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How do podiatrists who work in MSK/Biomechanics interpret evidence and use this evidence in clinical practice?

Initial Findings

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How do podiatrists interpret research evidence?



- Background
 - Expansion of the profession
 - Evidence in MSK/biomechanics
 - Clinical expertise
- Methods
 - Data Collection
 - Data Analysis
- Theoretical framework
 - Hermeneutics
- Initial Findings

• **Conclusions**
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Background – Expansion of Podiatry as a profession

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- During the past 30 years expanded into to the treatment of MSK conditions with functional orthoses
- This development is based on theories developed by podiatrists themselves
- In UK to advantage of changes in the NHS in the 1990's to develop the profession and encroach on the boundaries with other professions (Borthwick 1999 & 2000)

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Background – Evidence in MSK/biomechanics



- Area of great debate
- No clear evidence
- Research evidence
 - Limited evidence to show that orthoses are an effective treatment
 - The notion persists that there is little or no evidence in this area (Chevalier & Chocklingham 2012)
- Research for biomechanics theories
 - Podiatric biomechanics theories are unproven or discredited
- Patient Satisfaction
 - 65-80% of patients believe they are an effective treatment

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Background – How do practitioners interpret evidence?

- Research utilisation
 - Looks at the amount of research used in practice (Squires et al 2011)
- Knowledge transfer
 - How research is used in practice and its effects on outcomes (Menon et al 2009, Pentland et al 2011)
- Evidence for practice is complex
 - Made up of research evidence, clinical experience, local information and circumstances and patient experience and preferences (Rycroft-Malone et al 2004)
 - Research evidence can only be used in conjunction with clinical expertise, local information and patient agreement (Kothari et al 2011)

Aims & Objectives



- To explore MSK/ biomechanics podiatrists beliefs about evidence-based practice in their area
- To explore podiatrists perceptions of the interpretation of research and other forms of evidence
- To determine which types of evidence affect the clinical practice of MSK/biomechanics podiatrists

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Methods – Data collection



- A qualitative method was used as this study will explore podiatrists beliefs about evidence and their practice
- 10 podiatrists who work in MSK/biomechanics have so far volunteered
- Data collected in in-depth interviews
- Recorded on a MP3 recorder and transcribed verbatim
- Ethical approval granted by the University ethics panel



Theoretical framework - Hermeneutics



- Phenomenological Hermeneutic approach used
- Phenomenology addresses the meanings of things called phenomena, as they arise and are experienced in our own “life-world” (Smith 2011).
- Hermeneutics is an extension of this and is the study of theory and practice of interpretation.
- Heidegger (1889-1976) we reach understanding about the world by interpreting and encountering what has already been interpreted by ourselves and others (Ramberg & Gjesdal 2009, Moran 2000) .



Theoretical framework - Hermeneutics



- Gadamer (1900-2002) believed that interpretation is characterized by the act of understanding occurring between the reader and the author of a text or between two people in conversation called “fusion of horizons” (Ramberg & Gjesdal 2009).
- The aim of this study is to gain an understanding of a podiatrist’s ‘horizon’ and how this is used to interpret evidence and use it clinical practice
- The three key elements of Gadamer’s hermeneutics were used



Theoretical framework - Hermeneutics



- The positive use of 'prejudice' – How do the participants' use their biases and concerns of the present to understand and interpret evidence?
- The tradition of understanding – How does the culture and tradition of podiatry affect the participants view of their world?
- The importance of language – Does the language of podiatric biomechanics and evidence based practice affect the participants understanding of these concepts?



