

Footwear choices for painful feet

HR Branthwaite^{1*}, S Grogan², N Chockalingam¹

Abstract

Introduction

Footwear has been identified as a key component in the aetiology of foot pain in the general public. Females appear to suffer more than males with the forefoot being the highest reported location of footwear related pain. Choices of footwear styles in young healthy females are led by comfort and activity, but it is not clear as to what footwear choices are made by women who suffer from foot pain.

Method

Two focus groups were conducted with three women who suffered with foot pain aged 40-59 years, and four women aged 60-80 years, regarding the choices made when buying footwear. Discussions focused around type of shoe purchased and the choices made when purchasing that shoe. Data were analysed using thematic analysis.

Results

Themes generated included style, brand, emotions, available choices and restrictions when buying shoes. While the older group chose shoes for comfort and fit, the younger group were more influenced by fashion and matching to dress choice. Colour was important to both groups and a key factor when buying new shoes. Foot pathology was the main restriction in buying desirable shoes in the older group.

Conclusion

As women age, the choices made for fashionable footwear may be overridden by the need to fit a shoe to existing foot pathology. Older women may be willing to alter the style of shoes to accommodate problems and ensure comfort. However, younger females with foot pain may wear fashionable shoes even if they cause discomfort.

Introduction

Footwear has been identified as a contributory factor in the development of foot pain. Females are more prone to footwear related pain than males with the width of the forefoot being significant in the development of pathology¹. The style of the shoe worn can increase the incidence of foot pain and also increase the risk of an older person falling². The design, structure and style of the shoe may contribute to the onset of foot pain. While, a low heeled shoe with reduced arch support is shown to increase the onset of plantar fascial pain³. A stiletto heeled shoe can

alter the posture of the spine and be significant in lower back pain⁴. Choosing the right shoe often proves difficult for many individuals and it is not uncommon for elderly people to wear shoes that are ill fitting⁵.

Alterations in footwear design and structure have been shown to improve foot pain with a broader toe box reducing impingement on the toes⁶. A thicker sole unit made from EVA or PU at the forefoot has been identified as important in reducing forefoot pressure as well as lower back and foot pain⁷. Footwear choices made earlier in life could reduce the incidence of footwear related pathologies occurring during the aging process. Although, footwear choices in younger females are determined by comfort and activity, colour and style are considered as important too⁸. Footwear choice for patients with foot pain is limited and often women have a perception of lower quality of life due to the image of the shoes they are forced to wear⁹.

The aim of this focus group study, therefore, was to investigate what footwear choices females with existing foot pain made and identify any influential factors in these decisions.

Materials and Methods

To identify what footwear choices were made by females who suffered from foot pain, 2 focus groups were designed to gain opinion and discussion. The two groups were generated from female patients attending a podiatry clinic in the UK for treatment of foot pain. The groups were separated by age 40-59 years (n=3) and 60-80 (n=4). All participants consented to take part in the group and understood the aim of the project, which received ethical approval from the university ethics committee. Diagnosed foot pathologies across both groups included; ruptured Achilles tendon, hallux aducto varus, mортons neuroma, intermetatarsal bursitis, mechanical callus from shearing stress, neuritis and plantar fascial pain.

The main questions aimed at the two groups to generate discussion were focused on the style of shoe purchased, the type of shoes that were favored and the thoughts that participants had when buying shoes. Data were analysed using thematic analysis¹⁰. The themes generated from these discussions included; footwear style and design, retailers and brands of shoes, emotions felt when buying shoes, choices of shoes available, decisions made and restrictions faced when buying shoes. Figure 1 indicates the style of shoe chosen by the 2 groups and identifies the reasons for choice.

Results

The older women reported that they chose footwear on comfort and what they knew fitted the foot considering existing pathology. The younger group, however, was

*Corresponding author

Email: h.r.branthwaite@staffs.ac.uk

¹ Centre for Sport Health Exercise Research, Staffordshire University, Stoke on Trent UK

² Department of Psychology, Manchester Metropolitan University, Manchester UK.

influenced more by fashion, image and colour and did not consider the comfort of the shoe to be as important although, they would not wear an uncomfortable shoe for very long. Both groups preferred to have a heel on the shoe than to have a flat shoe. The older group sourced suitable retail outlets that they remained loyal to and would stick to buying from that retailer as the shoes on offer worked for them. The younger group had different opinions and would buy shoes from independent retailers, fashion shops and outlets that had desirable shoes. Both groups found buying new shoes stressful and not an enjoyable experience with many restrictions in place in buying a suitable shoe. Problems encountered when buying shoes by the younger group included; toe box shape (a round toe was required to stop pressure on toes), heel height (very flat shoes causing pain and discomfort), width of shoes (accommodating foot size and joint deformities) and sizing (lack of choice in some retailers for smaller and bigger feet) The older group encountered similar restrictions when buying shoes but also felt that the choice on offer in high street stores was limited to accommodate foot deformities and insole therapy that helped with pain.

Discussion

Footwear choice varied between the two groups studied depending on age and acceptance of foot pain. Older

women have a greater understanding and acceptance of the impact footwear had on foot pain and was most influenced by comfort and the prognosis of foot pain when purchasing shoes. The younger group of females was influenced more by image perception and choosing a shoe to avoid looking "too old". The shoe was perceived as a part of the outfit that had been chosen, rather than a functional item to help with the foot pathology.

