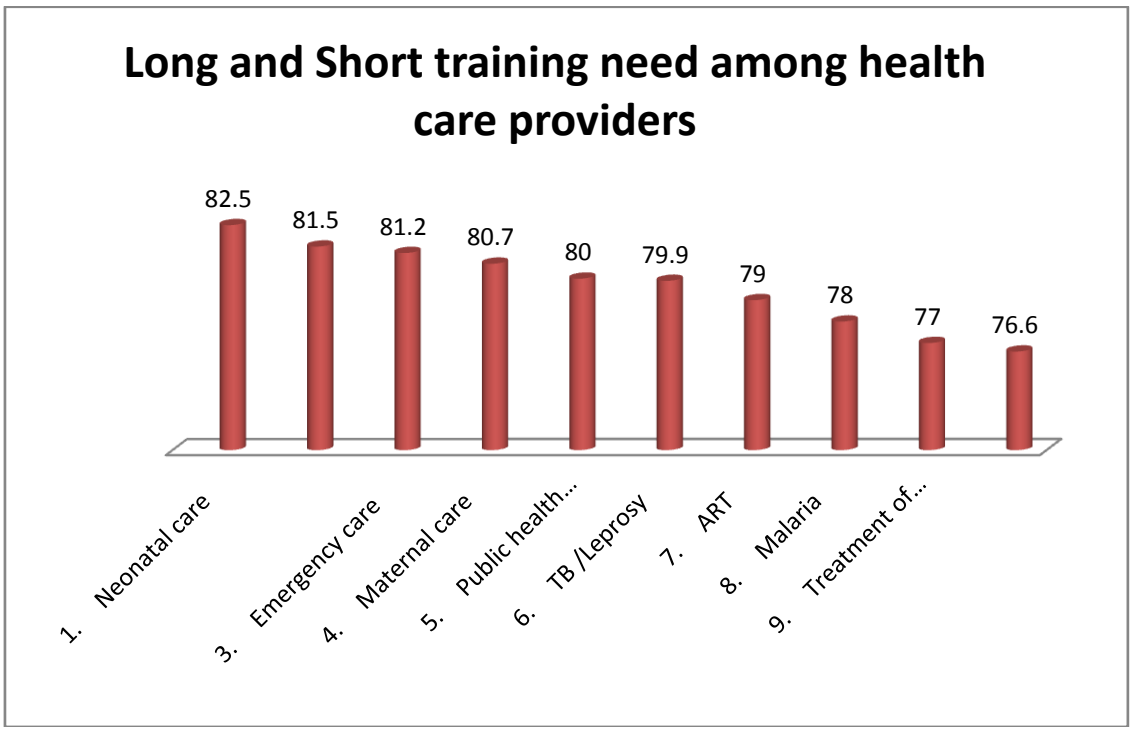


**Figure 1.** Frequency distribution by respondent's short term and long term training profile in the public facilities of Benishangul Gumuz regional state, 2018

**Long term training**

Most health care providers, 289 (75.4%) have not made their next educational career after initial qualification throughout their work experience. While 94 (24.6%) have made their next educational career after initial qualification throughout their work experience among this only 24 (24.6%) of the respondents was made their educational career and most of which, 60 (63.38%) was relevant to their current job in their health facilities. The reason of most respondents, 157 (54.3%) for not making their next educational career was financial problem. While only 25 (8.6%) of respondent's reason for not making their next educational career was the lack of government sponsor, **(Figure: 2)**

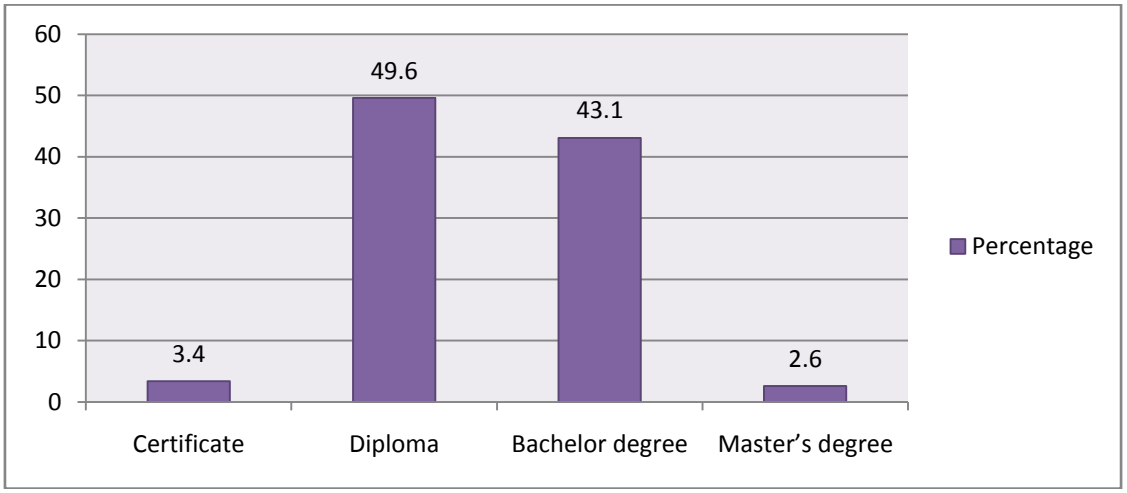


**Fig: 2** the percentage distribution of level of education among health care workers in public health facilities of Benishangul Gumuz regional state (n=383)

