

CME for Child Psychiatrists: Recommendations for Learners, Planners and Presenters

John Teshima MD, FRCPC¹

Abstract

Introduction: Medical school and residency are only the beginning of a child psychiatrist's education. For the rest of her/his career, a child psychiatrist will need to learn on an ongoing basis. There will always be new understandings, new treatments, new issues to master. Child psychiatrists will always need to further their knowledge, develop new skills, and improve existing skills. For these reasons at very least, all child psychiatrists will need to participate in Continuing Medical Education (CME) activities. Many child psychiatrists will also be involved in the design and delivery of these CME activities. In both cases, understanding more about the effectiveness of CME will be important to the decisions they make. **Method:** This article itself is not a systematic review of the literature, but it will highlight some of the important findings from existing systematic reviews of the CME literature. Based on these findings, the article will make recommendations for both child psychiatrists as learners and child psychiatrists as CME presenters. **Results:** As learners, child psychiatrists need to be able to select CME activities that are most likely to lead to improvements in their practices. As planners and presenters, child psychiatrists need to design and deliver CME activities that are most likely to improve the practices of their target audiences. However, not all child psychiatrists have the time to review the CME literature in addition to reviewing the other bodies of literature relevant to their practices. **Conclusion:** Thus, the purpose of this article is to provide an overview of the key findings in the CME literature, focusing on the effectiveness of CME.

Key words: continuing medical education, CME

Résumé

Introduction: Les années d'université et de résidence ne sont qu'une étape de la formation des pédopsychiatres qui devront continuer d'étudier tout au long de leur carrière. Il y aura toujours de nouveaux concepts à maîtriser, de nouveaux traitements à appliquer et des problèmes à résoudre. Les pédopsychiatres devront toujours approfondir leurs connaissances, acquérir des compétences ou se perfectionner. C'est notamment pour cela qu'ils doivent tous participer aux activités de formation continue, et qu'un grand nombre d'entre eux s'impliquent dans ces activités, à titre d'organiseurs ou de conférenciers. Dans les deux cas, ils ne doivent pas perdre de vue l'efficacité de la formation médicale continue lorsqu'ils prennent leurs décisions. **Méthodologie:** Cet article ne passe pas systématiquement en revue la littérature, mais met en relief les principales conclusions tirées de l'analyse d'articles sur la formation continue. Il s'appuie sur ces constatations pour faire des recommandations aux pédopsychiatres qui veulent se perfectionner et à ceux qui veulent donner une conférence. **Résultats:** Les premiers doivent être en mesure de choisir les activités de formation qui leur permettent d'améliorer leurs pratiques. Les seconds doivent concevoir des activités et choisir des thèmes qui améliorent les pratiques de l'auditoire ciblé. Tous les pédopsychiatres n'ont pas le temps de lire les articles sur la formation médicale continue, en plus de ceux qui se rapportent à leur spécialité. **Conclusion:** Cet article passe en revue les conclusions de la littérature sur la formation médicale continue, en mettant plus particulièrement l'accent sur l'efficacité de celle-ci.

Mots clés: formation médicale continue

¹*Division of Child Psychiatry, Department of Psychiatry, University of Toronto, Sunnybrook Health Sciences Centre, Toronto, Ontario*

Corresponding email: john.teshima@utoronto.ca

Submitted: June 7, 2007; Accepted: July 5, 2007

The effectiveness of CME activities

No studies have documented how much time child psychiatrists spend in CME activities and which activities are the most popular. However, Canadian physicians in general may spend up to 100 hours annually attending group CME activities (Goulet, Gagnon, Desrosiers, Jacques & Sindon, 1998). Conferences and courses are generally the most popular formal CME activities among physicians (Frank, Baldwin & Langlieb, 2000) (Goulet et al., 1998) (Rothenberg et al, 1982) (Curry & Putnam, 1981).

However, conferences and other similar formal CME activities may not be particularly effective in changing the practices of partici-

pants. In their systematic review of randomised controlled trials of CME activities, Davis, Thomson, Oxman & Haynes (1995) found that conferences resulted in little or no impact on physician performance and patient outcomes. Even when such formal CME activities were paired with other educational interventions (e.g., the provision of educational materials), the results were mixed with seven positive studies and five negative or inconclusive studies.

