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Training Needs Analysis In Maternal, Newborn And Children Health In Covalima And Dili, Timor Leste

Domingos Soares [1*], Ivone de Jesus dos Santos[3] , Joaquim Soares[3] , Sigia Osvaldinha Patrocinio[3] , Perpetua A.M.F.Laot[3] , Filomena de Carvalho[4] , Marni[5] , Nelson Martins[2]

[1*]Universitas Airlangga Surabaya-Indonesia (Doctoral Student in Nursing, Instituto Nacional de Saúde (INS), MoH Timor-Leste.

[2] National University of East Timor, Universidade da Paz (UNPAZ) and Universidade Dili (UNDIL), Timor-Leste.

[3] Instituto Nacional de Saúde (INS) MoH Timor-Leste.

[4] Jonh Snow Inc, Dili, Timor-Leste.

[5] Universitas Duta Bangsa (UDB) Surakarta, Provinsi Jawa Tengah-Indonesia.

ABSTRACT

Purpose: The purpose of this study was to identifydetailed information about individual training needs in the area of maternal, child health and conditions as well as about institutional training needs.

Method: The sample was consisted of 55doctors, 78 nurses, and 53 midwives 186 altogether) working in the Covalima Municipality and at the Community Health Centers (CHCs) of Comoro and Vera Cruz in Timor-Leste, conductedfromJuly 2016 until February 2017using the data collection instrument.

Results: The percentages of healthworkers that participated in programmatic trainingsin VCCM, MLM, ARH, and Nutritionwere24.2%, 12. 4%,2%, and 28.5%, respectively, and in clinical trainings in FP, ENBC, CSD, BEmOC, and CEmOC were24,2%, 17,2%, 28,5%, 14%, and 8,5%, respectively. The maximum percentage of FP training participants that felt competent by methodwas 69%, and the minimum24%. The percentages of CSD training participants in basic aspects of labor and delivery, prevention of infection, mother and newborn care, and clinical decision-making were56%,53%,51%, and 55%, respectively.The percentage of CSD training participants that felt competent in care fornewborns with asphyxia was 25,5%, in newborn care 43%, in labor stages III–IV 36.2%, in labor stage II 43.5%, and in labor stage I 46.4%.

Conclusion: The study's results indicate that there is a stronger reason for the INS to develop training programs focused onmaternal, newborn, and child health for doctors, nurses and midwives in thetwo municipalities in Timor-Leste.

Keyword: training needs assessment, maternal, newborn,child.

INTRODUCTION

Background

The National Health Institute (NHI or INS) is an autonomous body within the Timor-Leste Ministry of Health (MOH). Its main mandate, as per Decree Law 09/2011, is to conduct and manage in-service trainings for all health professionals in Timor-Leste. Most of the health professionals working in health posts (HPs), community health centers (CHCs),and referral hospitals (RH) regularly receive professional trainings in order to improve their general health competencies. The main responsibility of the INS is to provide competency-based trainings (CBTs) that ensure all health professionals in Timor-Leste have the knowledge, skills, and competencies required to deliver high-quality, effective health care. However, several components are lacking, such as,execution of regular training needs assessments, competency assessments during each training event, infrastructure and equipment, and clinical practice experiential trainings, which appear insufficient in instilling confidence in learners to perform indicated skills in the workplace (INS DL No.9, 2011).

In 2015, the INS' five-year (2015–2019) strategic plan was launched as part of its commitment to improve the competency and quality of in-service trainings for health professionals. CBT is a major part of this commitment to quality health care training. One of the key activities listed under the strategic priority number 7 is to conduct annual training needs assessments (TNAs) (INS, 2015), with the goal of ensuring that a comprehensive training plan that responds to the needs and priorities is developed. The challenge for the INS in the implementation of this activity was the fact that conducting a TNA requires certain techniques and methodologies that are unfamiliar to most INS trainers.

In May 2016, the INS and the JSI Research & Training Institute (JSI) signed a memorandum of cooperation (MOC) to enhance the training and institutional capacities of the INS in the area of reproductive, maternal, newborn, child, and adolescent health (MNCH). One of the important components outlined in the MOC was for the INS and the JSI to conduct a TNA for health professionals and training institutions in the municipality of Covalima, in the Comoro and VeraCruz CHCs in Dili, and in the INS itself.

