

Improving the Quality of in-Service Training in Government Healthcare Institutions In Sri Lanka

Sandanayake AP¹, De Alwis AKSB², Dharmagunawardene PDVS³

¹Senior Registrar (Medical Administration), ² Additional Secretary (Medical Services), ³Director (Medical Services)

Abstract

Introduction In- service training has always been a tool to develop the health workforce. However, the need to transform and scale up training is a vital necessity. In Sri Lanka, even though government spends substantial resources, in-service training programs may not have the desired quality.

Objective This interventional study was conducted to develop and validate standards and guidelines for improvement of the quality of in-service training programs.

Methods A predominantly qualitative methodology was used with Focus Group Discussions, Key Informant Interviews, telephone survey and desk reviews. Data were analyzed using framework method. In addition, pre and post interventional training programs were evaluated as a case study.

Results Absence of systematic need analysis, lack of a mechanism to develop training modules and sporadic evaluations were some of the system gaps identified. Standards and guidelines were developed in order to address these gaps. In the post analysis, the standards and guidelines were accepted by the participants as means of overcoming the identified issues.

Conclusion In training programs, the overall satisfaction among participants demonstrated no statistically significant difference between pre and post evaluations. However, some individual dimensions showed improvement while others demonstrated a decline.

Key words: In- service training, Standards, Quality

Introduction

In- service training (IST) is a process of instilling competencies among employees to enable them in performing their responsibilities to required standard (1). It had been a tool to develop persons within the system thereby strengthening the workforce to provide a high quality service in healthcare (2).

However, World Health Report, 2006 mentioned 'Simply training and graduating more health professionals is not the answer' and calls for a rigorous and urgent 'transform and scale up' of training (3).

In Sri Lanka ISTs for the health staffs are conducted throughout the year. Most of these are conducted by institutions themselves and cover diverse staff categories and subjects. (Source; ET&R, 2017)

Annually, the government of Sri Lanka allocates a part of health expenditure for IST. From Education Training & Research unit (ET&R) alone the amount of allocated funds for year 2015 was Rs. 50 million (4). However, there are concerns that the programs conducted in healthcare institutions may not have the expected standard and quality (Source; ET&R, 2017).

Objective

To develop and validate standards and guidelines for improvement of the quality of in-service training programs conducted in government healthcare institutions.

Methods

This was an interventional study. Limited number and varied nature of individuals involved in the process and the specialized nature of each individual's responsibility demanded a predominantly qualitative methodology. Method triangulation and data source triangulation were used as methods of ensuring collection of unbiased, complete data. Framework thematic analysis and Bowens' method of document review were used for data analysis (5).

Key Informant Interviews (KII) and Focus Group Discussions (FGD) were conducted with purposively selected respondents. Sample size was determined by the saturation level for each phase of the study. Ethical Clearance was obtained from the Post Graduate Institute of Medicine, University of Colombo, Sri Lanka.

The study was conducted in three phases;

Phase 1:

1. In the pre-intervention gap analysis, ten KIIs were conducted with individuals involved in conducting IST programs at Central, Provincial, Regional and Institutional levels.

2. FGD was conducted with 20 representatives from IST Focal Points of selected institutions.

3. A telephone survey was conducted with 25 selected IST Focal Points to identify the current IST circulars and a desk review of these documents was carried out.

4. A training program held at a Base Hospital, was evaluated as a case study using Kirkpatrick's Model at "Reaction" level (6).

Phase 2:

Standards and guidelines for ISTs were developed. KIIs were conducted with Consultant Community Physicians, Consultant Medical Administrators, Medical Superintendent with expertise in training and a specialist in educational methodologies. These were combined with an on-line literature survey. The final draft was discussed with staff members of two selected hospitals to determine the feasibility of application.

Standards and guidelines were validated by experts (face and content validity) selected based on their educational and professional qualifications and experience in conducting such tasks.

Phase 3:

Post-intervention analysis was conducted to capture the views on ability of the drafted standards and guidelines to improve quality of institutional ISTs, enhance participants' satisfaction, monitor and evaluate ISTs, identify funding priorities and assist in awarding Continuous Professional Development (CPD) points.

1. Experts interviewed in the pre-assessment stage were re-interviewed. Two weeks prior to the interview respondents were given copies of standards and guidelines.

2. FGD was held with IST Focal Points of 18 selected healthcare institutions.

3. Training program, which was conducted prior to the intervention, was modified incorporating developed standards and guidelines. It was conducted to the same group of participants.

Results

Phase 1 Result: Pre Intervention Gap Analysis
Framework analysis of the KIIs and FGDS revealed two main themes and seven sub themes.

