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Rural Family Practice Part II: Preferences in Continuing Medical Education

SUMMARY

Continuing medical education is one of the many challenges facing rural family physicians. In addition to the education needed for office practice, rural family physicians must develop and maintain a special knowledge base and technical skills applicable to their major hospital roles. This study of full-time rural family physicians' CME patterns and preferences illustrates how useful and enjoyable they find various CME options. (*Can Fam Physician* 1988; 34:1035-1038.)

Key words: education, CME, rural family physician

RÉSUMÉ

La formation médicale continue (FMC) constitue l'un des nombreux défis que doivent affronter les médecins de famille en pratique rurale. En plus des besoins éducationnels qui leur permettent de maintenir leur pratique en bureau, les médecins de famille oeuvrant en milieu rural doivent acquérir et maintenir une base spéciale de connaissances et d'habiletés techniques pour jouer un rôle important dans leur milieu hospitalier. Cette étude portant sur les modèles et les préférences des médecins de famille oeuvrant à plein temps en milieu rural illustre à quel point les différentes alternatives de FMC peuvent s'avérer utiles et agréables.

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CONTINUING MEDICAL education (CME) for rural family physicians is complicated by numerous factors. In addition to keeping up with office practice, most rural family physicians are heavily involved in hospital medicine, often without much specialist back-up. As well as the care of general medical and pediatric in-patients, their responsibilities usually include

emergency medicine, obstetrics, and often anesthesia. These areas require special knowledge and technical skills which can be difficult to maintain. Distances to conferences and the need to arrange practice, obstetric, and hospital coverage for the time away are added obstacles to obtaining adequate CME.

What do rural physicians do to further their CME? What CME activities are most useful and most enjoyable? This study addresses these questions using Huron County as a study setting.

Method

A section on education was the second part of a questionnaire distributed

to all 40 Huron County physicians with active family practices; 82.5% of the questionnaires were returned. Thirty respondents stated that they were in full-time practice. The responses of the 30 full-time rural family physicians (the same 30 as in Part I, pages 1029-32) were analysed to provide the following CME information.

Results

Figure 1 illustrates the percentage of physicians reporting each type of study and the median number of hours per year they devote to each type of study. ACLS and ATLS are not included in Figure 1 because they cannot be classified into yearly study activities. Table 1 ranks each type of CME study by the re-

spondents' usefulness rating. Table 2 ranks each type of CME study by their enjoyment rating. Figure 2 illustrates the percentage of physicians who have completed ACLS and ATLS courses.

Discussion

The most useful way to approach this enquiry is by categorizing the different types of continuing medical education. Each type will be discussed in descending order of percentage reported by the family physicians studied (Figure 1).

Books and journals remain the most widely used form of CME: 90% of respondents reported use of this method and a median figure of 100 study hours per year. These figures are comparable to those of Dunn's 1982 Ontario study that reported an average of 150 hours of study per year for primary-care physicians.¹ Despite the dominance of this

CME method, books and journals were rated at mid range in terms of usefulness and enjoyment.

