from treating to assisting

Designing to enable cultural change at the Reproductive Medical Department at Rikshospitalet

A service & systemic design diploma project

Paulina Buvinic

The Oslo School of Architecture and Design





A service and systemic design diploma project by:

Paulina Buvinic

The Oslo School of Architecture and Design (AHO) Spring, 2019

Supervisors:

Natalia Agudelo and Josina Vink

Collaborator:

Reproductive Medical Department, Rikshospitalet Oslo Universitetssykehus

All photographs, illustrations and content by the author, unless otherwise noted.

from treating to assisting

Abstract

Every year, both globally and in Norway, more people are depending on medical assisted reproduction treatments in order to fulfill their wish to become parents. But these types of treatments can be very invasive and demanding, and there is no guarantee that the treatments will be successful. Being aware of the difficulties of this process... How can the Medical Reproduction Department at Rikshospitalet support better the people that are going through the process of medical assisted reproduction?

"From treating to assisting" is a service and systemic design diploma that explores how to enable cultural change at the **Reproductive Medical Department** at **Rikshospitalet** in order to make the service more supportive towards patients.

Working collaboratively with a healthcare team from the medical department, the project proposes three main principles to enable a transition from a production-oriented culture towards a culture of assistance. In order to support the process, cultural prompts were designed to evidence how each principle can be translated into new practices and/or tools.

Index

Introduction

Context

- 16 Medical Assisted Reproduction
- 18 The Reproductive Medical Department at Rikshospitalet
- 20 Project brief

Approach, process and methods

- 24 Approach
- 28 A design process to support cultural transition
- 30 Methods

Designing to support cultural transition

40 Understanding the existing culture

- 42 Collecting current narratives
- 52 Capturing and visualizing current narratives
- 64 Creating collective understandings
- 76 A production-oriented culture

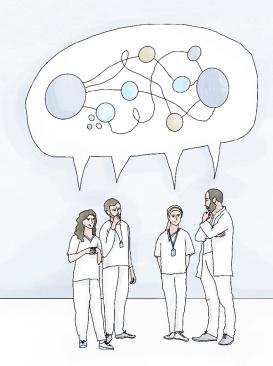
80 Transitioning towards a new narrative

- 82 Building a common vision and principles to support it
- 84 Evidencing principles (+ design proposal)
- 166 Reflecting on the process and how to move forward

- 174 Personal reflections and conclusions
- 178 Acknowledgments
- 180 References







Assisted reproduction treatments are demanding and difficult to go through, and there is no guarantee that the treatment will be successful. Nowadays, the culture around assisted reproduction in many public institutions in Norway is primarily focused on effectiveness and success rates, making many patients feel like they are not being acknowledged as people, but that they are part of a production line. Every year, both globally and in Norway, more and more people are depending on these types of treatments to become parents, which has forced the production line to go faster.

"From treating to assisting" explores how to enable cultural change at the Reproductive Medical Department at Rikshospitalet in order to make their service more supportive towards patients, acknowledging their differences and the difficulties they go through during the process of assisted reproduction.

The project was developed by combining service and systemic design approaches, and working closely together with a healthcare team from Rikshospitalet during the whole project.

The design proposal aims to enable a transition from a production-oriented culture towards a culture of assistance, by using counter-narrative principles and cultural prompts. Three main principles were co-designed:

#1 from assembly-line experience to team-based care

#2 from treating everyone in the same way to acknowledging diversity

#3 from a single view of success to a holistic understanding of experience

Cultural prompts are intended to support the culturetransition process; hence, four prompts were designed to evidence how each principle can be translated into new practices and/or tools: a visual proposal to make it easier for the healthcare team to have access and understand the patient's information; a yearly program with weekly practices to encourage the healthcare team to have better communication with patients and be prepared for unexpected situations; a patients' diary to be used as a communication tool between the healthcare team and patients; and a new practice to measure patients' experience to identify improvement points in an easier way.

Being aware that cultural change is a complex and difficult process, the project goal is to become the first step towards a new culture of assistance in the Reproduction Medical Department at Rikshospitalet. It aims to sparkle cultural awareness and inspire the healthcare team to continue the journey of making their service more supportive for patients.



Context

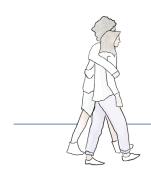
About medical assisted reproduction and the project brief

Medical Assisted Reproduction

One out of six couples struggles with involuntary childlessness worldwide, and every year the number increase by 8-9% (Fertility Europe, 2018). One of the possible paths to take in order to fulfill the wish to become parents is through medical assisted reproduction.

Medical assisted reproduction are medical procedures that are used to assist human reproduction. These types of procedures can be developed within the woman's own body or using someone else to carry the pregnancy (surrogacy). Some of the most common examples using medical assisted technology are In Vitro Fertilization (IVF) and Microinjection (ICSI). In both of these cases, the egg is fertilized by sperm in a test tube outside the woman's body (lab), to later on be implanted into her uterus.

Medical assisted reproduction treatments revolve primarily around the woman, being the one that needs to attend to the different appointments and take different types of medication. Men will be required to deliver the sperm sample if a sperm donor is not being used.



A challenging treatment

One of the most challenging aspects of the treatments is related to the hormone medications. Different medications are used through the process, these might include hormone injections, nasal spray, vaginal gel, among others. Hormones help prepare the woman's body for the different steps in the process.

The side effects of hormone medications might change from woman to woman. In general, these include feeling heaviness or stitching in the stomach, abdominal pain, feeling bloated and mood swings. Hormones also can having an impact in the patient's daily life because each hormone injection must follow a strict schedule.







An uncertain process

Medical assisted reproduction treatments are not 100% certain that will end up with a pregnancy. According to experts in the field, is very common to go for more than one attempt; and sometimes, it might end up with not being able to get pregnant at all.

This notion of uncertainty is also related to the patients' role in the process. Even though it's very important that patients follow the procedure thoroughly, in contrast with other medical treatments, in assisted reproduction there isn't that much more patients can do to improve their chances.

The whole process is very emotional. You start to expect that now it will work, we will get pregnant. You start looking for signs if you are pregnant. But at the same time, you have this thing with the hormones and your body, that you don't feel quite like vourself.

Woman that had experienced ART

The Reproductive **Medical Department** at Rikshospitalet

In Oslo, the only hospital with a Reproduction Medical Department is Oslo Universitetssykehus, performing approximately 1700 treatment procedures per year. Is consider the country's largest center on fertility treatments, having two clinics: Rikshospitalet and Ullevål

To access to the Hospital's treatment, a referral from the general practitioner or specialist in gynecology is needed, which includes an initial infertility investigation.

The Norwegian context

In Norway, approximately 60.000 children are born every year, of which 3-4% are from assisted fertilization. Assisted fertilization in different forms is offered both in the public and private sectors (Helsenorge, 2018).

These types of treatments are being regulated by the Biotechnology Act related to the Application of Biotechnology in Medicine, which stipulates that sperm donation is legal, but egg donation and

surrogacy are not allowed in Norway. By these norms, assisted fertilization is offered only to heterosexuals and lesbian couples (Helsedirektoratet, 2017).

In the public sector, infertility treatments are fully covered by the Norwegian Health Economics Administration (HELFO) to up to three attempts per **child**. It is also regulated according to the regulations of the Biotechnology Act, which include factors such as number of children, age of the woman (giving priority access to couples where the woman has not reached the age of 39 years old), caring ability, marital status or cohabitants, among others

About the process of assisted reproduction at Rikshospitalet

Approximately 450 consultations are developed every week at the Reproductive Medical Department **at Rikshospitalet** (source: leader of the department). This considers around 200 different patients per week.

Each consultation lasts around 15-30 minutes each. But patients usually need to wait between one or two weeks between appointments.

Next to this, because of the high demand for the service, it's difficult to have a specific healthcare team following one patient. This means that patients might interact with different people from the healthcare team through their whole treatment.

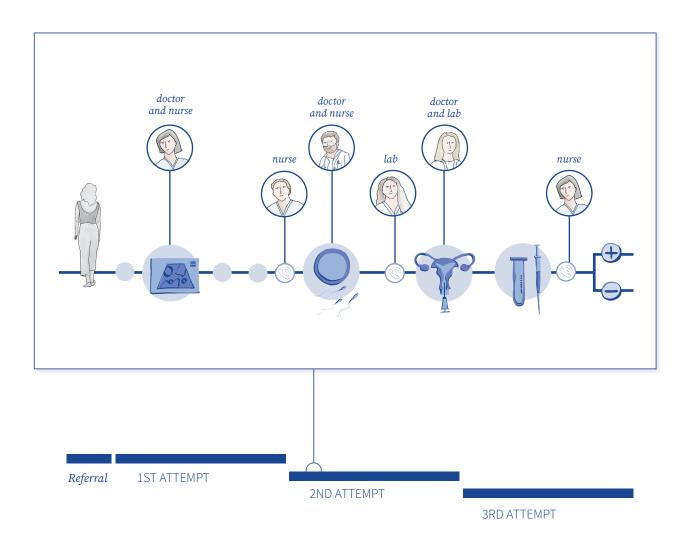


Figure 01: Summary of the process of medical assisted reproduction at Rikshospitalet

A personal framework

In order to develop this project, I decided to establish a personal framework to address the topic of assisted fertilization. Nowadays this topic generates different discussions, being possible to conceive it from different ways or angles. Because of this, it was necessary to define a point of view based on my beliefs.

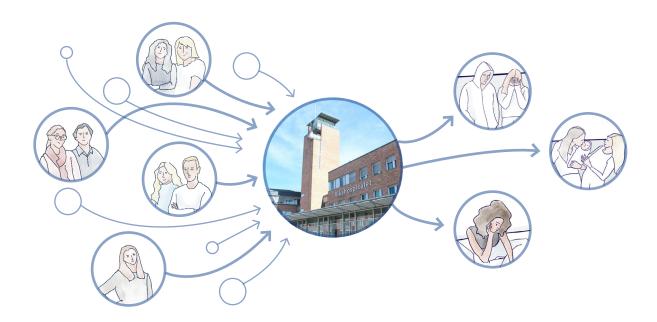
Designing for all parents

Even though I was designing for a Norwegian context, where medical assisted reproduction in the public sector is only offered to couples, I didn't want to be restricted by the current regulations.

This project is being developed considering that assisted reproduction should be offered to not only couples but single parents as well.

A shift in the language

In the topic of reproduction and fertility, the word family planning has come up several times related to the act of planning to have/or not children. Working around this field for the project, I have made the decision of not using this term. The notions of families have evolved, therefore, being a family shouldn't be defined just by having children or not.



Project brief

How can Rikshospitalet support better the people that are going through the process of medical assisted reproduction?

The services of medical assisted reproduction are being more and more demanding. But these types of treatments are not as easy as they seem, and there is no guarantee that the treatments will be successful.

Working in collaboration with the Reproductive Medical Department at Rikshospitalet, the project explores how to support better the people that are going through the process of medical assisted reproduction, acknowledging their differences and the difficulties they go through during the process.



Approach, process and methods

This chapter will present how the project was developed. It will explain the approach taken, the process, and the methods that were used through the whole project.

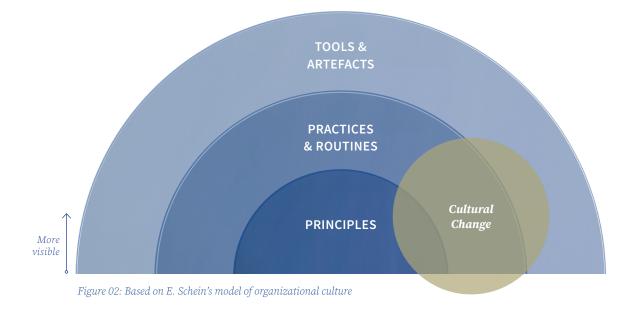
Approach

The project explores how to enable cultural change at the Reproductive Medical Department at Rikshospitalet in order to make the service more supportive towards patients.

Designing for cultural change

This project focuses on designing to enable cultural change at the Reproductive Medical Department.

Edgar Schein, expert on organisational development and culture, define three main levels that help shape a culture. Artefacts and symbols are the most superfitial level, being the most visible elements to the observers. These are the tools, the physical spaces, the material in an organization. In a deeper level are the espoused values. This are the 'rules of conduct' in an organization, how their strategies are made into practical things. Finally, deeply embedded in the organization but less visible, are the underlying



assumptions. This are the unconscious behaviour. For the purpose of this project, Schein's model has been adapted. Artefacts and symbols will be refered as tools and artefacts; espoused values as practices and routines; and underlying assumptions as principles.

In order to work with cultural change, is important to acknowledge and work with these three levels; and understand that cultural change is complex and difficult, and that involves different processes through time. As Schein mentions "don't over-simplify culture. It's far more than "how we do things around here" (interview with Kuppler, 2016).

But... why work with culture?

F. Ian Stuart (1998) highlights the importance of working with culture in service design projects. He explains that regardless how good the design process has been, not considering organizational culture can have a direct impact on the service final **proposal.** This can lead to the proposed design being rejected, changed, or never implemented because of internal forces, specifically cultural and political influences

Therefore, in order to explore how the Reproductive Medical Department could be more supportive of their patients, it was necessary to understand how the organizational culture influences and shapes how the current service is being delivered.

"A new service designed with the customer in mind yields ideal specifications for the processes, participants, physical facilities and information systems. However, these specifications may not match the current service culture and may challenge various closely held beliefs and normative values leading to modified designs that deviate from the nominal ideal design"

F. Ian Stuart (1998)

Combining Service Design and **Systems Oriented Design**

In order to understand in a more robust way the existing culture, this diploma project is developed combining Service Design and Systems Oriented Design approaches.

Service Design approach:

The project analysis assisted reproduction treatments from a service perspective, understanding that their experience starts before coming to the hospital, and will continue after they have finished their treatments. The project was developed using the five principles from the discipline (Stickdorn and Schneider, 2011):

- 1. Human-centered, by understanding the experience from a human perspective, acknowledging the diversity of emotions and needs that are carried throughout the process.
- 2. Co-creative, working closely with a specific team from the Reproductive Medical Department.
- 3. Sequenced, analyzing the different interactions and touchpoints that develop through time.
- 4. Visual, to communicate the main findings, ideas, concepts. Visual elements were also used as discoursive tools to trigger reflections and discussions around the existing culture.
- 5. Holistic, in order to understand the challenges and implications of working around cultural change.

Systems Oriented Design approach:

The project incorporated a systemic approach to better understand the context of assisted reproduction. By using different mapping techniques it was possible to analyze the relations between the different stakeholders and areas that linked to reproduction; not only from the healthcare arena but also from a social level.

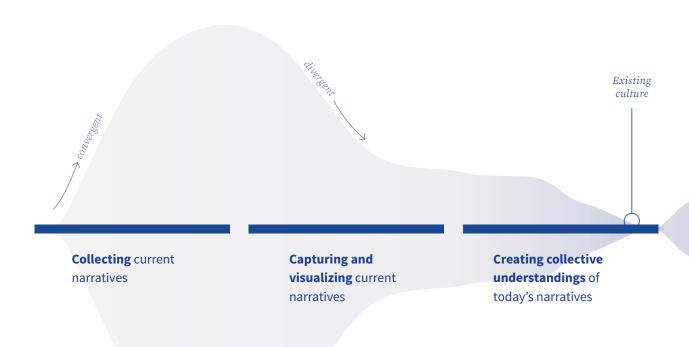
By using a combination of service design and systemic approach, it was possible to have a richer picture of the culture around assisted reproduction.

