



# LUND UNIVERSITY

OpDesign – A study of the working environment in an operating unit

Johansson, Gerd; Rydenfält, Christofer; Hemphälä, Hillevi; Löndahl, Jakob; Jakobsson, Jonas; Odenrick, Per; Larsson, Per-Anders; Åkerman, Kristina; Arvidsson, Inger; Gremark-Simonsen, Jenny; Nordander, Catarina

2014

[Link to publication](#)

*Citation for published version (APA):*

Johansson, G., Rydenfält, C., Hemphälä, H., Löndahl, J., Jakobsson, J., Odenrick, P., Larsson, P.-A., Åkerman, K., Arvidsson, I., Gremark-Simonsen, J., & Nordander, C. (2014). *OpDesign – A study of the working environment in an operating unit*. Abstract from 5th International Conference on Applied Human Factors and Ergonomics (AHFE 2014).

*Total number of authors:*

11

## General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

## Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00

## **OpDesign – A study of the working environment in an operating unit**

Gerd Johansson, Christofer Rydenfält, Hillevi Hemphäla, Jakob Löndahl, Jonas Jakobsson and Per Odenrick, Ergonomics, Department of Design Sciences, Lund University, Sweden

Per-Anders Larsson and Kristina Åkerman, Helsingborg Hospital, Sweden

Inger Arvidsson, Jenny Gremark Simonsen and Catarina Nordander, Occupational and Environmental Medicine, Lund University, Sweden

In close collaboration with Helsingborg Hospital, an acute care hospital in southern Sweden, a group of researchers at Lund University has studied the work environment and work situation in an operating unit in a six-year project, OpDesign.

The aim of the project was to identify and examine the different factors that affect the work environment of the operating unit. A number of studies were implemented that focused on organizational and psychosocial factors as well as on the physical environment.

The results so far describe the problems and contribute new knowledge in different areas including:

- Teamwork and management of work in an operating unit
- Methodology for organizational development and innovation
- Patient safety
- Operating room lighting
- Musculoskeletal problems when working in an operating room
- Ventilation and diffusion of particles in the operating room

Experts from different scientific fields have collaborated and applied a variety of scientific methods in implementing the project. These methods have been both quantitative and qualitative, including measurements of physical parameters, video observations, surveys, interviews and estimation scales.

The OpDesign project has generated new knowledge about work in an operating unit and how it can be improved. Some of the suggested improvements have already been implemented in the daily activities, for example, new lighting in the operating room. Two doctoral dissertations presenting the results of the project have been defended in the spring of 2014.