Main Theme 1: Administrative Aspect

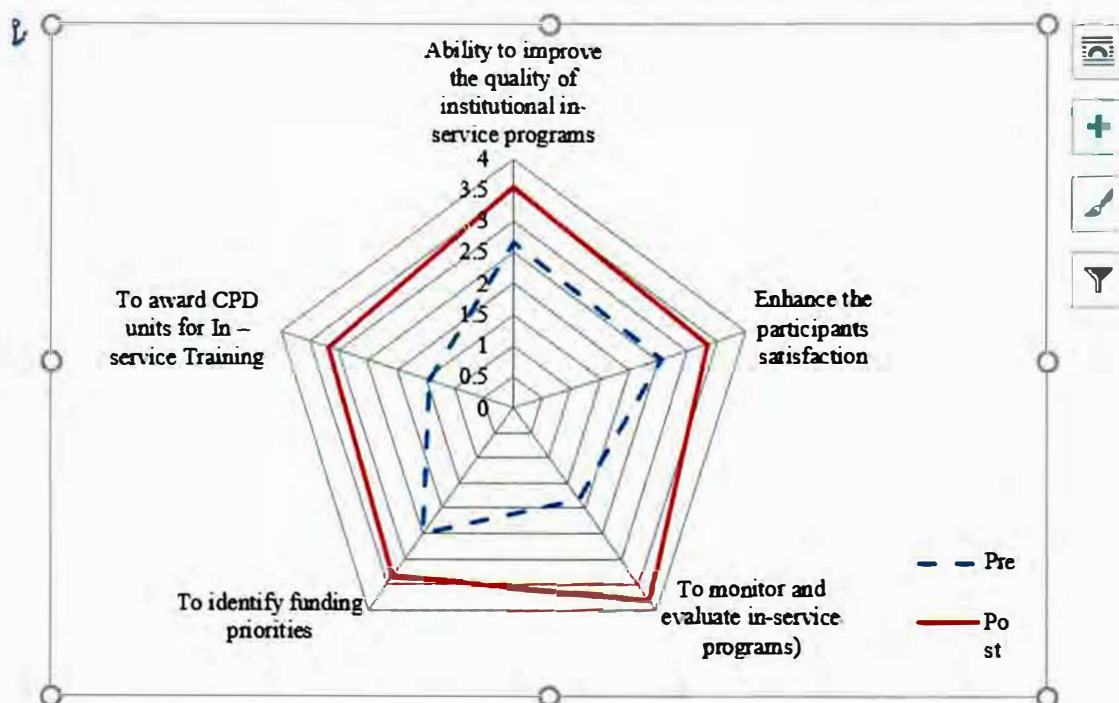
To provide financial assistance, proposals sent by the institutions were scrutinized by main funding agencies to assess the financial conformity with circulars. Quality and standards were not considered. While participants expressed satisfaction with the number of programs conducted, quality and standards needed advancement in multiple domains.

Main Theme 2: Technical Aspect

Training needs were identified using questionnaires, performance reviews and routine supervisions. Systematic module development was not carried out. Intermittent evaluation was conducted only using questionnaires to test pre and post knowledge.

Difficulties in finding resource persons, inability to remunerate adequately, lack of staff participation, negative attitude, lack of

Figure i: Spider web diagram – Responses to administrative aspects of in-service



incentives for participation and inequity in opportunities among different regions were also cited as gaps in the system.

Telephone survey identified two circulars. However, desk review revealed that neither documents related adequately to organizing and conducting IST or improving standards.

Phase 2 Results: Standards and Guidelines

Guidelines and standards were organized under following headings;

1. Institutional governance framework
2. In service training annual action plan
3. In-service training need analysis (TNA)
4. Developing learning objectives
5. Developing training modules including content methods, materials and selecting resource persons
6. Evaluating a training program

Establishment of a Committee for In – Service Training to provide conceptual guidance to Training Focal Points was proposed. A guide to conduct TNAs at organizational, team, individual levels and a four level (Reaction, Learning, Behavior, Results) evaluation design based on Kirkpatrick model were suggested. In addition, detailed guidelines for developing training modules were included.

Phase 3 Results: Post Intervention

Framework analysis of post intervention KII and FGDs generated three main themes and seven subthemes.

Main Theme 1: Administrative Aspect:

All participants unanimously agreed that, when implemented, standards and guidelines would improve the quality of ISTs. Similarly, all felt these could form the foundation of a CPD point scheme.

As a monitoring and evaluation tool, proposed Kirkpatrick Model which extended beyond 'reaction' was seen as a means of promoting the skills and knowledge transfer, from learning to work environment.

