

Internet-based Learning to Improve Physical Therapist Practice

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Executive Summary

Practice owners understand the need for continuing education in order to improve clinical skills and patient outcomes, but the practicalities of continuing education are often a barrier. Internet-based learning can be a viable alternative to address this dilemma.

Most medical professionals understand that they must be lifelong learners to stay current in their chosen field. To do this, many participate in various forms of educational activities, ranging from reading, taking home study courses, and taking weekend continuing education (CE) courses to enrolling in more formal modes of education, such as a university graduate program or a residency or fellowship training program. One can find examples of Internet-based learning for most, if not all, of these educational activities and programs.

Internet-based distance learning in the health professions has become an increasingly popular option, as it permits access to learning opportunities that would be unavailable otherwise. It also allows learners to participate conveniently and often in a way that is tailored to meet their individual needs. However, the questions to be answered are whether Internet-based distance learning is effective for improving not only knowledge, but the unique psychomotor skills associated with health care interventions, and whether it can change clinical behaviors and patient outcomes. These questions are very relevant for the physical therapy profession in general and certain physical therapy specialties in particular, including orthopedics and manual physical therapy, because the interventions in these specialties are predominately psychomotor in nature.

The number of studies seeking to address the growing concern about the effectiveness of Internet-based instruction was limited in the not-too-distant past. Only thirty-five studies on Internet-based education were published during the first decade of the web's existence. However, this situation has changed rapidly. The meta-analysis published in 2008 by Cook and others analyzed 201 articles (out of more than 2,000 identified) that included some form of Internet-based instruction and were deemed to be of sufficient quality to answer the following two questions: (1) is Internet-based learning effective at all? (2) how effective is Internet-based instruction compared to more traditional, non-Internet instructional methods? The health care professionals in these studies included physicians and nurses as well as physical therapists, occupational therapists, and a number of others.

The answer to the first question was an unequivocal “yes,” and was associated with large effect-sizes (statistical geek-speak for

“big-time effective”). The answer to the second question was that while Internet-based learning outcomes were actually more effective in some areas, the associated effect-sizes were relatively small (that is, “no big deal”) and suggests that both methods of instruction are equally effective. While on the surface these results may not be all that surprising, they become a bit more eye-opening and informative when we consider that the outcome areas measured included clinical skills and behaviors (test performance and ordering) and patient effects (outcomes). We might expect learner outcomes for satisfaction and knowledge to improve, but the fact that psychomotor tasks and patient outcomes improved is not so intuitive and may be counter to expectations. In other words, it seems it would be difficult to learn useful hands-on skills via distance learning because you do not have an instructor on the scene to check your skills. Yet this is not the case. At the end of the day, who really cares how much you know or what initials are behind your name if your ability to positively influence patient outcomes has not improved and you “got no game”?

Although this article will not go into the finer details of the study, the bottom line is that physical therapists can have a high level of confidence that Internet-based instruction is effective for improving physical therapist practice and clinical outcomes. This is good news for physical therapists seeking to advance their clinical knowledge, skills, and training, because an Internet-based training program can provide options and flexibility that traditional education methods cannot. It is good news for employers who want to help their physical therapists grow professionally, as they don't have to lose the services of a valued employee who would otherwise have to take time off to attend traditional continuing education. Finally, it is good news for our profession, as Internet-based educational programs, in particular residencies and fellowships, have the potential to train specialists in large enough numbers to have a noticeable impact on physical therapy practice and the profession in a relatively short time. ■

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