
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 state. *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 in public health facilities of Benishangul 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 state. 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 offers perspective on how to conduct needs assessment and serve as a reference for the region. Planning to provide training to health care providers particularly on Neonatal care, Gender based violence and Emergency care take a priority for the region.

Keywords: Continuing Education, Continuing Professional Education, Training Needs Assessment

1. 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 [1-3]

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 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, 4-6]

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 to training need assessment research and practices [7-9]

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 [10-12]

As 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 difficult environment and many challenges still remain to achieve Health care provider capacity building successfully.

Ambivalent political will, as well as 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 and inadequate positive attitude are also remain as a difficulties in achieving competent health care provider [13-15].

This study identified the needs of providing CE to health care personnel in Benishangul Gumuz regional state. The results are expected to provide insight to policy makers, financers, 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 regional level was conducted to improve the quality of health care by improving health care provider performance.

2. Methods and Materials

Institution based study was 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 km² 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; 1043 diploma nurse; 165 BSc midwife, 242 diploma midwife, 52 laboratory technologist, 92 laboratory technician, 56 pharmacist, 149 pharmacy technician and 57 environmental health professionals.

2.1. Study Design

Institution based cross-sectional study design was conducted.

2.2. Source Population

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

2.3. Study Population

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

2.4. Study Variables

- 1) Socio demography
- 2) Short term training
- 3) Long term training

2.5. Inclusion and Exclusion Criteria

2.5.1. Inclusion Criteria

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

2.5.2. Exclusion Criteria

Health care provider who is on annual leave and maternal leave during data collection period was excluded from the study.

2.6. Sample Size Determination and Sampling Procedure

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

$$n = (Z\alpha/2)^2 p(1-p) / d^2$$

Where Z = Standard normal distribution of 95%

P = population proportion (50%)

d = margin of error (5%),

$1.96^2 * 0.5(1-0.5)^2 / 0.05^2 = 384$, by adding 10% non-response rate our sample size was 423.

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.

3. Results

Socio-demographic Characteristics

A total of 383 health 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 range of 20 to 45 with mean age of 29 (SD=±4.91) years. Accordingly, most respondents in this study were 229 (60%) married and 144 (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 6 year 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 at 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. Socio demographic 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
	Married	229	59.8
Marital states	Single	144	37.6
	Divorced	10	2.6
	Certificate	13	3.4
	Diploma	190	49.6
Qualification	Bachelor degree	165	43.1
	Master's degree	10	2.6
	Other	5	1.3
	<1 year	51	13.3
Experience	1-6 year	230	60
	7-9 year	44	11.5
	≥ 10 years	58	15.14
	Physician	38	9.9
Profession	Pharmacist	53	13.8
	Laboratory	36	9.4
	Nurse	173	45.2
	Midwifery	55	14.4
Upgrade	Other	25	6.5
	Yes	94	24.6
	No	289	75.4
	Lack of motivation	27	9.3
Reason for delays	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
	General hospitals	178	46.5
Work Place	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, 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 thirty training tittle chosen by the respondent as important for

their current job were 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).

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%)