The questions covered in this TNA are as follows. How do health professional receive the professional trainings in MNCH? What needed for improving knowledge, attitude, and skills in the Covalima Municipality and the Comoro and Vera Cruz Community Health Centersin Dili? What is the level of competency the health professional needs to achieve to work in Covalima Municipality and the Comoro and Vera Cruz CHCs in Dili?

Objectives

The objectives of this TNA in general were to identify detailed information about individual training needs in the area of maternal and child health and to identify the conditions and institutional training needs required in order to offer quality MNCH trainings to health service providers. In specific, the objectives were to identify all trainings which have been conducted in the area of MNCH, toI dentify the rate of participation in these trainings, todiscover the impact

that these trainings have had on the participants' feelings of competency related to the use of skills trained upon in the workplace, to analyze the implementation process of MNCH policies in the health facilities covered in this assessment, and to describe the conditions found in the training institute.

Methods

Ethics Statement

The implementation this study according to the ethical principles and also were approved or accepted by Instituto Nacional de Saúde (INS), Ministry of Health Timor-Leste is technical and Ethical Committee team and gate permission by Executive Director of INS. For the participants their agree to participate in this study according assignment inform consent form.

Study design and Participants

The quantitative descriptive study was carried out in TNA study. The sample in the study consisted of55 doctors, 78 nurses, and 53 midwives (186 health professionals in total). All of those who fulfilled the criteria and worked in Cova-Lima and Dili were part of the samplein study . Table 2 gives a summary of the participants who took part in this study, who were categorized by their professions(annex). The TNA study was conducted in Dili and Cova-Limain February 2017. Data was collected used checklist with closed-ended questionswere c0ompleted by participants.

Measurement and statistical methods

Data was managing and analysis following the stages clearance, entry used MS Excel, classification, and basic description of coding, analysis and interpretation, writing of the final report and submission.

Results

Participant

The 186 participants have ages between 18 and 65 were female work in are ferral hospital (RH). The profession of participants are doctor 55(29,6%), Nurses 78 (41,9%) and Midwife 53 (28,5). Distribution of the participants regarding with the work place see in annex table 1.

Main result

Competency-based training (CBT) was a way of training that allowed the participants to focus specifically on what they could achieve in the workplace after the course, involving hands-on practice and workplace experience. Once a CBT Completed, the participants would have the skills and knowledge needed to complete specific health-related tasks to specific performance standard. In the survey of the participants' competency-based training needs, the participants were asked if they had ever participated in a training related to a certain relevant skill, and if they had, they were then asked to rate their self-perceived levels of competency in that skill. The researcher classified the responses shown in Table 3 in Annex.

The results of this study show that the majority of the participants had not yet been given the opportunity to participate in trainings in management(e.g.trainings in the integrated management of childhood illnesses (IMCI), district team problem-solving (DTPS), and community mobilization (CM)), programmatic training(e.g., trainings in vaccine and cold chain management (VCCM), adolescent reproductive health (ARH), and mid-level management (MLM)), and clinical trainings(e.g., FP, CSD, ENBC, BEmOC, and CEmOC). This lack of training shows that the goal of providing high-quality healthcare through competent health professionals, as written in the National Health Sector Strategic Plan 2011–2030, is still far from being reached. The results of these programmatic training and clinical training would be discussed in this report as they are the competencies most directly related to the area of MNCH.

Of those who had been trained, we saw that there was a small number of those who felt proficient in the topics trained upon, but in several categories, there was no one claiming to feel proficient in that skill. For example, in the category clean and safe delivery, noone felt proficient in the first subcategory, basic aspects of labor and delivery. Likewise, no one felt proficient in any of the stages of labor. There was also no one that claimed to be proficient in any of the categories related to adolescent health. As these are core competencies of MNCH, it would be beneficial to offer follow-up trainings to those who already felt competent in order for them to further strengthen their knowledge in these areas with almost equal divisions between not feeling competent and feeling competent in all of the areas. In most areas across the board, less than a half stated that they felt competent in the areas trained upon, and of course as mentioned above, the grand majority had not undergone training in most of the skills surveyed.

If we looked at specific skills, we found that of those who participated in FP trainings, the majority rated themselves as having had sufficient training but not yet sufficient competency in that area (an average of 36%), with the highest percent of participants feeling not competent in putting in IUDs and the highest level of competency felt in contraceptive injections. It makes sense that the majority of the participants had participated in clinical trainings related to clean and safe delivery as this indicator hadmost related to clinical competencies

The fact that no one felt proficient in the basic aspects of labor and delivery is worrisome as this is the most basic knowledge related to this category. In regards to newborn care, only an average of 11.3% of the participants felt competent, but in the area of dealing with babies born with asphyxia, only 6.2% felt competent to do their work successfully. Also, no one who had been trained felt proficient in any subject related to BEmONC, and more participants felt incompetent than competent in all of the areas.

