Is your relationship gender trapped?

A human-centered design approach to understand and improve the lack of female physicians in leading positions at Swiss hospitals

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Bachelor thesis

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a. Abstract

Even though women make almost half of all physicians in Swiss hospitals, they only make 13% in chief physician positions.

This thesis aimed to understand the multifaceted reasons for the lack of female physicians in leading positions of Swiss hospitals, demonstrating how they are intertwined and proposing a design intervention to improve the situation. In secondary research, the status quo of the current knowledge level was identified. In 12 interviews with physicians at different levels and experts, different gender-based challenges were examined to understand how they prevent women from achieving leadership positions.

Three problem areas have been identified, misogynistic organizational culture, stressful working conditions, and relationship challenges around gender stereotypes, based on which three design intervention concepts have been developed. After evaluating each concept, one was further refined through prototyping and testing.

Finally, the thesis proposes a design intervention, “Is your relationship gender trapped? The fun way to get to the serious topics” to tackle the relationship challenges around gender stereotypes. An implementation plan shows a path forward. In the end, the solution got evaluated and related risks assessed.

b. Acknowledgment

This thesis was made possible with the help of many.

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Table of contents

c. List of figures

d. List of tables

e. List of abbreviations

BCG — refers to the Boston Consulting Group

HBR — refers to Harvard Business Review

STEM — refers to subjects in the fields of Science, Technology, Engineering and Mathematics

VSAO — refers to the Swiss Association of Assistant and Senior Physicians

A. Introduction

A–01. Personal motivation

In my primary school years, I cried a lot. I was moved to tears at the smallest insult. Somebody could tell me I should cry, which already hurt me so much that I started to cry. As a result, I was bullied: Men are not supposed to cry. Over the years, I built strategies to no longer be exposed to my emotions so much that I do not have to show weakness and become a victim again. It worked out ok, but it brought many disadvantages with it. For example, I struggled to build meaningful relationships based on vulnerability and empathy, and I found it difficult to understand what I am interested in. After a life-changing experience, I rediscovered this vulnerable side of mine again. I started to rebuild trust in my emotions.

This is a part of my story, and this is why I am interested in gender stereotypes. Societal gender-stereotypical expectations can confine people's personalities and limit their potential; in severe cases, it can even create severe mental health problems. As my sister is a young professional physician, who has told me many times how she experiences the working conditions and gender discrimination in hospitals, I was interested in looking at the problem of gender stereotypical expectations in this context.

A–02. Problem statement

Women went a long way in medicine and make today almost half of all practicing physicians in Switzerland, compared to 11% back in 1960 (Swiss Medical Association, 2019). The numbers of medical school graduates are even more pronounced as more than half are female (University of Zürich, n.d.). However, these numbers are deceiving in the gender equality discussion as there still is a major horizontal and vertical gender segregation discernible (Buddeberg- Fischer et al., 2010). On the one hand, more prestigious specialties that confer status and provide higher income are still male-dominated (Buddeberg-Fischer et al., 2010). For example, in surgery, women only make 19% of the whole field (Anderegg, 2021). On the other hand, looking at the vertical gender distribution, it becomes apparent that female physicians are heavily underrepresented in leading positions. Whereas women make almost 58% of assistant physicians and around 47% of senior physicians in Swiss hospitals, they only make 27% of leading physicians and 13% of chief physicians (Hostettler & Kraft, 2019). To sum up, gender diversity among physicians in hospitals is lacking in both the horizontal and vertical dimensions. This thesis will only focus on the vertical dimension.

A–03. The call for equality

As many other professions also have unbalanced gender diversity, one could argue that gender diversity in leading positions and certain medical specialization is not a problem. However, there are two significant differences between most of those professions and medicine. On the one hand, more than half of assistant physicians and almost 50% of senior physicians are females, which shows that both genders are

interested in the profession. From an ethical perspective, women should therefore be represented in decision-making positions, as otherwise their interests might not be supported. On the other hand, hospitals treat patients of whom half are female. As male and female bodies are different, these patients deserve representation of their gender. Additionally, male and female physicians also practice medicine differently. Female physicians are better at patient-centered communication, are more likely to adhere to clinical guidelines, and provide preventative care and psychological counseling more often than their male colleagues (Tsugawa et al., 2017). Furthermore, Greenwood et al. (2018) in the USA shows that female heart attack patients have a higher mortality rate when treated by men compared to when treated by women. Empirical extension of this study indicates that if male physicians practice with more female peers, the mortality rate decreases. Therefore, both genders must be adequately represented in leading functions and all fields to do justice to employees and patients, and harvest the benefits of diversity.