Main Theme 2: Technical Aspects

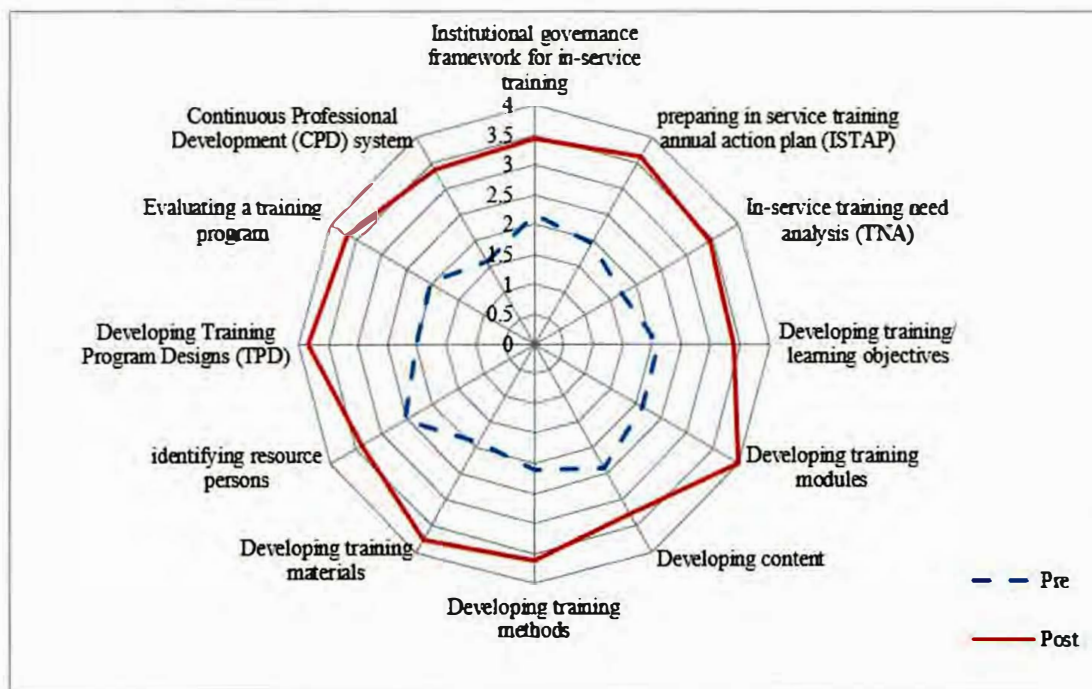
Participants voiced confidence that the new guidelines would help identify true training needs. They also expressed confidence with the documents' ability to improve standard of training modules.

Main Theme 3: Feasibility Concerns

Concerns were expressed regarding the feasibility of implementation. These referred to,

1. The extent of quality gap that needed to be filled
2. Practicality of finding resources

Figure ii: Spider web diagram – Response to Technical Aspects



3. Ability of the focal points to carry out assigned tasks

Results of the survey conducted among the FGD participants:

Results are presented in Figures i and ii

An increase of acceptance was demonstrated in all domains tested.

The ability to enhance monitoring and evaluation and the awarding of CPD points showed the most significant improvement.

Results of the training program evaluation:

Overall satisfaction of the participants was assessed using a scale of 1 to 10 (1 – Not at all satisfied, 10 – Extremely Satisfied). Results showed no statistical significance between pre and post stages.

With regard to individual facets tested, statistically significant difference was observed among pre and post participants with former expressing higher level of satisfaction in relation to the following:

1. Training met my expectations ($p=0.007$)

Table i: Participants overall satisfaction regarding the training

Level of satisfaction	Pre (n=34)		Post (n=31)		Significance
	No.	%	No.	%	
Poor Satisfaction (1,2,3,4)	0	0	0	0	$\chi^2=1.64, p=0.20$ (Not Significant)
Average Satisfaction (5,6,7)	5	15.6	9	29.0	
High Satisfaction (8,9,10)	27	84.4	22	71.0	
Total	32	100.0	31	100.0	

2. Audio visual aids were well organized (p=0.02)

3. Trainers used a variety of presentation methods (p=0.03).

In contrast, a higher number of post-intervention participants mentioned that the trainers' style and delivery were more effective in the post intervention stage (p=0.009).

Discussion

In par with the global efforts, Sri Lanka uses IST as a strategy to strengthen its' workforce. However, the quality of training was doubted by many and a rigorous and urgent 'transform and scale up' is required.

Gap analysis demonstrated a dearth of quality in multiple domains with areas previously cited in literature such as need assessment, learning objectives, training content, learner engagement, accessibility and training evaluation being key concerns (7).