Co-creation as a key element in working with cultural change

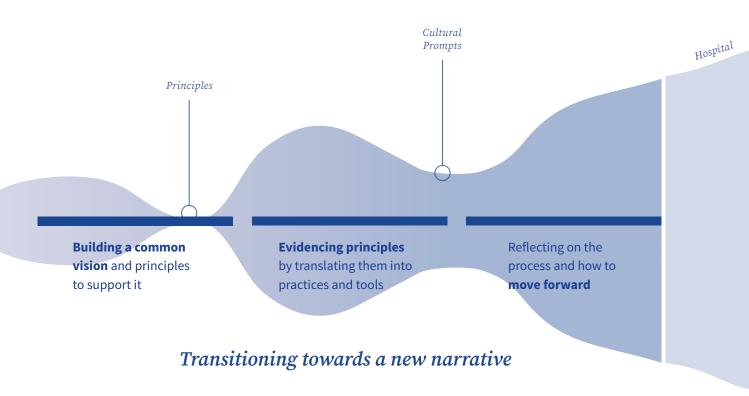
A key aspect to work around cultural change was to work collaboratively with a specific team from the healthcare department and involve them throughout the whole process. This team included both leaders and also front-stage staff members.



A design process to support cultural transition



Understanding the existing culture



Methods

In-depth interviews

In order to hollistically understand the world of assisted reproduction it was important to not only address it from the healthcare perspective but to also include conversations with experts on the field of fertility such as organizations.

Understanding that reproduction can be a private matter and not an easy topic to address, interviews with former patients were developed through different channels: face to face in a calm and safe environment, through skype, phone calls, emails.

The main goal of these interviews was to reflect and understand the process of assisted fertilization from their point of view. It was very important to have a variety of experiences, results; especially acknowledging that the process does not always end with pregnancy. Next, to this, interviews also consider people that had gone through the process of assisted reproduction in other countries. This aimed to be open to other experiences, and learn and analysis possible patterns or differences.

Leader of the Reproductive Medical Department, Rikshospitalet

Nurse at the Reproductive Medical Department, Rikshospitalet

Medical anthropologist

Family Therapist

2 representatives from Ønskebarn (Norwegian organisation for involuntary childlessness)

Representative for Fertility Europe (Pan-European organisation dedicated to infertility)

5 people that had experienced assisted reproduction treatments

- couples and single parents
- different results
- different countries of treatment



Figure 03: Pictures from interviews with former patients (safe environment); and analysis of interviews during the initial phase of the project (bottom).

Workshops and co-creation sessions

Different types of workshops and co-creation sessions were conducted through the whole project.

To better understand the world of assisted reproduction and the way we are approaching the topic from a social level, a social norms workshop was developed at the beginning of the process. This helped reflect and build existing social assumptions and norms around the topic of fertility, which connected directly with the experience that patients are having not only during their journey in the hospital but also the daily aspects they need to face before and after their treatment

Together with this, three co-creation sessions were run with a specific team of the Reproduction Medical Department. In the majority of these sessions all team members where present. As mentioned earlier, this team included: leader of the department, head of section (Lab) and Research leader, nurse, embryologist, assistant leader.

In addition, one workshop was run with all the team of the Reproductive Medical Department of Rikshospitalet.

All of these workshops within Rikshospitalet had a specific goal and will be presented briefly in different moments throughout the report.

FROM A SOCIAL LEVEL Social norms workshop

WITH HEAITHCARE TEAM Mapping the patient's experience

Creating collective understandings: Co-creation session with healthcare team.

Seminar workshop with all team members from the Reproductive Medical Department.

Defining principles and cultural prompts to support a culture of assitance: Co-creation session with healthcare team.

Reflecting on the process and how to mover forward: Final session with healthcare team.



Figure 04: Picture of the social norms workshop (up) and from the seminar workshop with all team members from the department. Picture taken by Karen Byskov.

Shadowing and field observation

To better understand the patient's experience as well as the healthcare team's work routines, different shadowing sessions and field observations were developed.

Being aware that patients interact with different people from the healthcare team during their whole treatment, it was important to consider shadowing different perspectives from the team. Two shadowing sessions were conducted, were I accompanied a nurse and an embryologist during their whole work shifts as a silent observer. The goal of this was to gain a better understanding of their role in the service, observing the different tasks and responsibilities they have, with what objects and people do they interact with, when and how. To protect the patient's privacy, I could only use sketches and notes as ways of registering.

Next to this, short observation sessions at the Reproductive Medical Department were developed in order to have a better understanding of the context. In this case, pictures could only be taken once the patient had left the department.



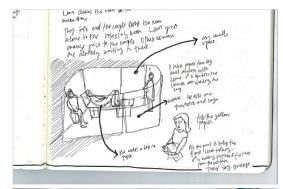






Figure 05: Pictures of notes taken during one of the shadowing sessions (up); and from the medical department.

Mapping and visualizing

Mapping and visualizing was used through the whole project. Journey maps, actors maps, feeling maps, visualization of findings, ideas sketches, among others were used not only as a way of analyzing information but also as communication and facilitation tools with the healthcare team during co-creation sessions.

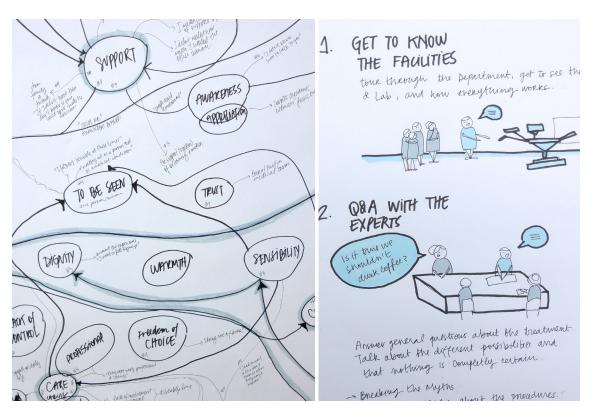


Figure 06: Feelings map analysis (left) and a fragment of the printed version of the patient's journey map.

Feedback sessions with the leader of the department

Through the whole process, especially during the last phases, it was important to have periodic feedback sessions with the leader of the Reproductive Medical Department. These sessions were developed in the majority of the cases face-to-face in the hospital, but

it also included other communication channels such as emails.

The goal for these sessions was to keep updated the leader with the current process, as well as getting specific feedback on each step.



Figure 07: Feedback session with leader of the department (principles and cultural prompts).

Feedback sessions with former patients

Two feedback sessions with former patients where developed during the last phases of the project. This sessions were developed through email and Skype video calls.

Their main goal was to get feedback around the concept proposal, including principles and cultural prompts.

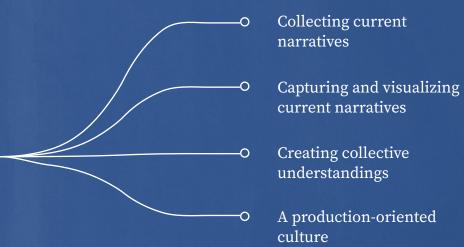


Designing to support cultural transition

This chapter presents in more detail how the design process helped to sparkle cultural awareness. The chapter is divided in two main sections: understanding the existing culture, and transitioning towards a new narrative. **Designing to support cultural transition:**

Understanding the existing culture

This section presents the first steps of the design process to support cultural transition. It covers key aspects of the collection (research) and capturing of the main existing narratives (analysis and findings). The section ends by identifying the existing culture.



Collecting current narratives

The collection process required a mix of zooming in and out during different moments, starting from understanding the treatment itself.

The patient's experience in the Hospital

The treatment of assisted reproduction in the Hospital involves interacting with different people from the healthcare team during the whole process. Patient's don't have a specific team that follows them during their process. Next to thid, patients don't interact only with nurses and doctors, but receptionists and embryologists from the laboratory are also

responsible for communicating information to the patients. For example during the appointment for the embryo transfer (ET), when the fertilized eggs is transfered to the woman's uterus. No nurse will assist during this procedure, only doctors and embryologists.

Mapping the patient's journey also helped to make visible the duration of the treatments, including waiting times between appointments. Each appointment lasts approximately 15-30 minutes while waiting times between appointments could be between one to two weeks. This time increases for treatments with a sperm donor, where the waiting time could even last up to three months to find a donor.



Figure 08: Times during treatment (top) and patient's journey (right).



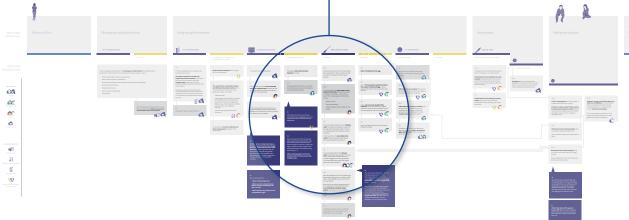




Figure 09: Pictures from the workshop session and patien's journey map (bottom).



Mapping the patient's experience

First collaborative session with the healthcare team (kick-off of diploma project). The session also helped defininig the next steps for the research phase (interviews and shadowing).

GOAL:

Map the patient's experience through the Reproductive Medical Department.

DYNAMIC:

The workshop started with a warm-up activity about breaking myths around infertility.

The core activity for this session was mapping the patient's journey through the department. For this, the participants decided to split in two based on their level of expertise (doctor and nurse, lab). In the end, we went through the information collected in the map, which helped to create common understanding about what happens on each step.

The system around assisted reproduction treatments

The different types of waiting types made me be more aware of the importance of understanding the experience outside the Hospital. The notions of times can change from each other depending on how the time is being used.

Based on this, it was important to also understand that the journey of assisted reproduction doesn't happen only in the Hospital, and it doesn't start or end here. Patients arrive at the Hospital already interacting with other services. And for the majority of fail attempts cases, the Hospital isn't the last step in their journey. If couples would like to keep trying and have the resources to pay for, they can go to private clinics or travel abroad. Specifically, in this last case, it is important to understand that the experience patients have during their treatments at the Hospital might affect directly in the decisions taken after. As one woman shared with me, she decided to go private and not continue with her third attempt at Rikshospitalet because she began to lose trust in her doctor because of the type of care she received.

In order to build a richer image of today's narratives around assisted reproduction, it was needed to zoom out from the Hospital.

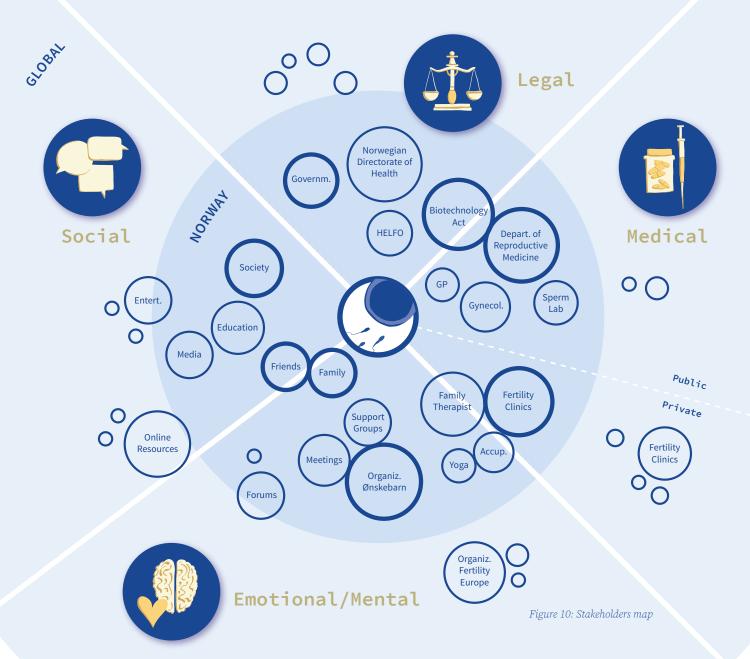
The system of assisted reproduction involves multiple stakeholders from different perspectives and focuses. Not only from a local arena (Norwegian context) but being aware that what happens in a global aspect impacts directly on how we approach the topic. Four main areas were identified in order to understand the topic of assisted reproduction:

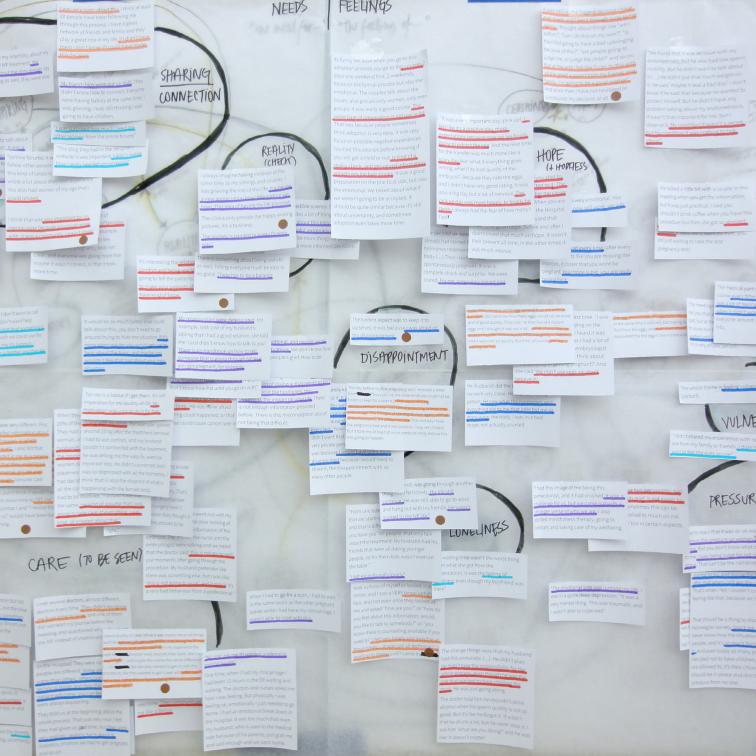
> Medical, not only considering the public sector, but also the private clinics in Norway and other countries.

Legal, that regulates the different possibilities in treatments

Emotional and Mental area. In the majority of the cases this area is being incorporated into the offerings of private clinics, including therapists or other types of activities to support the mental state of the people going through the process. But the emotional area also includes other types of stakeholders such as different global and local organizations that work as a speaker for the involuntary childlessness, as well as support from family and friends.

Social area considers the different beliefs and social norms around the topic of assisted reproduction. This relates directly to how we are approaching or portraiting the topic in the media and education





Needs, feelings, and behaviors

Analyzing the system around assisted reproduction led to understand the different actors that are involved in the process, and that the current stories are being shaped by all these factors having a direct impact on what happens inside the Hospital (internal and external forces).

One of the key moments during the collection was to listen to the stories from former patients themselves. The experience of going through assisted reproduction treatments is covered by different emotions and feelings throughout the journey. In general, it was hard to place one emotion in one specific moment of the treatment's journey. Feelings are related to each other in different aspects of the process, and they are carried out through different areas.

Emotions that were gathered from my interviews were cluster into needs and feelings. This led me to understand that behind a feeling, there is a need that is rooted in a deeper level; and that current practices or behaviors, in the Hospital and outside, contribute to creating the need, either if it's directly or indirectly.

