Ethnographic Study of a Labour Room

Interaction Design I Design Research Seminar I Report

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Guide
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Declaration

I declare that this written document represents my ideas in my own words and where others ideas or words have been included, I have adequately cited and referenced the original sources.

I also declare that I have adhered to all principles of academic honesty and integrity and have not
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21st Dec, 2016

Approval Sheet

The project titled ‘Ethnographic Study of Labour Room’ by Shreya Gupta, is approved for partial fulfillment of the requirement for the degree of ‘Master of Design’ in Interaction Design.

Guide

Internal Examiner

Chairperson

External Examiner

Date

Acknowledgement

My sincerest gratitude to my guide Prof Nina Sabnani who guided me throughout the length of this project.

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I would also like to thank all the Junior Resident doctors, who eventually became my friends. I thank Saumya, Samina, Monika, Anshu, Namita, Arti, Swati and Simran for helping me when I was stuck.

Mighty thanks to my dear friends Ajinkya, Mayur, Prankur and especially Harshit for all the help and emotional support.

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Lastly, a huge share of gratitude to my parents who love me to no extent and are always there to support me.

Abstract

The project focuses on studying a labor room in the gynaecology ward of a government hospital. The idea was to study the functioning of the space, the people who use and frequent the space and the issues they face. The hospital chosen was Sir Sunderlal Hospital, Banaras Hindu University in Varanasi, Uttar Pradesh. The reason for choosing the same was to understand the people and medical set-up in a backward context like eastern Uttar Pradesh. The key areas I intended to cover were the doctor-patient dynamics, functioning of the hospital with respect to a single ward, the routines and duties of the medical personals, the issues people face, etc.

Index

1. **Introduction** 7
2. **Motivation** 8
3. **Defining the Context** 9
   - Duration of study
   - Location
   - Target Group
4. **Method of Study** 10
   - Observations
   - Conversations
   - Recording Videos
5. **The Plan of Action** 11
6. **Understanding the Physical Space** 12
7. **Understanding the People** 13
   - The Doctors
   - The Nurses
   - The Janitors
   - The Patients
8. **A Typical Shift** 18
9. **How a Delivery Looks Like** 19
   - The People Involved
   - Conditions Required
   - The Process
   - Post Process
10. **Major Issues Plaguing the Ward** 21
11. **The Journey** 23
    - The Beginning
    - The Revelations
    - Other Discoveries
12. **Possibility of Design Intervention** 27
    - Navigation
    - Communication
    - Information Sharing
13. **Bibliography**

1. Introduction

Healthcare is one of the most challenging issues the country faces today. Primary, secondary as well as tertiary healthcare centres are all buckling under the pressure of too many patients and too less staff. The government allocates, arguably, a poor share of financial resources to the health budget each year. Consequently, the functioning of health centres has always been a source of curiosity for researchers and policy makers as to where precisely it is lagging. It is interesting to understand the functioning of a tertiary health centre i.e. a hospital, in order to know how such budget allocation actually affects the patients and other stakeholders in the health sector.

Narrowing down to gynaecology, the country has one of the worst maternal mortality rates in the world. It was 174 per 100000 live births in 2015 [1]. As a result of poor maternal health the child mortality rate is also one of the lowest in the world, and is comparable to those of Sub-Saharan countries. It is 40.5 per 1000 live births as per 2016 census [2].

The major result of such poor statistics is the rampant sexism that is practices across the country. States like Uttar Pradesh and Bihar which are poor and also house people with retrogressive mind-sets fare especially low because they do not feed and take care of the girl child properly. Resultantly, the mothers as well as the infant girls pay the price in health due to poor social setups.

2. Motivation

Hailing from a family that has 3 out of 7 people as doctors, a space like a hospital has been intriguing me since a while. Last year in May my sister joined her Masters in Surgery (MS) with specialization in gynaecology at the Institute of Medical Sciences (IMS), Banaras Hindu University, in Varanasi, Uttar Pradesh. I got interested in her work space as she told about the numerous cases of complicated births as well as the happy incidents happening in the ward. This not only kindled my interest in her work but also gave me a lead in having a fair amount of access to a hospital, which otherwise becomes a complicated paperwork affair.