However, it is important to remember that these data need to be interpreted carefully because did not identify how many health workers, especially doctors and nurses, worked in the specific areas identified above, and therefore needed specific trainings. The Ministry of Health's Human Resources Directorate and the Municipal Health Services need to work together with the INS in order to identify healthcare workers who work in different specific areas and consequently design trainings for them when necessary. Trainings help to reduce the maternal, newborn, and infant mortality rates, that, according to the TLDHS 2009–10, stood at 557/100,000, 45/1,000, and 64/1,000, respectively. With this in mind, trainings should be prioritized according to those who will most directly help to decrease mortality.

Discussion

Results of this study show that the majority of health personnel, including doctors, nurses, and midwives, had not yet gone through a complete clinical training. For those who had been trained in all 5 clinical competencies expounded upon earlier in this report, more than half had stated that they received sufficient theoretical and basic skills trainings but had not yet been able to implement the knowledge and skills taught in these trainings. This problem needs to be investigated, and an intervention plan needs to be developed, in order to guarantee that all health personnel receiving the trainings gain enough competence to be able to practice the theory taught to them.

It is hoped that the introduction of a more focused clinical supervision system by the INS, with support from USAID's Reinforce Basic Health Services Project, will help the participants to implement the lessons that they received during their clinical competencies trainings. The MOH, Municipal Health Services, and INS need to work together to organize trainings for health personnel who show insufficient mastery of skills and for those who have not yet been fully trained. In this vein the organization of follow-up after training (FUAT) and introduction to clinical supervision methods will be important to accompany and help training participants go beyond sufficient knowledge to be able to competently apply that knowledge those who are already deemed competent to attain professional proficiency. Those already deemed proficient should be tested, and if sufficiently skilled, should be recruited as trainers in order to support both trainings and clinical supervision.

The percentage of health workers that had already participated in a programmatic training is shown in Figure 2 (see Annex). As the graph depicts, the majority (over 2/3) of the health workers had not yet participated in a programmatic training, and amongst the four categories, adolescent reproductive health training was attended by the least health workers (3.2% only), while nutrition the most (28.5%).

The results ofthe TNA about trainings in individual clinical competencies such as FP, CSD, ENBC, BEmONC, and ARH are shown in Figure 3 (Annex). From this graphic we can see that very few participants responded that they had already undergone clinical training in FP (24.2%), ENBC (17.2%), CSD (28.5%), BEmONC (14%), and CEmONC (8.1%). The highest percentage was in CSD, and the least in CEmONC (less than 10%), which was needed only at the referral hospital level.

For a further breakdown of participants in clinical trainings, see the table in. Although the majority of the health workers had not yet participated in clinical trainings, we could further examine the results to see that from the ones who did, less than a half felt competent in the sub-skills of various topics. For example, the following breakdown of participants who self-reported as competent upon completion of the training course in the clinical training in FP,see Figure 4 in Annex.

Figure 5shows a summary of feeling of competency ofall participants in other sub-topics of CSD, including first, second, third, and fourth stages of labor, as well as newborn care and care for newborns with asphyxia. The skill that was mastered the least by the participants was the skill with babies born with asphyxia, with only 25% of those trained feeling comfortable in working in this area. If this figure is coupled with the fact that so many health workers had not yet received

this training, we would see that only a very low percentage of the people surveyed (less than 7%) would be able to help a newborn with this condition.

This study explored the institutional assessment framework, covered 4 competencies. In the area Management and Administrational System, the INS fulfilled eight out of twelve criteria. There were two competencies that were clearly not the responsibility of and therefore did not exist in the INS, which are Secretariat, and Head of Management and Direction of Maternal Newborn Child Health (MNCH) which is not covered under the INS Decree law. In the area Infrastructure, Equipment and Supplies, the INS only fulfilled 39 of 66 written requisites. This shows that although the INS already has infrastructure and basic equipment, it needs to make further improvements in order to provide high-quality trainings and to earn accreditation. In the area Administrative Procedures and Management System, the INS had fulfilled 28 out of 34 written criteria. This shows a positive result, but further improvements still need to be made in a manner that ensures alignment with Decree Law 9/2011, which regulates the INS. In the area Qualification of Officials/Trainers, the INS fulfilled all 17 written prerequisites. This shows that the INS already had run well the process of preparing trainers in the area of maternal and child health. This level needs to be maintained in order to guarantee a high quality of clinical training in maternal and child health for all health personnel.