Three main emotions where identified:



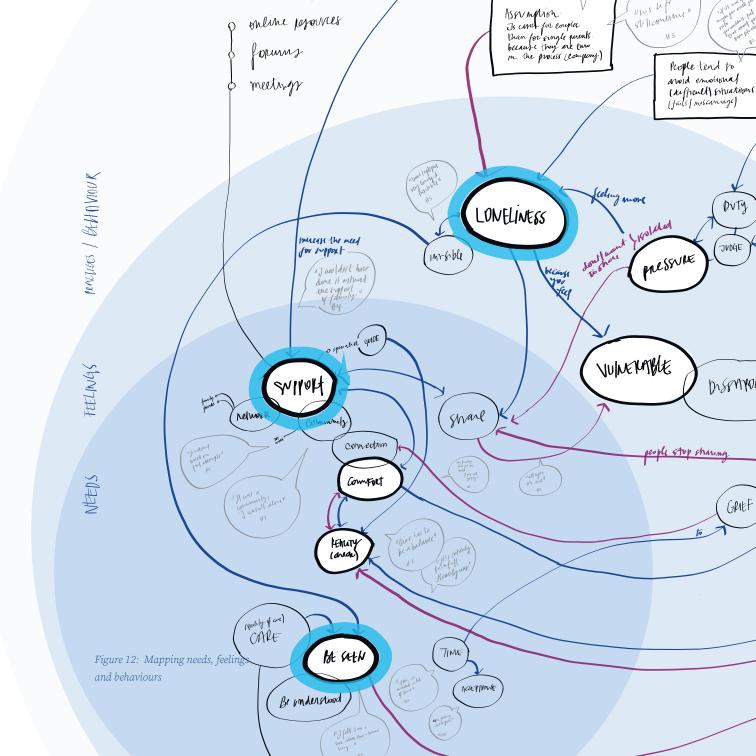
the feeling of loneliness

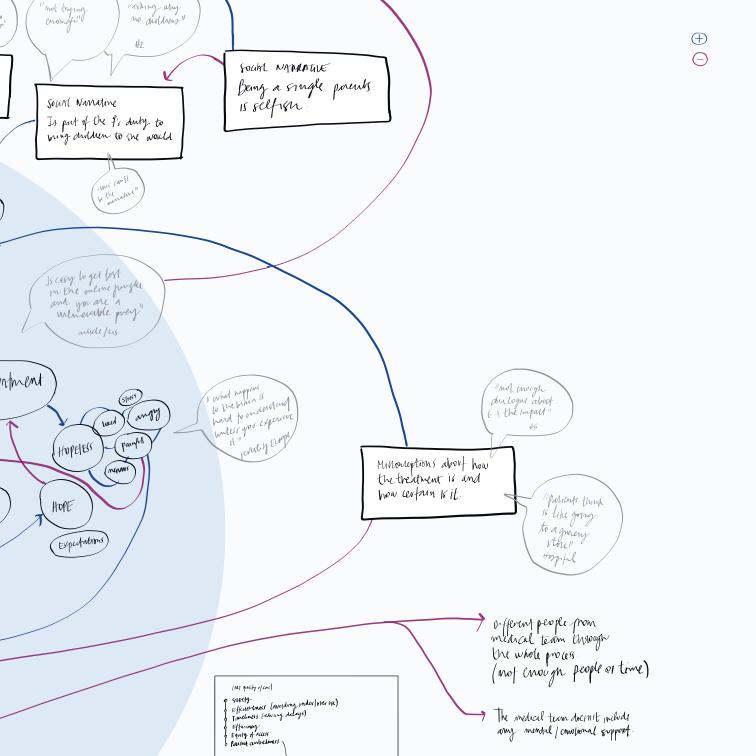
the need to be seen

These three emotions were also related directly with the need for balance between hope and reality check in how the topic of assisted reproduction is being approached nowadays.

The three main emotions helped to capture the different stories collected throughout the whole research, being able to understand the type of emotions that were carried out, and most importantly, why and what aspects help contribute to those emotions.

Figure 11: Analysis of emotions and needs using information collected through the interviews (left)





Capturing and visualizing current narratives

Three main findings were identified as the existing narratives around assisted reproduction.

Illustrations were used to accompany each main finding. Being aware that I'm not a professional illustrator, the main goal for the illustrations and/or visualizations was to make more tangible and visible the feelings and stories behind each finding.

1.

There is a tendency to pay more attention to the technical side of the treatment rather than the person that is going through the process.

Many of the people that have gone through the process describe their experience as an assembly line. Many times during the treatment they felt that they were part of a long line of patients, that the procedures were fast and that they were meeting different people from the healthcare team every time they were at the hospital. But what had a bigger impact in their experience was the fact that they felt everything was focus entirely on the technicalities of the procedures, feeling like the healthcare didn't care or acknowledge how difficult and emotional the process is.

"It was very quick. It wasn't much caring or involvement. It was like 'samlebånd' (assembly line): in and out, in and out, next person"



Many situations contributed to patients feeling like the healthcare team did not recognize them as people, but rather a technical task that needed to be done.

Some of these situations were people entering the room while the patient was still sitting in the examination chair with open legs. Receiving important information without any eye contact. Not saying 'hi' to the patients when they met different people from the healthcare team. Having doctors asking the patient for important information about previous appointments.

"It would have been better if they had been more interested in meeting me as a person, not as a medical condition. I felt very lonely and invisible at those times... it was just all technical/medical to them.

I assume they worked under a lot of pressure and were sometimes stressed, but I don't think it would have taken much more time to see me. Some good eye contact and 'I realize this is a lot to take in' would have been better than nothing.

"Some doctors gave me medical messages while I was still sitting in the chair for gynecological examination. I did not appreciate receiving important information to my vagina, to be frank."



2.

The topic of assisted reproduction needs to better acknowledge diversity

The feeling of not being seen because of the assembly line experience is directly related to the notion of treating everyone in the same way. To understand the world around assisted reproduction we need to understand that every journey is different. People have different experiences from each other.

One general comment was repeated among all the people that have gone through the process of Assisted Reproduction Treatments (ART): 'You never know how it will be or how it is until you experience it yourself'. Even though there are certain common feelings around the process, every situation is different from the other. For example, while some people liked a more practical/technical touch from the healthcare team, others would have wished to have more emotional support. **Not acknowledging diversity** results in treating everyone in the same way, or experiencing different types of care depending entirely on the health personnel who is at the shift.

"The hormones had an impact in my life"

> "I prefer if the doctors are more practical"

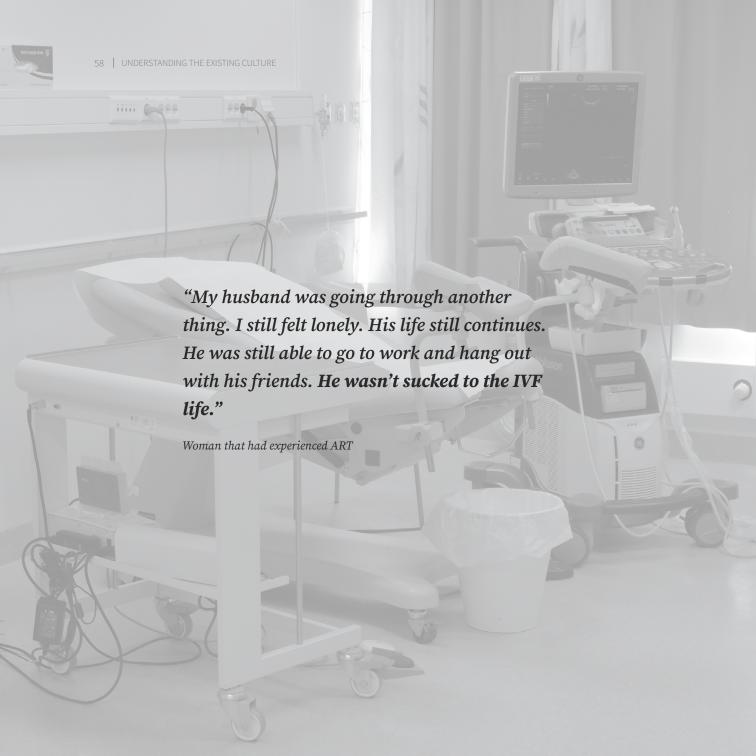
"The hormone treatment wasn't the worst from the process"

> "We didn't go to online resources or any forums. We just talked with close friends.

"I needed more emotional support"

"I was surprised how much I needed the other women from the online forums"





Social assumptions and their impact on the experience

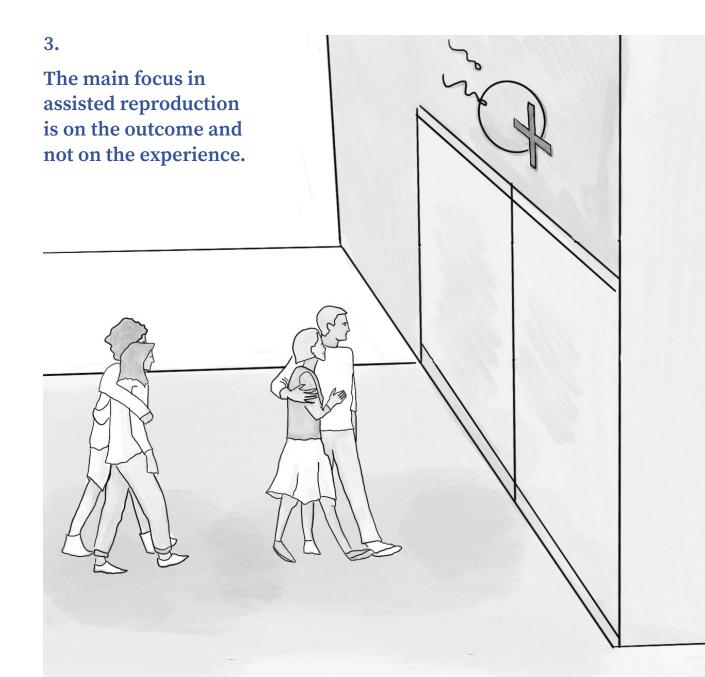
Not being aware about the diversity of experiences might lead to having social constructions on how the experience of assisted reproduction must be. One of the main comments around the not acknowledging diversity was related to the social assumption that it is easier for couples to go through the process than for single parents because they are two people and can support each other. But that isn't always true.

Social assumptions are the stories that often become our automatic truths. These stories become harmful when we take them for granted and we act upon them. For example, thinking that all women that are going through the process don't feel alone because they can rely upon their partners. But, because these are social assumptions and not necessarily truths, we can end up isolating people. Some of the women I had the opportunity to talk with mentioned that you can still feel very lonely even if you have a partner; mainly because the entire treatment focuses directly on the woman that is going through the process, being more demanding for one of the members of the couple.

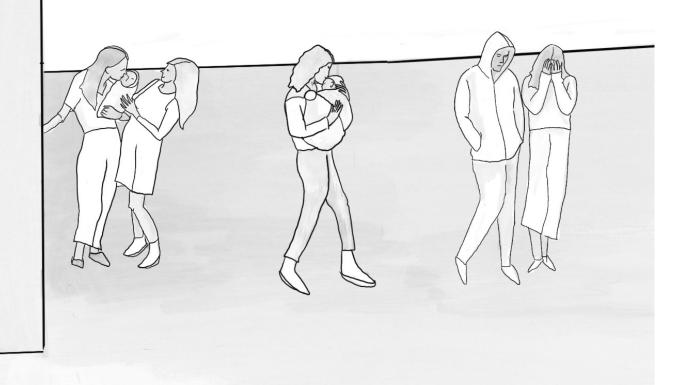
A journey of different feelings

Next to having different experiences, diversity also comes concerning one person's journey.

A combination of different feelings and needs are carried out through the whole process. While someone would prefer more emotional support at the beginning of the process, they might also want a technical approach later on.



"IVF is an incredible science. But I also think it includes a lot of things. It shouldn't be about this easy solution. It is extremely painful, extremely difficult. The clinics only provide the happy ending pictures. The journey is painted in a very flowery way."



Assited reproduction treatments tend to meassure their success as the number of pregnancies. But, as it was explained in an earlier chapter, the treatments of assisted reproduction are different from other conventional treatments were the patient can have more level of involvement. In this specific context, there is no cure for a concrete disease. It's about assisting couples or individuals in getting **pregnant.** Because of this, nothing is 100% certain that will end up with a pregnancy.

Even though success rates are very similar to the chances in natural conception of fertile couples (Pennings and Ombelet 2007), around 25% of patients don't get pregnant after the three **attempts** (source: leader of Reproductive Medical Department, Rikshopsitalet). Regardless of the specific percentage of unsuccessful rates, failure is still a possibility that needs to be acknowledged.

The balance between hope and reality check

Assisted reproduction treatments need to work managing the balance between hope and reality check. Considering that it's a very invasive treatment that demands a lot of energy from patients, the healthcare team needs to be the best in their field. But at the same time, it has been brought the

importance of being realistic with the success rates and that it's not an easy treatment.

The impact of misconceptions

These types of misconceptions not only affect the experience of patients in the Hospital. They also have an impact on how patients continue their lives after their treatment, especially if the treatment has ended in fail attempts. The misconceptions around assisted reproduction treatments not only are part of patients, but they are part of the stories and assumptions within the society.

"I had to learn that it was an ok reality (to stop trying). There is this pressure on women to keep trying. But you don't know what is doing to me. I was being judged for not continue going. That can't be the narrative."

Creating collective understandings

"Awareness brings the opportunity to change"

Line Jonsborg, Family therapist

During an interview with the family therapist Line Jonsborg, she explained that **awareness is the first step towards change**. In order to understand what is needed to change, we need to reflect on the current situation first

To better understand the existing culture at the Reproductive Medical Department, it was important to understand how open the organization was for change. It was important to open up safe spaces for the team of the Reproductive Medical Department to reflect and discuss about how they perceive themselves, and especially, about how they react to the current stories shared from former patients.

Using maps & illustrations as discursive tools for sparkling cultural awareness

Three sessions with different groups from the healthcare team were run in order to begin sparkling cultural awareness:

Session with **leader** of the Reproductive Medical Department

Workshop session with **healthcare team** (head of section, nurse, embryologist and assistant leader)

Workshop session with **all members** of the Reproductive
Medical Department.

Bringing the patient's voice to the table

The main goal for all of these sessions was to bring the patient's voice into the room. Current narratives were shared using patient's quotes and visual elements, such as illustrations and a feelings map, were used to support the narratives.

Through different group dynamics for each session, teams shared their own thoughts and reflections around the current narratives. Each session finalized with a quick ideation activity to imagine how things could be different.

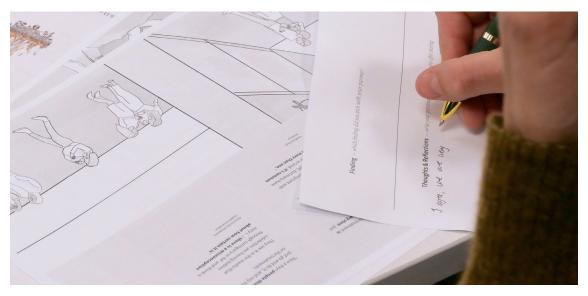


Figure 13: Working sheets used in the seminar workshop with all team members. Picture taken by Karen Byskov.



Figure 14: Pictures from the seminar workshop with all team members.



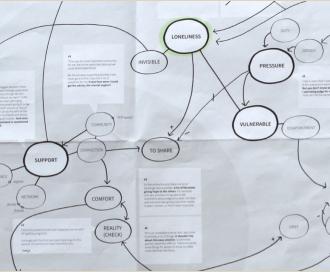


Figure 15: Fragment of feelings map use in the session (bottom)

Creating collective understandings of today's narratives: Co-creation session with the healthcare team

The same session was developed previously with the leader of the department.

GOAL:

To bring the patient's voice to the table in order to reflect and discuss the current situation.

DYNAMIC:

Present the current narratives gathered during the research phase through the patient's journey and feelings map.
Reflect and discuss what would be the worst experience.

Ideation on needs and feelings:

- 1. What would happen if we focused entirely on tackling the feeling of loneliness?
- 2. What would happen if we focused entirely on tackling the need to be seen?

Reflect and discuss what would be the benefits and consequences of each one.



Figure 16: Pictures from the seminar workshop with all team members. Picture taken by Karen Byskov.





Creating collective understandings of today's narratives:

An activity within the yearly Reproductive Medical Department Seminar

This year the Reproductive Medical Department had a full-day seminar with all team members where they discuss current challenges, work in team-building activities, among others. I had the opportunity to be part of it and had a one-hour session with everyone.

GOAL:

To bring the patient's voice to the table in order to reflect and discuss about the current situation.

DYNAMIC:

Present the diploma project and the current narratives gathered during the research phase.

