

## **Perspectives & experiences of Amputees regarding the use of Microprocessor prosthetic knees**

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## **Background**

Limited qualitative research into the user perspective of a MPK

Project implemented to increase the prescription of MPKs to trans femoral amputees – funding

Review and inform eligibility criteria



## Aim

To explore the perspectives of amputees fitted with a MPK regarding

the perceived benefits & limitations of MPKs

their experiences of transitioning to a MPK



## Methods

This was a Qualitative Descriptive study using semi structured interviews (Sandelowski, 2000) & purposeful sampling

One on one phone interviews were conducted by fourth year physiotherapy students

An interview guide was used as a prompt to initiate discussion but allowed for flexibility to be responsive

Data was analysed using thematic analysis (Braun & Clarke, 2012).



## Participant characteristics

13 participants 9 male; 4 female

Age range 26 to 73 years

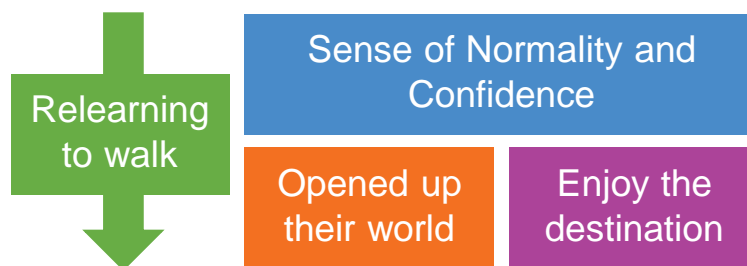
Time since amputation 3.5 years to 43 years

Time on MPK 6 weeks to 12 years

Cause of amputation  
n = 7 non trauma  
n = 6 trauma



## Results



Users views of Service provision



## Sense of Normality & Confidence

“I can walk down stairs now like a normal person” (Oliver, 6 weeks)

“... if you have trousers on people don't even know” (Kerry, 8 years)



“If I step on an uneven surface and the knee starts to bend, I can save myself from falling” (Jack, 4 months)

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## Opened up their world

“The things I have been able to do in the gym now is crazy for example the leg press gym machine. I have never been able to experience” (Jack, 4 months)

“If you get a new leg that's as near normal to walk with as you've had before you tend to want to do more and tend to want to go out and socialise” (Diana, 2.5 years)



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## Enjoy the destination

“I can walk much faster and I don’t get tired as much as with the old leg”  
(Sophia, 5 months)



“Less of a mental tax”

“...ten extra years to my working life”  
(Emma, 6 months)

“It is really nice to walk downhill and be able to still have a conversation with someone” (Jack, 4 months)



## Relearning to walk

Adjustment period required

The MPK “challenged a different set of muscles that had not been utilised or trained for some time”

“Trust the knee”

Overall experience improved by formal, structured & holistic approach to training.



## Service provision

### Health professionals

- Experience & knowledge
- Knowing what is available
- Teamwork

### Frustrations

- Technical limitations
- Access to services



## Key messages

Overall the users described significant perceived benefits when using a MPK and they outweighed any negative aspects

The users perspectives and experiences provided us with an insight into possible improvements in service provision.



## Where to from here

How does a specialist service meet the needs of a geographically diverse population?

Cost vs Benefit – eligibility & funding

Introducing new technologies in the future – what can we learn?



## References

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