

## Abstract

Continuous update of knowledge and skills of the health care worker is necessary to provide a quality service to the public. This is particularly applicable in maintaining food safety where the need for action are subject to many changes. In Sri Lanka the opportunities for continuing education are minimal for Public Health Inspectors (PHII), the main category of health care workers involved in maintaining food safety.

The present study was carried out with the objective of evaluating the effectiveness of providing in-service training to PHII, through the distance education method to improve the implementation of specific legislation on food safety.

Results of the pre intervention survey showed that the baseline knowledge was poor in the areas of enactments in food safety, food labeling, food sampling, meat and fish inspection and legal procedures.

PHII had unfavorable views, particularly towards the available facilities and support services. A high level of self-assessed competency was present in a majority of PHII, in relation to performing tasks in implementing food legislation. However, observations of performance indicated that performance was poor in the activities carried out in the field as well as in the office.

The high level of self-assessed competency shown by the PHII did not match with their knowledge and performance. There was a negative correlation seen between, self-assessed competency and knowledge, and self-assessed competency and performance.

Distance education modules were developed, based on the findings of the pre intervention survey among PHII and the needs assessment study. Three distance education modules on the subjects; legislation on food safety, legal procedures in food safety, food sampling and inspection and categorization of food handling establishments were administered during the intervention.

A quasi-experimental design was adopted to study the effectiveness of this intervention where two districts were selected as the intervention and control areas. Gampaha district functioned as the intervention and Kurunegela district as the control area. An educational intervention using the distance education modules was conducted for all PHII in Gampaha district.

Post intervention assessment was conducted after a period of four months following the completion of final distance education module.

Post intervention results showed that the knowledge had improved significantly in the intervention group in all subject areas, with 'food sampling' showing the highest improvement. Overall performance in all three activities i.e. inspection and categorization of food establishments, food sampling, and documentation and record keeping showed a significant improvement in the intervention group. However, in comparison to the improvements seen in the performance of other two activities performance of certain activities in 'documentation and record keeping' showed only a marginal improvement.

The views expressed towards factors associated with the implementation of food legislation showed a significant improvement in areas related to training. A majority of PHII had a high level of self-assessed competencies and was similar to the pre intervention assessment except for self assessed competency in performing legal procedures which showed a significant improvement. Only marginal improvements in level of knowledge, self-assessed competencies and performance was observed in the control group

It was revealed that over 80% of the study population had not received any continuing education on food safety during the past three years.

In developing the distance education modules steps were taken to make it simple, user friendly, include subjects of practical importance in routine duties and keeping the production cost at minimal without affecting the quality of the educational materials.

The present intervention was effective in improving the knowledge and performance of the PHII in implementing legislation on food safety indicating the effectiveness of providing continuing education to PHII using the distance education modules. As this method proved to be feasible, of low cost and has the ability to provide training without mobilizing the staff, it can be incorporated into the existing training system for health care workers serving in the Department of Health Services.