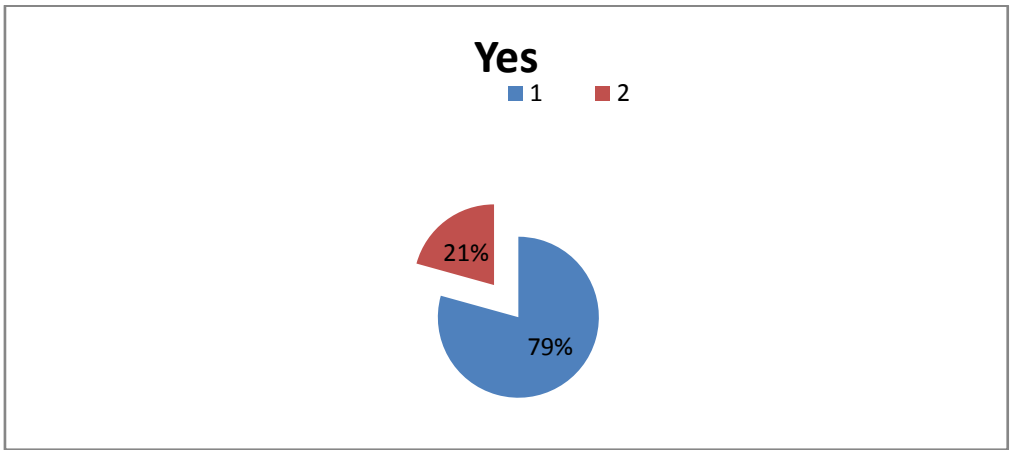


**Fig: 3** the percentage distribution of Work-related training among health care workers in Benishangul Gumuz regional state (n=383)

## IV. Discussion

It is not entirely clear how a health care professional would determine which tasks are crucial and how well they perceive their actual performance of that task to determine the need. However, these may be influenced by several factors, including their motivation to continue learning, a special interest in that particular task, an encounter or deficiency in their previous education, and their satisfaction or dissatisfaction with the management of the department among others. The finding of this study show that the training gaps of the health care provider in the region.

In all, 383 health care providers were participated with the response rate of 86 %, which was satisfactory when compared with the rates reported in similar studies on health care professionals that used the same tool (17–19). Most respondents in this study were females and most respondents belonged to the 29– 39 years age group, as was the case in related studies (18). Younger professionals were found to require more training than did professionals from other age groups. This finding is consistent with those of other studies that suggest that the younger generation typically has higher career aspirations and is therefore more likely to undertake further training. Most respondents' have a need to attending long term training programs with respective of their profession for further professional growth. An equal number of respondents (60 %) had 1-6 years and more than 6 years of work experience; thus, these two groups formed the majority when the respondents were classified by seniority. Despite this considerable service years of health care providers, more than 50% of health care providers had diploma and below educational qualifications in varies health disciplines.

The respondents indicated various needs in the section of the questionnaire that had options on needs they considered necessary. Neonatal care, Gender based violence, Emergency care, Maternal care, Public health promotion /Disease prevention/, TB /Leprosy, Malaria, ART, Treatment of intensive care patients (ICU) and Leadership and system thinking, among others, were the most commonly reported needs. Most respondents required clinical skill training and training associated with the department in which they worked. This suggests

that they would prefer any type of training that concentrates on the current advanced practices in the department they have been assigned.

Clear and appropriate communication and interdisciplinary collaboration are critical for delivering quality care for complex clinical setting in the present health care settings (20). Collaborative practice among all health care professionals creates a positive work environment. Poor communication and a lack of teamwork or collaboration have been persistent problems in health care.

A considerable number of respondents were not in any management or supervisory position at the time of the survey (77.5 %). Similar to any health care organization, the general staff outnumber the managerial staff. Most respondents worked in acute general hospitals. As anticipated, Victoria Hospital accounted for the highest number of respondents (56.5 %) because it is the largest health care facility in the country and employs the most health care personnel. Of the surveyed health care professionals, over 59.5 % had undergone previous work-related training; of these, 32.4 % of them had undergone more than 2 sessions this indicates that some level of training occurs at the institutions.

## V. Conclusion

In this study, Neonatal care , Gender based violence , Emergency care, Maternal care ,Public health promotion /Disease prevention/ ,TB /Leprosy, Malaria, ART ,Treatment of intensive care (ICU) , and Leadership and system thinking was found to be the most required training areas among health care personnel in the public health facilities of Benishangul Gumuz regional state. Neonatal care accounted for the biggest need. More than 50 % of health care providers have diploma and below diploma educational qualifications. Providing training according to needs is vital, particularly in developing countries where resources are extremely limited. The present research methodology and findings also offer perspectives on how to conduct needs assessment and serve as a reference for developing regions whose health care environments are similar to that in the region.

