University of Huddersfield Repository

Power, Jess, Harris, Joanne and Leaper, David J.

Using QFD As A Method To Develop Functional Medical Products For Children With Cancer.

Original Citation


This version is available at http://eprints.hud.ac.uk/id/eprint/28178/

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

http://eprints.hud.ac.uk/
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?

Project Lead:
Dr. Jess Power

e.power@hud.ac.uk
Co-authors D.Leaper and J.Harris

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