

Expert Group Criteria for the recognition of healthy footwear

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ABSTRACT

Background

The importance of footwear design in the effective management of many foot disorders is broadly regarded as axiomatic within the podiatric literature, yet little work to date has focused on defining 'healthy' footwear, in respect of its component characteristics and fitting criteria.

Objectives

This paper reports on the first phase of a study designed to develop a set of nationally applicable criteria for the recognition of 'healthy' footwear.

Method

A consensus method was adopted, employing a nominal group technique with purposively sampled 'experts' from within the podiatry and footwear industry.

Results

Eleven criteria were identified, with high item agreement between footwear industry and clinical podiatry experts, ranging from suitable heel-block height to key features relating to toebox, lining surfaces and 'slip' (sole material and characteristics).

Conclusions

The national standard will be taken forward into phase 2 of the study, being applied to the current ranges of participating shoe retailers where the efficacy of an introduction to practice will be evaluated.

Keywords: Consensus, footwear, national criteria, nominal group technique.

INTRODUCTION

Footwear is likely to be regarded as an important consideration in the clinical management of many foot disorders, and the development of key criteria for the assessment of footwear by experts from the footwear industry together with expert podiatrists should enable the construction of a widely applicable tool in this evaluation.

The study reported in this paper is drawn from work conducted in the UK, and the findings have broad clinical relevance across clinical professions. An initial UK context to the study design is provided, although it is hoped the content will have wider, less ethnocentric, appeal.

Government funded podiatry provision in the UK: Emergent issues for the NHS

Podiatry has an exclusive focus on the treatment and prevention of foot health problems.¹ NHS podiatry services are in high and increasing demand. In 2000-2001, a total of 2.2 million people (i.e. 3.6% of the UK population) were treated by NHS podiatrists; 826,000 of these were new referrals, of which 59% were for older people.² These treatments were believed to have been provided by approximately 2000 podiatrists,³ representing a situation of high caseload numbers for individual podiatrists.

It has previously been noted that between 50% and 90% of the elderly population demonstrate a foot problem,³⁻⁶ representing a considerable distance from the 3.6% of the total population

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receiving NHS-based podiatry treatment. This situation of high demand has been compounded by a reported recruitment crisis in podiatry⁷ and service cutbacks, where commissioning bodies have questioned the value of podiatry provision to low-risk patient groups with resultant losses in service funding.⁸⁻¹¹ While research has indicated that services and costing problems have resulted in such cases of reduced funding,¹¹ the replacement of lost funding is problematic. Through the presence of such issues, podiatry services across the UK have been experiencing major waiting list problems, with the need to consider new approaches to the management and prioritisation of services. The gap between provision and demand in podiatry is considered to be too large to address with the current model of care, and new approaches to demand management are being sought, with an emphasis on education and greater patient participation in self-care.

It has been suggested that the NHS has encouraged passive receipt of healthcare rather than active participation in it, leading to a heavy workload burden for health services.¹² Clinical staff have now begun to change their focus from one of simply 'treating' patients, to one that still provides treatment if indicated, but now actively involves patients and their carers as participants in the care programme.¹² Such participation may include full responsibility for management of a condition if simple and non-threatening, or simply some active involvement in the programme of care. This necessitates a shift in approach to health care on the part of both patients and professionals, with a strong emphasis on prevention and education, which is considered the cornerstone of changing health behaviour. It is anticipated that this role will continue to widen, with clinicians developing a more facilitative role in the delivery of health care.¹³

Within NHS-based podiatry, new approaches have utilised the use of risk scoring, with those patients who are deemed to be of low risk simply being discharged or denied access to NHS-provided podiatry care. In the past, priority for care was given to the elderly,¹⁴ whereas recent trends have resulted in a growing emphasis on self-care for elderly patient groups whilst service priorities have focused elsewhere.

Perspectives on the role of footwear in foot health

It has been established that patients do not currently cope well with their own foot care on discharge,¹⁵ and it has been suggested that problems arising as a result of the need to self-care^{11, 15} may be related to patient discharge without the provision of accompanying supportive education and advice. While there is no question that many patients who have been treated by podiatry services could self-care,^{5,6,16} the provision of advice and training may be essential on discharge to prevent resultant problems.

