

# EFFECTIVENESS OF 18-HOUR LACTATION MANAGEMENT COURSE ORGANISED BY DISTRICT HEALTH OFFICE FOR HEALTH STAFF

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**ABSTRACT:** This was a cross-sectional study which attempts to assess the effectiveness of the 18-hour lactation management course organised by Klang District Health Office for its health staff. The course was conducted for three days from 19 to 21 September, 2006 with a total of 18 hours, comprising 15 hours of lectures and three hours of supervised clinical experience. There were a total of 46 participants for the course. The pre- and post-test scores of the participants from the course were used for analysis. This study showed that the mean pre-test versus mean post-test scores were 12.63 and 19.87. The difference in the mean score was statistically significant ( $p < 0.001$ , 95% CI -8.285, -6.193). The difference was significant for the staff nurse, community nurse and assistant nurse but not for doctors. In conclusion, the 18-hour duration lactation management course was effective at improving the knowledge and skills on breastfeeding management for the health staff. (*JUMMEC 2007; 10(1): 21-24*)

**KEYWORDS:** Lactation management course, breastfeeding, effectiveness, health staff

## Introduction

Breastfeeding has been widely acknowledged as the best means of giving infants a healthy start to life. The world had created a new 'dream product' that would feed and immunise every child on earth, is available everywhere, requires no storage or delivery, and helps mothers to space their births and reduce their risk of cancer, but the world refuses to allow or support its use (1). The advantages of breastfeeding include fulfillment of the nutritional needs of infants, immunological protection, bacteriologically safe, minimal allergic reaction, economically cheap, enhance mother-infant bonding, birth spacing and many others (1-3). Despite great benefits from breastfeeding, the prevalence of exclusive breastfeeding has declined.

Baby Friendly Hospital Initiative (BFHI) was initiated by World Health Organization (WHO)/United Nations Children's Fund (UNICEF) following the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding on 1 August, 1990. The Declaration called on 'all governments by the year 1995... to ensure that every facility providing maternity services fully practices all ten of the Ten Steps to Successful Breastfeeding' (4). Each country has to tailor the guidelines for their maternity system and legislation. The 'Ten Steps to Successful Breastfeeding' was the foundation of BFHI. The second step in the 'Ten steps to Successful Breastfeeding' was to train all health staff in skills necessary to implement the breastfeeding policy.

Malaysia has taken up this challenge and currently almost all the government hospitals in Malaysia have achieved the status of Baby Friendly Hospital. The concept has also been extended to involve the health clinics. Government hospitals in Malaysia have been active in achieving and maintaining the Baby Friendly Hospital status. Hospitals were active in providing training to the health staff in knowledge and skills necessary to implement the breastfeeding policy. Traditionally, lactation management courses were organised and conducted in hospitals. Health staff from District Health Office would attend the course in the hospital but in limited numbers. In view of the large number of staff that needed training, Klang District Health Office has organised and conducted the course for its health staff.

Literature search showed no local studies published to look at the effectiveness of the courses conducted. The BFHI criteria recommend that the duration of training should be at least 18 hours in total with a minimum of three hours of supervised clinical experience and cover at least eight steps (5). The

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objective of this study was to assess the effectiveness of the 18-hour lactation management course organised by Klang District Health Office. This paper reports the finding among health staff from the Health Office who attended the course.

## Methods

This was a cross-sectional study investigating the effectiveness of the 18-hour lactation management course organised by Klang District Health Office for its health staff. The course was conducted for three days from 19 to 21 September, 2006 with a total of 18 hours, comprising 15 hours of lectures and three hours of supervised clinical experience. The course covered topics on milk production, promoting breastfeeding in pregnancy and beyond, helping mothers in early feeds, evaluation of a feed, on-going support for breastfeeding mothers, early and late breast problems, how to deal with breast 'refusal', low milk production and babies who need special attention. The topics were given by Obstetric & Gynaecology specialists, hospital and health matrons and health sisters. Staff under Klang District Health Office who had never attended the course before were selected. A total of 46 health staff attended and completed the course.

Socio-demographic data of the respondents were included in the answer sheet for the test. Informed consent was obtained from the participants. In this study, the pre- and post-test scores were used for analysis. The set of questions used in the test was based on 'Breastfeeding Management and Promotion in a Baby Friendly Hospital: an 18-hour course for maternity staff' by WHO and UNICEF (6). There were a total of 30 questions and each question carries one mark. The maximum score for the test was 30 marks. The same set of questions was used in the pre- and post-test. The participants were given 30 minutes to answer the questions, in both the pre- and post-test. In Malaysia, the same set of questions were used when conducting the lactation management course.

Data entry and analysis were done using Statistical Package for the Social Sciences (SPSS) version 11.0 for Windows. Paired Student's t-test was conducted on the pre- and post-test scores. Significant level was preset at  $p = 0.05$ . Confidence interval at 95% was also included, wherever appropriate.