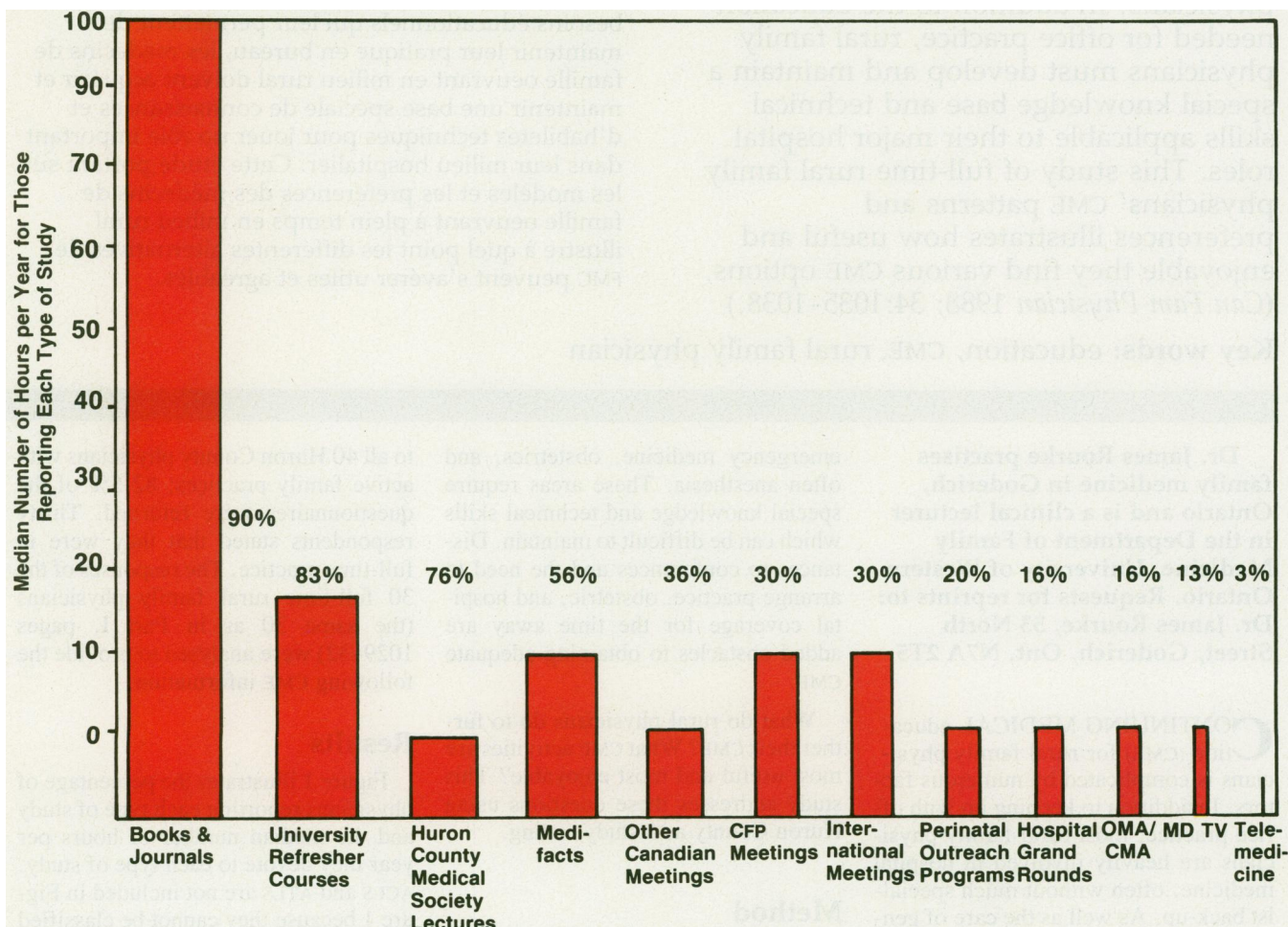
Although distances make university refresher courses difficult to attend, 83% of physicians attended for a median 25 study hours per year. This figure differs from Dunn's finding of 41.5% participation in this form of CME.¹ Over the five years intervening between these two studies, there has been a significant improvement in variety, planning, and scheduling of university refresher courses. This improvement may account for the difference in attendance patterns.

Huron County Medical Society guest lectures are well attended (76%) and rank high in both usefulness (third) and enjoyment (second). This model series of dinner lectures seems to provide a valuable experience in our setting. They consist of seven to eight before-

dinner lectures by guest experts each year. The co-ordinator tries to ensure that the topics are relevant and diverse, and the speakers are clear and reputable. The attendance varies from 20 to 35 physicians from the 50 Huron County Medical Society members. The size of this group and ample time facilitate questions and interactive discussion. In scheduling these programs, care is taken to avoid winter (because of storms) and summer (because of holidays). The dinner portion provides a forum for sharing rural practice problems, cases, and viewpoints.

Of the physicians studied, 56% reported use of convenient Medifacts tapes for a median 20 hours per year, but the tapes were ranked surprisingly low in both usefulness and enjoyment. Dunn's findings in 1982 were similar.¹ Improving or doing away with the unpleasant audio advertisements would

Figure 1
Hours and Type of CME Study Reported



Width of band indicates per cent of physicians reporting each type of CME study. This per cent is shown on graph.

probably improve their enjoyability. Recently I have noticed a distinct improvement in both relevance and usefulness.