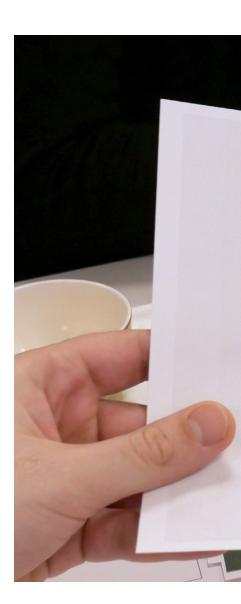
Reflect and discuss the current shared stories: What are my first thoughts?

Do I agree/disagree? Why? If I agree, is there something I could do as part of the healthcare team to provide a better experience for the patient?

Healthcare team's reactions to current narratives

Maps, tools and patient's quotes helped trigger reflections about the today's situation. In some cases people even recognize themselves in some illustrations, writing their own names on the drawings. In other cases, even though they had agreed with the statements, they didn't imagine how things could be different. For them, working as an assembly line was needed considering the high demand for the treatments.

In the end, all reactions (agree, disagree, confusion, laughter) contributed to the process of cultural awareness and helped shaped the discussion around the current situation.



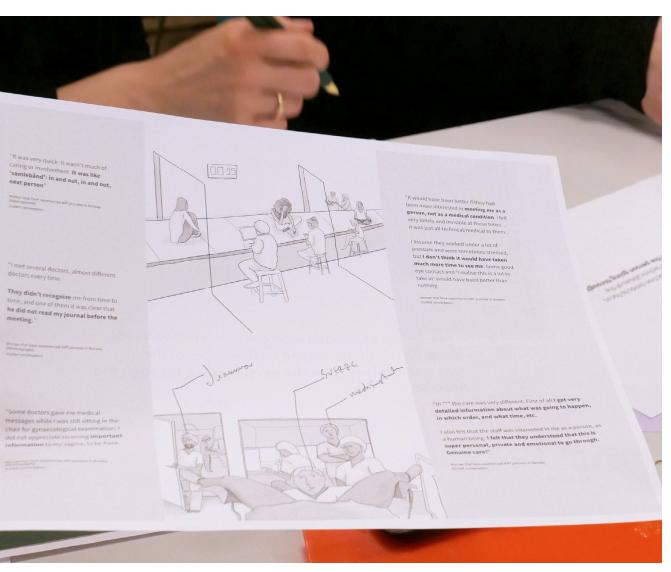


Figure 17: Picture from the seminar workshop with all team members. Picture taken by Karen Byskov.

"Giving information while the patient is in the chair is something done in order to use time efficiently and to have something to talk about"

Embryologist, Reproduction Medical Department, Rikshospitalet

"My first thoughts are that this is so true. It's exactly what we do. We focus on the technicalities, especially us from the Lab because we are people trained technically. We have no training in how to meet patients, other than our own "sunne fornuft" (common sense).

That said, we from the Lab don't have a lot of contact with patients. This can make us a bit distant from the fact that these cells we are carrying are actually from someone! I think we should all have more training in how to meet patients to improve this and put the person in focus, while at the same time always do our best with the technicalities."

Embryologist (Lab), Reproduction Medical Department, Rikshospitalet

"I think I never really thought about the **loneliness part of the process.** It makes you think a little bit about patients acting or doing things that are not really 'convenient' for the department.

For example, calling when they have been told 'you don't need to call because we are going to call you' kind of thing. It makes you think a little different about why they do it."

Head of section (Lab) at the Reproduction Medical Department, Rikshospitalet



"I think I understand patients when they feel like an industry because it is also like that for ourselves. We are in a routine in which they are mostly numbers."

 $Nurse,\,Reproduction\,\,Medical\,\,Department,\,Rikshospital et$

A production oriented culture

"The focus is on production, not the person. Fast trade, too little time for each patient. The system is based on production and economy"

Head of Administration at the Reproduction Medical Department, Rikshospitalet

Collecting and evidencing the current narratives helped to understand the existing culture around assisted reproduction treatments, and specifically, the organizational culture inside the Reproductive Medical Department of Rikshopsitalet. This led to the main finding of the project. The culture around assisted reproduction treatments focuses primarily on production and successful outcomes, making harder to acknowledge the differences and the difficulties patients experience during the process.

A discussion that has already started

During the last 10 years, there have been different discussions around this same topic. Pennings and Ombelet started a debate around how assisted reproduction treatments are still too exclusively focused on effectiveness and success rates (*Pennings and Ombelet 2007*). Because of this, more experts on the field have highlighted the importance of **patient-centredness** in assisted reproduction technology in order to achieve a high quality of care (*Van Empel et al, 2008*). They stipulate that even though success rates are important, they give no information about the care process itself and little information about the opportunities for improvement.

SUMMARY OF CURRENT NARRATIVES

- 1. There is a tendency to pay more attention to the technical side of the treatment rather than the person that is going through the process.
- 2. The topic of assisted reproduction needs to better acknowledge diversity
- 3. The main focus in assisted reproduction is on the outcome and not on the experience.

Patient-centredness care

Considering that assisted reproduction treatments are not about curing a disease but focusing on assisting people to fulfill their wish of becoming pregnant, patient-centredness takes a higher level of importance. The main change with patient-centredness is that it moves the healthcare focus away from the disorder and towards the patient (Harkness, 2006). But it makes it difficult to shift the focus on a daily basis when all internal and external forces are pushing towards the production.

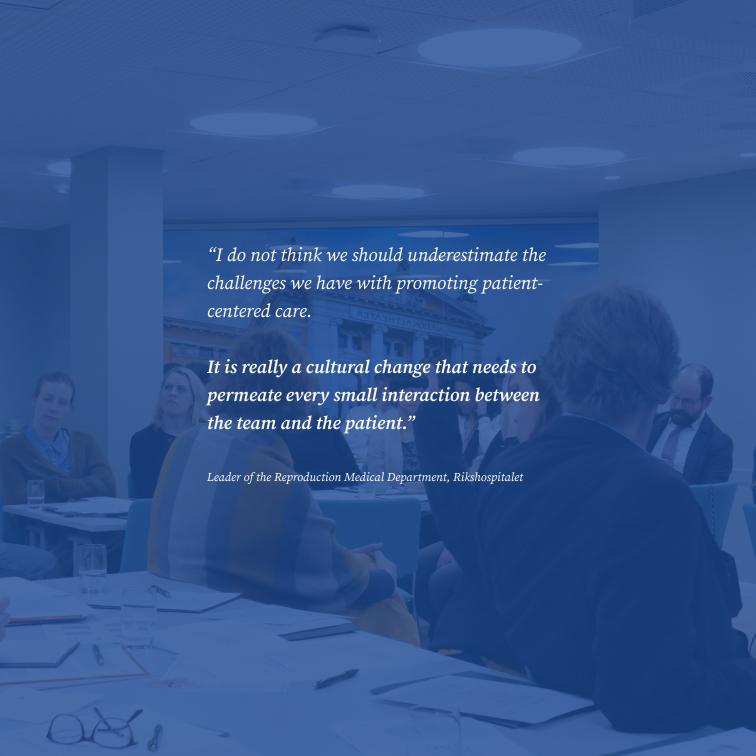
With a constant rise in the demand of the services, it becomes more important for the healthcare team to understand that a better experience doesn't necessarily mean more time with the patient; it should be about how the time is being used. And that small interactions can have a great impact on the patient's experience.

PATIEN-CENTREDNESS CARE

(Gerteis et al, 1993)

Being respectful of and responsive to individual patient preferences, needs and values.

Respect for patient's values, preferences, and expressed needs. Coordination and integration of care. Information, communication and education. Physical comfort. Emotional support and alleviation of fear and anxiety. Involvement of family and friends. Transition and continuity of care.



Designing to support cultural transition:

Transitioning towards a new narrative

This sections presents the principles and cultural prompts that helped support the transition towards a culture of assistance.



Building a common vision and principles to support it

Evidencing principles (+ design proposal)

Reflecting on the process and how to move forward

Building a common narrative and principles to support it

"The worst experience we could deliver would be if we lose the human side, where we didn't pay attention and we ended up treating patients as a piece of flesh; we need to understand as an organization that this is our responsibility"

Leader of the Reproduction Medical Department at Rikshospitalet

After understanding today's culture, it was important to build a common vision to move forward. By using counter-narratives it helped to continue the process of cultural awareness. Counter-narratives help to highlight the current problems of the service and build new stories "against" the negative aspects of the current situation (Bate, P. and Robert, G. 2007).

As mentioned before, unlike other medical treatments, medical assisted reproduction treatment doesn't focus on curing a disease. As the name says it, it's about a process that assists and supports the wish to become pregnant. Assisting is defined by the action of helping or support someone. So, what if instead of focusing on treating a disease we focus on assisting people?

Three main principles were defined in collaboration with the team to help understand the transition from a production-oriented culture towards a culture of assistance. Each principle has been written in the first person, emphasizing the notion that they are being communicated by the healthcare team to the healthcare team.

PRINCIPLES help shape the direction where we want to move

forward. They are directions of performance that frame and shape what people in an organization do and ultimately what patients experience (Bate, P. and Robert, G. 2007).

#1 PRINCIPLE

from assembly line experience

to team based care

CURRENT STATE

focus on treating a disease

#2 PRINCIPLE

from treating everyone in the same way

to acknowledging diversity

#3 PRINCIPLE

from a single view of success to an holistic understanding of experience

VISION

focus on assisting people

Evidencing principles

by translating them into practices and tools

In order to make cultural change, it was needed to work on the three levels of culture: principles and values, practices and routines, and tools and artifacts. It was important to not just present a possible change, but evidence how these principles could be translated into interventions that can inspire the healthcare team to move forward

Each principle is exemplified by at least one cultural prompt. From different ideas that had been gathered during the process, four prompts have been selected because of their quality to exemplify in a better way the heart of the principle. Nevertheless, this doesn't mean that prompts are the only possible interventions towards a culture of assistance. As mentioned earlier, cultural transitions are complex and messy processes that develop through time. In this sense, cultural prompts are just some examples of possible interventions that could facilitate the cultural transition.

CULTURAL PROMPTS are interventions that help and assist to move towards an action. They help understand how principles can be translated into practices and/or tools in order to support a cultural transition.

Because their main goal is to exemplify each principle, cultural prompts can be interventions that could be implemented today, while others can be used as inspiration for how things could be.

CULTURAL PROMPT 2.1 Train Talk

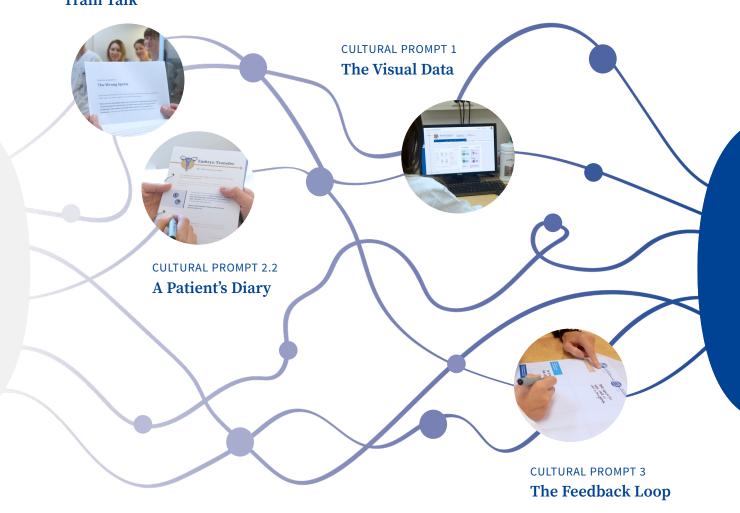


Figure 18: Model of the process of cultural transition, including proposed cultural prompts.

Design requirements for building cultural prompts

Cultural prompts as examples of practices and tools

In order to present a wider variety of possible interventions, prompts have been designed based on Schein's model of cultural change.

Being aware that in order to make cultural change, is important to work among the three levels of culture, it was important to use different examples that could fit each level. Cultural prompts will include examples of current tools' re-design, and new practices and routines with new material.

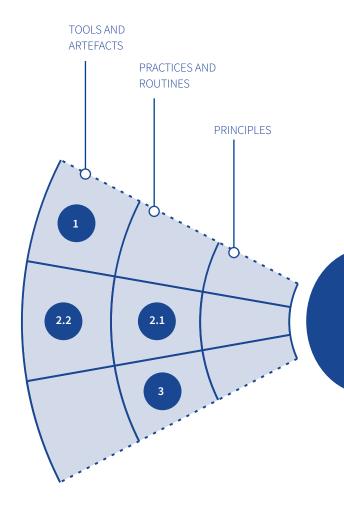


Figure 19: Organizational culture with proposed cultural prompts.

Cultural prompts for the specific context of the **Reproductive Medical Department**

Prompts have been designed based on the current context, and building on top of the team's current way of working; understanding their current practices, routines, space, and the tools that they use. For this, it was necessary to understand not only the existing challenges and problems that the team faces every day but also being aware of the forces that push the Department towards a production-oriented culture.

To reinforce this need to design for a specific context, prompts were developed based on the visual profile of the Oslo University Hospital. It was important that prompts had a sense of belonging to the Hospital and that all material could be easy to work with. In this same aspect, all printable material has been designed based on formats that are possible for the Hospital to print (using only A3, A4, A5 formats), as well as using digital files that they could continue editing such as Microsoft Word and/or InDesign.

Visual Profile Oslo University Hospital

MAIN COLORS:



SECONDARY COLORS:



FONTS:

Calibri Regular

Reproductive Medical Department at Oslo University Hospital, Rikshospitalet.

Calibri Bold

Reproductive Medical Department at Oslo University Hospital, Rikshospitalet.

Cambria Regular Reproductive Medical Department at Oslo University Hospital, Rikshospitalet.

Calibri Bold Reproductive Medical Department at Oslo University Hospital, Rikshospitalet.



Figure 20: Analysis of current tools, spaces, practices and routines

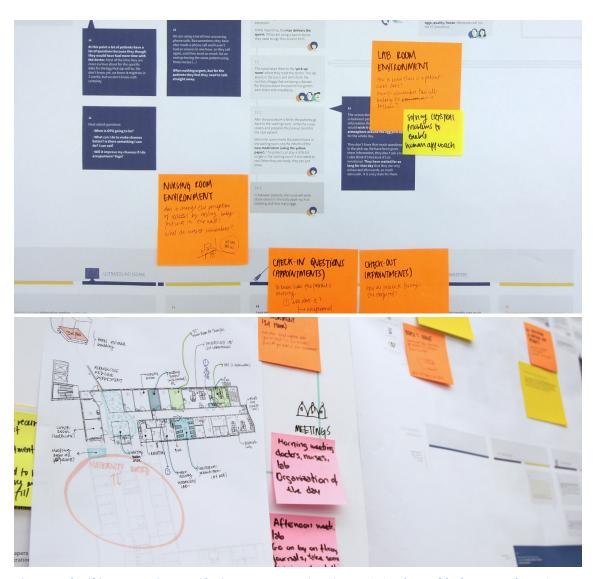


Figure 21: Identifying opportunity areas: ideation over current patients' journey (up) and map of the department (bottom).



Figure 22: Co-creation session with healthcare team (up) and leader of the department to define principles and cultural prompts.



Figure 23: Feedback and iteration on principles and cultural prompts

Defining principles and cultural prompts to support a culture of assitance

SESSIONS:

- 1. Session with the healthcare team. An "external" participant joined the session (even though she is part of the healthcare team of the department, she hadn't been in a previous co-creation session except for the seminar).
- 2. Session with the **leader** of the Reproductive Medical Department.

GOAL:

Test and validate the main principles and concepts.

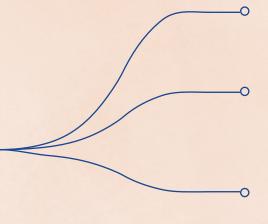
DYNAMIC:

Proposals for principles and concepts were shown in order to facilitate the discussion. For each proposed concept it was discussed the level of relevance, possible implementation, and adjustments.