3. Defining the Context

Duration of the Study

December 20th -25th

Location

- Institute of Medical Sciences, BHU

  The labor Room in the Gynaecology Ward

  The hospital is one of the largest Tertiary

  Healthcare Centres in Eastern India.

Target Group

Junior Resident Doctors

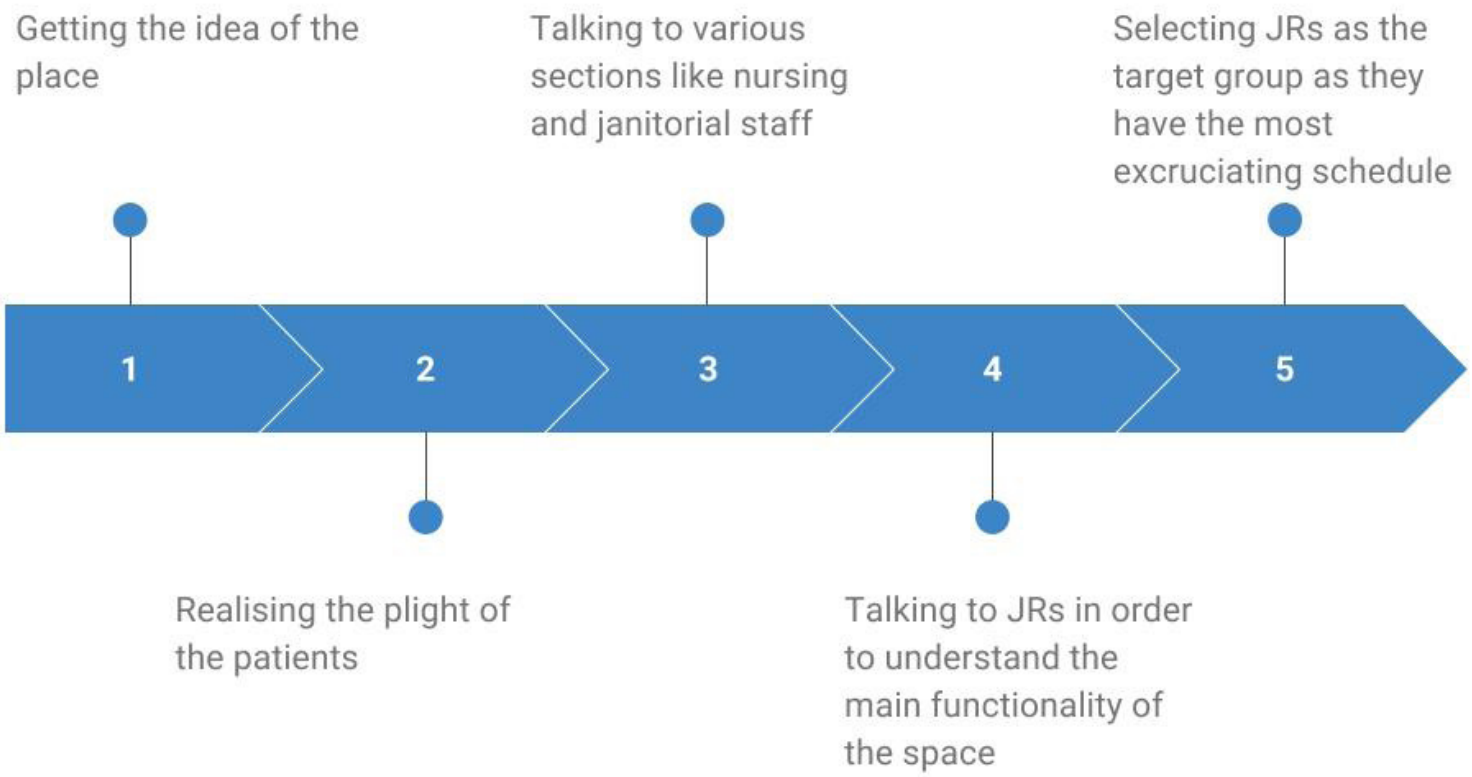
4. Method Of Study

Observation: For the first 2 days I mainly observed silently without much dialog with the patients or the workers in the hospital.