Furthermore, it is important to note that men and women tend to complement each other when it comes to leadership skills. A study by Mercer (Levine et al., 2015) identified technical skills/depth of experience, breadth of experience in the company, and strategic vision as typical male leadership strengths. On the other hand, women excel in their inclusive team management and people leadership skills, flexibility and adaptability to change, and emotional intelligence. Especially in the 21st century, these female skills are crucial for organizations to respond rapidly to change, anticipate the next shift in the market, and understand wicked problems.

A–04. Scope and research goal

This bachelor's thesis aims to understand why there is a lack of female physicians in leading positions of Swiss hospitals to improve the current situation. By exploring and understanding the perspective of young physicians as well as the knowledge of experts and female physicians who made it to the top, the bachelor thesis aims to demonstrate the complexity of the issue while giving directions on how to address the problem. The thesis will focus on the organizational and family/relationship context to keep the scope manageable. While other contexts like the psychological, biological, regulatory, upbringing, educational, and societal context of the problem might be touched on, they are not covered exhaustively and do not lie in the main focus of this thesis.

The following research question has been asked:

How can gender diversity in Swiss hospitals among physicians in leading positions be increased?

What gender-based challenges do female, young professional physicians' working in Swiss German hospitals currently face?

How do gender-based challenges prevent female, young professional physicians in Swiss hospitals from reaching leading positions?

A–05. Structure and methodology

The process for this thesis is inspired by the double diamond process, which was adjusted to the needs of this project. The whole process followed an iterative approach that allowed the agility required by the project.

Initially, the researcher held two preliminary discussions with young physicians that have experienced and observed parts of the problem. The goal of these discussions was to get a brief overview of the different facets of the problem and to better understand the medical field and its culture. As a result, the problem was narrowed down to hospitals rather than the greater medical field. A short review of secondary research and a brief analysis of the problem was conducted to scope the project and highlight the issues revealed from this initial research. All this information was handed in as the first deliverable of this bachelor thesis, a thesis proposal.

In the next step, the problem was explored with secondary and primary research, to generate findings of the underlying causes, connections, and different aspects of the issue. The researcher pursued a human-centered approach interviewing young physicians, chief physicians, and experts on the topic to understand the attitudes, beliefs, and behaviors that lead to the female physician's underrepresentation in leading positions. Secondary research was conducted before the interviews, to formulate informed, adequate questions, and after the interview, to further understand the connections between the different aspects of the problem. The research outcome was analyzed and synthesized to generate findings for the ideation phase. Framing the problem helped to create design criteria and problem areas for potential design interventions. The second deliverable included a problem framing and criteria definition.