Transitioning towards a new narrative

from treating to assisting

This section presents the final design proposal that includes principles and cultural prompts in order to support the transition from a production-oriented culture towards a culture of assistance for the Reproductive Medical Department at Rikshospitalet.



from assembly-line experience to team-based care

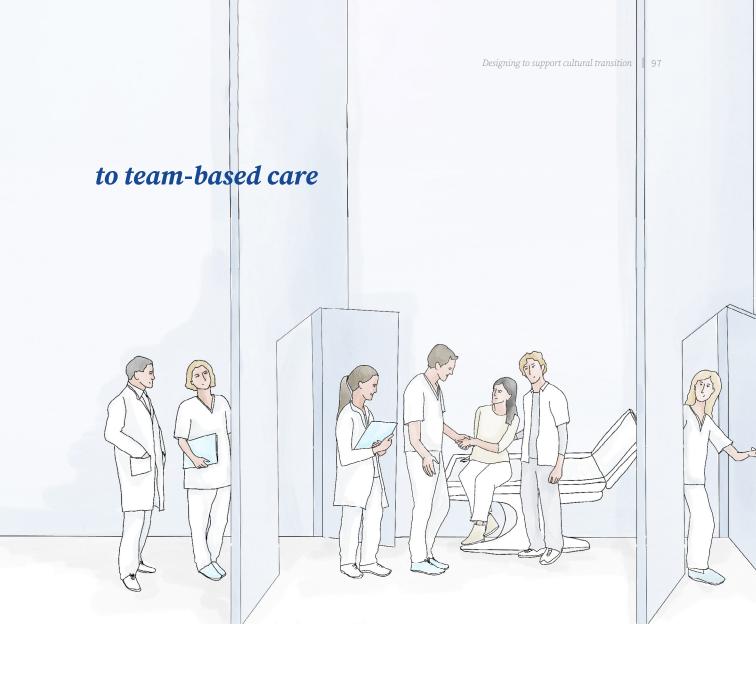
from treating everyone in the same way

to acknowledging diversity

from a single view of success to an holistic understanding of experience



#1
PRINCIPLE



#1 PRINCIPLE

from assembly-line experience

to team-based care

We understand that our individual tasks are part of a longer process where the patient is at the center. We understand and respect everyone's role in the team, and work as a team to deliver a better experience for the patient. Even though patients meet different people from the healthcare team, there is a feeling of continuous care where everyone that they will meet is familiarized with their process and treatment.





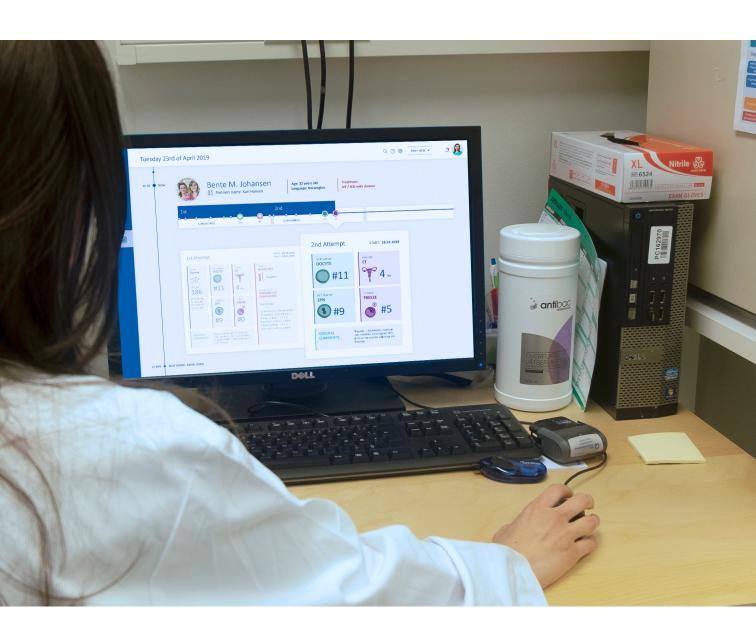
CULTURAL PROMPT 1

translating the principle "Team-based care" into a tool

The Visual Data

Making information **more** visible and understandable in a faster way for everyone from the healthcare team.





CULTURAL PROMPT 1

The Visual Data

"The Visual Data" is a visual proposal for the Reproductive Medical Department on how to organize and categorize the information from the patients' journal in order to make it more accessible and easy to understand for everyone from the team.

"I met several doctors, almost different doctors every time. They didn't recognize me from time to time, and one of them it was clear that he did not read my journal before the meeting"

Woman that had experienced ART

Why?

Because of the high demand for the service, the healthcare team works with a large number of patients. The team has approximately 5 minutes between each patient's appointment to get updated with their process and treatment. Each week the department has around 450 consultations, which considers approximately 200 different patients per week (source: leader of Reproductive Medical Department, Rikshopsitalet).

Nowadays, the healthcare team registers the information in a printable version of the patient's journal as well as the digital software. To access to all the patient information from previous appointments, doctors need to navigate through different windows of the software. Next to this, some information on the papers uses very technical language that only the team from the Lab (embryologist) understands.

Because of these difficulties and limitations, it has become normal that doctors ask patients while they are in their appointment about their process and treatment details. All this has contributed to patients feeling that the healthcare team is not familiarised with their process, making patients feel like there is not much caring involved. These emphases the feeling of an assembly line where patients move from different doctors without them knowing what has happened before in the process.



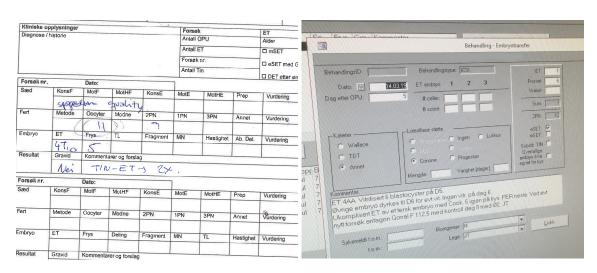


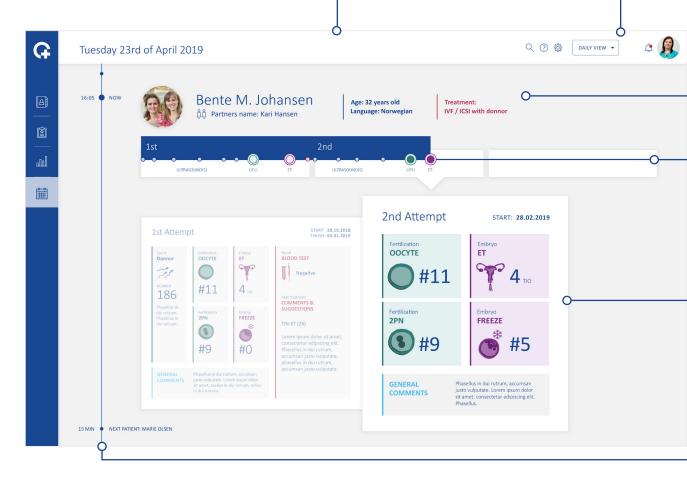
Figure 24: Lab assesment with treatment overview (left) and screen shot of IVF software currently use by the healthcare team (right).

How does it work?

Structure of visual proposal (daily view):

Overview of the patient's process:

all key information of the patient's treatments in one view, so doctors don't need to navigate through different windows to access.





Calendar view with the option of daily view to use during the appointments



Notion of continuous treatment:

emphasizing the importance to see the treatment as a whole process and not just attempts. Highlight where in the process the patient is.



Icons to help understand information more easily. **Colour coded** for each type of appointment (steps in the process).



Reminders of the **next** appointment.



Patient's Information:

a more personalize journal by using the patient's photo and including important information about the patient such as partner's name (in case there is) to emphasize the importance of partner collaboration; as well as language preferences.

During appointments:

Tuesday 23rd of April 2019

1st Attempt

7/ 14...

3 #9

6 #5

When the time is getting closer for the next appointment, a small visual cue is used to remind the doctor.

The doctor can change to the new patient by clicking in the timeline, or it will change automatically when the time for the new appointment has started, showing the new patient's profile.



Q ② Ø DAKYVIEW •



Early reactions

Cultural prompt as conversations tool

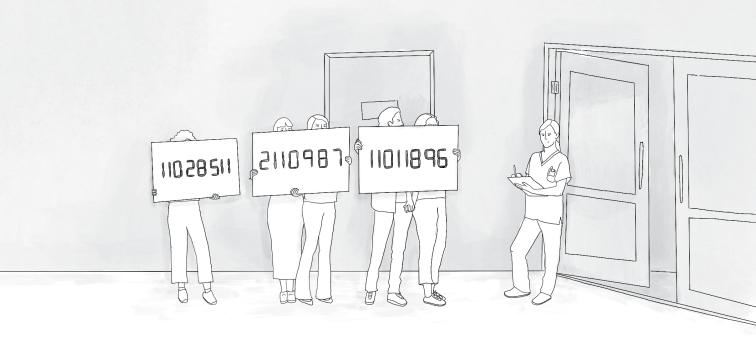
It's important to be aware that the re-design of a new software takes a lot of time and that the decision doesn't depend only on the Department, but the management department from the Hospital. The goal of "The Visual Data" is to inspire reflections on how tools can enable the team to deliver a better feeling of continuous care for patients. By exemplifying the importance that everyone from the healthcare team gets informed fast and easily, and understands the overall patient's process helps to avoid situations where the patients don't feel taking care of.

In discussions with the team, it has been brought up that during the next years a project to renovate the software will start. In this sense, the leader of the department has come up with the possibility of using the cultural prompt as a conversation tool to discuss with the rest of the Hospital the challenges they are currently having with finding information and the impact it has on their daily practice.

Next to this, the proposal has helped to discuss among some of the team members how it could be translated into a printable version to be used during some appointments (such as Embryo Transfer or Egg Pick-Up). Possibilities of designing a summary paper and testing if adding a quick overview of the process into the patient's folder, by incorporating more visual elements like color-coded and simplify language, would help doctors to get updated faster. But further on discussions would need to be carried out to define specific details such as who will fill the information in the new summary paper.



#2
PRINCIPLE



to acknowledging diversity



#2 PRINCIPLE

from treating everyone in the same way

to acknowledging diversity

Patients have a story, fears, wishes. They are people that are going through a process of medical assistance reproduction. We acknowledge that everyone is different and that they might have different preferences on how they would like the healthcare team to communicate with them.

We recognize that the process can be difficult and that different emotions are carried throughout. We are interested in knowing the patients' preferences and we encourage them in a non-invasive way to be open with us on the type of care they would like to have.



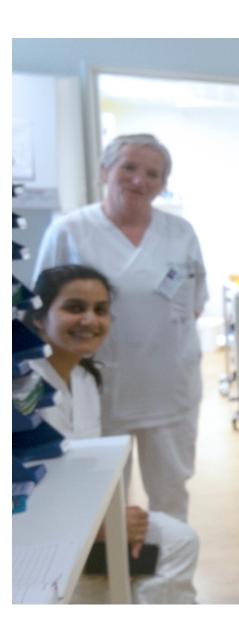


CULTURAL PROMPT 2.1

translating the principle "Acknowledging diversity" into a practice

Train Talk

A yearly program to **encourage the** healthcare team to have better communication with patients





CULTURAL PROMPT 2.1

Train Talk

"Train Talk" is a program for the healthcare team to practice good communication principles in order to improve the communication with patients and deliver a better quality of care.

By practicing, learning and improving from their own experiences, the program aims to help build self-confidence among the team members on how to approach difficult or unexpected situations and create common understandings on how to act.

Why?

Nowadays, every team meeting focuses only on the technical side of the treatment. Even though it is very important that the treatment is perfectly executed and that it is important for the team to discuss all the technicalities of each treatment, it also contributes to the production-oriented culture, making it easy for the team to forget that there is a person behind the treatment. This ends up with the healthcare team focusing on minimum interactions with patients during the appointments, making patients feel invisible and lonely during the process.

Even though for the majority of the healthcare team was clear that asking patients how they are doing could make a difference in the patient's experience, some of them preferred not to ask because they don't know how to react to emotional situations. Therefore, to not be exposed to an uncomfortable situation, they prefer not to ask.

Small interactions can have a big impact in the experience

Experts suggest that it's always better to ask, rather than to avoid. The feeling won't disappear just because it's ignored. According to Line Jonsborg, a family therapist, if a patient starts crying after she's been asked how she is, being with her for "10 seconds is better than nothing".

As a society we are not used to listening, we are used to trying to solve immediately. In this sense, is very important that the healthcare team understands that they don't need to solve everything when they ask "how are you?", unless it's related directly with the team's responsibility. This is why is very important to learn and practice active listening, as well as building self-confidence in the team to face unexpected situations.

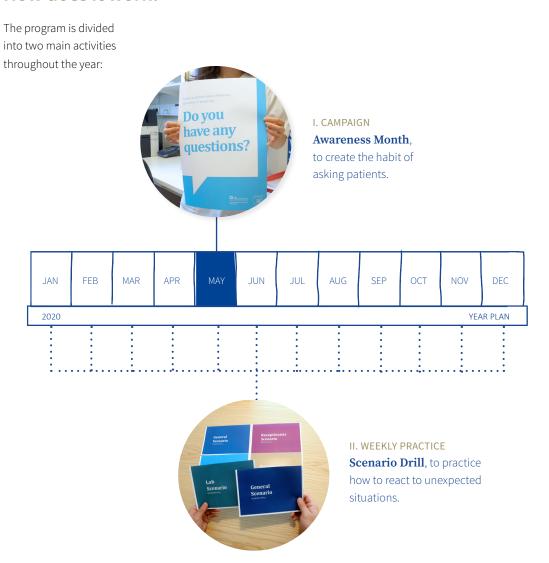
"I don't think it would have taken much more time to see me. Some good eye contact and 'I realize this is a lot to take in' would have been better than nothing"

Woman that had experienced ART

"When we ask 'how are you?' we just hope that they will say: 'I'm good'. I don't know what to say if they say they are bad"

Nurse at the Reproduction Medical Department, Rikshospitalet

How does it work?



I. CAMPAIGN

Awareness Month

"Awareness Month" is a full month where the healthcare team focuses on practicing how to ask patients general questions as well as practicing active listening. During the month the whole department will focus on encouraging each other to remember to practice check-in and check-out questions.

CHECK-IN QUESTIONS: How are you?

CHECK-OUT QUESTIONS:

Do you have any question?

Structure of the month

1. PREPARING THE SPACE FOR

THE CAMPAIGN:

During the first day of the month, reminders will be placed in different areas of the Reproductive Medical Department and team leaders will start wearing pins with the program's identity.



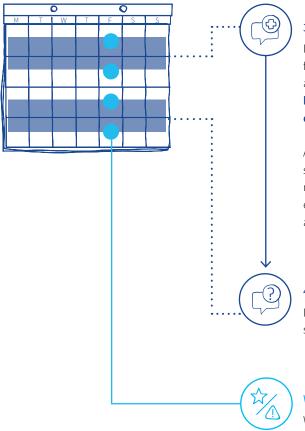
2. KICK-OFF OF THE CAMPAIGN:

The monthly activity will be introduced during all team meetings. It's very important to present each question and explain why it's important to incorporate them into the team's routines.





Figure 25: Pins and posters in use.



3. PEER TO PEER PRACTICE:

During the first 2 weeks of the month, the team will focus on peer to peer practice. To lower the threshold and fear of starting a new practice, the team will **begin** by practicing among themselves to ask these auestions.

As constant reminders, leaders must include this same practice of asking questions during their daily meetings. Beginning each meeting by asking how everyone is doing, and finish by asking if someone has any questions.

4. ASKING PATIENTS:

During the last 2 weeks of the month, the team will start practicing the routine of asking patients.

WEEKLY EVALUATIONS:

Weekly evaluations will be developed throughout the whole month. Team leaders will be in charge of running the weekly evaluations with their own team. Evaluations are not only important to keep track that everyone is reminded of asking, but also because they are an opportunity to open a safe space for the team to discuss challenges they have encounter and how to act on those situations.