**List of abbreviations**

**APTS-**Auditable pharmaceutical transaction and service
**ART-** Anti retroviral therapy
**RHB-**Regional health bureau
**CE**-Continuous education
**HFs-** Health facilities
**ICU-** Intensive care unit
**TB-**Tuberculosis
**TNA**- Training Need Assessment
**WHO**-World health organization

**Declarations**

**Ethics approval and consent to participate**

Ethical approval obtained from the ethical review committee of school of nursing Bahir DarUniversity andpaw Health Science College. Administrative permissions granted and confidentiality ensured using codes and keeping questionnaires locked. All respondents assured that the data would not have any negative consequence on any aspects of their life and participants who refused the consent respected

**Consent for publication**

Not applicable

**Availability of data and material**

Additional file: Data abstraction tool

**Competing interests**

The authors have declared that they have no competing interests.

**Authors' contribution**

LJ: conception of the research idea, study design, data collection, analysis and interpretation, and manuscript write-up. NW, SM, TB: data analysis, interpretation, and supervision. LJ and SM: data collection, analysis and interpretation, and manuscript write-up. All authors have read and approved the final manuscript.

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## Reference


[1]. Government of St. Lucia Statistics Department. 2010 Population and Housing Census. Castries, Saint Lucia: Government of St. Lucia Statistics Department; 2010.

[2]. Harmsen J, Ellis G, Deveaux R. A History of St. Lucia. Place Moule a Chique. Vieux Fort, St. Lucia: Lighthouse Road Publications; 2012.

[3]. The World Fact Book. Available at: https://www.cia.gov/library/publications/ the-world-Factbook/geos/st.html. Accessed 30 October 2013.

[4]. Queeney DS. Assessing Needs in Continuing Education: An Essential Tool for Quality Improvement. San Francisco: Jossey-Bass; 1995.

[5]. Griscti O, Jacono J. Effectiveness of continuing education programs in nursing: literature review. J Adv Nurs. 2006; 55 (4):449–56.

[6]. Das J, Holla A, Das V, et al. In urban and rural India, a standardized patient study showed low levels of provider training and huge quality gaps. Health Aff. 2012; 31:2774–84.

[7]. Haynes R, Johnson B, Springer C. Report of the Health Review Commission. Saint Lucia: Ministry of Health; 2004.

[8]. Worthen BR, Sanders JR, Fitzpatrick JL. Program evaluation. Castries, Saint Lucia: Longman; 1997.

[9]. Rossett A. Training needs assessment. Castries, Saint Lucia: Prentice Hall; 1987.

[10]. Bartholomew LK, Parcel GS, Kok G. Intervention mapping: A process for developing theory and evidence-based health education programs. Health EducationBehavior 1998; 25 (5): 545–63.

[11]. Kaufman RA, English FW. Needs assessment. Concept and application. Castries, Saint Lucia: Educational Technology; 1979.

[12]. Hicks C, Hennessy D. The use of a customized training needs analysis tool for nurse practitioner development. J Adv Nurs. 1997; 26 (2):389–98.

[13]. Hicks C, Hennessy D. Applying psychometric principles to the development of a training needs analysis questionnaire for use with health visitors, district and practice nurses. J Res Nurs. 1996; 1(6):442–54.

[14]. Hicks C, Hennessy D. Hennessy-Hicks Training Needs Analysis Questionnaire and Manual. Available at: http: //www.who.int/workforce alliance/knowledge/resources/hennessyhicks_trainingneedsquest/en/ Accessed 19 February 2016.

[15]. Hicks C, Hennessy D, Cooper J, Barwell F. Investigating attitudes to research in primary health care teams. J Adv Nurs. 1996; 24(5):1033–41.

[16]. Hennessy D, Hicks C. A Cross-Cultural Tool to Identify Continuing Education Needs. Int Nurs Rev. 1998; 45(4):109–14.

[17]. Hicks C, Tyler C. Assessing the skills for family planning nurse prescribing: Development of a psychometrically sound training needs analysis instrument. J Adv Nurs. 2002; 37(6):518–31.

[18]. McCaughan D, Thompson C, Cullum N, Sheldon TA, Thompson DR. Acute care nurses' perceptions of barriers to using research information in clinical decision-making. J Adv Nurs. 2002; 39(1):46–58.

[19]. Hicks C, Hennessy D. Quality in post-basic nurse education: The need for evidence-based provision. J Nurs Manag. 1999; 7(4):215–24.

[20]. Rosenstein AH, O'Daniel M. Disruptive behavior and clinical outcomes: Perceptions of nurses and physicians. Am J Nurs. 2005; 105(1):54–65.

[21]. Chastonay P, Moretti R, Zesiger V, Cremaschini M, Bailey R, Pariyo G, et al. Health workforce development: a needs assessment study in French speaking African countries. Adv Health SciEduc Theory Pract. 2013; 18(2): 265–77. Epub 2012/03/29.


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