Major meetings — The College of Family Physicians' Scientific Assemblies, and other Canadian and international meetings — all involve considerable expense, time, and arrangements for practice, hospital, and obstetrics coverage. It is often helpful, however, to get away to a completely different setting to learn new approaches, develop different viewpoints, and expand one's view of medicine, humankind, and the world. Simply being away from the rigours of practice, whether at a distant conference or on holiday, has many benefits, not the least of which is returning refreshed with renewed eagerness for the challenges and rewards of clinical practice.

The Perinatal Outreach Program deserves special mention. The physicians who reported on this program ranked it number one in both usefulness and enjoyment. This excellent program is arranged by Dr. Graham Chance of St. Joseph's Hospital, London, Ontario.

Very high-risk pregnancies and premature and sick newborns from the Huron County hospitals are transferred to St. Joseph's or the Children's Hospital of Western Ontario in London. Once or twice a year, a pediatric perinatologist and an obstetrician from London visit each Huron County hospital. The arrangement usually involves a discussion and feedback on the transferred cases, presentations of local cases with discussion, a teaching session followed by a question-and-answer-period and, often, a hands-on demonstration of techniques such as intubation or umbilical vessel catheterization. This is a prime example of bringing the feedback, skills, and expertise from tertiary referral centres to the rural setting. It helps local physicians to maintain and improve their skills, sharpen their obstetrical judgements, and maintain their confidence. These factors are particularly important for physicians practising obstetrics without the availability of local FRCS obstetric back-up. A similar program relating to trauma is currently in the early conceptual stages.

Hospital grand rounds, OMA/CMA meetings, MDTV and Telemedicine were not major CME resources for this group.

Advanced cardiac life support (ACLS) and advanced trauma life support (ATLS) do deserve further discussion. In fact, ACLS was ranked second only to the Perinatal Outreach Program in usefulness (Table 1). 66% of the full-time rural family physicians have completed ACLS (Figure 2). The Huron-Perth Emergency Health Services Committee also addressed ACLS and

ATLS training in their independent study of emergency health services. They found that 61% of Huron County physicians had completed ACLS training.² In their study, 72% of physicians with ACLS training rated that training very useful.² These results are closely comparable to the results of this study and help to validate the latter. These findings indicate that ACLS is very important to rural family physicians. It is undertaken by most of the rural family physicians despite the cost, the time it requires away from practice, and its rank as the least enjoyable (Table 2) of all the listed CME options. ATLS was completed by 30% of the study group of rural family physicians (Figure 2). Although ranked as more enjoyable than ACLS (Table 2), it was ranked as less useful (Table 1). This response may reflect the less frequent need for ATLS as compared to ACLS. The finding of the study done by the Huron-Perth Emergency Health Services Committee that 29% of Huron County physicians had taken ATLS is very similar to that of our study.² Ontario Ministry of Health figures show that 29% of 2914 active full- and part-time emergency physicians in Ontario have ATLS. Surprisingly, the figures show that only 53% have ACLS.³ Five per cent of the province's physicians are certified in emergency medicine.

The Huron-Perth Emergency Health Services Committee has recommended that all physicians participating in emergency department rotations should be encouraged by the hospital in which they practise to certify in ACLS and ATLS. This encouragement is most