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

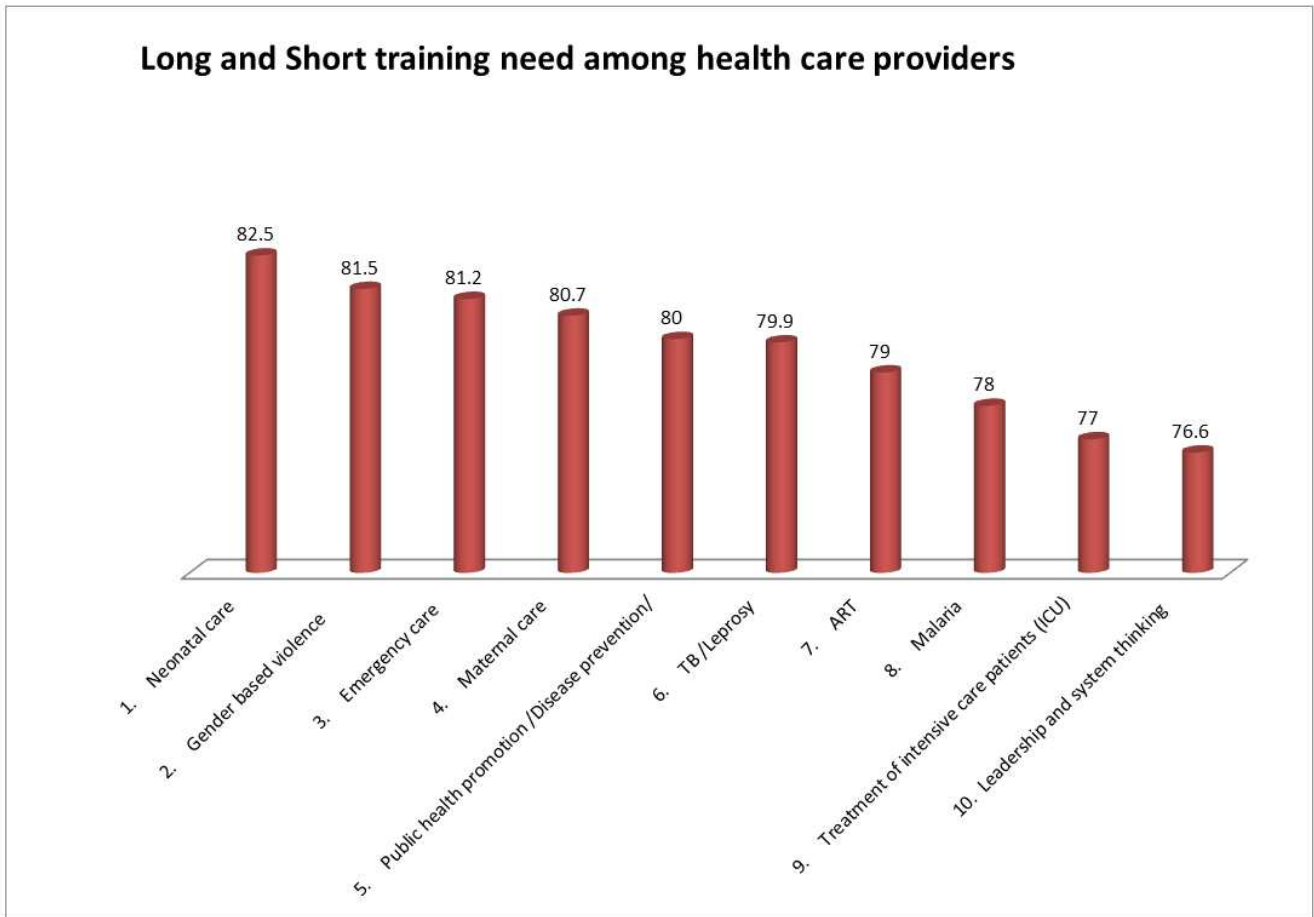


Figure 1. Frequency distribution by respondent's short term and long term training profile in the public facilities of Benishangul Gumuz regional state, 2018.

Long Term Training

Most health care providers, 289 (75.4%) have not make their next educational career after initial qualification throughout their work experience. While 94 (24.6%) have make 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 lack of government sponsor, (Figure 2)

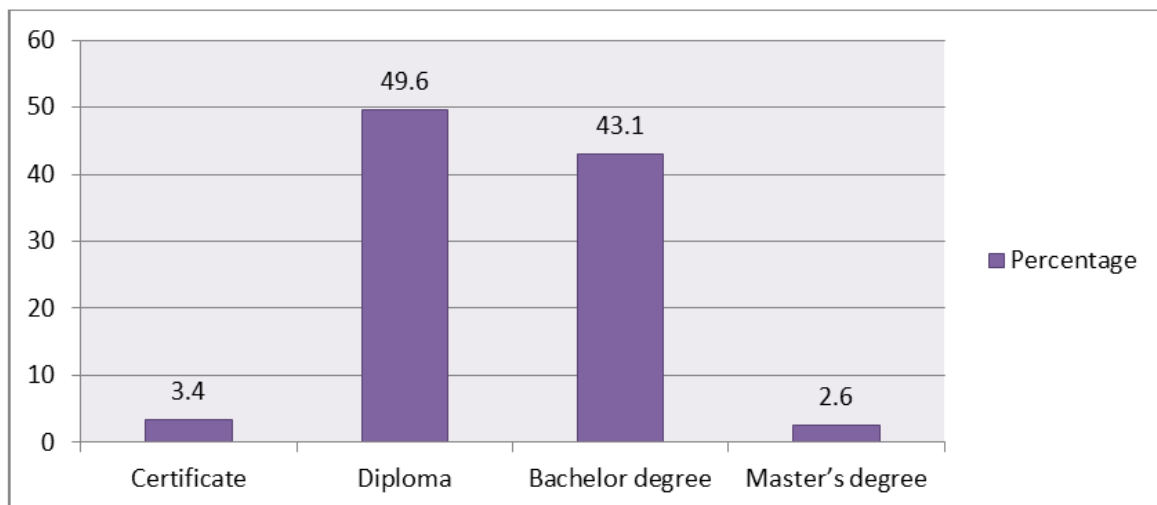


Figure 2. The percentage distribution of level of education among health care workers in public health facilities of Benishangul Gumuz regional state (n=383).

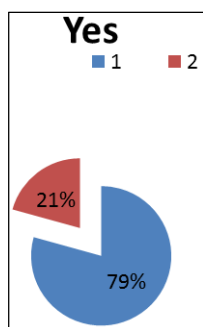


Figure 3. The percentage distribution of Work-related training among health care workers in Benishangul Gumuz regional state (n=383).

4. 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 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 [16-19]. 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 is critical for delivering quality care for complex clinical setting in the present health care settings [20, 21]. 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 at 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 for 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.

5. 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 perspective 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 Beaurau
 CE- Continuous education
 HFs- Health facilities
 ICU- Intensive care unite
 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 Dar University and pawe 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 interest.

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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