Methods – Data analysis

- Data collected analysed using interpretative phenomenological analysis (IPA)
- IPA is a thematic approach to qualitative data analysis
- The steps are;
 - Reading and re-reading
 - Initial noting
 - Developing emergent themes
 - Searching for connections between emergent themes
 - Looking for connections between participants emergent themes (Smith et al 2009)

Initial Findings

- Evidence based practice = research evidence
- Confusion about research evidence
- Podiatrists use patient feedback but don't count it as evidence
- We think we are better now
- How has the profession moved it's boundaries?
- We need to ask the right questions

Evidence based practice = research evidence



- *You've got your RCTs which are ... the gold standards , but obviously you should be looking at the systematic reviews, – Podiatrist 6*
- *Well the evidence from trials that have been published, - Podiatrist 2*
- Evidence based practice means using quantitative research evidence

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Evidence based practice = research evidence



- Articles about evidence based practice in podiatry literature in the UK have been either calls for more research or articles to help improve critical appraisal skills to understand research evidence better (Bristow & Dean 2003, Vernon 2003)
- Literature about evidence based practice are about the best ways to integrate quantitative research into practice (Straus et al 2011, Moore & McQuay 2006)



Confusion about research evidence

- *For the position of the transverse axis of the subtalar joint it has to start off in a lab-based situation under controlled conditions to actually see if we can measure that – Podiatrist 1*
- *I mean the theories make sense but I don't think we've moved onto that next stage let's get some good quality data to underpin this – Podiatrist 4*
- Focused on the need for research evidence that proves or disproves biomechanics theories

Confusion about research evidence



- Participants are confused about which research evidence they need
- Lack of knowledge or dismissive of research in the effectiveness of orthoses
- Is this the culture of MSK/biomechanics? – debating the various biomechanics theories rather than focusing on the effectiveness of orthoses as a treatment

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Podiatrists use patient feedback but don't count it as evidence

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- *that should be the, hugely important, that's the most important part of seeing if your device works. – Podiatrist 7*
- *but at clinical level knowing what you do that works from patient reported outcomes more important than research – Podiatrist 3*
- The interviewees don't automatically think of patient feedback as evidence

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Podiatrists use patient feedback but don't count it as evidence

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- Seen as anecdotal evidence – It is until we measure it!
- Lack of outcome measurement
- They all justify how we treat patients from their feedback
- Does this highlight that we are a 'young' profession so we want to prove ourselves through research?

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We think we are better now

- *I think massively everybody got an orthotic, we used to look at what the foot was doing not where the pain is – Podiatrist 5*
- *I think in the past they tended to be given out to control foot function and this is what you always gonna need – Podiatrist 9*
- There is a sense that the participants are better practitioners now

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We think we are better now



- Using evidence in practice – but it's hard to define
- Don't make the mistakes that happened in the past
- Yet the interviewees use patient feedback to justify using current theories
- Demonstrates that disproving of Root theory has had a profound effect
- Do this show that we need to prove ourselves in a competitive market?

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How has the profession moved its boundaries?

- *It came from clever marketing or good managers flying the flag there was a shift in what we could offer –*
Podiatrist 1
- *I think a lot of people particularly in private practice, realised this area of work is lucrative-*
- The interviewees had difficulty explaining the expansion of podiatry and the growth of orthoses as treatment

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Podiatrist 5



How has the profession moved it's boundaries?



- There was a distorted picture of the past – Orthoses given for everything but that hasn't happened for 20 years or because it was lucrative for private practice
- Do podiatrists reinforce their own prejudices about the past?
- Does this help us think they are better now? – Yet patient feedback drives practice like it did in the past

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We need to ask the right questions

- *I think podiatry is an opinionated profession there's a lot of people that don't see the importance of research*
– Podiatrist 6
- *If they were using a force plate to change their orthoses if you haven't got one then you can't,* – Podiatrist 3
- The participants want research to prove the theories they use but realise that this is going to be difficult or maybe impossible

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We need to ask the right questions



- This is the research they are interested in but there is a reluctance to use patient feedback
- Highlights that podiatrists understand how to utilise research but may not be good at developing it
- Is there in the culture of podiatry a desire to have a strong scientific base but a lack of skills to make this happen?

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Conclusions

- Evidence based practice is not just about quantitative research
- There is a need to differentiate between the effectiveness of orthoses and experiments that increase understanding of biomechanics
- Podiatry has progressed as a profession but we still have a distance to go to providing the evidence we want
- Understanding the past better will help us in the future
- Patient feedback is evidence – Lets capture it
- Evidence for orthoses is right in front of us – Sat in the treatment chair

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Thank You



- Any Questions?

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