Conversations: Third day onward I started talking to the people, beginning with the nurses, followed by the janitors, attendants to the patients, and finally the doctors.
Meanwhile, I was having a constant conversation with my sister, who is a Junior Resident Doctor, when I was not in the hospital.

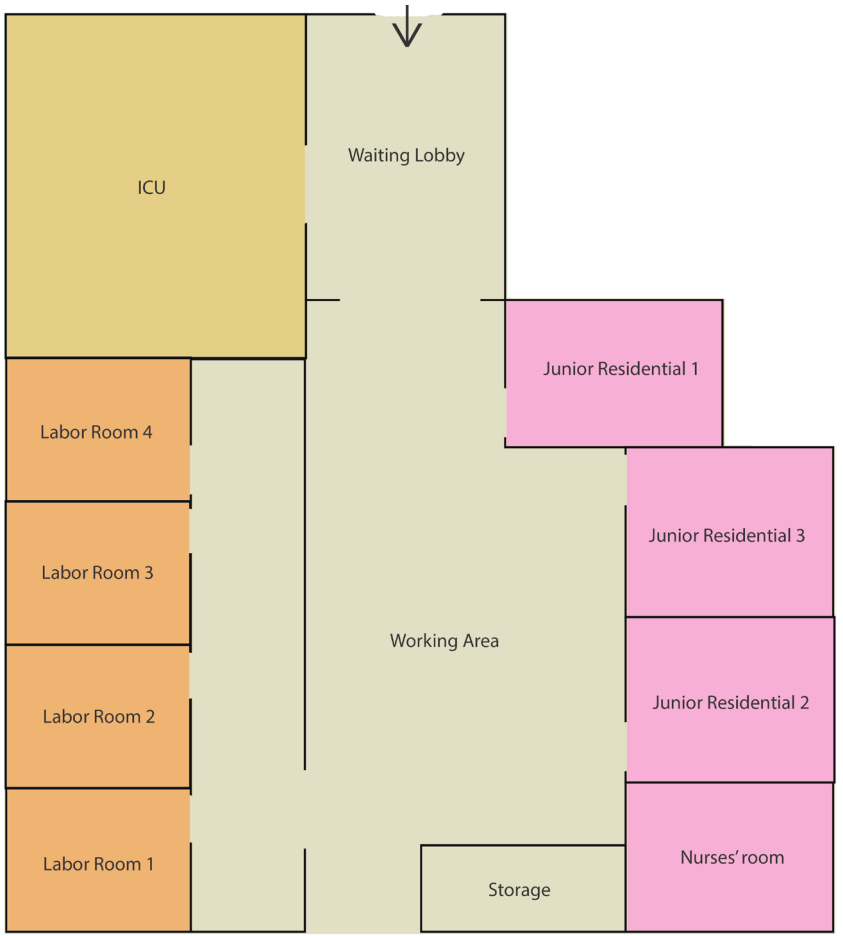
Recording Videos: The Head of Department permitted me to record videos for educational purposes. The recordings were mainly done in order to study the details of a delivery procedure. The entire process is excruciating, without any specific time duration and is, more often than not, a pandemonium. I took the precaution of not shooting anything intimate or obscene.

5. The Plan of Action



6. Understanding the Physical Space

The image shows the tentative layout of the labor room. The area beyond the Waiting Lobby is out of bounds for male attendants to the patients. However, they can be called inside till the Working Area if the doctors have any questions or instructions for them.



