

Unresolved questions in telephone consulting

Improving access to healthcare is a major priority for both patients and the UK National Health Service (NHS).¹ Increasingly and internationally, many traditional services once transacted face to face (e.g. banking and shopping) are transacted by telephone and electronically. Starting in the USA this trend has been mirrored in healthcare where in many countries the telephone has now often become the first point of contact.

While initially utilized in the UK mainly for advice out-of-hours both from general practitioners (GPs) and nurse-led services such as NHS 24 and NHS Direct, increasingly it has been used as a means of optimizing available resources for the management of in-hours work—particularly requests for same-day appointments, but with increasing enthusiasm and evidence for its use in other types of consultation such as chronic disease management.^{2,3} Despite the apparent opportunities in terms of access to care and potential cost and time savings,⁴ a recent randomized controlled trial of telephone triage⁵ reignited practitioner reservations about telephone consulting, including:

- whether GP workload is altered
- whether patients and practitioners perceive the telephone as an appropriate vehicle to conduct different types of consultation^{5,6}
- whether or not some groups who have difficulty using the telephone may be disadvantaged
- the impact on quality of care and opportunistic health interventions.⁵

Little is known about the content of telephone consultations used for different purposes (e.g. acute triage, follow-up consultations, chronic disease management) or the quality of the advice given by telephone in comparison with face-to-face consulting.⁷ Recent systematic reviews^{8,9} have shown that most studies comparing face-to-face consulting to telephone consultation have used purely observational methods. However, observational methods suffer from difficulty in eliminating systematic bias. While several of these studies have demonstrated that telephone consultations are briefer than face-to-face consulting,^{3,5,10} and may be cost effective⁴ the only controlled trial⁵ of day-time telephone triage by GPs demonstrated that patients

managed in this way were 50% more likely to re-consult within 2 weeks than those who had been seen face-to-face.

It is not clear why telephone consultations are briefer, i.e. if it is due to loss of physical examination time, discussion of fewer problems, less health promotion, less social speech or if it is achieved at the expense of patient-centredness or holistic care. There is a dearth of studies exploring the content of telephone consultations in relation to face-to-face consulting and measures of quality have largely been restricted to patient satisfaction outcomes either by questionnaire or qualitative interviews that are insensitive to clinical quality issues. In a recent pilot study of out-of-hours telephone consultations (Heaney D, personal communication 2005) clinical quality, while difficult to measure reliably, appeared worryingly poor.

With both telephone consulting and any future utilization of newer technologies there is the potential problem of inequity. While most patients have access to telephones, the most disadvantaged may only have access to expensive mobile devices. In addition, some minority groups such as those who are hard of hearing (43% of those over 70 years¹¹) and those who do not use English as a first language may be disadvantaged by systems that insist on the telephone being the first point of contact. However, the advantages to others, e.g. to the housebound, the geographically isolated and those whose jobs take them away during normal working hours, need also to be considered.

Currently, telephone consulting appears to be rather indiscriminately used for many very different problems, presentations and patient groups despite scant information on quality of care, patient acceptability and impact on workload. Particularly as this form of consultation appears to be increasingly used and in new ways it is important to establish for which types of consultation and problems and for which patients it is most appropriate. There is a need therefore for rigorous qualitative and trial research in this area.

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Brian McKinstry¹

Aziz Sheikh²

¹Chief Scientist Office Career Research Fellow, ²Professor of Primary Care Research, Community Health Sciences: General Practice Section, University of Edinburgh, 20 W Richmond Street, Edinburgh EH8 9DX, Scotland, UK
E-mail: brian.mckinstry@ed.ac.uk

REFERENCES

- 1 Fullop N, Allen P. *National Listening Exercise: A Report Of The Findings*. London: NCCSDO, 2000
- 2 Car J, Sheikh A. Telephone consultations. *BMJ* 2003;**326**:966–9
- 3 Pinnock H, Bawden R, Proctor S, *et al*. Accessibility, acceptability, and effectiveness in primary care of routine telephone review of asthma: pragmatic, randomised controlled trial. *BMJ* 2003;**326**:477–9
- 4 Pinnock H, McKenzie L, Price D, Sheikh A. Cost-effectiveness of telephone or surgery asthma reviews: economic analysis of a randomised controlled trial. *Br J Gen Pract* 2005;**55**:119–24
- 5 McKinstry B, Walker J, Campbell C, Heaney D, Wyke S. Telephone consultations to manage requests for same-day appointments: a randomised controlled trial in two practices. *Br J Gen Pract* 2002;**52**:306–10
- 6 Hallam L. Access to general practice and GPs by telephone: the patient's view. *Br J Gen Pract* 1993;**43**:331–5
- 7 Car J, Freeman GK, Partridge MR, Sheikh A. Improving quality and safety of telephone based delivery of care: teaching telephone consultation skills. *Qual Safety Health Care* 2004;**13**:2–3
- 8 Bunn F, Byrne G, Kendall S. Telephone consultation and triage: effects on health care use and patient satisfaction. *Cochrane Database Syst Rev* 2004;(4):CD004180
- 9 Stacey D, Noorani H, Fisher A, Robinson D, Joyce J, Pong R. *Telephone Triage Services: Systematic Review and Survey Of Canadian Call Centre programs*. Ottawa: Canadian Coordinating Office for Health Technology Assessment, 2003
- 10 Jiwa M, Mathers N, Campbell M. The effect of GP telephone triage on numbers seeking same-day appointments. *Br J Gen Pract* 2002;**52**:390–1
- 11 Royal National Institute for the Deaf. RNID: for deaf and hard of hearing people: statistics 2005 [www.rnid.org.uk/information_resources/aboutdeafness/statistics]

Shock absorbing insoles and lower limb injury

Achilles, the mythical Greek warrior who fought in the Trojan Wars, was supposedly immortalized by his mother, Thetis, as she dipped him in the river Styx. However, his invincibility had a flaw—his mother failed to dip the heel she held into the sacred waters. Thus, the heel that was not immersed in the river was Achilles' eventual downfall. An arrow was shot into the heel and he ultimately succumbed to the wound. Like Achilles, foot orthoses and shoe insoles have experienced an invincible run in the sports and exercise arena. However, the Achilles heel of orthoses is that they lack rigorous evaluation of their effectiveness in preventing or treating injuries.

