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Original Citation


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Using QFD as a method to develop functional medical products for children with cancer
**Background**

- Local charity – real world problem
- Cancer in childhood is rare
- Intensive chemotherapy – central venous catheters (lines)
- Tunneled under skin, external opening on chest

**Problem**

- Risk of displacement
- Accidental complete removal
- Children may wish to conceal them
- Discomfort during sleep
- Lines may dangle

**Challenge**

Harness to improve well-being of children with cancer
Research Plan

- Interdisciplinary team Dr J Power, Prof D Leaper, J Harris
- Local cancer charity Little Heroes
- Student researcher (teaching/research nexus)

Philosophical Approach - constructive interpretivism

- Balance – academic enquiry and practical application
- Resolve epistemological and methodological differences
- Timeframe – interpretivist approach was adopted

Data collection techniques

- Market research / product research / standards
- Focus group / interviewed medical personnel
- Product analysis
- Synthesized the findings using a QFD
A method of translating customer needs (16) into appropriate technical requirements (29)

Parents / carers

- Location of harness (comfort)
- Design function (functional)
- Health and Safety (various)
- Style line (aesthetics)

Comfort wear trial – current products

Priority; Comfort (fit), function, H&S, styleline
“Wigglebag”

Harness to improve well-being of children with cancer

- Ergonomically designed
- Comfort / functionality / dignity
- Stylish
- Antibacterial
Any Questions?

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Special thanks to:
• Little Heroes Cancer Trust
• Helen Turner
• Maureen Jackson
• Melissa Fletcher
• Ruth Clare