7. Understanding the People

The ward comprises of doctors, students, nurses, janitors, patient, their attendants, and the likes. While the medical professionals are the permanent inhabitants, the patient and their attendant are temporary. However, the patients often are frequent visitors and towards the end have to live there for a few days when admitted for delivery.
The communication between doctors across departments is not facilitated. Most patients, being ignorant, cannot have healthy communication with the doctors either.

7.1 The Doctors

There are 3 batches of Junior Resident Doctors in the gynaecology department with each batch having 8 Junior Resident Doctors. That makes a total of 24 JRs.

Among the 24 JRs there are 23 females and one male JR.

The duties of JRs include:

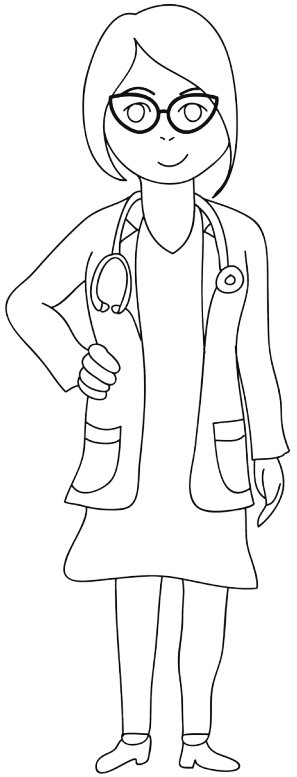
- Perform operations and deliveries
- Prescribe medication and follow up on patients
- Counsel the patient and relatives on how to take it from there.
- Make reports on the status and condition of the patient right from admission to discharge

What the JRs end up doing:

- All the things they are supposed to do
- They end up performing the tasks meant for nurses and even janitors.
- They end up making reports of vitals when it could be done by the emergency ward.
- Dealing with relatives of the patient.

Main Issues:

- Shortage of nursing and janitorial staff
- Mismanagement at the system level which makes the JRs perform tasks that are meant to be done by other departments.
- Excruciating schedule, with hardly any time to eat or sleep.



- Ignorance and negligence of the patient to follow up. It leads to avoidable complications in pregnancies.
- Poor communication among various departments that leads in JRs running around with a lot of needless paperwork.

7.2 The Nurses

There are 3 shifts of Nurses in the gynaecology department with each shift having 3 nurses. That makes a total of 9 nurses.
However, in each shift only 2 nurses is currently recruited. This creates a huge dearth of nursing staff in the ward.
All nurses are female.

The duties of nurses include:

- Follow up on patients, check the vital signs
- Administering drugs
- Assist in operations and normal deliveries

What the nurses end up doing:

- All the things they are supposed to do
- They end up skipping medications but report otherwise
- There is often a shortage of nurses during deliveries and operations

Main Issues:

- STAFF SHORTAGE
- There was no shortage 15 years back at the time of 450 beds, but in the years, beds increased with no increment in staff numbers
- There are more doctors than nursing staff
- VC proudly says that they're running hospital in such resource constraints, but only the workers know the plight.

7.3 The Janitors

There are 3 shifts of Janitors in the gynaecology department with each shift having 3 Janitors. That makes a total of 6 nurses.
However, in total only 3 janitors recurrently recruited. This creates a huge dearth of janitorial staff in the ward.
All janitors are female.

The duties of janitors include:

- Clean the premises
- Prepare and clean the patient before a delivery
- Assist in the delivery
- Help in moving around the patient

What the janitors end up doing:

- All the things they are supposed to do
- They end up skipping cleaning certain spaces, usually the toilets
- They are often unavailable to help out in pre-surgery procedures

Main Issues:

- STAFF SHORTAGE
- The 3 janitors are aging and are unable to strain themselves physically, and hence are lethargic in work.

