ABSTRACT
In this paper we explore how design may be used as a critical and creative tool to discuss how design is gendered in the contemporary gynaecology examination in Sweden. The aim of our paper is to uncover the veiled gender norms in this problem area and discuss the consequences for women. Our methods include a Gender Swapping Approach, centred around the chair currently used in most female gynaecological examinations. We used the results of our conducted interviews together with related previous research, which reveals that a majority of women have negative and sometimes even traumatic experiences of the gynaecology chair. These empirical findings were applied to our design concept - a male counterpart: the Andro-Chair. The initial reactions to our design concept points towards great potential for using gender critical design to uncover and discuss this particular problem.

INTRODUCTION
In this paper we present and discuss a design concept, the Andro-Chair (fig.2), and its use as a critical design tool to uncover and discuss gender normative medical design, and how these hidden norms may hinder progress and innovation. Gynaecology is a speciality covering medical issues of the female reproductive system. (Wikipedia, 2015) Andrology is the male counterpart, dealing with diseases of the male reproductive system. (Fredricsson & Pousette, 1994)

Our design concept aims to portray a conceptual male equivalent to the contemporary gynaecology chair. We wanted to explore what would happen if we designed an andrology chair for men, inspired by women’s negative experiences of the gynaecology examination, and if this could help to look beyond the contemporary normalisation of the gynaecology examination. The Andro-Chair was designed using the results from our in-depth interviews covering women’s experiences of the gynaecology chair. In essence, therefore, the Andro-Chair was designed to express something “violating”, “humiliating”, “cold”, and “harsh” (Survey, 2012), in order to problematise women’s experiences of the gynaecology examination. By designing an Andro-Chair for men, we wanted to reveal how the gynaecology chair examination has been accepted and normalised. We argue for the importance of making this problem area visible, before it’s possible to implement radical alternatives.

In this design project we have used an approach previously conducted by second author Ehrnberger (et al.2012), which we refer to as the Gender Swapping Approach. The purpose has been to uncover and problematise the contemporary gynaecology chair
examination. Our interviews, as well as previous research (Wijma, 1998a&b), point towards the gynaecology chair as one of the central causes of many women’s negative experiences during a gynaecology exam. The chair has been explicitly problematised by gynaecologists, that also stresses that the contemporary examination position is not necessary, and argues for alternatives. (Wijma, 1998a&b; Lagerwall, 2001). Therefore it’s surprising that so little progress has been made in medical design in this area. Biological differences in gender have historically been used against women. The idea history of gynaecology is grim (Johannisson, 1994), and may still be affecting our view of the examination.

RELATED RESEARCH

Design as a critical tool may be approached in many ways (Mazé, 2007; Redström, 2007; Dunne, 1999; Gislén & Harvard, 2007; Sundbom, 2009, 2011). Luiza Prado de O. Martins (2014), Ehrnberger, Räsänen and Ilstedt (2012) and Jahnke (2006) discuss the lack of critical design studies dealing with the underlying structures of gender in design. We agree with that, and, with this paper, we aim to contribute to this field. Research studies investigating women’s experiences in the gynaecology examination includes Barbro Wijma’s research studies on asymmetric power consultations in gynaecology. Her studies concluded that the examination is a negative experience for many women (Wijma 1998a&b). Other researchers who have investigated this topic include Mattsson (1993), Westhoff (et. al. 2011) and Hovelius, (1998). Mattsson’s results show that women feel vulnerable and scared, and that there are women who feel so much discomfort about the gynaecology examination, that they avoid visiting the doctor for as long as possible. Karin Johannisson’s research on Medical History exposes that gynaecology historically was based on a male power relationship, where women’s reproduction was controlled and women’s bodies were experimented on, as the “other” gender, as an anomaly (Johannisson, 1994).

METHOD

PRE-STUDY

As part of design as a critical tool, our methods include an initial pre-study which consists of in-depth interviews with four women regarding their experiences of a gynaecology examination; informal talks with women covering the same theme; and a survey where 20 women were asked to describe a gynaecology exam in just three words. We also conducted in-depth interviews with medical staff: two midwives, a registered nurse and an enrolled nurse, all specialised in gynaecology; one doctor and two registered nurses specialised in andrology; one doctor specialised in urology; and an enrolled nurse in elderly care. Our aim with the pre-study was to collect thorough background information that could support and shape further questions and define problem areas relevant to the design project.

The initial interview questions were gathered through a brainstorming session, based upon the authors’ own thoughts and experiences. The in-depth interviews were semi-structured in format and consisted of open-ended questions with the aim of exploring feelings and perspectives on topics related to the project (Guion et.al. 2011; Boyce & Neale, 2006). Most of the interviews were audio-recorded, and some of them were documented as written notes by the interviewer. For practical reasons, the participants selected were from Stockholm, Gothenburg and Halmstad. The women interviewed about their gynaecology experiences are known to the authors, the advantage being that it can be easier to discuss intimate topics with someone you know and trust. The disadvantage is that that there may be a bias. The medical staff interviewed were chosen partly through calls to hospitals, and partly through our personal networks.
GENDER SWAPPING APPROACH

In order to make the invisible norm visible, we have been inspired by the method previously used and developed by Ehrnberger (et al, 2012), which consists of placing two products in opposite relation to each other by switching their product language. This method was inspired by the work of Derrida (1978) and Krippendorff (2006). Ehrnberger (et al. 2012) has taken these theoretical ideas and swapped the gender context into the practical product design discourse. There are two purposes behind using this method: First, we aim to unveil the historical and contemporary hierarchies of gender that affect both design and innovation, and how it may hinder designers to deter from the hidden norms based upon the societal structures of gender hierarchies. Second purpose with this method is to use design as a tool for discussion through a conceptual product, acting beyond the written word.