Figure 2
Per Cent of Physicians with
ACLS and ATLS

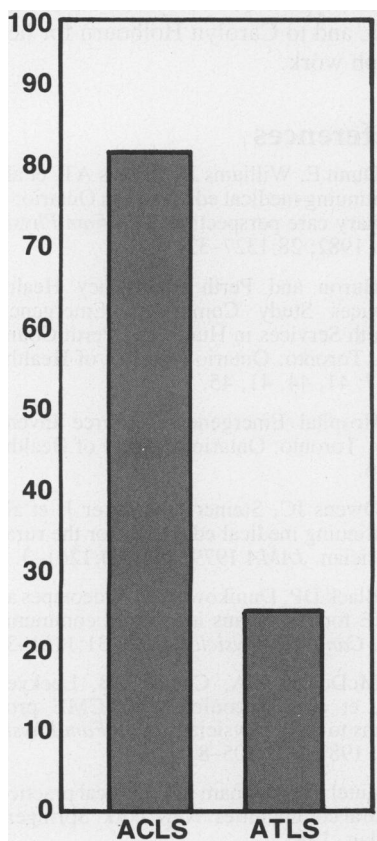


Table 1
Type of CME Study
Rank by Usefulness Rating

Most Useful

- Perinatal Outreach Program
- ACLS
- Huron County Medical Society Lectures
- Books and Journals
- University Refresher Courses
- ATLS
- Telemedicine
- CFPC meetings
- Other Canadian meetings
- MD TV
- International Meetings
- Hospital grand rounds
- Medifacts
- CMA/OMA

Least Useful

Table 2
Type of CME Study:
Rank by Enjoyment Rating

Most Enjoyable

- Perinatal Outreach Program
- Huron County Medical Society Lectures
- CFPC meetings
- University Refresher Courses
- ATLS
- Books and Journals
- Other Canadian meetings
- International meetings
- Hospital Grand Rounds
- MD TV
- CMA/OMA meetings
- Telemedicine
- Medifacts
- ACLS

Least Enjoyable

KWELLADA

cream/lotion/shampoo

Lindane (gamma benzene hexachloride USP)
1% Scabicide-Pediculicide.

Indications: The treatment of infestations with scabies (*Sarcoptes scabiei*), body lice (*Pediculosis corporis*), crab lice (*Phthirus pubis*), head lice (*Pediculi capitis*) and their nits.

Contraindications: Hypersensitivity to the product or any of its components.

Precautions: Kwellada Shampoo is intended only for the treatment of head lice and crab lice and should not be used as a routine shampoo. A towel held tightly over the eyes during shampooing and rinsing will protect the eyes. If accidental contact with eyes, nose, mouth and other mucous membranes occurs, flush with water. If irritation or sensitization occurs, discontinue use and consult a physician. If accidentally swallowed, consult a physician or contact the Poison Control Centre. Kwellada should not be used on infants, children under six years of age, pregnant women or nursing mothers, except on the advice of a physician. If using for crab lice, sexual partner should also be treated at the same time. Discontinue use of other topical medications and cosmetics while treating. Persons liable to treat two or more persons at the same time should use rubber or plastic gloves when using Lindane products. Lindane penetrates human skin and has the potential for CNS toxicity. Studies indicate that potential toxic effects of topically applied lindane are greater in the young. Seizures have been reported after the use of lindane but a cause and effect relationship has not been established.

Simultaneous application of creams, ointments or oils may enhance the percutaneous absorption of lindane.

Adverse Effects: Eczematous eruptions due to sensitization to Kwellada have been reported.

Overdose: Treatment: If accidental ingestion occurs, prompt institution of gastric lavage will rid the body of large amounts of the toxicant. However, since oils favor absorption, saline cathartics for intestinal evacuation should be given rather than oil laxatives.

If CNS manifestations occur, they can be antagonized by the administration of appropriate i.v. CNS depressant drugs.

Dosage: Pediculosis Capitis, Pediculosis Pubis: To the dry hair apply a sufficient quantity of shampoo to thoroughly saturate the hair and skin of the infested, and adjacent, hairy areas. Work through affected area for 4 minutes. When the hair and skin are thoroughly wetted with the shampoo, add water a little at a time, working the shampoo until a good lather forms. Continue shampooing for 4 minutes.

Rinse thoroughly. Towel briskly. Any remaining nit shells may be removed by using a nit comb or tweezers.

Although 1 application, correctly completed, is usually successful, the procedure may be repeated once only 7 days after the first application.

Pediculosis pubis (alternate therapy): Apply sufficient cream or lotion (shaken well) to thoroughly cover the hair and skin of the affected and adjacent areas. Put on clean clothing. After 8 to 12 hours take a bath or shower, thoroughly washing all areas of application. Any remaining nits can be removed with a nit comb or tweezers. Although 1 application, correctly completed, is usually successful, the procedure may be repeated once only 7 days after the first application.