Figure 26: Examples of poster.

Using the space as visible reminders

In order to make the campaign more visible, it was necessary to design tangible reminders that the team leaders could place around the department space. Posters and pins were designed to be used as daily reminders.

Building a visual identity

To start designing tangible reminders a logo was designed first. This helped to give a stronger identity to the main program and the different activities. The isotope was build to represent a sense of continuous movement towards good communication. A speech bubble is used repetitively to convey the ripples effects that good communication has for the patient's experience. The logo uses the program title of "TrainTalk" to express the meaning of training how to talk. The logo is used in all communication material for the program to create a common identity in both monthly and weekly activities.



Isotope deisgn for the program "Train Talk"

Posters & Pins

It was important to design reminders that could be placed in areas where the patients don't have access to. It is important to understand that patients are going through a personal and difficult process; this makes it different for them to be faced directly with basic questions that the healthcare team needs to be reminded of asking.

Posters were designed as static reminders to be placed in private areas were patients wouldn't have access to. For example inside the laboratory, research lab, private offices, among others.

On the other hand, pins were designed as moving reminders that team leaders could use on a daily basis. Because the specific questions couldn't be used on pins without patients seeing them, the identity for the program was used.

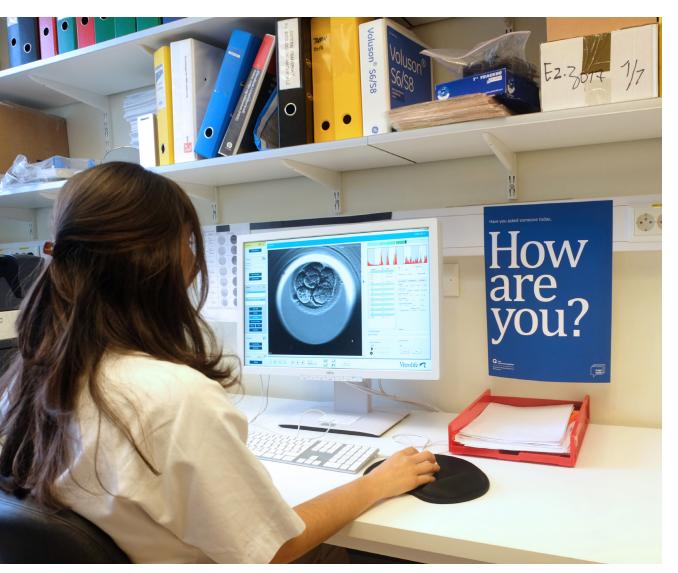


Figure 27: Examples of poster placed in private office, where the healthcare team calls patients over the phone.

II. WEEKLY PRACTICE

Scenario Drill

"Scenario Drill" is a new routine to practice how to communicate with patients in unexpected situations. By using real-life scenarios the healthcare team can practice how to react and, therefore, be more prepared for when these situations happen. Next to this, "Scenario Drill" creates a common practice in every meeting to talk and think about patients as people and not just medical conditions based on numbers and technicalities.

The activity is being developed throughout the whole year, two times per week during the first minutes of the team meetings. Each team leader is responsible for running the activity with their team

Structure of the activity



Preparing for the team meeting

1. SELECT A SCENARIO:

The team leader selects one scenario card from the Scenario Drill folder. This can be a general scenario or a specific scenario for his/her team.



Figure 28: Scenario drill cards (different categories).



Beginning of the meeting

2. CHOOSE SOMEONE TO ANSWER:

At the beginning of the meeting, the leader picks someone from the team to answer how he/ she would react to the scenario. After selecting someone, the leader will read the scenario situation out-loud.



3. OPEN THE DISCUSSION:

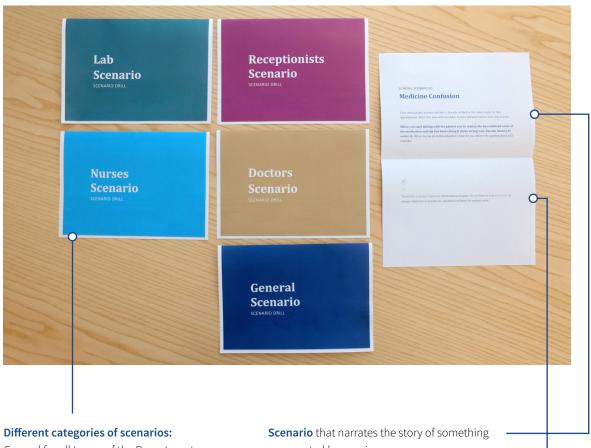
After the selected person has answered, the leader will open the conversation to everyone from the team to reflect on what has been discussed. The leader can use the guides and good practices written in the card to facilitate the conversation. It's important that everyone understands and relates to these good practices; not just repeat concrete answers, just for saying, but to adjust it to their own style to take ownership and he themselves





Figure 28: Scenario drill in context during Lab meeting.

Structure of each Scenario Card



General for all teams of the Department, and specific categories (doctors, nurses, lab, receptionist) for each team. Colour coded is used to make it easier to identify each scenario.

unexpected happening.

Guidelines and good practices to create common understandings in the team of how to act.

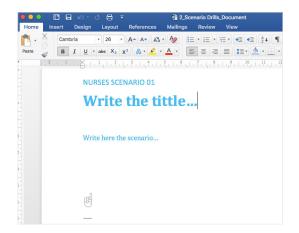
Scenario Repository:

Scenario cards have been designed to be easy to edit and print by the team leaders. Each scenario card is an A4 format folded in half designed in Microsoft Word. This same document has been designed as a repository to gather all scenarios, as well as to create new ones

Backstage: keeping scenarios updated

Scenarios need to be updated every month. New scenarios will be created based on own experiences from the department. Stories compiled in "Det Grønne Korset" (The Green Cross) as well as from other experiences shared by staff and patients through other evaluation tools

"Det Grønne Korset" is a daily risk management tool run in all departments of the Hospital were they gather different stories and experiences. During every morning meeting, the department leader and representatives of each team fill out "The Green Cross" to evaluate the last day. Nowadays, most of the follow-up of "The Green Cross" is related to technical issues. According to the department leader, there are several experiences gathered in this folder related to unexpected situations where it would have been important to practice how to communicate and inform the patients. Four scenarios were created (three general, one specific for doctors) based on past experiences register in "The Green Cross" to be used as examples of storytelling and guidelines.



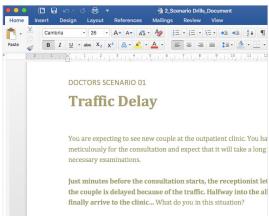


Figure 29: Word document with scenario repository (top). Examples of scenario cards (left).

Early reactions

Nowadays, the Hospital already runs monthly campaigns to practice certain routines. For example, reminders to wash your hands or technical practices on how to run certain procedures. In this sense, team leaders of the department have shared that having one full month that works around practicing communication with the patient would help them to focus on the goal of the activity.

The unexpected factor

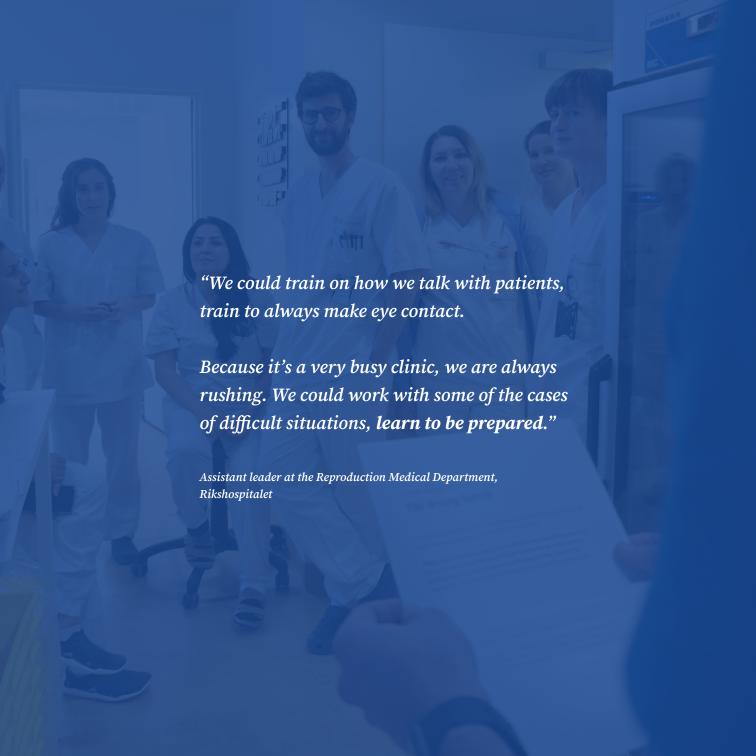
On the other side, it's important to acknowledge that weekly routines would take more time to be implemented. Even though the team leader has expressed the importance of practicing and learning from their own experiences, it is probable that the first time running scenario drills will take more time than just the first 10 minutes of the meeting.

So far, when scenario cards have been shown to other teammates, some of them have laughed while others have been nervous and shocked at the cases. It seems probable that these same reactions could happen during the meetings. Nevertheless, nerves or laughter or any other reaction is a good place to start discussing and reflecting on possible situations that could happen.

Guidelines to learn

Next to this, during discussions with the team about communication with patients, it has been brought up the importance of having guidelines on how to react to certain situations. Not only during the appointments with patients but also for the different communication channels. For example, having guides for when the team needs to call the patient through the phone to inform about results and the fertilization process. More specifically, guides for the lab team on how to properly inform the patient in technical things about fertilization, without forgetting that every patient is different and that for some of them certain news might be harder to receive than others.

In general, the healthcare team has been positive towards practicing how to have better communication with patients, being something that they could start working on now.





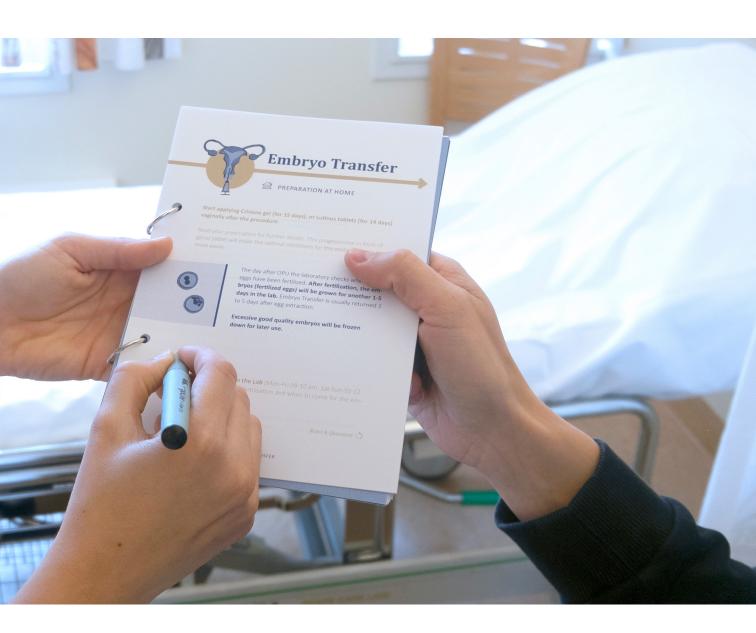
CULTURAL PROMPT 2.2

translating the principle "Acknowledging diversity" into a tool

A Patient's Diary

Re-design of the current patients' letter as a **communication** tool between patients and the healthcare team





CULTURAL PROMPT 2.2

A Patient's **Diary**

"A Patient's Diary" uses the letter to the patient as a communication channel in order to give information about the process and different appointments in a clearer and understandable way. With this, patients can track their own process and be more prepared for their next appointments.

Why?

Communication is a two-way process. It is important to encourage patients to feel comfortable communicating their wishes and questions during their appointments.

Nowadays, patients receive a letter with the indications for the treatment. This paper is also the welcome letter for patients to the Reproductive Medical Department. Patients will have to bring this paper to every appointment so the nurse can fill out new information and discuss the next steps Using the patent's letter as an opportunity to be used as a communication tool between patients and the healthcare team, patients could be encouraged to ask questions during the appointments and express their personal needs.

"Everyone has a story. How can we find out what the patient wishes for their consultation? They should be able to communicate their own expectations"

Nurse at the Reproduction Medical Department, Rikshospitalet

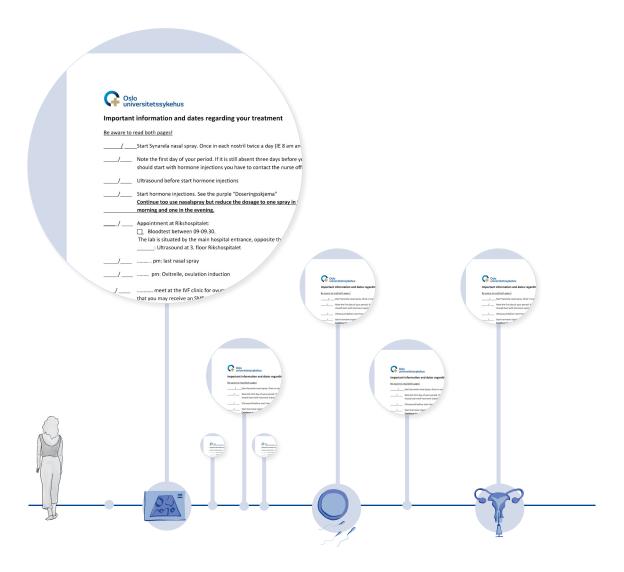


Figure 30: Model with current patient's letter that they need to bring to every appointment

How does it work?

Following a similar dynamic to the current patient's letter, patients will receive their patient's diary during their first meeting with the doctor. The doctor can also use the diary to explain the general steps of the treatment.

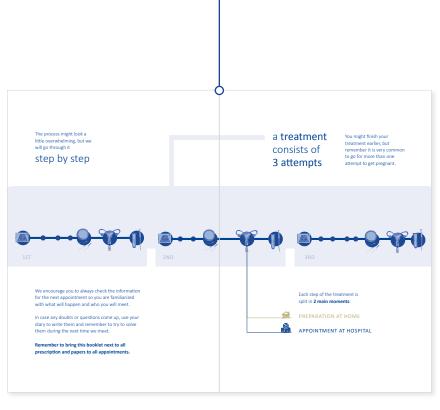
Patients will bring their diary to every appointment where nurses will fill out the new information, as well as discuss the next steps of the process and clear any possible doubts.

1. Space for the name(s),

patient's and partner's. Encouraging the feeling of ownership.



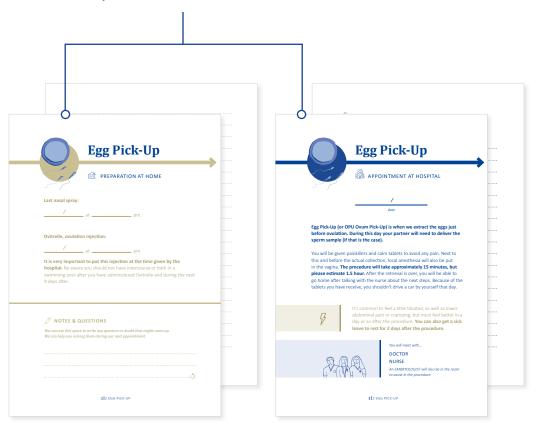
2. Welcome and introduction to the diary: how to use the diary, notion of continuous treatment emphasizing the importance to see the treatment as a whole process and not just attempts; and explanation on how appointments are split.



3. Each step of the process is split in two moments: preparation at home and appointment at the Hospital, making it easier for the patient to track their own process and be more prepare for the next meetings.

Each appointment includes information about what is going to happen, who will they meet, medication, as well as space for personal notes where patients can prepare questions in case they have any doubts or would like to take notes.

4. Messages between attempts to reinforce the notion of continuous treatments as well as inform patients that it is normal to go for more than one attempt, as well as stopping if they need a break.