RESULTS

INTERVIEWS/OBSERVATIONS

In our in-depth interviews and the short survey, most of the women described the gynaecology exam in very negative terms. The gynaecology chair (Fig.1) was repeatedly described as a symbol for their bad experiences during the examination, resulting in descriptions of the gynaecology examination as “being exposed”, “sterile”, unmodern”, “cold and harsh”, and even stronger associations like “rape” and “torture” (Survey, June 2012). Expressions such as: “You should lay in a position where you almost fall off the chair - that is the perfect position!” (Midwife, 2012) and ”Defenceless position, invasive examination, it’s integrity violation, you are totally powerless!” (Woman, 36 years, 2012) confirm the vulnerability of the position imposed by the chair.

DESIGN CONCEPT - THE ANDRO-CHAIR

The empirical findings from the interviews were applied to the form-giving process. Women’s description of the contemporary gynaecology chair as: ”a violation”, ”cold”, ”unstable”, ”uncomfortable”, ”feeling vulnerable”, ”stainless steel”, ”torture” (Survey, 2012) were communicated through the steel based construction of the Andro-Chair (Fig.2), and by a special tipping function that – whilst it supports the doctor by making it easier to exam the patient – serves to make the user feel vulnerable. The Andro-Chair is designed so that the patient has to remove their trousers to be able to lay in the chair. The leg rests keep the patients legs wide apart, both to support the examination made by the doctor, but also to design the exam experience to be more unpleasant. The Andro-Chair is lightly padded with a white synthetic material, ending with a part in bare perforated steel to mimic medical design
connotations. The stomach position (Fig 3.) was chosen to make the patient feel more vulnerable, since he then can’t see what is happening. We wanted to let the negative emotional experience determine the form. The chair has two handles to keep the hands away from the examination area, to decrease the feeling of control. Mounted under the seat is a tray for examination instruments and wastes. The chair has an integrated paper holder to indicate possible messy and uncomfortable parts of the examination. The measurements of the chair have been derived from andro-metrics of the ”average man”, making it uncomfortable for many men.

INITIAL REACTIONS AND DISCUSSION

We did a preliminary test on the visual effect of the physical chair, to gauge men’s initial reactions to the design. Some said that they wouldn’t tolerate an examination in the Andro-Chair at all. Other reactions included comments like “Why did you design something bad, instead of designing a solution?”, “You don’t solve any user needs?” “I can’t see the equality in this?” “Why are you giving us men a bad thing as well? I mean if women have a bad thing, it’s not the right way to make things bad for men too!” “What if this chair is needed? That would be counter-effecting what you want to achieve. I mean, what if it would be produced for real!!” “One really doesn’t want this to exist for real, but what if it actually is a good thing and it is requested”.

After the initial reactions we have exhibited the project in various ways, these results will not be presented here, but will be discussed in an upcoming full paper.

We argue that our design concept, which resulted in a physical product, highlights the importance of gender awareness and analysis in medical design. The initial reactions to the Andro-Chair indicate that we seem to accept certain conditions for women that we wouldn’t accept if they were applicable to men. We believe that gender normative thinking may prevent us from changing restrictive norms. An important reaction we got from the preliminary visual test was why we didn’t solve the problem instead of designing a chair to mimic women’s unpleasant experiences, which is a relevant question. As we stated previously in this paper, our aim was not to solve the problem, but rather to shed light on this problem area and facilitate discussions.

During the project we realised that without changing
the references of what a gynaecology examination could be like, it will be difficult to change things. We chose to design the Andro-Chair as realistically as possible, instead of designing a more extreme solution. Our argument for this was that we wanted it to tangent reality. In this way people could not as easily turn away from the product, as they may with a more extreme design solution or an art piece. Following Richard Buchanan’s (1995) and Edith Ackermann’s (2007) discussion on the strong influence artifacts have on us, we would like to argue that the same may be used in design as a critical practice. The initial reactions to our project also point towards great potential in using design as a discussion tool.

By designing the Andro-Chair for men through how women experience the gynaecology chair, our aim to unveil the hidden norms and acceptances behind women’s negative experiences was made possible, and we can see that the findings support this strategy. We would also like to point out that most people we talked to weren’t previously familiar with the term Andrology, so our design concept also contributes to make visible this medical discourse. Our approach may help to spread the results beyond traditional academic discourse, which we see as an advantage of design research; that it may easier bridge the gap between the academic and the practice. Also the initial reactions support the idea of artistic/design research to reach people beyond the written text by communicating through an artifact of a conceptual product, which may be interpreted as more “real” than “just words” (Lind, 2012). As one respondent put it: “What if this would be produced for real? What if it actually promotes a need?” This question reveals a man’s actual fear of having to be examined in an Andro-Chair, as women are obliged to in gynaecology, which again confirms design as a powerful tool to highlight neglected or invisible user needs.

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REFERENCES

Ackermann, Edith. (2007). “Experiences of artifacts: People’s appropriation, objects’ affordances”. In Key works on radical constructivism. Ernst von Glasersfeld (M. Larochelle, Ed.) Rotterdam. NL. Sense Publishers pp. 149-159


Guion, Lisa A. and Diehl, David C. and Debra McDonald (2011) Conducting an In-depth Interview, University of Florida, online: http://edis.ifas.ufl.edu/fy393, 2012-12-03


Johannisson Karin. (1994). Den mörka kontinenten, Norstedts


Sundbom, Cristine (2009) Abort n Go. Med fullständiga rättigheter, BFA projekt, Konstfack