7.4 The Patient

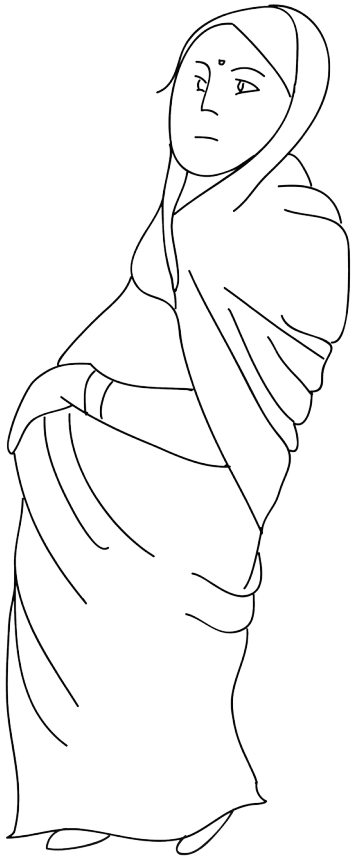
The JRs have specific descriptions of good and bad patients.

A good patient

- One who gives a good history and also an honest history.
- Who has visited the doctor at least thrice during her gestation period. One of the times should be at the end of the 8th month.
- One who follows doctor's orders (whether regarding medicine or investigations)

A bad patient

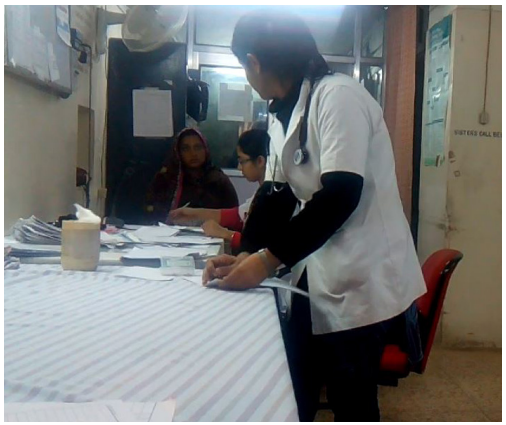
- One who has this suspicion that doctor is not giving her the right treatment.
- One who has not visited the doctor at all during her entire pregnancy.
- One who has conceived within less than 18 months of her previous child.
- Who doesn't believe in giving history and wants only to get treated.



8. A Typical Shift

(10:00 pm to 6:00 am)

- The ward has a capacity for 7-8 patients. However, twelve patients are admitted through the night.
- Two normal deliveries by 4:00 am, both girls.
- One patient had her first child.
- Second patient had her second child after a dead son of five months.
- Both were accompanied by their mothers, one also by her mother-in-law.
- Both patients belonged to rural, farming background.
- The JRs were supposed to do the Readings (the information regarding vital signs and other related data) for 12 patients in ward by morning.
- Most (8/12) were incomplete readings due to patient's lack of awareness.
- One JR-1 slept for two hours.
- Another JR-1 slept on table for two hours.
- One JR-2 was awake the whole night, the one who admitted most patients.
- The second JR-2 slept for four hours.



9. How a Delivery Looks Like?

People Involved: The patient, a nurse, a janitor, a doctor, a female attendant of the patient.

Conditions Required: A patient must get admitted when she breaks water.
She gets into the labor when she starts feeling the labor pain.
When the vagina begins to dilate, it is time to send her to the labour room.

The Process: The patient is supposed to exert force.
The janitor, the nurse and the doctor push along her stomach.
The doctor helps open up the vagina further and tries to pull the head of the baby out.
Everyone, throughout the process encourages the mother to push out. This is an essential and amusing part of the process as the cries of encouragement are audible well outside the labour room premises.
The head of the baby takes the most amount of effort and time to come out.
It is also the most excruciating part of the process for the mother.
However, once the head is out, the rest of the body does not take much time to come out.
When the baby comes out, it might take a few seconds for her to cry out and clear her throat.

Post Process: Once the baby is out, s/he is cleaned and sent to the nursery. In case the baby is in a critical condition s/he is sent to the Neonatal Intensive Care Unit (NICU).