Remember it is **common** to go for another attempt

60% don't get pregnant during their first attempt.

You can take a break if you want. You won't need a new referral if you decide to try again, as long as you months. A simple phone call is enough to keep in contact.



Figure 31: Structural elements of Patient's Diary (adding new pages). Picture taken by Simón Sandoval

Structural elements of the diary



Figure 31: A5 format. Picture taken by Simón Sandoval.

Each page of the diary is designed in an A5 format so it's comfortable for the patient to carry on her bag, and bring to each appointment.

The diary is designed using metal opening rings to make it easier to add new pages if needed



Figure 32: InDesign file design in A4 format.

The document is designed in a format that is easy to edit and print for the Reproduction Medical Department. Each step (preparation and appointment) is designed in one A4 to make it easier to print in case the healthcare team needs to add new pages to the patient's diary.

Early reactions

From the healthcare team's perspective

In general, "The Patient's Diary" has gotten very good reactions from the healthcare team. The fact that patients can use it, take notes, interact with, makes it more appealing than just paper.

The diary has also opened the discussion around how the information is being delivered today to make it more understandable for the patient to follow.

"I love the diary. It's more interactive, not just a paper. I think the patient would be more willing to read the information if they also are filling out things."

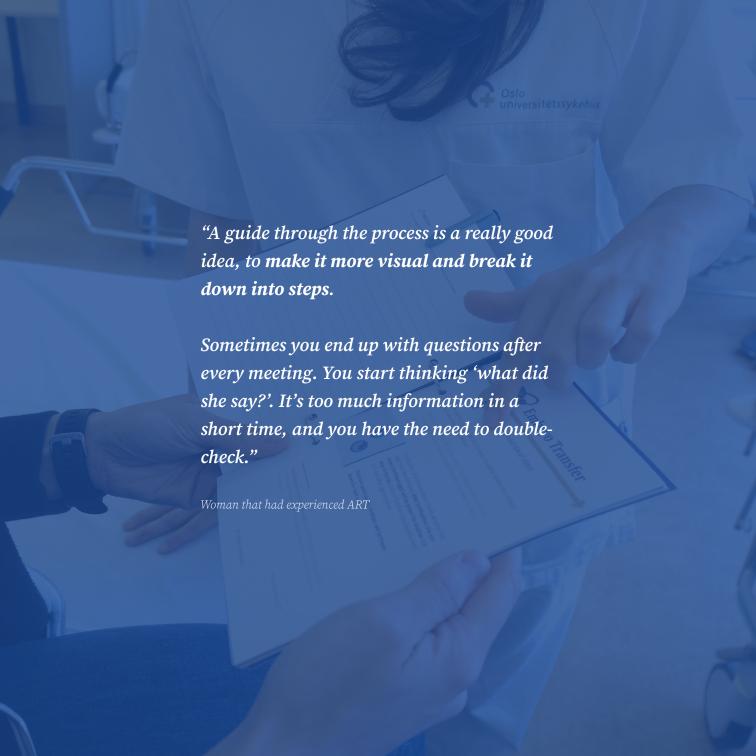
Nurse at the Reproduction Medical Department, Rikshospitalet

From former patient's perspective

In a conversation with a former patient that had gone through assisted reproduction treatments, "The Patient's Diary" was presented to gather feedback. In general, it had a good response emphasizing that, to her, it looked very appealing and nice to have. One of the core aspects she mentioned was that it made information more understandable and easier to follow by splitting the steps into preparation and appointment.

"The idea to talk about it as a continuous process is good. It does something to your expectations and prepares yourself for a long process. But you have to be clear about the possibilities of a longer or shorter process. Put both cases because is still difficult."

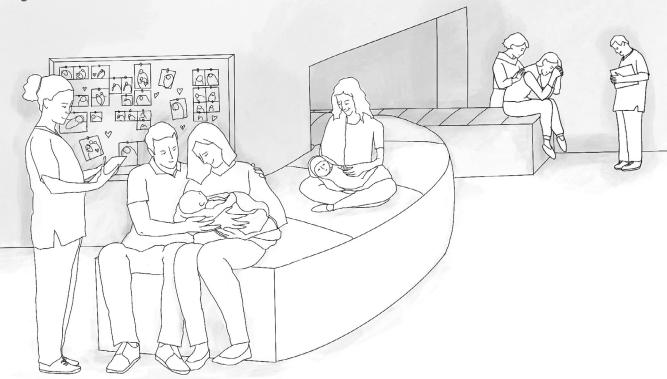
Woman that had experienced ART



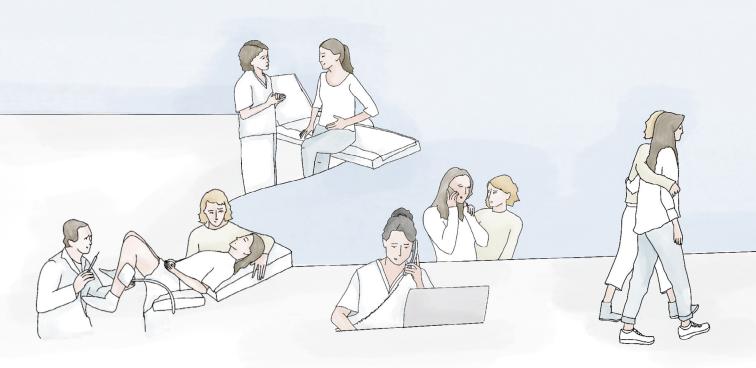


#3
PRINCIPLE

from a single view of success



to an holistic understanding of experience



#3 PRINCIPLE

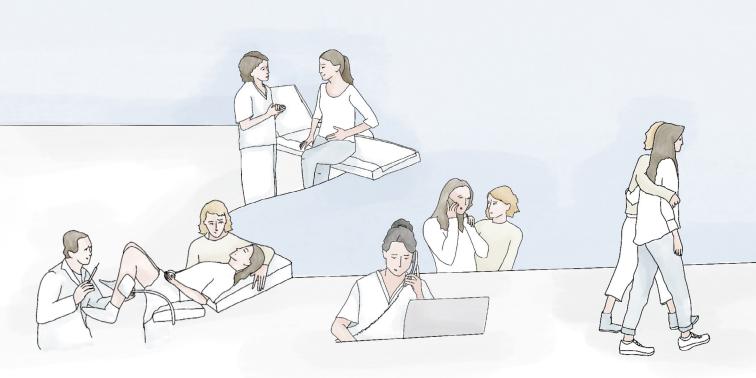
from a single view of success

to an holistic understanding of experience

We understand that a successful treatment is not only defined by the number of pregnancies. We will always do the best we can, but we understand that failure can be a possibility. And if that is the case, is important that patients can finish their process in the Hospital feeling they did what they could, and that is no one's fault.

We acknowledge that success involves being the best in our field of expertise as well as delivering the best possible experience for the patients.

We see people going through a process of assisted reproduction, rather than only outcomes based on numbers.

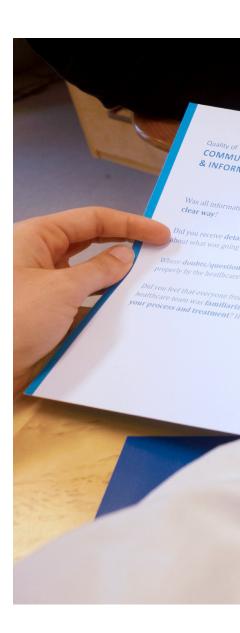


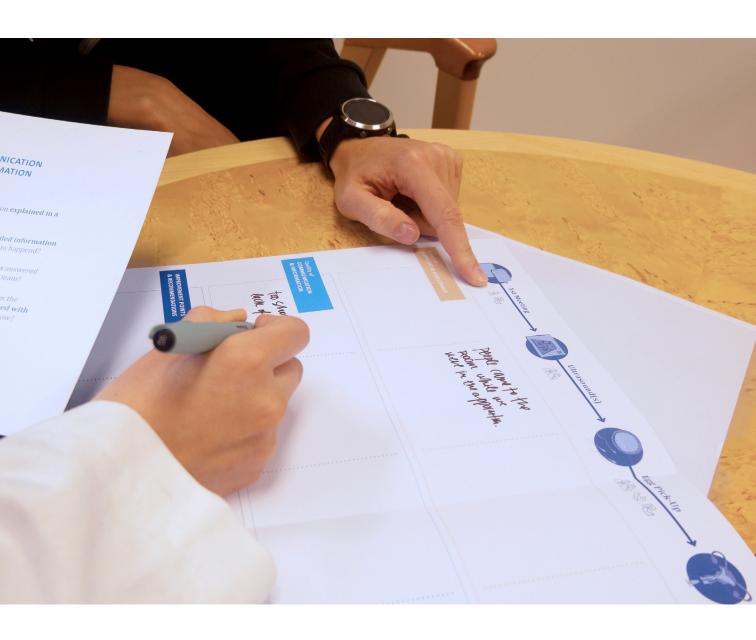


translating the principle "Holistic understanding of experience" into a **practice**

The Feedback Loop

Understanding the patient's experience from a qualitative approach





CULTURAL PROMPT 3

The Feedback Loop

The way patients and their partners experience the service is a key aspect of quality of care. Understanding their experience allows the Hospital to continuously improve their services.

"The Feedback Loop" proposes a new way of capturing the patient's experience through in-depth conversations. By using a more qualitative approach, the leaders of the Reproductive Medical Department can identify critical points in an easier way to continuously improve.

Why?

Understanding that assisted reproductions treatments are not focused on curing a disease, but to assist the people going through the process is important to deliver the best possible care. 25% of people going through the process of assisted reproduction don't get pregnant after three attempts (Source: leader of Reproductive Medical Department, Rikshopsitalet).

The Department needs to acknowledge and take care of this 25%, delivering the best possible experience and support for them.

Nowadays, the only tool that measures experience is a survey run by the Hospital after every appointment. This survey is a standardized format for all the different departments at the hospital, which includes certain questions that might not always be optimal for the specific context of assisted reproduction.

Next to this, surveys focus primarily on a quantitative approach, making it more difficult for the leaders of the department to understand the reasons behind the grades patients are giving to their experience.

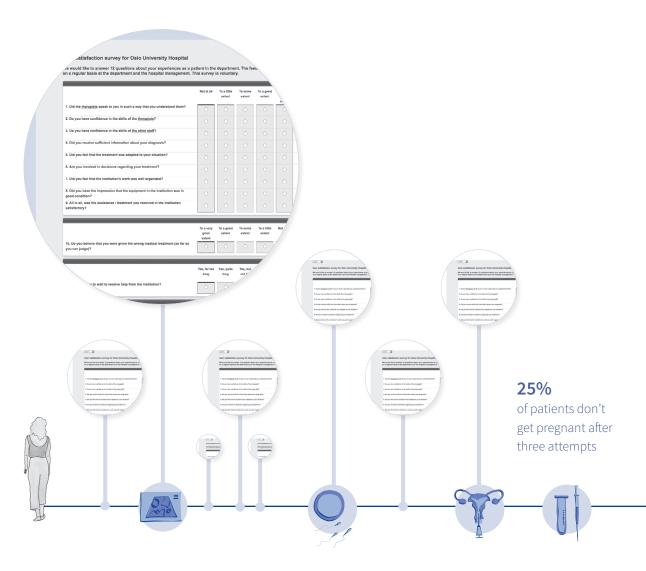


Figure XX: Model with current patient's survey sent to the patient after every appointment.

How does it work?

Structure of the activity





Before

1. RANDOM SELECTION:

Based on the weekly planning, the management representative of the Reproductive Medical Department will select one patient to participate in the activity.

Patients must be selected randomly, being the only requirement that they must have their Embryo Transfer appointment during the same week (before pregnancy test).

2. INVITATION:

When the Lab calls the patient to inform about the date for the Embryo Transfer, the patient will be asked if she wants to participate





Figure 33: The Feedback Loop in context, during feedback session with patient.



During

3. FEEDBACK SESSION

After the Embryo Transfer is finished, the management representative and the patient (+ partner if it's the case) will go to a private room for the session. The session works around three main themes: level of support and assistance, quality of communication and information, and improvement points and recommendations.

To facilitate the conversation, conversation tools have been designed to take notes as well as conversation guides in case of need.



After

4. FOLLOW-UP:

Through weekly reviews, the representative will communicate to the rest of the team the early findings of each session. It's important to highlight that follow-ups should not only include improvement points, but also communicate examples of good current practices.







Conversation tools structure

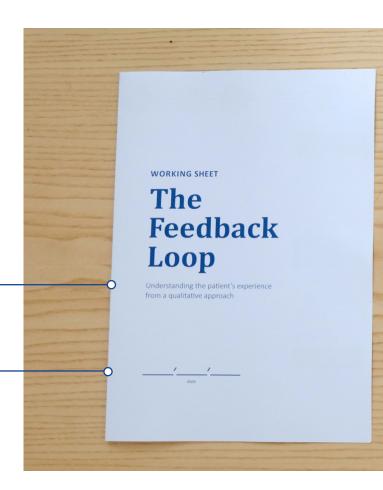
1. WORKING SHEETS:

For each session, a working sheet will be used to register the conversation. Working sheets can also be used as a communication tool to inform the rest of the team about the findings.

> Format easy to print (A3) and to store (A4 folded).

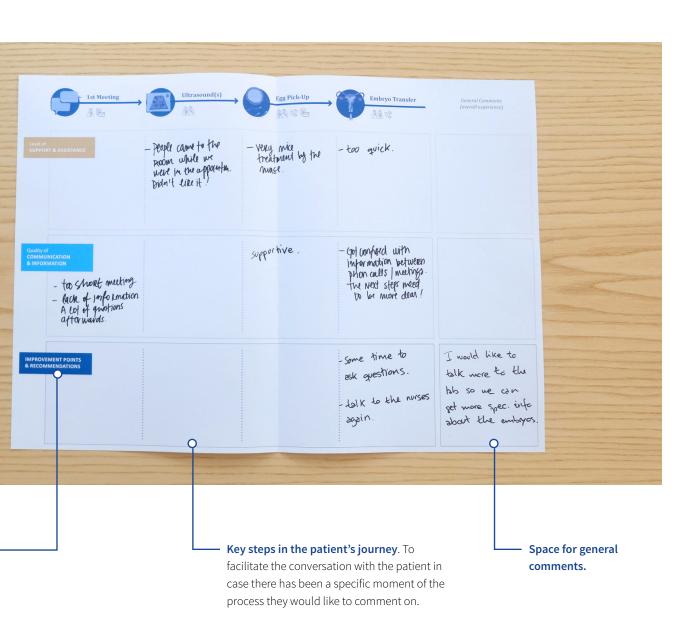
Space for the date. No patients' names must be

recorded.



Themes to

facilitate and guide the conversation.





2. CONVERSATION GUIDES:

In case the representative feels stuck or needs guidance, he/she can use the conversation guide cards. Each card corresponds to a specific theme and includes example questions.

3. DOCUMENT TO REGISTER INFORMATION (OPTIONAL):

Excel document with a similar template as the working sheets in case the department would like to keep a digital record.

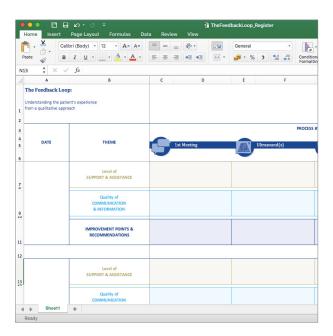


Figure 34: Conversation guides for the feedback session. Picture taken by Simón Sandoval (left). Excel document to register main findings.

Early reactions

From former patient's perspective

In conversations with someone that had gone through Assisted Reproduction Treatments, she expressed that a new type of offer or survey would mean more than just an evaluation of the experience. For her, these types of offerings help to make evident that the Hospital cares about what is happening with you and that they are interested in improving. However, it's important to clarify that the prompt hasn't been tested in the real context with a specific person in charge of facilitating the conversation. This is just a reaction to the concept idea; a lot could change in terms of the setting of the conversation in a real case scenario.