Instead, the review found that other strategies were more effective in changing what physicians did in their practices and in changing patient outcomes. These strategies included reminders, patient education, outreach

visits and academic detailing, opinion leaders, and multifaceted activities. (Reminders are prompts, often on the patient's chart or computer-based, for the physician to do a certain intervention. Patient education includes providing educational materials as well as other methods to inform patients about their health and treatments. Outreach visits and academic detailing are when a specific person (e.g., a pharmacist) personally visits a physician to provide one-to-one education. Opinion leaders are individuals in a given community who are educationally influential due to the respect others have for them. Multifaceted activities refer to various combinations of the above strategies.) However, these CME strategies are generally underutilised (Davis et al., 1995).

Practice guidelines have been another popular method of trying to improve and update the practices of physicians. These are most commonly implemented through passive means (mailings, as supplements to journals), with little effort to tailor them to specific practice contexts. Davis and Taylor-Vaisey (1997) conducted a systematic review of studies related to the implementation of practice guidelines, with a focus on randomised controlled trials. They found that publication of guidelines, mailing of guidelines, and didactic presentations on guidelines had weak effects on changing physician performance. Similar to the findings of the 1995 Davis et al review, Davis and Taylor-Vaisey found that guidelines implemented through more intensive, practice-based methods (e.g., outreach visits, reminders, multiple interventions) were more successful in changing physician behaviour. They recommended that any implementation of guidelines needs to include strategies that facilitate their adoption in the practices of the physicians, addressing potential barriers to implementation and other specific physician or practice context issues.

Studies specifically looking at CME interventions to improve diagnosis and treatment of psychiatric disorders have focused largely on family physicians. Kroenke, Taylor-Vaisey, Dietrich & Oxman (2000) reviewed 48 controlled studies and found that 70-78% of the studies showed improvements in physician practice and 36-50% showed improvements in patient outcomes. Consistent with the 1995 Davis et al. review, none of these studies

demonstrating improvements in physician practice or patient outcomes involved conferences or other formal CME interventions. Instead, these studies often included multiple interventions and were based in community settings.

The above findings do not necessarily lead to the conclusion that formal CME activities such as conferences are completely useless. All of the above reviews focused on studies that measured changes in physician practice and/or patient outcomes. While these are ultimately desired as goals of CME, other outcomes of CME can also be important. Changing the knowledge or attitudes of practitioners may be important precursors to changing their practices. Thus the value of a CME activity instead might be to prepare the learner to change (Parker & Parikh, 2001). It is certainly possible that conferences and other formal CME activities may have impact at this level.

Also, while the above reviews were generally rigorous and comprehensive, they focused mostly on randomised controlled trials (RCTs). While RCTs are the gold standard for determining the efficacy of an intervention, their conclusions can be limited in their generalisability. For example, the physicians who volunteered in these RCTs were often agreeing to participate in multifaceted interventions and also agreeing to have their practices or their patients monitored for outcomes. These physicians may not be representative of the general population of community practitioners who participate in CME (Davis et al, 1999).

Implications for learners: If child psychiatrists are looking for CME that will help them change the way they practice and improve their patients' outcomes, attending formal CME events such as conferences should not necessarily be the number one choice. They should instead look for CME activities that involve multiple interventions and activities that are based at their practices. These activities could include reminders, patient-mediated strategies, and outreach visits. Although child psychiatrists may find some benefit in reading practice guidelines as part of their CME activity, they should look for CME activities that are designed to help implement practice guidelines within the context of their own practices. These activities would include many of the above-mentioned more effective CME activities.

Implications for CME planners and presenters: If child psychiatrists want to deliver a CME with a higher chance of changing the way their target audience practices, they should consider focusing on interventions other than traditional conferences. Combining multiple interventions such as outreach visits and patient education could be more effective. Or focusing the education on a specific opinion leader might lead to more change in a community of practitioners than targeting the practitioners themselves. For child psychiatrists involved in the development and implementation of practice guidelines, they should think about methods that are going to facilitate the implementation of these guidelines within the practices of their target audience. These methods should be practice-based, such as reminders or outreach visits. There should be particular focus on addressing any barriers to the implementation of these guidelines.

The effectiveness of teaching formats

In addition to the type of CME activity, the educational format is also important. In a follow-up systematic review, Davis et al. (1999) found that interactive CME sessions were effective in changing practice, whereas didactic sessions such as lectures were not effective. Interactive methods included case discussions, role-plays, and sessions that allowed for the practice of new skills. Thus, if the goal is changing practice, learning methods should be interactive and include opportunities for the practice of skills (Hodges, Inch, & Silver, 2001). Davis et al. (1999) also found that few single interventions (held in one period and lasting 2-6 hours) resulted in changes in physician performance whereas the majority of activities that included several interventions in a series did change physician performance.