Based on one of many definitions of 'quality' which defined it as the "compliance to best known standards, processes and specifications" (8), a theoretical argument was built that adherence to standards would lead to quality improvement. Therefore, standards were developed to address the identified technical gaps and guidelines were designed to guide the user to achieve the standards. In addition, it was clear that the backing of a strong managerial framework was a vital pre-requisite, hence, several administrative elements were also built into the intervention.

In the post interventional stage, all participants expressed higher level of acceptance with the new standards and guidelines and the intervention also contributed to enhance the participant satisfaction. These facts would augment staff engagement in IST, allowing a larger group of participants to gain job related knowledge and skills.

Once these are acquired, transfer from learning to work setting becomes a key necessity. Literature suggests that supervisory support and encouragement, intrinsic rewards, organizational characteristics and presence of a continuous learning environment as key factors to facilitate this transfer. This may well be true in the local setting and hospital managers need to be vigilant of these factors, if the true benefits of training were to reach the service seekers (9).

A meta-analysis examining the relationship between training design and evaluation criterion as a measure of the training effectiveness suggested that the training method used and the choice of evaluation criteria were related to the effectiveness (10). Kirkpatrick model would provide a systematic means of evaluating the training at outcome level. Coupled with effective supervision, this would facilitate continuous improvement and sustainability of the intervention.

Lactation Management Training Program

Results of the case study which were meant to provide a preliminary insight in to the effectiveness of the intervention at the operational level were inconclusive. This may demonstrate the following factors which were highlighted in the KIs and FGDs.

1. Need for an effective governing structure
2. Need for extensive and continuous training on standards and guidelines
3. Need of implementation of all steps of the guidelines
4. The limitations of the Kirkpatrick's model at reaction level (time limitations prevented the testing of other levels)

Conclusions

Framework analysis of the qualitative data and analysis of surveys showed that the drafted standards and guidelines were perceived as capable of achieving the main objective of the study. However, concerns about the feasibility of implementation were expressed by the majority. These views were reinforced by the results of the case study.

Recommendations

Study recommends implementing the standards in a phased-out manner. Extensive pre-implementation training will augment the effective implementation. Periodic evaluations and updating of guidelines would facilitate the sustainability.

References

1. Omar, C., 2012. The Need for In-Service Training for Teachers and It's Effectiveness In School. International Journal for Innovation Education and Research, 2(11).

- Available at:
<file:///C:/Users/Sandanayaka/Downloads/261-Article%20Text-524-1-10-20170205.pdf>
 [Accessed 10 May 2019].
2. World Health Organization 2016, 2016. Education and Training: Technical Series on Safer Primary Care. [Online] Available at: <https://apps.who.int/iris/bitstream/handle/10665/252271/9789241511605-eng.pdf;jsessionid=389165DEB7A46FC5C113CDA5DB50961A?sequence=1> [Accessed 15 May 2019].
 3. World Health Organization , 2006. Transforming and scaling up health professionals' education and training: World Health Organization guidelines 2006. [Online] Available at: https://apps.who.int/iris/bitstream/handle/10665/93635/9789241506502_eng.pdf?sequence=1 [Accessed 12 May 2019].
 4. Ministry of Health, Nutrition and Indigenous Medicine, 2017. Education, Training and Research (ET & R) Services. In: Annual Health Bulletin 2015. s.l.:s.n., p. 155.
 5. Bowen, G., 2009. Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), pp. 32-34. Available at: http://ngsuniversity.com/pluginfile.php/134/mod_resource/content/1/DocumentAnalysis.pdf [Accessed 18 October 2018].
 6. Kirkpatrick, D., 1959. Techniques for evaluating training programs. *Journal of the American Society of Training and Development*, Volume 13, p. 3-9.
 7. US Department of Health and Human Services: Centers for Disease Control and Prevention , 2018. CDC Quality Training Standards: Training Developer Checklist. [Online] Available at: https://www.cdc.gov/trainingdevelopment/standards/pdfs/QATrainingChecklist_508.pdf [Accessed 21 October 2018].
 8. Mar, A., 2013. *Simplicable, Business Guide: 7 Definitions of Quality*. [Online] Available at: <https://business.simplicable.com/business/new/7-definitions-of-quality> [Accessed 16 July 2018].
 9. Arthur, W., Jr., Bennett, W., Jr., Edens, P. S., & Bell, S. T. (2003). Effectiveness of Training in Organizations: A Meta-Analysis of Design and Evaluation Features. *Journal of Applied Psychology*, 88(2), pp. 234-245. Available at: <http://dx.doi.org/10.1037/0021-9010.88.2.234> [Accessed 12 May 2018].
 10. Kontoghiorghes, C., 2003. *Wiley Online Library: Factors Affecting Training Effectiveness in the Context of the Introduction of New Technology—A US Case Study*. [Online] Available at: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/1468-2419.00137> [Accessed 10 August 2018].