Suggestions

The following suggestion are offered: 1) the INS should use the results of this study in order to develop a training plan for health workers that have not yet received training, prioritize training based on relevance to individual workplace duties, as well as ensure that each health center has at least one person trained in and feeling competent/proficient in each component of each topic; 2) the INS should recognize its programmatic and clinical trainings for those personnel that have not yet received sufficient trainings; 3) the INS should work together with the Maternal and Child Health Department, the Human Resources Directorate, and the Municipal Health Services in order to implement the follow-up after training (FUAT); 4) the INS coordinate with the Ministry of Health in order to improve its infrastructure, equipment, and distribution in order to improve and strengthen the INS as a training institute; and 5) the INS should continue to implement TNAs before preparing training plans.

Conclusion

These TNA results indicate there is stronger reason for the INS to develop training programs that are focused in maternal, newborn, and child health for doctors, nurses, and midwives in these two municipalities in Timor-Leste. This study provided a blueprint of how to map out the steps to achieve the goal slowly and systematically. The conduct of further TNAs will be able to track progress based on this initial baselineand beflexible enough to accommodate new techniques and health knowledge that will certainly shape trainings in the future. The next step will be the development of a long-term training plan, with the priorities adjusted to the information needs in this report, and the assurance of a soli evaluation system to help track the efficiency of the trainings on a more formative basis.

Orcid

Domingos Soares : http://orcid.org/0000-0002-3466-1267
Marni : http://orcid.org/0000-0002-9748-3269

Nelson Martins : http://orcid.org/0000-0002-66997603

Conflict of interest

In this article publication is not have conflict of interest

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Annex

Table 1. Distribution of study participants by type of health facility they were employed in

No.	Health facility	No. of Participants	%	No.	Health facility	No. of Participants	%
1	Covalima Municipality Health Services	8	4.3	15	Beilaku HP	2	1.1
2	Suai Referral Hospital	53	28.	16	Fatumea CHC	4	2.2
	Tilomar CHC	7	4.3	17	Alas Tehan HP	3	1.6
4	Lalawa HP	3	1.6	18	Fatululik CHC	5	2.7
5	Foholulik HP	3	1.6	19	Fohorem CHC	4	2.2

6	Maucatar CHC	6	3.2	20	Datorua HP	1	0.5
7	Ogues HP	4	2.2	21	DatoTolu HP	1	0.5
8	Haas Ain HP	2	1.1	22	Laktos HP	1	0.5
9	Suai Vila CHC	18	9.7	23	Vera Cruz CHC	20	10.8
10	Beco HP	6	3.2	24	Comoro CHC	13	7.0
11	Labarai HP	2	1.1	25	Quarantina Salele	1	0.5
12	Gala HP	2	1.1	26	Matai	2	1.1
13	Zumalai CHC	11	5.9	27	Sanfuk	2	1.1
14	Bulu HP	2	1.1				
	Total	186	100				

Table 2: Distribution of study participants by profession

No	Profession	No.of Participants	%
1	Doctor	55	29.6
2	Nurse	78	41.9
3	Midwife	53	28.5
	Total	186	100.00

Table 3. Categories of Self-Reported Levels of Competency

N°	**Level of competency**
1	Have had training but it was not sufficient; feel that the training was not sufficient;feel incompetent
2	Feel that sufficient training was received but do not feel competen; need more supervision/FUAT/learning lab/accompaniment in order to have the skill in the work place.
3	Feel competent in using this skill in the workplace but unable to train others in the skill.
4	Feel proficient in this skill; hav the self-confidence to regularly use this skill and sufficient capacity to be able to train colleagues well.