Often if a girl child is born in critical condition, she is not permitted by the family to be sent to the NICU due to additional cost of the intensive care. The doctors in this hospital do not reveal the gender of the baby if he/she is born in critical condition. The babies are sent directly to the NICU. The gender is revealed only once the receipts are cut for the additional health services.

10. Major Issues Plaguing the Ward

The entire experience of staying in the hospital like a ghost, an invisible spectator, was not very impressive.
The hospital has severe navigation issues. The signage systems do not work and it is very easy to get lost in the labyrinthine corridors for a first timer. Most people in the premises are, obviously, newcomers.

The gynaecology ward is on the first floor. The patient needs to get her vitals checked at the Emergency ward on the ground floor before getting admitted to the gynaecology ward. However, hardly ever any patient gets her vitals checked there. All patients burden the doctors in the gynaecology ward with the task.
There is rampant sexism practised at every level. Right from the new born baby girls, to the female doctors, no one is spared. It was shocking to see male attendants to the patients behaving disrespectfully with female JRs, whereas they were courteous towards the male JR.
Once the baby is delivered, all attention shifts towards the newborn.
The family often neglects the mother, her medical requirements, as well as her emotional needs. In case she has delivered a girl, she undergoes further emotional turmoil.

The attitude of male attendants to the patients in the general ward was atrocious. They love to be bothered by what is happening on other beds besides their own patients. Eavesdropping on the conversation between doctors and patients about the patient's personal details is very common. Not only does it breaches the privacy of the patient but also makes her hesitant in sharing her personal information like her period dates, relationship status, etc. with the doctor freely.

11. The Journey

As a design student, i was an anomaly in the hospital space. The way I perceived the space was obviously very different from the way doctors, patients, attendants, and other staff do. I personally feel that everyone must stay in a hospital without a being the patient or their attendant, for once in their lives. The epiphanies about life and death, about government and policies, about society and culture, were indeed profound.
It was shocking for me, how infuriated I was on day one when I saw the response of a family on the birth of a girl, but how nonchalant I became by the third day on the same event.

11.1 The Beginning

I had arrived with a lot of notions in my head.
I thought that a gynaecology ward would be a slightly happy place. There are more births happening than deaths.
I assumed that people would not mind a camera shooting the patients, mainly because people are generally secretive about diseases but it is alright to disclose a pregnancy. After all, it is a happy and healthy condition.

11.2 The Revelations

Occasionally sweets are being distributed. However, that happened mostly on the birth of a male child.
I also realised that pregnancy is not necessarily a happy and healthy condition for everyone. I observed a lot of complicated pregnancies in their ninth month. There was no dearth of miscarriages happening in in the initial months.
Out of the twelve deliveries I observed, there was just one delivery in which both the patient, her attendants as well as the doctors were satisfied, sane and healthy. The others were complicated with the patient being negligent, or too unhealthy, or unhappy for having a baby girl, etc.

11.3 Other Discoveries

If it is a baby girl, the family would not take much interest in even seeing the baby.

In case the baby is born in a critical condition, such that s/he needs an ICU, the doctors do not reveal the gender unless the family pays the bills for the additional expenses. This is done because many people, in case of a baby girl, do not wish to spend on her neonatal care. Such attitude on part of the family results in higher neonatal mortality rates for girls.

The patients displayed high negligence with respect to routine check-ups, resulting in complicated pregnancies. They also displayed high levels of ignorance with respect to their vitals such as haemoglobin levels, blood sugar levels, last period date, etc.

There were many instances of patients being aware of the sex of their foetus. Sex determination, even though illegal, was not found to be a rare occurrence.

There is rampant misogyny not with respect to the patients and the baby but also with respect to the doctors. People took a male doctor more seriously than a female one. The male attendants to the patient were often disrespectful to the female doctors.

