

**The Importance of Continuing Medical Education for Allied Health Professionals.  
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While simple logic tells us that training for allied health professionals will reap benefits in knowledge, skill, job satisfaction and patient-related outcomes, it is becoming increasingly hard to balance financial pressures with dollars spent on continuing education. The imbalance between dollars billed for by health care providers and the reimbursement by health insurance, the advent of managed care, changes in the way pharmaceutical companies fund continuing education and the nursing shortage has created a system where health systems think twice about investing in education; staff away from work equates to loss productivity, less dollars billed for and/or the increased cost associated with a per allied health professional. Yet, we witness the advent of evidence-based medicine, pay-for-performance, chronic disease management and changes to HEDIS measures that all require allied health professionals to keep up-to-date with chronic disease management. In addition, the expectations of individual patients – and also of society as a whole – are increasing, and as life expectancy rises,<sup>1</sup> resources will become ever more stretched.

There is evidence that education improves the confidence and competence of health care professionals,<sup>2</sup> and changes to practice as a result of education have also been documented.<sup>3-5</sup> However, linking professional education directly to patient outcomes is difficult to demonstrate.

Since Education for Health, incorporating the National Respiratory Training Center – US, is a training charity (non-profit), we felt that it was vital to test the assumption that educational interventions do indeed positively affect patient outcomes. We chose to study, in a UK based population, the effect of a training intervention on patients living with rhinitis because it is one of the most common chronic conditions, affecting up to 30% of the UK population.<sup>6</sup> Rhinitis symptoms frequently result in significant morbidity and may adversely affect concentration,<sup>7</sup> reduce productivity, and impair learning ability in children and adolescents.<sup>8</sup> In addition, patients experience impairment in quality of life through systemic symptoms, sleep disturbance, practical problems, activity limitations and emotional problems.<sup>7</sup> The costs associated with lost work days due to rhinitis are also

significant; a recent American study showed that allergic rhinitis resulted in approximately 811,000 missed work days, 824,000 missed school days and 4,230,000 reduced activity days.<sup>9</sup>

The majority of patients with rhinitis can be managed successfully in primary care. A document aiming to provide a blueprint for better patient care and published by the Royal College of Physicians<sup>6</sup> in the UK recommends that ‘the front line for allergy management must be within primary care’, under clinical leadership from specialist centres. The report recommends improved access to postgraduate training as an essential prerequisite to improving allergy practice in primary care.

Therefore, we recently conducted a multi-centre community-based parallel group randomised trial of an educational intervention versus normal care, and assessed its impact on the care of patients with rhinitis by measuring quality of life outcomes.<sup>10</sup> Twenty family practitioners and nurses with no previous allergy training were recruited from 12 UK primary care practices. One hundred and fifty-seven patients received the intervention in accordance with the protocol (patients per protocol analysis, PPA). The training consisted of Education for Health’s Allergy Course for allied health care professionals and was delivered over a six-month period using a combination of a distance-learning package and three days of face-to-face instruction. The primary outcome measure was the change from baseline in the validated Rhino-conjunctivitis Quality of Life Questionnaire (RQLQ)<sup>11</sup> between the two groups at 13 months after randomisation i.e. six months after completion of the intervention. Effects on professional competence and confidence were measured (on completion of the training intervention and six months later). An overall evaluation of satisfaction with the allergy training module was completed.

The study showed significant improvements in RQLQ from baseline in the intervention group (baseline 2.03 vs. six months 1.8), but not in the control group (1.8 vs. 1.7; intervention vs. control  $p=0.08$ ). In the PPA, RQLQ scores improved significantly in the intervention group (2.0 vs. 1.8), but not in the control group (1.8 vs. 1.8; intervention vs. control  $p=0.05$ ). The number of patients needed to treat (NNT) for one patient to have

a clinically meaningful improvement (i.e.  $\geq 0.5$ ) was nine. Healthcare professional self-rated confidence and behaviours improved across a range of clinical indicators and over three-quarters were of the opinion that they had acquired new knowledge and skills.

Therefore, in this recently-published study, standardised allergy training was well evaluated by healthcare professionals and resulted in improvements in healthcare professionals' perceived confidence in managing allergic conditions. What is of greater significance is that there were improvements in disease-specific health-related quality of life in patients with perennial rhinitis.

## **Conclusion**

These findings make a substantial contribution to the scientific literature and they highlight the importance of continued investment in professional education. In today's climate of financial instability, and in a culture of evidence-based practice, it is important to show the clear benefits of healthcare professional education for both patients and health professionals. It is our intention to repeat this study in the US and it is our opinion that it would reap similar outcomes.

## **References**

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