Within podiatry, it is believed that footwear can have a profound influence on the foot, and that this influence can be good or bad, depending on whether the footwear is appropriate for the individual. This belief has been strengthened in recent years by various research studies that have highlighted the effects of external influences on the functioning foot and have demonstrated that problems related to such influences are likely to be preventable.^{3,17-20}

Where serious medical conditions are present, the role of healthy footwear becomes even more important. While ill-fitting footwear may cause superficial yet painful problems, such as corns and callus in the healthy population, more serious problems, including foot ulceration, can arise in the at-risk population. Figures from 1999 show that approximately 2% of the UK population may have been suffering from diabetes mellitus – one of the commonly encountered conditions that may put the foot at risk.²¹ Diabetes is, however, increasingly prevalent. Foot ulceration affects approximately 15% of diabetic patients,²² and 15-20% of foot ulceration results in lower extremity amputation.²² Where foot ulceration has previously occurred, amputation of part of the

contralateral limb occurs in 50% of patients within two to five years.²³ At an approximate cost of £20,000 per amputation, logic dictates that a reduction of avoidable foot ulceration through footwear improvement would result in significant gains in terms of improved health economics and reduction in human misery.

This also suggests that footwear education might fruitfully be regarded as a fundamental element of patient empowerment, as the public becomes more involved in its own care. Anecdotally, however, patients find problems in selecting footwear appropriate to their foot health needs. Similarly, podiatrists may experience repeated problems when patients attempt to purchase 'healthy' footwear whilst acting on professional advice. Much of the information may be 'lost in translation', and inappropriate footwear may again be purchased, with little or no improvement in the patient's personal foot health.

In order to truly empower patients to become meaningfully involved in their own foot care, it is likely to be necessary to provide knowledge, education, and information to enable them to make informed choices of self-care. In relation to footwear, which is believed to be fundamental to foot health, benefit should be derived from providing assistance in the purchasing of suitable footwear, thereby enabling patients to recognise footwear broadly suitable to the maintenance or improvement of foot health and that which should be avoided as being potentially detrimental.

Proposal for National UK criteria for the recognition of healthy footwear

Basis for the proposed criteria

The Sheffield Podiatry Service produced a local standard for footwear in 2002. The purpose of this standard was to assist patients in footwear purchase, through the use of a symbol of recognition. In producing this, local podiatrists considered design-specific shoe-fitting factors that would be sought within healthy footwear items. Local shoe retailers were contacted to seek involvement, and those interested in participation agreed to give podiatrists access to their current footwear range. As a result, healthy footwear items that met the required criteria were identified, given a symbol of recognition (a logo) marked in the shoe catalogues, and made available at NHS podiatry clinics for patient information.

The Sheffield scheme is popular with staff and patients, and an evaluation is currently being planned that is expected to demonstrate tangible benefits associated with the scheme. This has, however, been a small-scale local initiative, operated without additional funding and with limited marketing support. It has also been an in-house system that has operated with minimal manufacturing industry input or support.

It was therefore suggested that the development of national UK-wide criteria, which could be used to define and compare footwear in terms of their status in relation to health, could be of greater value in terms of wider patient benefit and also in the improved potential for development, ownership, marketing and recognition for the manufacturers. It was believed that the criteria produced should be simple, should cover the most important aspects of design from a shoe-fitting perspective, and should be instantly recognisable by members of the public as signifying well-designed footwear, approved from a foot health perspective.

Benefits associated with the development of national UK criteria for the recognition of healthy footwear

Assuming a speculative and pragmatic approach, a wide range of benefits might be anticipated from the proposed national scheme:

- Potential contribution to patient foot-health improvement.
- Improved podiatry outcomes.
- Health economic savings to the NHS.
- Improved publicity and marketing of well-designed footwear.
- Improved sales of footwear designed well from a foot health perspective.
- Consolidation of the market position of footwear companies participating in the scheme.
- Improved understanding between podiatry professionals and the retail and manufacturing sectors through the joint working potential.
- National involvement of the major retail footwear manufacturers and retailers in the scheme.

Joint working requirement

It was suggested that in order for the national scheme to progress, with full ownership from all involved, the approach employed must expand to adopt joint working between the footwear industry and NHS-based podiatrists and other clinicians with footwear interest.

METHOD

The approach to developing and implementing national criteria to aid patient and clinician recognition of healthy footwear could be appropriately undertaken in three distinct phases:

Phase 1: Development of the National criteria for the recognition of healthy footwear.

Phase 2: National implementation of the criteria.

Phase 3: Monitoring and evaluation of the criteria, with subsequent revision as required.

In this paper, the Phase 1 activity, surrounding the development of national criteria for the recognition of healthy footwear is reported.