The role of image when purchasing shoes has previously been identified as important to women who have been prescribed shoes for orthopaedic deformities. The prescribed shoes are often discarded as they are perceived as too ugly¹¹. Image has also been highlighted as an important factor for clinicians to consider when distributing footwear advice¹², although the concept of footwear being part of a person's image rather than part of the foot treatment plan appears to pose a barrier between patient and health professional leading to noncompliance and poor outcomes. Neither focus group considered any mechanical shoe properties that may be of help to the foot pathology when purchasing footwear. It was clear that there was limited understanding regarding the influence sole material and upper construction may have on foot pain. Both groups however did identify that a lower flat shoe was less comfortable, and a small heel was desired from most participants.









Footwear style	Age Group 40-59 Reason for Choice	Age Group 60-80 Reason for Choice
	Wear for occasion or every day. Heel makes you feel elegant	Would never wear. Too unstable.
	Easy to slip on Go with jeans – love red colour.	Needs a fastening. Red shoes attract to the feet not good as highlights deformities.
	Go with all outfits. Cannot walk far in them. Blue colour is great Soft material is comfortable.	Fall off the foot not comfortable need a fastening. Heel too flat.
	Not desirable what older people wear. Strap is frumpy.	Wear lots of shoes like this. Very comfortable and fit in insoles. Different colours and heel wedge heights.
	Love purple and go well with straight leg jeans. Flatness can hurt your foot.	Too flat would prefer a trainer. Only for walking a distance.
	Not stylish. Old fashioned.	Very comfortable. Keep feet cool.
	Would prefer the high heel. Style is Frumpy.	Wear for weddings and occasions. Do not feel that they are comfortable.
	Great for the winter. Love the small heel very comfortable.	Would not get foot in as there is no fastening need an opening. Small heel is suitable.

Figure 1: Footwear choices for painful feet.

Licensee OAPL (UK) 2014. Creative Commons Attribution License (CC-BY)

FOR CITATION PURPOSES: Branthwaite H, Grogan S, Chockalingam N. Footwear choices for painful feet. OA Musculoskeletal Medicine 2014 Aug 17;2(2):16.

Both groups echoed the thoughts reported on limited choice of retail footwear and the number of restrictions faced when buying suitable shoes⁹. A broader range of footwear available on the high street that accommodates foot deformities and does not compromise image would improve the foot health of women. As women age the acceptance of ignoring style and image in order to be comfortable increases. The desire to be fashionable is still present and older females are still influenced by design and colour when purchasing shoes. Younger women may still be happy to feel uncomfortable in order to portray a certain image.

This small study supports previous work around the difficulties experienced when buying shoes^{9,11} and supports the need for retailers to invest in stylish comfortable footwear that accommodates the painful foot. Further work on high street footwear is required to expand our understanding of choices made when purchasing shoes to enable appropriate footwear advice to be given to improve footwear related foot pain.

References

1. Paiva de Castro A, Rebelatto JR, & Aurichio TR. The relationship between foot pain, anthropometric variables and footwear among older people. *Applied Ergonomics*. 2010 41(1), 93-97.
2. Mickle KJ, Munro B and Steele J Is foot pain influenced by shoe wearing habits in older people? *Footwear Science*. 2011 3, S106-S108.
3. Buchbinder R. Plantar fasciitis. *New England Journal of Medicine*. 2004 350(21), 2159-2166.
4. Lee CM, Jeong EH & Freivalds A. Biomechanical effects of wearing high-heeled shoes. *International Journal of Industrial Ergonomics*. 2001 28(6), 321-326.
5. Munro BJ, Steele JR: Household-shoe wearing and purchasing habits – a survey of people aged 65 years and older. *J Am Podiatr Med Assoc* 1999, 89:506-514.
6. Frey C, Thompson F, Smith J, Sanders M & Horstman, H. American Orthopaedic Foot and Ankle Society women's shoe survey. *Foot & Ankle International*. 1993 14(2), 78-81.
7. Chiu MC & Wang MJJ. Professional footwear evaluation for clinical nurses. *Applied Ergonomics*. 2007 38(2), 133-141.
8. Branthwaite HR, Chockalingam N, Jones M, Grogan S. Footwear choices made by young women and their potential impact on foot health. *Journal of Health Psychology* 2012 27(11): 1-10.
9. Naidoo S, Anderson S, Mills J, Parsons S, Breeden S, Bevan E, Edwards C, Otter S. "I could cry, the amount of shoes I can't get into": A qualitative exploration of the factors that influence retail footwear selection in women with rheumatoid arthritis. *J Foot Ankle Res*. 2011 Jul 27;4:21. doi: 10.1186/1757-1146-4-21.
10. Braun V and Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006 3, 77-101.

11. Williams AE, Nester CJ, Ravey MI. Rheumatoid arthritis patients' experiences of wearing therapeutic footwear - a qualitative investigation. *BMC Musculoskelet Disord*. 2007 Nov 1;8:104.

12. Williams AE, Rome K, Nester CJ. A clinical trial of specialist footwear for patients with rheumatoid arthritis. *Rheumatology*. 2007 46, 302-30.