Implications for learners: Child psychiatrists should seek out CME that includes more interactive formats, such as workshops, if they want to ultimately change the way they practice. Even better, they should look for descriptions of teaching methods that emphasize discussion, problem-solving, and practicing skills with feedback. Didactic formats may be easier (because the learner doesn't have to do anything except listen), but do not lead to as much change. Even if a physician prefers didactic formats, improved

learning can occur in interactive workshops (Lacoursiere, Snell, McClaran & Duarte-Franco, 1997). However, there may still be value in attending didactic sessions in terms of changing knowledge or attitudes, which may subsequently lead to changes in practice. Child psychiatrists should also seek out CME activities that have multiple parts in series (such as a longitudinal course) rather than single events. Lastly, when providing feedback on evaluation forms, child psychiatrists can strongly request that future events be more interactive and include multiple sessions/interventions.

Implications for CME planners and presenters: Child psychiatrists should plan CME activities that emphasize interactive teaching methods, particularly if the goal is to change the way their target audience practices. Didactic formats should be kept to a relative minimum. Interactive teaching methods can be as reviewing a series of case examples and facilitating the participants in applying their new learning to the cases. Interactive teaching methods can also include role-plays, small group exercises, and debates (Steinert & Snell, 1999). Child psychiatrists should also plan CME activities comprised of multiple interventions in a series. A longitudinal course on a topic may result in more change than the best one-day event.

The importance of needs assessment

The 1995 review by Davis et al. also found that CME activities that were based on a specific needs assessment more frequently resulted in changes in physician performance and patient outcomes. Needs assessment methods can include self-report questionnaires that assess "perceived" needs as well as more objective methods such as chart audits and third party outcome data (Lockyer, 1998). Combining needs assessment methods can help make up for the deficiencies of any one method.

Implications for learners: Child psychiatrists will already be aware of some of their learning needs (their "perceived" needs) and can use these as a partial guide to selecting CME that is relevant to their practices. However, there may be additional learning needs that child psychiatrists are not aware of ("unperceived needs"). A variety of methods can be used to help

physicians further assess their learning needs, including using patient surveys and peer assessments (Mazmanian & Davis, 2002). The website http://www.acgme.org/outcome/assess/PBLI_Index.asp includes a number of tools that can be used for these methods of self-assessing learning needs.

Implications for CME planners and presenters: All CME activities should be planned on the basis of a detailed needs assessment. This needs assessment should ideally include multiple methods, some eliciting perceived needs (e.g., questionnaires) and others obtaining more objective information about learning needs (chart audits, prescribing pattern databases, critical incident reports). Beyond assessing what content the target audience "needs," a good needs assessment should also look at the practice context of the target audience and what barriers there might be to changing practice. Thus, the CME activity can be designed to be most relevant to the target audience and can include interventions to work around existing barriers to change.

Internet-Based CME

Internet-based CME holds much promise, due to its convenience and accessibility. It also has the potential for significant interactivity, for example through the use of simulations and case studies. However, there have been relatively few controlled studies of internet-based CME. In their 2004 systematic review, Wutoh, Boren, and Balas identified only 16 studies that focused on e-mail interventions or interventions made available on the Web. Of these studies, only three showed a change in participant practice and these changes were only determined through self-report. Also, only five of these studies included focused on health care professionals (the remainder focused on trainees, including non-health professional students).

Curran and Fleet (2005) conducted a broader review of Internet-based CME, including studies that used a single group pre/post-test study design (as opposed to RCTs). Despite this broader search, they also found very little evidence for changing practice and patient outcomes through Internet-based CME. They also included studies that evaluated participant satisfaction and knowledge change. These studies indicated that Internet-based

CME is at very least acceptable to health care professionals and may have some ability to improve knowledge. However, Curran and Fleet's main conclusion was that more research was needed in the area.

Implications for learners: Child psychiatrists may find it convenient to seek out CME on the Internet. However, it is unclear that Internet-based CME will directly lead to changes in their practices. Child psychiatrists may be able to improve their knowledge through Internet-based CME and this may be one important step towards a future change in practice, especially if coupled with another more effective CME intervention.

Implications for CME planners and presenters: Offering CME through the Internet can make it more accessible and convenient for a variety of health care professionals. If the goals of the CME planners are primarily to change the knowledge of the target audience, then an Internet-based intervention can be a reasonable choice. However, there is relatively little evidence to guide CME planners who wish to change the practices of their target audience. One could perhaps infer from the rest of the literature that the use of interactive methods in Internet-based CME may be more likely to lead to practice change. More importantly, CME planners should consider formally evaluating their Internet-based CME intervention in order to add to what is still a limited literature base.

