Do Workshops Make A Difference in Improving the Capability of Physicians?

Pages with reference to book, From 186 To 188

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Abstract

Continuing medical education (CME) activities have been shown to improve the capability and capacity of physicians for appropriate management of their patients. However, doubts have been raised about the role of workshops and seminars. This study is an attempt to find out whether workshops can improve the knowledge (capability) of practicing physician. Participants of 10 randomly selected workshops conducted in whole of Sindh were included for this study. A pre-test followed by post-test methodology used for 214 participants demonstrated that physicians' knowledge increased for some of the basic facts after attending the workshop. However, when their knowledge was assessed with some problem-solving approach, no significant ($P<0.05$) change could be noted. It is recommended that workshops should be designed and conducted more carefully. Besides, some innovative approaches for CME should be compared with 'workshops' approach to determine their effectiveness (JPMA 47:186,1997).

Introduction

A practicing physician needs not only to update his knowledge and skills but also continually refresh the existing clinic performance styles and habits. The continuing medical education (CME) activities is one of the ways to improve physician's knowledge and therefore, to improve patient outcome[1]. A number of education interventions have been used to facilitate CME[2-5]. Some of those include:

a) Formal CME programmes such as conferences, seminars, workshops and small group sessions[1].

b) Outreach visits including academic detailing[6], which has been used in a number of places and appears to work[7] and is a cost- effective way of improving quality of drug therapy[8,9].

C) Information feedback with suggestions for improvement has been shown to improve the clinical practice[10-12].

d) Reminders like clinic guidelines orprotocols have shown to influence discharge rate and lower number of diagnostic tests in United Kingdom[13] and decrease inC. section in USA[14].

e) "Distant learning" using self-instruction methods combined with seminars and supervisoiy visits has been useful not only for skills training but also for solving current problems[15].

A critical appraisal of the efficacy of CME on the performance of the physician has concluded that it can improve physician's behaviour[16]. A positive behavioural change was also noted by reviewing 160 intervention studies, mainly in clinical disease management[17]. However, conferences have been noted to have little impact on improving professional practice[18]. This study was conducted to assess the change in knowledge and understanding of the physicians regarding management and control of diarrhoea after they had undergone two days of formal training.

Materials and Methods

This was quasi-experimental study utilizing the "pm-test followed by post-test" methodology. Twenty

workshops were conducted invarious districts of Sindh during December, 1994 to March, 1995 for the medical officers working in government health system. Ten workshops were included in this study by randomly selecting them using simple lottery method. All the participants of selected workshops were part of this study. A self- administered questionnaire was developed to collect basic information of those medical officers and to assess the knowledge (and change in knowledge) for control and management of diarrhoea. A vignette of simple viral diarrhoea was also used to determine how they apply their knowledge for the management of a child having diarrhoea. The validity of using this vignette has already been established. Medical officers were asked to write down diagnosis, treatment and advice for that vignette. Standards were developed by a panel of experts and the answers were compared against those standards. Later the standards followed by MOs were assigned scores for comparison and determination of change in their knowledge. All the medical officers were given the same questionnaire before the commencement and at the end of workshop. No coercive methods were used and voluntaiy participation was encouraged. They were also requested not to take it as an examination. For ethical purposes, names of participants, workshop districts and names of instructors were kept confidential.

Results

A total of 214 medical officers (MOs) were included in the study, who were participants of 10 various workshops. These MOs had a mean age of 40 years (SD 3.7); mean years since graduation was 9 (SD 3.5 years). They have been working as government medical officers for 5 years, though 40% had a privatepractice also. The MOs claimed to work for an average of 7 hours attending 45 patients daily. Of all the MOs, only 20% had some prior training for management of diarrhoea, about 3 years back. For general assessment of knowledge and perception regarding management of diarrhoea, MOs were asked to prioritize their ranking pre-designed from a list for management and control of diarrhoeal diseases.

Table I. Summary of most frequently ranked strategy for management of diarrhoea, before and after workshop.