For scabies infestations the use of the cream or lotion is recommended.

Scabies: Apply cream or lotion (shaken well) to the entire skin area below the neck as a thin layer and gently massage into the skin. If crusts are present, a warm bath beforehand will help soften or remove such crusts. If a warm bath is used, allow the skin to dry and cool before applying the cream or lotion. A total body application should be made from the neck down. Scabies rarely affects the head of children or adults, but sometimes of infants. When used on infants and young children care should be taken to prevent ingestion as from thumb sucking or hand to mouth contact as a result of scratching. After 8 to 12 hours take a bath or shower, thoroughly washing all areas of application. Put on clean clothing.

The itching may persist, but this should not be considered a treatment failure. Continued use of Kwellada is not necessary.

New scabies lesions, however, may indicate reinfection or inadequate application of medication.

Although 1 application, correctly completed, is usually successful, the procedure may be repeated once only 7 days after the first application.

Supplied Cream: A water dispersible cream containing: lindane USP 1%, 2-amino-2-methyl-1-propanol, glycerin, anhydrous lanolin 2%, stearic acid, perfume and water. Available in 57 g tubes.

Lotion: A non greasy lotion containing: lindane USP 1% in a base compounded with butylparaben 0.02%, methylparaben 0.25%, 2-amino-2-methyl-1-propanol, cetyl alcohol, glyceryl mono-stearate, stearic acid, triethanolamine, Irish moss extract, perfume and deionized water. Available in 50 and 500 mL bottles.

Shampoo: Each 50 or 500 mL bottle contains: lindane USP 1%, acetone, polyoxyethylene sorbitan monostearate, trioleamine lauryl sulfate and deionized water.

Additional information available upon request.

likely to achieve the desired results if it includes an incentive such as the cost of tuition for these expensive courses. A refresher course in ACLS and ATLS every three to five years might prove more useful than full recertification, especially if the courses are provided locally.² These recommendations, particularly in relation to ACLS, seem highly appropriate in light of the results of this study.

Several aspects of CME deserve discussion, although they were not specifically examined in our study. Rural physicians admit and attend to one another's patients because of shared emergency-call and in-hospital patient-coverage arrangements. This process provides informal, ongoing, peer review by requiring case review and discussions, a very active educational experience. Informal consultations have also been shown to be an important source of CME.¹ Some rural physicians also take medical students and residents. This activity is very interesting and helps the mentor to challenge his or her own established concepts. Intensive one- to two-week university-organized, skill-oriented, refresher modules in neonatology, obstetrics, GP anaesthesia, or emergency medicine would be useful additions to the CME choices available. They would complement the primarily office-oriented university refresher day courses.

Conclusions

Because of their major involvement in both hospital- and office-based medicine, rural family physicians have special CME needs. Technical skills and special knowledge are necessary for rural family practice, which usually includes emergency medicine, obstetrics and, often, anaesthesia, as well as general hospital medicine with little specialist back-up. Programs designed to bring in experts and facilitate interactive small-group discussions and feedback address these special educational needs effectively and enjoyably. The Perinatal Outreach Program and the Huron County Medical Society guest-lecture series provide highly rated models. Other successful models are quoted in the literature.⁴ This format appears to be more useful and enjoyable than learning by audio tapes, video tapes, or Telemedicine, probably because, in part, of the direct personal interaction and feedback it offers. Video tapes⁵ and Telemedicine^{6,7} have been

used more widely in other rural settings.

ACLS and ATLS are skills important for the rural family physician to acquire because of his or her participation in hospital emergency departments. Refresher courses every three to five years may be more useful than full recertification, especially if provided locally.

The traditional CME methods of reading books and journals, university refresher courses, and major conferences continue to make an important contribution to CME.

Continuing medical education is one of the many challenges for rural family physicians. A multifaceted approach is essential to maintain and develop the skills and knowledge of all the enjoyably different aspects of rural family practice. ■

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