Conclusion

Based on the CME literature to date, child psychiatrists should look beyond traditional conferences and published practice guidelines to other more personalized, practice-based CME strategies. They should also consider the importance of interactive teaching methods, multi-part interventions, and needs assessment in effective CME. While Internet-based CME interventions hold much potential promise, it is not yet clear if they can be as effective as other more proven interventions. With these principles in mind, child psychiatrists can increase the likelihood of improving both their own practices and the practices of others.

Resources

The following websites provide many resources for the planning of effective CME

activities:

<http://cme.myweb.med.ucalgary.ca/CourseDevtResources>

http://www.bcma.org/public/news_publications/publications/CME_Handbook_AUGUST_2005.pdf

CME planners and presenters may wish to consider exploring the EBM reviews database (e.g., Cochrane Database) for systematic reviews of specific types of CME interventions. These reviews provide more detail about the effectiveness of each of these interventions.

References

- Curran, V. R. & Fleet, L. (2005). A review of evaluation outcomes of web-based continuing medical education. *Medical Education, 39*, 561-567.
- Curry, L. & Putnam, R. W. (1981). Continuing medical education in Maritime Canada: the methods physicians use, would prefer and find most effective. *Canadian Medical Association Journal, 124*, 563-566.
- Davis, D. A., Thomson, M. A., Oxman, A. D. & Haynes, B. (1995). Changing physician performance: a systematic review of the effect of continuing medical education strategies. *Journal of the American Medical Association, 274*, 700-705.
- Davis, D. A. & Taylor-Vaisey, A. (1997). Translating guidelines into practice: a systematic review of theoretical concepts, practical experience and research evidence in the adoption of clinical practice guidelines. *Canadian Medical Association Journal, 157*, 408-416.
- Davis, D., Thomson O'Brien, M. A., Freemantle, N., Wolf, F. M., Mazmanian, P. & Taylor-Vaisey, A. (1999). Impact of formal continuing education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behaviour or health care outcomes? *Journal of the American Medical Association, 282*, 867-874.
- Frank, E., Baldwin, G. & Langlieb, A. M. (2000). Continuing medical education habits of US women physicians. *Journal of the Medical Women's Association, 55*, 27-28.
- Goulet, F., Gagnon, R. J., Desrosiers, G., Jacques, A. & Sindon, A. (1998). Participation in CME activities. *Canadian Family Physician, 44*, 541-548.
- Hodges, B., Inch, C. & Silver, I. (2001). Improving the psychiatric knowledge, skills, and attitudes of primary care physicians, 1950-2000: a review. *American Journal of Psychiatry, 158*, 1579-1586.
- Kroenke, K., Taylor-Vaisey, A., Dietrich, A. J., Oxman, T.E. (2000). Interventions to improve provider diagnosis and treatment of mental disorders in primary care. *Psychosomatics, 41*, 39-52.
- Lacoursiere, Y., Snell, L., McClaran, J. & Duarte-Franco, E. (1997). Workshop versus lecture in CME: does physician learning method preference make a difference? *Journal of Continuing Education in the Health Professions, 17*, 141-147.
- Lockyer, J. (1998). Needs assessment: lessons learned. *The Journal of Continuing Education in the Health Professions, 18*, 190-192.
- Mazmanian, P. E. & Davis, D. A. (2002). Continuing medical education and the physician as a learner: guide to the evidence. *Journal of the American Medical Association, 288*, 1057-1060.
- Parker, K., Parikh, S. V. (2001). Applying Prochaska's model of change to needs assessment, programme planning and outcome measurement. *Journal of Evaluation in Clinical Practice, 7*, 365-371.
- Rothenberg, E., Wolk, M., Scheidt, S., Schwartz, M., Aarons, B. & Pierson, R. N. Jr. (1982). Continuing medical education in New York County: physician attitudes and practices. *Journal of Medical Education, 57*, 541-549.
- Steinert, Y. & Snell, L. S. (1999). Interactive lecturing: strategies for increasing participation in large group presentations. *Medical Teacher, 21*, 37-42.
- Wutoh, R., Boren, S. A., Balas, E. A. (2004). eLearning: a review of Internet-based continuing medical education. *The Journal of Continuing Education in the Health Professions, 24*, 20-30.