Phase 1. Initial work – Nominal Group Technique (podiatrists and footwear industry experts)

The requirement of phase 1 was to develop national healthy footwear criteria, with ownership from the main stakeholders - clinicians and footwear industry representatives. It was suggested that the Nominal Group consensus approach would be appropriate for this stage of the work, being capable of efficiently producing the standards required and in doing so, gaining ownership from the parties involved.

The Nominal Group Technique

Consensus methods are typically used to investigate complex problems, such as those commonly encountered in health care, as indicated within the review published in 1998 by the Health Technology Assessment NHS Research and Development Health Technology Assessment Programme demonstrating their use in clinical guideline development.²⁴ Their underlying purpose is to determine the extent to which expert groups agree over a given issue. While a range of consensus methods exists, two techniques predominate, namely the Delphi and the Nominal Group techniques.

Of these two techniques, the Nominal Group approach was considered to be the more suitable to the task of considering National criteria for the recognition of healthy footwear. Devised by Delbecq and Van de Ven²⁵ for committee decision making, the Nominal Group Technique uses a group of experts in a structured

meeting situation to consider a given issue. Between 9 and 12 experts are commonly involved^{24,26-29} and the meeting is facilitated by a credible individual who may, or may not be an expert in the area in question. The group interaction is structured tightly in the form of two rounds, with discussion taking place between the rounds. The approach is as follows:

- Each participant independently records their ideas or views on the issue in question.
- These comments are collected by a group facilitator, who will categorise these suggestions and present the views back to the group.
- The comments are discussed one by one by the group, to clarify or consider the value of each point.
- Each idea is privately ranked or voted for by the participants.
- The results of this process are collated and presented again to the participants.
- Further discussion and ranking then takes place for a final position.

The Nominal Group Technique is usually performed in one day, and offers a reasonably robust output with rapid data collation enabling speedy conclusions. This technique was therefore suggested to be the approach of choice for this exercise. The question to be considered in the project was 'What components should be included within national criteria for the recognition of healthy footwear, which could be used to assist members of the public in the purchase of 'healthy' footwear?'

Operation of the Nominal Group Technique

The following approach was considered to be appropriate for the required task.

Expert selection

The Nominal Group Technique involves the use of expert panels, and recruitment to an expert group was required for this one-day event. In previous consensus studies, many different and equally justifiable criteria have been used in the process of expert panel selection,³⁰⁻³³ which is often focused on homogenous group involvement. It was suggested that, in this case, the desired expert homogeneity could be achieved by considering those with an informed knowledge of shoe fitting, whether from a clinical or manufacturing/retail shoe-fitting perspective. Such a group could consist of experienced clinicians with a defined expertise in

CLINICAL EXPERT PARTICIPANTS

(any two of the following criteria)

- 10 years' podiatry/orthotic experience
- Society of Shoe Fitters Qualification
- Shoe fitting workshop attendance
- Research/publication record on footwear
- Industry experience

FOOTWEAR INDUSTRY EXPERT PARTICIPANTS

(any two of the following criteria)

- 10 years experience of shoe fitting
- 10 years experience of working in the footwear manufacturing industry
- Society of Shoe Fitters Qualification
- Research/publication record on shoe fitting
- Clinical background

Table 1. Criteria for Nominal Group Expert Panel for National Footwear Standard.

| Prioritised Themes | First vote Score (%) | Final vote Score (%) |
|----------------------------------------------------------------------|-------------------------|-------------------------|
| Toe box allows normal foot function for the individual | 98.6 | 98.6 |
| Adequate width and depth achievable for wearer's foot function | 94.3 | 98.6 |
| Sole does not interfere with normal foot function | 95.7 | 97.1 |
| Softness and flexibility of upper and lining surfaces of shoe | 91.4 | 94.3 |
| Stable heel of suitable block height of approximately 25mm | 91.4 | 92.9 |
| In-shoe climate that promotes a healthy environment within the shoe | 81.4 | 90 |
| Shoe provides reasonable cossetting of vulnerable areas of the foot. | 84.3 | 88.6 |
| Shoe retains its fitness for purpose for a reasonable period of time | 88.6 | 88.6 |
| Shoe must not noticeably slip on the foot | 82.9 | 87.1 |
| Availability of product advice and support | 88.6 | 84.3 |
| Outsole grip meets SATRA standards | 78.6 | 78.6 |
| <i>Sole should resist excessive mid-foot twisting*</i> | 64.3 | 67.1 |
| <i>Removable footbed*</i> | 58.6 | 45.7 |

Italicised items marked * were rejected by group consensus and do not form part of the standard.