Figure 1. Stages of a Training Needs Assessment

STAGE 1	**Define goals and objectives**	**STAGE 6**	**Conduct pre-test**
STAGE 2	Define methodology	STAGE 7	Revise instrument
STAGE 3	Determine feasibility	STAGE 8	Conduct research
STAGE 4	Develop instrument	STAGE 9	Analyze data
STAGE 5	Select sample	STAGE 10	Prepare report

Figure 2.Percentage of Health Workers that Had Already Participated in a Programmatic Trainings

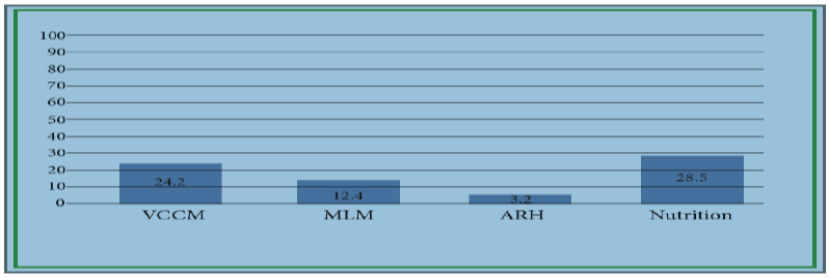


Figure 3.Percentage of Participants Who HadAttended Clinical Trainings by Topic

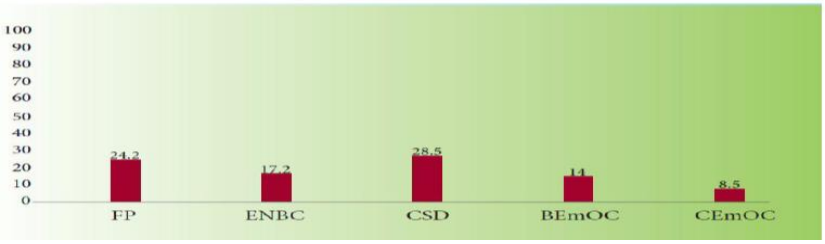


Figure 4. Percentage of FP Training Participants that Felt Competent by Method

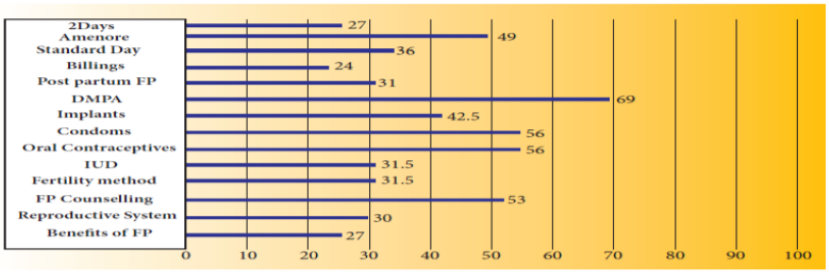


Figure 5. Percentage of CSD Training Participants Who Did Not Feel Competent in the Basic Aspects of Labor and Delivery

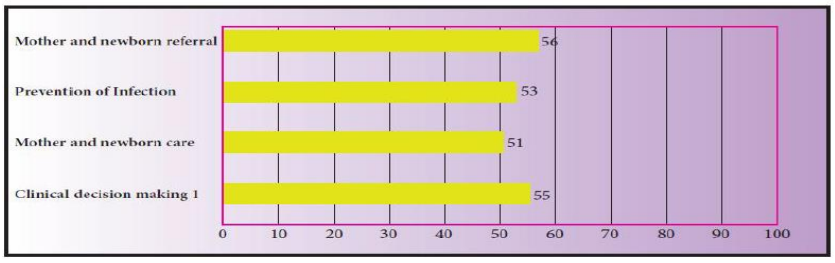
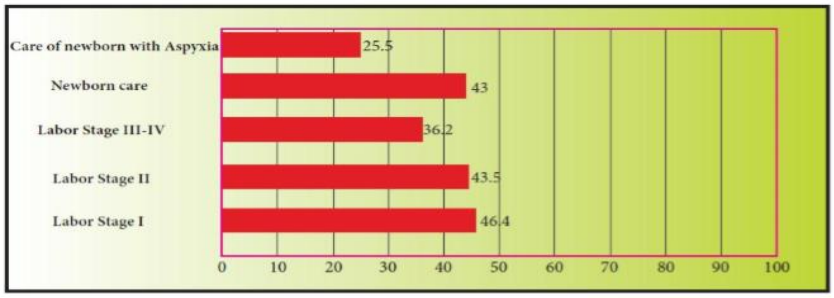


Figure 5. Percentage of CSD Participants that Felt Competent in First, Second, Third, and Fourth Stages of Labor, Newborn Care, and Care for Newborn with Asphyxia


Care of newborn with Aspyxia
25.5
Newborn care
43
Labor Stage III-IV
36.2
Labor Stage II
43.5
Labor Stage I
46.4
0
10
20
30
40
50
60
70
80
90
100