## Results

Table 1 showed the socio-demographic data of the study population. Out of the 46 participants, 91.4% (n=42)

**Table 1.** Socio-demographic data of the study population

Characteristics		mean $\pm$ sd	n	%
Age (years)		26.9 $\pm$ 0.9		
Gender	Male		0	0
	Female		46	100
Ethnic	Malay		42	91.4
	Chinese		2	4.3
	Indian		2	4.3
Occupation	Doctor		4	8.7
	Staff Nurse		4	8.7
	Community Nurse		36	78.3
	Assistant Nurse		2	4.3
Marital status	Single		16	34.8
	Married		30	65.2
No. of children	0		22	47.8
	1		14	30.4
	2		6	13.0
	3		4	8.8

were Malays while 4.3% (n = 2) were Chinese and another 4.3% (n = 2) were Indians. All the participants were females. The mean age of the population was 26.9 (sd = 0.9 years). The majority of them were married, working as community nurses and have one or no child.

Table 2 showed that in the study population, the mean pre-test score was 12.63 (sd = 3.65) and the mean post-test score was 19.87 (sd = 2.75). Using the 'Paired Student's t-test', there was a significant difference in the mean pre- and post-test score in the study population ( $p < 0.001$  and 95% CI -8.285, -6.193).

Table 3 showed the mean pre- and post-test score of the study population by occupation. The highest mean score in both pre- and post-test was among staff nurses (15.75 and 23.50) while the lowest was among assistant nurses (7.50 and 19.00). There was no statistical significant difference in the pre- and post-test score among doctors ( $p = 0.063$  and 95% CI -15.77, 0.77). Statistical significant difference were noted among staff nurses ( $p < 0.001$  and 95% CI -8.55, -6.95), community nurses ( $p < 0.001$  and 95% CI -8.15, -5.74) and assistant nurses ( $p = 0.028$  and 95% CI -17.85, -5.15).

## Discussion and Conclusion

The results showed that the 18-hour lactation management course was effective at providing knowledge and skills to the health staff. This was apparent by the statistically significant increase in the post-test compared to the pre-test scores. This finding was consistent with The Global Criteria for the WHO/ UNICEF Baby Friendly Hospital Initiative (5).

All of the participants in the study were females. This is a likely phenomenon among staff from the health office. Most participants were community nurses. This is understandable because there is a large number of community clinics run by community nurses in the district.

There was a significant difference between the pre- and post-test scores. The course has improved the knowledge and skills among the health staff on breastfeeding management. This study showed that an 18-hour lactation management course improved the knowledge and skills for the health staff. The result

**Table 2.** Comparing mean pre- and post-test scores of the study population

	Mean pre-test score	Mean post-test score	Mean* difference	p-value
Pre- & Post-Test Scores	12.63	19.87	-7.239 (95% CI -8.285, -6.193)	< 0.001**

\* Statistical testing using paired Student's t-test

\*\* Statistically significance at  $p < 0.05$

**Table 3.** Comparing mean pre- and post-test scores of the study population by occupation

Occupation	Pre-test score $\bar{x} \pm sd$	Post-test score $\bar{x} \pm sd$	Statistical significance * p-value
Doctor	14.50 $\pm$ 4.04	22.00 $\pm$ 1.16	0.063
Staff Nurse	15.75 $\pm$ 0.82	23.50 $\pm$ 0.58	< 0.001 **
Community Nurse	12.33 $\pm$ 0.96	19.28 $\pm$ 0.58	< 0.001 **
Assistant Nurse	7.50 $\pm$ 0.71	19.00 $\pm$ 0.11	0.028 **

\* Statistical testing using paired Student's t-test

\*\* Statistical significance at  $p < 0.05$

was consistent with studies done by Valdes *et al* (7), Bradley *et al* (8) and the WHO criteria (5). Studies were also done on lactation management courses conducted for more than three days (18 hours). Study by Westphal *et al* on the effects of a three-week course in Brazil among health professionals showed an increase in knowledge and attitude among the participants measured using the pre- and post-course tests (9). Iker and Morgan conducted a study to assess the effects of a four-week part-time training programme for nurses but found no difference in their knowledge or practice on breastfeeding (10).

The mean pre- and post-test score was lowest among assistant nurses. This was expected because their training was very superficial in terms of medical knowledge and they were not exposed to breastfeeding counselling in general. Popkin *et al* conducted a knowledge, attitude and practices survey among health staff in a low-income region of the Philippines and showed that the knowledge on breastfeeding was lowest among the assistant nurses (11). Doctors who attended the course showed no significant improvement in their knowledge on breastfeeding. This finding was contrary to studies done by Valdes *et al* (7) and Westphal *et al* (9). The inconsistent finding could be attributed to the course because the lectures were prepared and presented for the large number of community nurses.

In conclusion, this study showed that the 18-hour lactation management course organised by Klang District Health Office for its health staff was effective at improving the knowledge and skills on breastfeeding management. Current experience with the BFHI supports that a duration of 18 hours (3 days) is an appropriate minimum length of time for training (5-8). However, training must be compulsory and combined with strong, specific breastfeeding policies to ensure change in hospital and clinic practices. District Health Office could organise lactation management course for the large number of health staff that need training to ensure proper guidance and support for mothers to increase the prevalence of exclusive breastfeeding.

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