Table 2: Criteria for the recognition of healthy footwear.

footwear alongside experienced manufacturing/retail shoe-fitting participants, all of whom would meet pre-defined expert criteria (Table 1). In line with common practice in the performance of Nominal Group exercises, 12 suitable experts were invited to attend the event.

Consensus level to be sought

The consensus sought for the defined healthy footwear criteria was chosen to reflect the agreement level used in previous consensus exercises of 70% or greater.³⁴ In this case, on conclusion of the exercise, 70% or greater agreement reached for a particular statement would constitute an agreed criterion, which, in conjunction with the other agreed statements, would define the type of footwear characteristics considered to be 'healthy' for use in future patient advice and assessment purposes.

The process

Invitations to the day event were distributed to the proposed expert panel. An independent, experienced, non-participating facilitator was appointed for the event. The day commenced with a presentation to participants on the purpose of the exercise, the context within which the event would occur, and the remit for the attendant expert group.

The project facilitator then introduced the participants to the Nominal Group Technique and the format of the process to be followed during the day, which was as follows:

- Initial consideration by participants of suggested criteria for the footwear standard.
- Feedback with discussion. Each suggestion is discussed by the participants in terms of the item's importance to a national footwear standard.
- An initial vote takes place. Each participant scores each item using a scale of 0 to 10.
- The scores are presented statistically to participants, with pre-determined scores of 70% of the maximum possible score being suggested to represent the agreed draft criteria.
- Further discussion takes place on these draft criteria.
- Final scoring is required from the participants. Final scores of 70% or more of the maximum possible score for each item represents an agreed criterion.
- The final results are presented to delegates.

FINDINGS

Of the 12 invited experts, who had confirmed their attendance, five were unable to attend on the day due to various circumstances. For the remaining seven experts (three clinicians and four footwear industry representatives), the day proceeded as planned although it was noted at an early stage of the proceedings that the matters under consideration were dealt with at a deeper level than initially anticipated.

An example of this point was in the consideration of the commonly stated beliefs that healthy footwear should demonstrate a broad toe box and fastening device (e.g. strap, lace, or buckle), all of which arose during the first phase of the day when initial ideas for the recognition of healthy footwear were stated. The group considered instead the reasons why these recommendations were being made. During the ensuing debate, it was suggested that the broad toe-box recommendation, so often asserted, actually related to the specific need for a toe box to allow normal foot function for the individual wearer of the shoe. Similarly, it was agreed that the purpose of a fastening device was to prevent the shoe from noticeably slipping on the foot.

All suggestions made were similarly collated and summarised. It is suggested that this development reflected both the high level of expertise present at the event and the multidisciplinary nature of the panel, covering as it did, manufacturing/retail and clinical areas of expertise.

Thirteen separate themed headings were produced in the first part of the event for consideration and scoring by the participants (Table 2). Debate took place prior to the vote in relation to one of the suggested criteria, which appeared poised for rejection, namely that 'the sole should demonstrate reasonable instep stiffness'. Participating supporters of this item believed that this would be an important factor to include because of its perceived relevance in relation to optimal function. Those who rejected this point accepted that this factor may be specifically valuable for some individuals, but considered that this did not warrant inclusion in a list of more general healthy footwear standards. Others rejected the suggestion on the grounds that they did not believe that the evidence was present to justify inclusion at this stage, although accepted that this may change in the future in the light of improved understanding.

The initial first round vote appeared to provide consensual support for all but two of the themes identified, including the

theme reported above, indicating that the supporters of this item had not convinced the other experts present to the degree required (Table 2).

In line with the usual Nominal Group approaches, the collated results were then presented to participants for final comment and debate. At this stage, the resultant debate vigorously focused on the 'sole should demonstrate reasonable instep stiffness' theme, again with opposing arguments being presented for inclusion and rejection. In addition, there was some debate around the inclusion of the Shoe and Allied Trade Association (SATRA) standards for outsole grip, in terms of the possible legal implications of including this defined standard for the national recognition of healthy footwear. Following these additional discussions, final scoring by the participants took place for each healthy footwear criterion under consideration.