Strategy	Pre-test		Post-test	
	Rank	%	Rank	%
I/V infusion	4	33.7	3	42.4
OR therapy	1	76.2	1	77.7
Anti-diarrhoeal*	6	38.2	6 and 7	37.8 (each)
Antibiotics	5	51.8	5	62.7
Stop all fluids	7	44.2	7	37.8
Modify the food	3	38.4	3	38.9
Increase fluid intake*	2	50.5	2	59.9

* Significant change in mean ranking of the category.
(P value set at <0.05).
N=214

Table 1 shows thatthoughpnority ranking for management of diarrhoea did not vary before and after

workshop, mean ranking for use of"anti- diarrhoeal" lowered and for "increased fluid intake" topped the rankings after the workshop, indicating improved changes. Sante results were also observed when MOs were asked to give priority ranking for control of diarrhoeal diseases, (from alist of intervention). However, there were few exceptions. A significantly ($P<0.05$) higher mean ranking was given to "adequate diet and nutrition" and "giving ORS" and lowered mean ranking to "killing of flies", afterthe workshop (Table II).

Table II. Summary of the most frequently ranked intervention for controlling diarrhoea, before and after workshop.

	Pre-test		Post-test	
Intervention	Rank	%	Rank	%
Boiling of water	1	28.6	2	30.3
Hand washing	1	29.7	1	28.0
Adequate diet and nutrition	5	21.4	3	19.2
Immunization	6	18.9	7	14.7
Killing of flies	8	19.9	8	25.85
Good sanitation	5	18.9	4	20.5
Avoiding unhygienic food	4 and 5	19.0 each	5 and 7	16.4 each
Giving ORS*	1	25.0	1	44.8
Giving antibiotics	9	38.4	9	42.8
Avoiding anti-diarrhoeals	10	33.3	10	39.5

* Significant change in mean ranking of the category.
(P value set at <0.05).
N=214

The answers to vignette on simple viral diarrhoea was compared against the expected standards and then were assigned scores.

Table III. Comparison of scores for management of vignette on diarrhoea before and after the workshop.

Scores*	Pre-test Mean: SD	Post-test Mean:SD	95% Significant difference
Scores for diagnosis	0.60±0.65 (n=213)	0.38±0.59 (n-211)	P>0.05
Scores for treatment	0.83±0.77 (n=211)	1.06±0.63 (n=210)	P>0.05
Scores for advice	0.79±0.54 (n=208)	0.74±0.56 (n=210)	P>0.05
Overall management score **	2.24±1.23 (n=207)	2.17±1.11 (n=210)	P>0.05

Notes: * Scores guide

2 - Following the standard

1 - Marginally following the standard

0 - Not following the standard

**** Overall scores:**

Combination of scores for:

diagnosis, treatment and advice (Maximum out of 6).

Table III illustrates that no significant change in scores achieved by MOs was noticed for diagnosis, treatment, advice and overall management. Although, after attending the workshop capabilities ofMOs did not improve, some of their prescribing practices showed apositive change. Thus prescription forantidiarrhoeals, any drug and injection for management of vignette on diarrhoea decreased. However, strangely, prescription for ORS also decreased significantly, after the workshop (Table IV).

Table IV. Comparison of prescribing trend for management of vignette on diarrhoea, before and after the workshop.

Prescribing trends	Pre-test n (%) (n=214)	Post-test n (%) (n=211)	X^2 test Results
Use of anti diarrhoeal	50 (23.4)	15 (7.1)	Significant
Use of any drugs	58 (27.1)	34 (16.1)	Significant
Use of injections	37 (17.3)	5 (2.4)	Significant
Use of ORS	186 (86.9)	156 (73.9)	Significant

Note: Chi-square P value set at $P<0.05$.

Discussion

This study has demonstrated a mixed outcome of the workshop. Mos demonstrated a positive change in improved knowledge for some of the facts, especially when the choices were listed indicating the role of conference in improving recent factual knowledge. However, they failed to apply these facts for a simulated case in a problem-solving approach and their deeply ingrained skills dominated the recently acquired knowledge. One may argue for the quality, context and resources usedforthe workshop, which mighthave influenced the results seen in our study. Nevertheless, by and large these workshops were conducted in a fashion and style which are in vogue for continuing medical education (CME) and training being conducted in most of our government and non-government organizations. It is recommended that if workshops or seminars are to be conducted, it should be supplemented with some other approach like information feedback and regular supervision. Combining conferences/workshops with active feedback on the performance of physician and peer review and an active participation of the physicians has shown to improve management practice for diarrhoea[19]. It is suggested that instead of the traditional appraoches for CME, innovative approaches which are more problem-oriented should also be tried and compared in term of resources inputs, economics and changes observed in capability and capacity of the participants. The syllabus, teaching methodology and skills of teachers conducting the workshop or any other training sessions should be continuously evaluated.

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