The manufacture and supply of foot orthoses or insoles is a multi-million dollar industry. Prescriptions of these devices are made under the assumption that they realign the foot and leg or provide increased shock-absorption during activity. By doing so, it is believed that they reduce undesired stress or strain on bodily structures involved in standing and ambulation. The literature is abundant with poorly controlled studies and expert opinion on the benefits of orthoses.¹ However, there is little in the way of good quality randomized trials evaluating the effectiveness of such devices. It is pleasing, therefore, to see the inclusion of a high quality trial evaluating shoe insoles in this issue of the journal [see Withnall *et al.*, p. 32].

The randomized trial on page 32 by Withnall, Eastaugh and Freemantle evaluates the effectiveness of different types of shock absorbing insoles in reducing the rate of injuries in military recruits undergoing basic

training. Trials such as this are important given that the burden of musculoskeletal disease has been known for some time, but is not well represented in national health priorities.² Good quality randomized trials are paramount to advancing our understanding of prevention and treatment of musculoskeletal disorders. Without rigorous application of methodology and controls to clinical trials, we are, due to inherent bias, left uncertain of the validity of the results.^{3,4} Withnall *et al.* should be commended for undertaking their trial, which is one of the largest of its kind. They have answered a clinically worthwhile question that has the potential to be economically important as well. The findings of the study reveal that there are no differences between shock absorbing and non-shock absorbing insoles in reducing lower limb injuries during basic training for military recruits.

Interestingly, a number of other randomized trials have investigated the effectiveness of foot orthoses in reducing injury in military populations. The results of those that have evaluated shock absorbing insoles are equivocal; some found no benefit, while others observed a reduction in stress fractures in particular.^{5–8} Generally, however, these studies were not as well designed and controlled as the trial by Withnall, Eastaugh and Freemantle which provides a far superior level of evidence; that shock absorbing insoles do not reduce the rate of injury in military recruits.

Despite these findings, it remains to be seen whether different orthosis designs (e.g. more biomechanically-orientated devices) are more effective than simple shock absorbing insoles. Although generally of low quality, the randomized trials undertaken thus far^{9–11} suggest that biomechanically-orientated foot orthoses may reduce the incidence of injuries, specifically stress fractures and medial tibial stress syndrome (shin splints). However, further high

quality randomized trials, such as the one published in this issue of the journal, are needed to confirm these findings. Only then will the Achilles heel of orthotic therapy be somewhat addressed.

Karl B Landorf

Senior Lecturer and Research Coordinator, Department of Podiatry,
La Trobe University, Bundoora, Australia
Correspondence to: Dr Karl B Landorf
E-mail: k.landorf@latrobe.edu.au

REFERENCES

1 Landorf KB, Keenan A-M. Efficacy of foot orthoses: what does the literature tell us? *J Am Pod Med Assoc* 2000;**90**:149–58
 2 Woolf AD, Akesson K. Understanding the burden of musculoskeletal conditions. *BMJ* 2001;**322**:1079–80
 3 Landray MJ, Whitlock G. Evaluating treatment effects reliably. *BMJ* 2002;**325**:1372–3
 4 Schulz KF, Chalmers I, Hayes RJ, Altman DG. Empirical evidence of bias: dimensions of methodological quality associated with estimates of treatment effects in controlled trials. *J Am Med Assoc* 1995;**273**:408–12

5 Milgrom C, Giladi M, Kashtan H, *et al.* A prospective study of the effect of a shock-absorbing orthotic device on the incidence of stress fractures in military recruits. *Foot Ankle* 1985;**6**:101–4
 6 Gardner LJ, Dziados JE, Jones BH, *et al.* Prevention of lower extremity stress fractures: a controlled trial of a shock absorbant insole. *Am J Public Health* 1988;**78**:1563–7
 7 Sherman RA, Karstetter KW, May H, Woerman AL. Prevention of lower limb pain in soldiers using shock-absorbing orthotic inserts. *J Am Pod Med Assoc* 1996;**86**:117–22
 8 Schwellnus MP, Jordaan G, Noakes TD. Prevention of common overuse injuries by the use of shock absorbing insoles. A prospective study. *Am J Sports Med* 1990;**18**:636–41
 9 Finestone A, Giladi M, Elad H, *et al.* Prevention of stress fractures using custom biomechanical shoe orthoses. *Clin Orthopaedics Related Res* 1999;**360**:182–90
 10 Finestone A, Novack V, Farfel A, Berg A, Amir H, Milgrom C. A prospective study of the effect of foot orthoses composition and fabrication on comfort and the incidence of overuse injuries. *Foot Ankle Int* 2004;**25**:462–6
 11 Esterman A, Pilotto L. Foot shape and its effect on functioning in Royal Australian Air Force recruits. Part 2: pilot, randomized, controlled trial of orthotics in recruits with flat feet. *Military Med* 2005;**170**:629–33