Collated results demonstrated minimal change from that of the previous round, with no change in order, agreed criteria at a level of 70% or more and criteria that had been rejected in the previous round (Table 2). In the operation of consensus techniques, it is known that the more robust agreements produced are those that have been accompanied by minimal or steady monotonic change.³⁵ The very minimal change that took place therefore suggests robust consensus, and again it is suggested that this was a reflection of the level of expertise represented on the panel. The agreements produced are considered below:

Toe box allows normal foot function for the individual

This statement was one of the two highest scoring criteria in the consideration of healthy footwear, achieving 98.6% of the maximum score possible from the participants. Various aspects of the toe box were discussed, including the correct terminology to be used for this aspect of the shoe, with all participants agreeing that the term 'toe box' was acceptable, widely understood and appropriate. It was agreed an absence of restriction caused through style extremes was essential in 'healthy footwear', and that this again would need to be judged individually as the toe box shape category and the shape of the contained foot may easily be mismatched (e.g. a broad toe box would not necessarily be appropriate for an individual with a long, narrow, pointed forefoot).

Adequate width and depth achievable for wearer's foot function

One of the more obvious criteria selected and agreed by the participants was that of the footwear having adequate width and depth for the wearer's foot function, and again achieved 98.6% of the maximum score possible. It was noted that this would need to be assessed according to an individual's own situation and that this assessment would require some level of expertise – either from clinician or shoe-fitter. There is the inherent implication in this criterion that shoes should be properly fitted on purchase, with the foot being measured for both length and width and at the same time, with consideration being given by the fitter/assessor to the available depth within the shoe for a foot of the length under consideration.

Sole does not interfere with normal foot function

The sole unit of footwear has been previously linked to falls in the wearer, when manufactured to a thicker specification, or where the materials involved are of an exceptionally stiff nature.^{18,36,37} Conversely, case studies have reported that exceptionally flexible sole units can lead to foot problems through the lack of support offered. The stated criterion considered that the issue here was that the sole should not interfere with normal foot function, irre-

spective of whether that interference was a consequence of excessive hardness, or as a result of lack of structural integrity through offering inadequate support for the wearer.

Softness and flexibility of upper and lining surfaces of shoe

Agreement was made that the shoe upper and lining surfaces should be both soft and flexible. This was not only to allow comfort, conformity and freedom from abrasive surfaces, but to also prevent interference with normal function through the presence of hard materials, the formation of hard restrictive crease marks across the upper and the like.

Stable heel of suitable block height of approximately 25mm

Initial suggestions made by participants in relation to 'healthy considerations' in the heel unit included reference to the need for the heel to be of moderate height in relation to the forefoot aspects of the shoe and for the heel unit to be stable. These factors were asserted in relation to the avoidance of forefoot overload during wear, Achilles tendon shortening with long-term wearing of high heels, and problems caused through inherently unstable heels such as those incorporated in the stiletto style of heel. The participants agreed that these factors could be combined into a single statement covering both stability and height, which were seen as of equal importance. The term block height has meaning to the shoe designers/manufacturers and was incorporated as a term, which would avoid any ambiguity in interpretation during the manufacturing process.

In-shoe climate that promotes a healthy environment within the shoe

There was very early agreement from both clinicians and manufacturers/retailers during the process that the materials of manufacture were important in relation to foot health. Early suggestions had been that footwear should be made of leather, which has properties of particular value in this respect, but the presence of new viable alternatives was also noted. As in other criteria, the reason given for the requirement for shoe manufacture in leather was related to the need for a healthy in-shoe climate to be available for the wearer, hence the wording chosen. This criterion will allow assessment of the shoe in terms of whether it has been manufactured from known acceptable materials, while still allowing the flexibility to consider future developments in this area.

Shoe provides reasonable cossetting of vulnerable areas of the foot

Wide ranging discussion took place during the event in relation to the internal foot/shoe interface and possible factors that should be considered in determining whether that interface could be considered to be 'healthy'. Issues suggested prior to the debate included the need for an absence of seams, which could be troublesome to the contained foot; the potential for the shoe to accommodate minor deformities of the contained foot; and the need for the shoe to engender a feeling of comfort when worn.

Shoe retains its fitness for purpose for a reasonable period of time

In producing consensus in relation to this statement, it was noted that footwear can have many different functions and that, whatever that function is, there must be fitness for purpose. In this

sense, the need, for example, for the foot to remain dry (through the wearing of a waterproof boot), sports or activity-enabled (through the use of climbing or motor-bike boots etc) or safe (through the use of safety footwear) is encompassed by the criterion. The need for the footwear to be capable of acceptable longevity, and be resistant to excessive wear or damage, is also captured here and has importance, not only in terms of economics, but also through reducing potential for detriment to the foot through the effects of excessive wear or other damage at an early stage of the shoe's life.

