ABCs of CTCs: An introduction to Commitments to Change

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Have you ever left a conference or other educational event with great plans for implementing your new learning and become discouraged as your plans don't come to fruition? Have you struggled to provide evidence of how you have translated your learning from a course or reading a journal article into practice? Have you delivered educational sessions and wondered if it was going to make any difference in your audience's practice?

Ensuring translation of knowledge/skill to practice is often understood as an effortful and reflective process – a process that has been encouraged by regulatory bodies when we set forth goals and strategies to improve our practices. Moving new learning to practice often requires one to reflect on how this knowledge/skill applies to one's current situation. Part of this reflection may result in the determination of the value of making this change with respect to expected outcomes. If the value can be seen, then one ought to commit to that change, think about how to carry it out, enact the change and evaluate it. It is therefore no surprise that this effortful process is often reserved for only the most personally relevant and timely educational events. As both educators and learners, we are eager to find tools which can facilitate this implementation of learning into practice and measure it. Commitments to change (CTCs) (Mazmanian & Mazmanian, 1999) hold promise for both educators and learners as they provide the opportunity to document, track, and facilitate the implementation of learning into practice. CTCs also hold value for educators who are challenged to provide evidence of learners' implementation across practice settings that are diverse and unique to each therapist.

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How are CTCs used?

CTCs are generally utilized after an educational event (Wakefield, 2004) but their use has been demonstrated for other forms of learning such as journal article reading (Cole & Glass, 2004; Neill et al., 2001). In completing CTCs, participants are asked to first identify between 1-5 possible changes based on the education event. They are then asked to indicate a level of commitment to the change utilizing a Likert scale ranging from 1-5. Thirty to 45 days later, the participant is reminded of the commitments by providing her/him with a list of these changes. The person is asked to indicate if a change occurred or only partially occurred. If it did not occur, s/he is asked to explain why.

These three steps seem to work for several reasons. Timing of the administration of the tool immediately after the learning gives the participant an opportunity to reflect on what salient pieces of information might be useful to put into practice. It is thought to provide an opportunity to extract meaning in a personalized fashion from education material. Rating the level of commitment is a mechanism to reflect on how strongly one feels the goal should be actualized and may also be a form of prioritization. The follow-up sets up a sense of accountability. This fairly simple tool seems to both enhance the reflection process (Mazmanian et al., 2001; Lockyer et al., 2001; 2005) and give reason to see these goals through.

The history of CTCs

CTCs have been largely examined in the medical literature and are based on self-reported change. Rates of compliance to CTCs are usually between 47 – 87% (Wakefield, 2004). In one instance the use of the CTCs has been shown to relate to actual changes in practice for prescription behavior in physicians (Wakefield et al., 2003). The types of commitments that are more likely to be achieved are those which are relatively easy to do and those which individuals feel they have control over (Fidler et al., 1999, Haberman et al, 2002, Lockyer et al. 2001). The greater the presence of envi-

ronmental constraints, the less likely the individual will be able to follow through on the CTCs (Parochka, 2001). Despite the promise of CTCs and successes in their use for other health care professions, CTCs have not been used widely in occupational therapy. The authors therefore sought opportunities to explore the use of CTCs through research projects and informal experiences.

CTCs and occupational therapy

In one study (Lowe, Rappolt, Jaglal, & Macdonald, 2007), occupational therapists completed CTCs after a short continuing education course and reported progress made towards CTCs (either full or partial achievement) on 75% of all CTCs set, similar to other reported rates of compliance. In follow-up interviews and surveys, study participants reported that CTCs prompted them to reflect on the course material. However, there appeared to be a differential effect of CTCs as some participants indicated that CTCs prompted them to reflect and make practice changes that they may otherwise not have made whereas others reported that CTCs made no difference to their usual practices (they would have reflected on the course material and subsequently made changes in their practices without CTC use). All participants indicated they would be supportive of using CTCs again in the future.

CTC use was further explored through continuing education short courses and workshops. Although participants informally reported that they made changes in practice beyond what they may have achieved without CTC use, the key elements of successful CTC use remained unclear. As the literature speaks to the role of CTCs in promoting reflection (Mazmanian et al., 2001; Lockyer et al., 2001; 2005), the authors wondered if reflection alone at the end of the course or workshop itself was sufficient to promote practice change or if CTCs were required. Therefore, the purpose of a recent study by Hebert, Lowe and Rappolt (in preparation for press) was to examine the effect of the use of CTC statements, coupled with post workshop follow-up, on sustained integration of new learning from the workshop into practice in comparison to reflection alone. In this study, half of the participants completed CTCs and the other half were prompted to reflect on the workshop itself using the Critical Incident Questionnaire (CIQ) (Brookfield, 1998). Two months post workshop, there was a small difference in favour of the CTC group for achieving practice change, that is 67% of the individuals who used CTCs made changes in practice whereas 50% of the CIQ group reported making changes. CTC follow through was also analyzed to determine the existence of patterns; participants reported no progress regarding CTC statements which were vague or unmeasurable. Despite the strengths of the methodology, the small sample of this study limits the conclusions that can be drawn and further study appears warranted.

The overall effectiveness of CTCs as a tool to promote the integration of new learning into clinical practices is still under study, but there is some evidence to suggest that CTCs increase practitioners' chances of making positive practice changes after they gain new knowledge. Clinicians' use of CTCs or similar tools, along with their professional development objectives and specific continuing education goals, could stimulate more active listening to, or reading of new information. Complementary use of peer consultations and case studies may also assist therapists to implement learning in practice (Craik & Rappolt, 2006). Following or even during an educational workshop, participating therapists can ask "How can I use this new knowledge?" and "Where does this information apply in my practice?" Practitioners could also consider writing specific objectives for applying new knowledge to address their pressing needs using the CTC format (refer to Figure 1). CTC follow through may be further enhanced through: incorporation of timelines for achievement of commitments; checking in with colleagues to discuss progress toward meeting commitments; and involvement in a study group or an on-line professional support network that provides peers with common goals and opportunities for mutual encouragement (Egan et al., 2004).