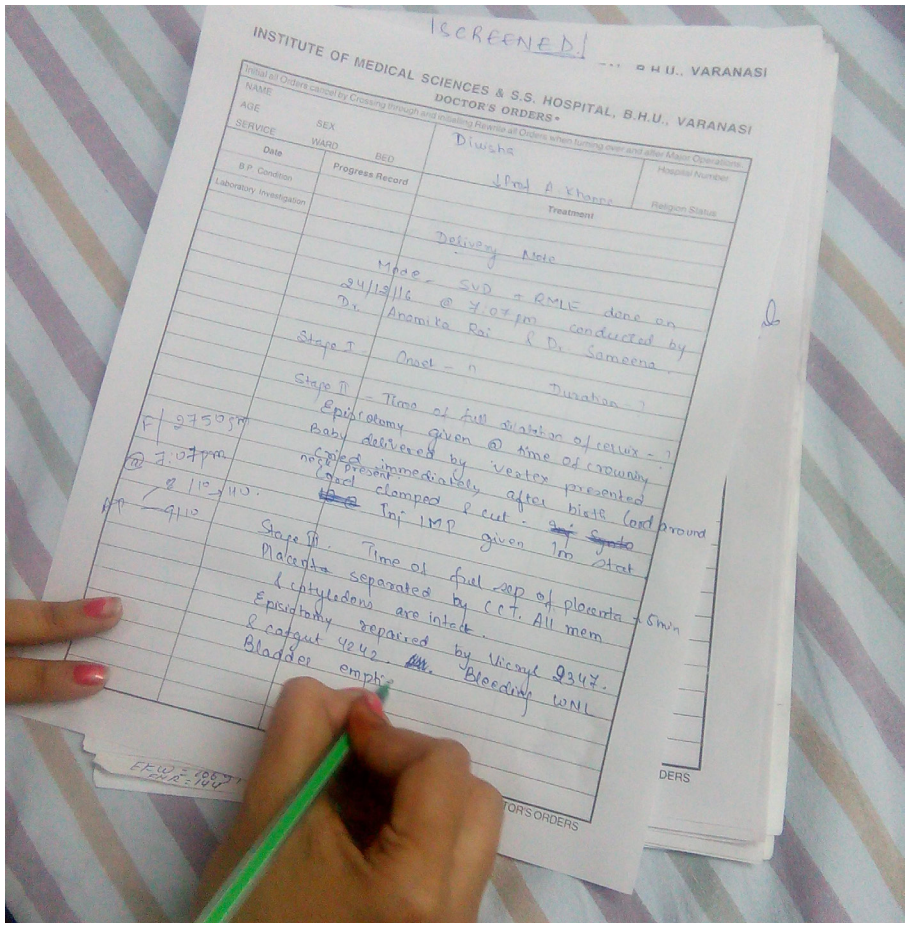
12. Possibility of Design Intervention

As a designer, the space was a storehouse of design possibilities. Right from communication to interaction, the place has tremendous scope for design intervention.

Navigation: The signage system in the hospital is flawed. People even, when they are not here for the first time, get lost in the vast maze of the hospital. the signage and inadequate as well as unclear.

Communication: The ignorance about female health and common aspects of pregnancy and the process of reproduction is not just exclusive to this hospital. However, being the largest tertiary health center in the area, the hospital get a lot of referred cases, and the onus of handling the concentrated ignorance of the region is to be handled by the doctors here. The region need an extensive awareness campaign regarding menstruation, pregnancy, birth control, etc.

Information Sharing: All the JRs use smartphones. However, they are hardly using technology in their formal communication at all. There are shared documents such as patient data, observation and readings, etc that are physically floating around across departments, with the patients' attendants carrying them like pigeons. Often the whereabouts of these documents are not traceable and this leads to confusion and panic. A common virtual space for the document sharing could possibly be a great way of sharing information.



13. Bibliography

[1] http://data.worldbank.org/indicator/SH.STA.MMRT
[2] niti.gov.in/content/infant-mortality-rate-imr-1000-live-births