Patients’ light preferences
in hospital wards: related to light atmosphere in Danish homes
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Supervisor:

Background
Textile design_ Kolding School of design 06
Teacher, Silkeborg 99
Lostdesign 06

PHD project:
Light Atmosphere - Design parameters for lighting hospital wards
Interest: Light atmosphere

Holistic approach to lighting design and try to understand light Atmosphere?
The connection between the daylight we are experiencing and the way we use artificial light?
Design Parameters for pleasurable light atmosphere in hospital wards
When and why is light interesting seen from the patients perspective.
Describing the sensory qualities of light.
Phd based on a Portfolio /articles
The color of the light must support the patients needs for a pleasurable and “homely” lighting. In most cases it means a color temperature no higher than 3000 Celvin and a reasonable good color rendering Ra>80.

Danish standard for hospital lighting chapter 2.

What is a pleasurable homely lighting?

Why only a focus on the “lightcolor”, “color rendering” and “intensity”.

More information about the placement (Vertical and horizontal) of the light and number of lightzones, and shadow effect etc.
PHASES

State of the art
Design parameters

Atmosphere

Preferences/needs

Home lighting trends

Sound/Touch/light

Designing Lighting concept for hospital ward

Design evaluation Orthopedical surgery OUH

Design evaluation Intensive Care AUH
Guidelines Hospital design


Dalke, H., Littlefair P.J. & Loe 2006. "Lighting and colour for hospital design"

Atmosphere.

Albertsen, N. 1999, "Urban Atmosphere". Atmospheres can not be seen - It must be experienced through other senses and an atmosphere occurs rarely through one sense alone, but in an interaction between several senses. Atmosphere affects people emotionally.
Atmosphere
It is not a stamp of approval for "good taste". It is everywhere at any time, it is always present.
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Atmosphere
Atmospheres - Architectural Environments - Surrounding objects

Peter Zumthor: The Therme Vals
Atmosphere

Atmosphere

Atmosphere

Time

Socio Cultural.
Design Parameters

Light Source
Characteristica, effect, information
Space
Geografical orientation, spatial composition, surfaces, objects, materials, colour
Time
Time of the year, daytime, time of influence
User
Behaviour, performance, user group, visual system, expectations, kultural background
User Preferences
Patients, Staff and visitors

- Observations of the staff and patients and visitors at the ward
- Spending a day at a ward
- Interviewing staff and patients
- Tracking the staff (Niels Thuesen)
- Case studies. Kolding, Medicinerhuset. AUH
Light preferences

- Interviewing 15 people in the age group of 60-80 about use of light in their home.

Methods:
Photo safari taking pictures of the placements of their lamps, and the design/type of the lamps they are using (activity based)

Photo album as interview guide for an semi structured interview in their homes.

Analysing data
Light preferences

- Placing the light along the walls
- A vertical separation of the room (high zone, middle zone, low zone). Most lamps are placed in the middle zone.
- Primary lamp near and secondary lamp to define the room.

- Warm light color and candle lights
- Creating a “hygge” cozy atmosphere when they having guests.
Analizing the data

The categories is based on interviews of 2 patients and 2 staff members and our experience of a day at the ward.

Daily activities as:

Dining
Watching TV
Going to bed
Sedentary activities
Upstanding activities
Communication/Social interaction
Evaluation

1. june - vinter 2011 at O3, OUH
1. juli - vinter 2011 at ITA, AUH

OUH: Patients preferences. Semantisk Differentiale:

AUH: Visitor and staff preferences. Semantic Differentiale:

1. reference room

Access to patients scores and other medical information.
DESIGN CONCEPT
Design koncept

Light distribution from above.
small shadows
Design koncept

Light distribution from many light sources

longer shadows, and varied shadows
Design koncept

Light distribution the wall, placed in the low area of the space

Very long shadows
High light scenario

Philips savio
Middle light scenario

Le Klint Under Cover
Arkitektlampe
væglampe
low light scenario

Philips LED spot
Lighting control for the Staff

“I would like to do my best helping the patients and give them a pleasant stay at the hospital. I am trying to read their mind of what they need and try to create “hygge” (a cosy atmosphere)
Lighting control for patients
Primary Staff working light atmosphere

Walking activities

Energy boost

Emergency light
Primary Patients private light atmosphere

Sedentary activities

Social interaction

TV
Night light

Walking area at night time

going to sleep