Educators teaching theory or skills in clinical, community, or academic settings may enhance their entry-level or post-grad students' retention and application of material from their courses by building program objectives, structures and time allotments for students to develop indicators for their CTCs. Consider incorporating CTCs or other mechanisms to facilitate students' reflection and transfer of learning to practice as a standard component of your course development and evaluation processes.

The authors look forward to hearing about your experiences in using or promoting practice changes following educational programming using CTCs or similar tools. Use the blank CTC form (Figure 1) to formulate your own commitments to improving your practice with new learning. We welcome the opportunity to communicate with other practitioners, educators and researchers who are interested in collaborating on studies to evaluate mechanisms to facilitate practice changes following educational programming.

Figure 1: Commitment to Change Statements (adapted from Mazmanian et al., 1998)

In considering this learning activity (e.g. attending a course, reading an article), please specify one or more changes you intend to make below. Record as many as are appropriate for you. Please ensure that they could be completed in the next one to two months.

I commit to complete the following in the next 2 months:

Commitment to Change Statement 1:

_____

_____

_____

How committed to making the above change are you? (Please circle a number)

1	2	3	4	5
Lowest level of commitment				Highest level of commitment

Commitment to Change Statement 2:

_____

_____

_____

How committed to making the above change are you? (Please circle a number)

1	2	3	4	5
Lowest level of commitment				Highest level of commitment

Commitment to Change Statement 3:

_____

_____

_____

How committed to making the above change are you? (Please circle a number)

1	2	3	4	5
Lowest level of commitment				Highest level of commitment

Please keep this form for your records and record a follow up date for yourself in order to keep you on track. You may also want to share your commitments with a colleague now and in 2 months time in order to enhance accountability.

Mazmanian, P. E., Daffron, S.D., Johnson, R.E., Davis, D.A. & Kantrowitz M.P. (1998). Information about barriers to planned change: A randomized controlled trial involving continuing medical education lectures and commitment to change. *Academic Medicine*, 73(8), 882-886.

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References:

Brookfield, S. (1998). Critically reflective practice. *The Journal of Continuing Education in the Health Professions, 18*:197-205.

Cole, T. B., & Glass, R. M. (2004). Learning associated with participation in journal-based continuing medical education. *The Journal of Continuing Education in the Health Professions, 24*, 205-212.

Craik, J., Rappolt, S. (2006) Enhancing research utilization capacity through multifaceted professional development. *American Journal of Occupational Therapy, 60*: 155-164.

Egan, M., Dubouloz, C.J., Rappolt, S., Polatajko, H., von Zweck, C., King, J., Vallerand, J., Craik, J., Davis, J.A., Graham, I. (2004). Enhancing research use through on-line action research. *Canadian Journal of Occupational Therapy, 71*: 230-237.

Fidler, H., Lockyer, J.M., Towes, J., Violato, C. (1999). Changing physicians' practices: the effect of individual feedback. *Academic Medicine, 74*:702-714.

Haberman, R., Butts, N., Powers, J., & Pichert, J. W. (2002). Physician behaviour changes following CME on the prospective payment system in long-term care: A pilot study. *Journal of the American Medical Directors Association, January/February:* 12-15.

Lockyer, J. M., Fidler, H., Hogan, D.B., Pereles, L., Wright, B., Lebeuf, C. & Gerritsen, C. (2005). Assessing outcomes through congruence of course objectives and reflective work. *The Journal of Continuing Education in the Health Professions, 25*, 76-86.

Lockyer, J. M., Fidler, H., Ward, R., Basson, R. J., Elliot, S., & Toews, J. (2001). Commitment to change statements: A way of understanding how participants use information and skills taught in an educational session. *The Journal of Continuing Education in the Health Professions, 21*, 82-89.

Lowe M., Rappolt S, Jaglal S, Macdonald, G. (2007). The role of reflection in implementing learning from continuing education into practice. *Journal of Continuing Education in the Health Professions, 27*(3):143-8.

Mazmanian, P. E., Daffron, S.D., Johnson, R.E., Davis, D.A. & Kantrowitz, M.P. (1998). Information about barriers to planned change: A randomized controlled trial involving continuing medical education lectures and commitment to change. *Academic Medicine, 73*(8), 882-886.

Mazmanian, P. E., & Mazmanian, P. M. (1999). Commitment to change: Theoretical foundations, methods, and outcomes. *The Journal of Continuing Education in the Health Professions, 19*, 200-207.

Mazmanian, P. E., Johnson, R. E., Zhang, A., Boothby, J. B., & Yeatts, E. J. (2001). Effects of a signature on rates of change: A randomized controlled trial involving continuing education and the Commitment-to-change Model. *Academic Medicine, 76*(6), 642-646.

Neill, R. A., Bowman, M.A. & Wilson, J.P. (2001). Journal article content as a predictor of commitment to change among continuing medical education respondents. *Journal of Continuing Education in the Health Professions, 21*(1), 40-45.

Parochka, J., & Paprockas, K. (2001). A continuing medical education lecture and workshop, physician behaviour and barriers to change. *The Journal of Continuing Education in the Health Professions, 21*(2), 110-116.

Wakefield, J., Herbert, C. P., Maclure, M., Dormuth, C., Wright, J. M., Legare, J., et al. (2003). Commitment to change statements can predict actual change in practice. *The Journal of Continuing Education in the Health Professions, 23*, 81-93.