"It would have made a difference if I know it is a more specific treatment survey. It would show that they care. It doesn't have to be after each appointment necessarily, just showing that they are interested."

From the healthcare team's perspective

In discussions with the department leader, he has acknowledged the importance of evaluating the patient's experience from a qualitative approach.

"The Feedback Loop" can be used as a supplement of the current survey that the Hospital sends to patients. In this sense, is very important to run this new practice systematically every week in order to have specific improvement points. The Department shouldn't wait until patients have left or finished their treatment to understand how their experience was.

In this sense, "The Feedback Loop" should be part of the management job. The idea for the near future is for the leader of the Reproductive Medical Department to start with these new meetings. Running a small pilot and begin by meeting one patient and her partner every Wednesday's afternoon after their Embryo Transfer.

"It's very important that we understand how the patient's experience is going. We need to know more concrete action points in order to improve." Leader of the Reproduction Medical Department, Rikshospitalet



Cultural Guide Book

A book to guide and inspire the healthcare team

FROM TREATING TO ASSISTING:

Cultural Guide Book

A cultural guide book was designed in order to guide and inspire the healthcare team to continue the process towards a culture of assistance. The book gathers all principles and cultural prompts proposed, as well as questions to trigger inspiration.

The book is meant to be shared, discusses, worked with, re-defined. It is meant to help communicate new projects and to add new content. It is not meant to be a set of rules to just follow, but a work in progress to inspire future interventions.

Structure of the book

The book includes a brief explanation of the vision for the department, principles and cultural prompts.

Each principle includes their corresponding description, illustration and cultural prompt.





Figure 35: Cover book (top) and brief explanation of the department's vision (bottom). Pictures taken by Simón Sandoval.





Figure 36: Content for cultural book. Brief explanation about cultural prompts (top) and section cover for third principle (bottom). Pictures taken by Simón Sandoval.

Explanation of each cultural prompt: what is it, why it's important and how it works





Figure 37: Introduction of cultural prompt (top) and explanation on how it works (bottom). Pictures taken by Simón Sandoval.

Way forward section after every principle with questions to trigger reflections and new ideas. This section also includes blank space for the team to fill out with current projects.





Figure 38: Way forward section with questions to inspire to think new projects (top). Summary of findings (bottom). Pictures taken by Simón Sandoval.

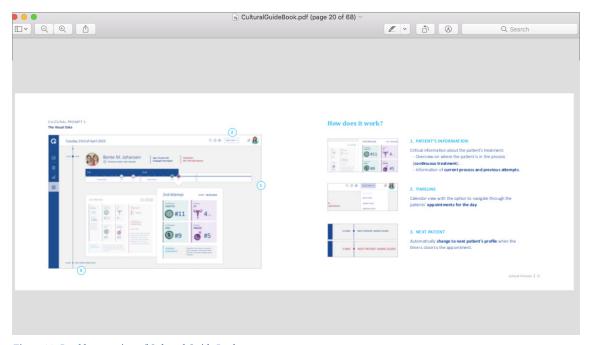


Figure 39: Double page view of Cultural Guide Book

Design requirements for the book

Speaking with the leader of the department, it was important to design a document that could be easy to share with the rest of the team of the department, as well as with the Hospital.

The book has been designed to work as a printed version (double page), as well as a digital version (individual pages) that can be easily shared through email. Each page has been designed to be able to be read as an independent page, as well as a doublepage. This decision was made considering that digital PDF's are usually read through a single page view.

The format (A5) has been selected because it's easy to read, print and comfortable to carry.



Figure 40: Individual page view of Cultural Guide Book

Reflecting on the process

and how to move forward

As mentioned in earlier chapters, awareness is the first step towards change. The whole process working closely with the healthcare team has been intended to sparkle awareness and to trigger reactions by evidencing the current culture and how to reframe it in order to support patients in a better way.

To give a proper closing to my collaboration and to evaluate the process, a reflection session was run with the healthcare team. During this session, it was important to open a safe space for them to share their thoughts and experience during these last five months. It was important not to talk about my direct involvement as a designer, but to talk about the process itself through the different sessions, as well as how they imagine moving forward.

About the process

Reinforcing old thoughts

In some cases, the process helped to reinforce all thoughts that the team already had. For example, the need for having someone that can support patients from the emotional side. This need of having a therapist in the team has been brought up from the beginning of the process. But they are aware of the difficulties of bringing an extra person to the department because of the resources. They will still need to discuss as a whole team different ways of offering emotional support.

"Now I think even more that we should have some sort of emotional support for patients, and not by just us (nurses)"

Nurse at the Reproduction Medical Department at Rikshospitalet



Figure 41: Reflection session with healthcare team.

Self-awareness

In other cases, this journey helped them reflect on their current behaviors and beliefs, putting the patient's perspective in their way of working. This also led to discussions around possible future changes in the appointment's time; and the importance of not just having more time, but using the time in a better way in order to be more prepared when the patient comes. For example, using five extra minutes to be more familiarize with the patients' process.

"When I started doing transfers it was about being faster and be ready for the doctor. I was used to thinking 'Oh my god, I'm doing so good. I'm super fast. When the doctor is ready, I'm ready.' But I didn't even think about the patient. That's what I thought it was the best job.

Now, I try to not rush certain things. If we are using the complete 15 minutes, I don't worry about doing it worse than before. I'm thinking at least the patient had the time they deserve with the doctor."

Cultural change as a process

During the session, it became more relevant that the process itself is a key aspect of the project for **sparkling cultural awareness.** This became evident when some of the healthcare team commented that it was hard to split and evaluate each session independently.

The continuous process also had an impact on their involvement and sense of ownership with the project. This became evident when an "outsider" participant joined one of the co-creation sessions for building the principles.

From my personal experience, this session helped shape the current project. Being able to observe how some of the members from the healthcare team, that I had been working with, explained to other people from the department why it is important to focus on the experience of the patients. This also helped me reflect about the importance of the process itself.

"I think it was more of a process and that the sessions can't be separated. The focus and content for each session were different and had clear goals, but it was also a development. One couldn't come without the other."

Head of section (Lab) of the Reproduction Medical Department at Rikshospitalet

"I thought it was funny when she came and that she hadn't been along with the process. She was coming like an outsider. I felt it immediately because I think when you are going through a process with someone, and then the project is introduced to someone else, maybe they don't understand it or they don't feel part of it. During that session, I felt the need to protect the process.

It was still nice to have that, bringing and external person and explain where we are.

Head of section (Lab) of the Reproduction Medical Department at Rikshospitalet

Moving forward

Principles and cultural prompts working hand in hand

Principles help guide the directions to move forward. But this can be sometimes difficult if we don't see it in a practical way. Showing concrete examples of how each principle could be translated into daily practices/ tools helped to reinforce the importance of why it's needed to change.

In this sense, the process of sparkling cultural awareness wouldn't be the same without the principles and cultural prompts. It was important to work with both hand-in-hand. Counter-narrative principles help to make visible the current state, evidencing why and where to move forward. While cultural prompts help to translate them into tangible things that the team can work with.

"I like that you gave us concrete things to do. Sometimes when you have projects or go to seminars, we know that we need to get better but it doesn't mean anything in terms of practicalities."

Leaders as a key role in cultural change

During the discussion, it was possible to identify two types of awareness: self-awareness, and organizational awareness. The first step should begin with the selfawareness about current behavior. But it is different when talking about awareness in an organization where there are defined roles and a clear hierarchy.

During the session someone mentioned how important is to have team leaders on-board, because it will depend directly on them to comunicated to the rest of the team.

"I think there are things I can do as an individual, but I wouldn't say to someone else 'don't do this' or 'don't ask that'. I would rely more on my team leader to create ideas on how to communicate this type of things"

Embryologist (Lab) of the Reproduction Medical Department at Rikshospitalet

Overall, having a final reflection with the team helped to be aware that this is a continuous process that includes everyone from the department.

Cultural change itself has a very high threshold: it is difficult, messy and it takes time. Because of this same complexity, it was very interesting and important to see how, by proposing concrete examples, helped to inspire the healthcare team to see how small changes can have a big impact in their current way of working, helping them to deliver a better experience for patients.



Designing to support cultural transition | 173

"I think we have been aware that we don't meet every need that the patient has. We were used to thinking: 'Oh well, there is nothing I can do anyway' and don't think about it anymore. But maybe there are small things that we could do here and there that will make a little difference."

Assistant leader of the Reproduction Medical Department at Rikshospitalet

Personal reflections and conclusions

Working with cultural change

When I made the decision of working with culture within the healthcare system, my first thought was that this is a very complex path to follow. I still remember a conversation I had with a close friend who works in the healthcare system, and her immediate reaction was that it was a huge challenge, that would never happen.

After working closely with the healthcare team and being exposed to the current culture, it became something I couldn't ignored. I needed to acknowledge and work with the existing culture around assisted reproduction despite what my final proposal would end up being.

This has also helped me reflect upon my own process and my role as a designer, and that we should be humble with our own design proposals because they won't solve everything. But at the same time, not being afraid of challenging the status quo.

The importance of building a network

As it was mentioned during the final reflections with the healthcare team, in order to work around cultural change it was very important to work closely with the leaders of the Reproductive Medical Department. In the end, the main responsible for incorporating new practices and/routines will be the team leaders.

For this, it was very important to build trust with the leader, by involving him in the process and having regular update meetings and discussion around the project.

Any reaction is a good reaction

Working within the field of cultural change I learned that any reaction is a good reaction that contributes to the process of cultural awareness.

The project itself was worked collecting different reactions in different moments. This not only helped me to understand how open the organization was for change, but it also triggered discussions among team members in how each one perceives what is their role within the healthcare department.

About the project

Further work

The project focused on sparkling cultural awareness within the team of the healthcare department to enable the first steps towards a culture of assistance.

But because we know that cultural change takes time, and hopefully the project helped inspire the team to continue this process, I was also being restricted by the time frames of the diploma project. Some areas of the project could have been developed further on:

- 1. Involve more the people that have experience assisted reproduction treatments, especially during the last phases of the project. Even though I had the opportunity to discuss briefly the principles and some of the cultural prompts with former patients, I would have liked to involve them more in collaborative sessions. Even maybe, develop joint sessions between the healthcare team and former patients.
- 2. Open up the discussion to the rest of the team from the Reproduction Medical Department. In order to continue working with cultural awareness at a more macro level, it would have been important to develop similar sessions with

everyone from the department. This could also have been a good opportunity to test the cultural prompts to continue developing them.

3. Placing the cultural book in a more concrete **context.** For this project, the cultural guide book was designed to communicate the process and inspire the team to continue with the journey. If there would have been more time, I would have liked to design and develop further on how the principles could be incorporated into a more strategic level. For example, how are the leaders reinforcing the principles during daily meetings? How are the principles being communicated for new healthcare personnel? Could it be a new onboarding?

Contributions as a designer

The main contribution of the project has been to make more visible the human side of the patients by showing the different emotions and feelings that they experience.

Sharing these stories within the healthcare team has contributed to sparkle cultural awareness, by reflect on current situations and challenge the current way of working from a humane perspective.

"I believe you opened my eyes for taking the patient's view from a more emotional perspective. It was very useful to see the chart of feelings with the focus on loneliness. We do look at feedback from patient's, but we lack this kind of insightful visualization revealing the core issues"

Leader of the Reproduction Medical Department at Rikshospitalet



Acknowledgments

To Simón, my husband, for always being there for me. Thank you for encouraging me to believe in myself, for all the critical conversations, for listening and inspire me every day.

To Natalia and Josina, my supervisors. Thank you for all your guidance throughout this process, for your critical thinking and for challenging me to take risks.

To Peter, Gareth, Blanca, Lena and Silje from the Reproductive Medical Department at **Rikshospitalet.** Thank you for all the time and energy. Especially, thank you for giving me the opportunity to develop this project by opening the doors of your department.

To the rest of the team from the Reproductive **Medical Department.** Thank you for always receiving me with a smile whenever I was wandering through the hallway.

To all the women that shared their personal stories with me. Thank you for all the time and trust. The project wouldn't be the same without you.

To all the people that I talked with for the project.

Thank you for all your feedback and for sharing your knowledge.

To my fellow classmates, especially to Natalia's gang. Thank you for all the encouraging words, for the laughter, hugs and constant company.

Finally, to my family and friends back in Chile. Thank you for being there despite the distance, and for believing in me.

References

Bate, P. and Robert, G. (2007). Bringing User Experience to Healthcare Improvement. Pages 71-81

Cnvc.org. (2005). Needs Inventory. [online] Available at: https://www.cnvc.org/training/resource/needs-inventory

Cnvc.org. (2005). Feelings Inventory. [online] Available at: https://www.cnvc.org/training/resource/feelings-inventory

de Silva, D. (2013) The Health Foundation.

Measuring patient experience.

https://www.health.org.uk/sites/default/files/
MeasuringPatientExperience.pdf

Fertility Europe (2018) Call to Action during European Fertility Week. http://www. fertilityeurope.eu/press-release-fertility-europelaunches-call-to-action-during-european-fertilityweek-2018/>

Gerteis, M. et al. (1993). What patients really want. Health management quarterly, Volume 15, Issue 3. Pages 2–6 https://www.researchgate.net/ publication/13169167> Helsedirektoratet (2017) https://helsedirektoratet.no/bioteknologi/assistert-befruktning

Helsenorge (2018) https://helsenorge.no/refusjon-og-stotteordninger/ufrivillig-barnloshet-og-infertilitetsbehandling?red irect=false>

Meadows, D. (2009). Thinking in systems. London: Farthscan.

Motta-Filho, M. da. (2017) Designing for Brand Experience. Operationalizing a Service Dominant Logic Approach to Branding through Service Design. The Oslo School of Architecture and Design. Akademika AS.

Ønskebarn http://www.onskebarn.no/

Oslo Universitetssykehus, Reproduction Medical Department https://oslo-universitetssykehus.no/ avdelinger/kvinneklinikken/ reproduksjonsmedisinskavdeling>

Pennings, G. and Ombelet, W. (2007). Coming soon to your clinic: patient-friendly ART. Human Reproduction. Volume 22. Issue 8. August. Pages 2075–2079 https://doi.org/10.1093/humrep/dem158>

Schein, E. (2004). Organizational culture and leadership. 3rd ed. San Francisco, Calif.: Jossey-Bass.

Stickdorn, M., Schneider, J., Andrews, K., & Lawrence, A. (2011). This is service design thinking: Basics, tools, cases. Hoboken, NJ: Wiley.

Store Medisinke Leksikon. (2018) https://sml.snl. no/assistert_befruktning>

Stuart, F. Ian. (1998). The influence of organizational culture and internal politics on new service design and introduction. International Journal of Service Industry Management, Vol. 9 Issue: 5, pp.469-485, https://doi. org/10.1108/09564239810238866

van Empel, Inge W.H. et al. (2008). Coming soon to your clinic: high-quality ART. Human Reproduction, Volume 23, Issue 6. June. Pages 1242-1245 https://doi.org/10.1093/humrep/den094

Van Hoof, P. De Sutter, and G. Pennings. (2014) A qualitative study into the experiences of Dutch patients who travelled to Belgium for infertility treatment.

Zegers-Hochschild, F. et al. (2017). The International Glossary on Infertility and Fertility Care. Human Reproduction, Volume 32, No.9. July 28. Pages 1786–1801. https://doi.10.1093/humrep/ dex234





This report is part of the design master thesis of **Paulina Buvinic** from The Oslo School of Architecture and Design (AHO), developed during the spring semester of the year 2019.

The project was developed in collaboration with the Reproductive Medical Department from Rikshospitalet, Oslo University Hospital.

Supervisors: Natalia Agudelo and Josina Vink