Shoe must not noticeably slip on the foot

This factor reflected the recommendations frequently made by clinical professionals and noted consistently in advisory literature offered for public consumption in which shoes with a fastening device such as a strap, lace or buckle are advocated. Prior to the agreement that shoes should not noticeably slip on the foot, it was noted that this was the purpose of the fastening device, which in turn should prevent problems related to shearing stress within the shoe and slippage of the shoe on the foot, which may in turn create greater risk of falls in vulnerable individuals.

Availability of product advice and support

It was noted that different manufacturers exhibited different standards in relation to product advice and support. These differences included the availability of supportive literature about the relevant footwear items, the information present within that literature (e.g. in relation to design consideration, manufacturing standards met by the product, populations for whom the item would be most suitable etc) and also differences in relation to shoe-fitter advice and support at the point of purchase. It was noted that these factors can be extremely important for the consumer, when attempting to purchase footwear suitable for their individual requirements, and could ensure that footwear of the correct size, type, style and purpose can be obtained by the purchaser.

Outsole grip meets SATRA standards

The Shoe and Allied Trade Research Association (SATRA) has developed a testing standard for outsole slip resistance in footwear.³⁸ While this standard requires the use of specialised and calibrated testing equipment to confirm it has been met, this criterion could be considered by the working clinician in one of two ways:

1. Some footwear manufacturers note that a product has conformed to this standard in their advertising literature[∞] and this could be used as verification.
2. SATRA has produced guidelines for slip-resistant outsole design, which are likely to be an achievable standard in examined footwear. These guidelines include the following:
 - Sole should have a raised tread pattern on heel and sole with a leading edge in many directions. In other words, a crosshatch, or similar, design.
 - Tread pattern should extend over whole sole and heel area.
 - Sole should have a flat, flexible bottom construction. Consider a low-density midsole that conforms to the ground and maximises contact area.
 - A square heel breast (acts as leading edge) is recommended as opposed to a rounded edge. Consider a wedge sole for indoor occupational footwear: catering, hospitals, and sports footwear.

- Other researchers recommend a microcellular shoe-sole material so that a rough sole surface exists even when worn.³⁹
- Selection of slip-resistant footwear materials should consider the floor material and surface conditions expected in the job.^{40,41}

DISCUSSION

All present at the Nominal Group event were satisfied with the item agreement from both manufacturing/retail and clinical perspectives. The remaining task will now be to take the standard forward on a national basis through the planned Phase 2.

Here, the intention will be for the standard to be applied to appropriate footwear within the current ranges of shoe retailers, to ensure that the public are informed and aware of the scheme and for podiatrists to use the scheme when considering shoe-fitting requirements of their patients. This implementation phase will inevitably require consideration of the following:

- Communication of the criteria to consumers, manufacturing/retail and clinical sectors alike.
- Promotion as criteria – rather than as a standard in order to gain acceptance.
- Encourage footwear brands to aspire to the criteria as opposed to expecting immediate compliance, which is likely to be unattainable.
- Set some specific requirements footwear brands would have to achieve in relation to product, size/fit availability and service or advice expected.
- Manufacturers should be authorised to submit a list of products that meet the criteria along with a photograph of these products to a monitoring panel.
- The initiative will need some form of 'policing', which could be achieved through the implementation of a monitoring panel. The monitoring panel should be granted powers to request random samples and the specification of any of the submitted products. It is suggested that those involved in the original expert panel may initially be invited for participation in this group having already met the criteria for expertise in this field.
- A 'Users Guide' to buying good footwear would be essential from the consumers' perspective.
- The information contained within the 'Users Guide' would need to be shared with staff in shops who directly sell the shoes that meet the criteria.
- As orthoses bring about more specialised considerations, a guide to aid the fitting of shoes where orthoses are required as supplementary information to assist in the application of the criteria under these more complex circumstances would be required.

CONCLUSIONS

Utilising a nominal group technique consensus method, it has been possible to devise a national standard for the recognition of healthy footwear. It is hoped that the production of these standards will enable their initiation and incorporation into practice.

CONFLICT OF INTEREST STATEMENT

All the co-authors wish to state that there are no personal or financial relationships with other people or organisations that have influenced the production or outcome of this work. The role each author played was in the capacity as either purposively selected

[∞] www.ukdistributors.co.uk, sampled 20th March 2005

'expert' or as facilitator for the nominal group technique. Participants in the expert forum were invited to become authors by the two lead authors, Professor Vernon and Dr Borthwick, in recognition of their contribution.

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