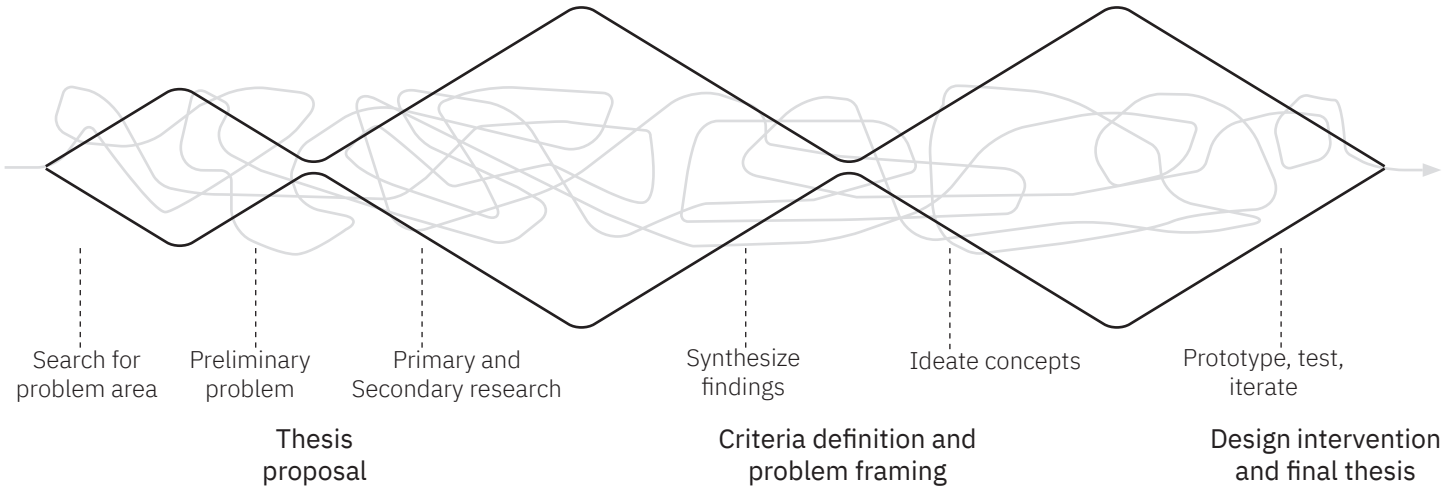


Figure 1: Process for the bachelor thesis

In the last step, on the basis of the problem areas and design criteria, a desirable future was defined. Based on this future, different concepts were ideated and three concepts were formulated. Together with stakeholders, these concepts were evaluated and prioritized. By using three prototyping and testing iterations, one concept was

further developed to create a design intervention. Finally, the design intervention was evaluated, and an implementation strategy was proposed. All together formed this bachelor thesis, which is the third hand-in.

Throughout the secondary and primary research part of this document, numbers are used to reference the research findings to the research synthesis. The color of the number shows what problem area the finding is allocated to.

- Gender stereotypes rooted in our society
- Misogynistic organizational culture
- Stressful working conditions
- Relationship challenges around gender stereotypes

A–05.1 Limitations

For primary research, and the prototype and testing, this thesis relied on the participation of physicians. As physicians have extreme working conditions, it was difficult and uncomfortable to get a hold of them. Coordinating a meeting where several physicians attend for a testing or co-design session was not possible, as physicians have long working hours and work shifts.

Due to the pandemic and privacy protection, it was impossible to do any observation at the hospitals. As a result, the primary research focus in this thesis lies in personal conversations over Zoom or telephone with interview partners.

To keep the scope of this thesis manageable and understandable, only the male and female gender identity was considered and discussed. This thesis acknowledges the diversity of gender identities and does not mean to devalue any by not considering them. Furthermore, this thesis also does not do justice to gay and queer relationships for the same reasons and does not mean to devalue them either.

As gender equality is a hot topic, it is also important to mention that the author of this thesis is male and cannot grasp the female experience of the problem entirely. Nevertheless, he tried as well as possible to understand the issue by listening carefully to affected people.

To deal with a topic like gender equality certain generalizations have to be made. However, this thesis recognizes that humans are individuals with their own stories, interests, strengths, and weaknesses no matter what their gender is.

B

B. Secondary research

B–01. Gender and viewpoints

Gender equality is a hot topic triggering strong opinions. The discussion often provokes attitudes of us versus them, female versus male. Since neither of the parties can experience the counterparty's perception, it is difficult to understand the opposite sides fully. According Office for National Statistics UK (2019), we are born with a certain sex, generally male or female, which in most cases defines the way our gender identity forms. Gender identity is a personal, internal perception, often defined by behaviors and attributes that are socially constructed based on the labels of femininity and masculinity. Depending on our gender identity, we have different experiences and form different unconscious beliefs and personal filters through which we see the world (Liswood, 2015) [1]. For example, a survey run by FTfm from the Financial Times (Newlands & Marriage, 2014) approached the topic of sexism and women in asset management. The result showed a gap between the experience of a male and female perception of the problem. While more than two-thirds of male participants thought sexism has improved in the past five years, only 37% of women agreed with that statement. Furthermore, the study of García-González et al. (2019), which compared the perception of gender inequality of Spanish and British researchers, showed a similar result. There is significant evidence that male and female researchers in both countries have a different understanding of gender inequality. Female researchers perceive greater gender inequality than male researchers. To sum up, we are born with a sex and form our gender identity in most cases around that sex. Our lived experience heavily depends on our gender identity, resulting in contrasting experiences between male and female genders.

B–02. Gender stereotypes — socio-cultural and biological factors

In discussions about gender equality, arguments of anti-feminists often form around biological personality differences that lead to differences in interest, skills, and character between men and women. They argue that these differences are why women hold fewer leadership positions and are underrepresented in STEM fields (Peterson, 2018). While most agree that there are personality and character differences between men and women, the gender equality proponents argue that most of these differences are based on socio-cultural learning and are part of the problem. In their book about health and gender, Tarricone and Riecher-Rössler (2019) mention two aspects relevant to discussing psychosocial and biological factors on gender stereotypes. Firstly, between men and women is a considerable overlap regarding these differences, meaning that many women and men on average are very similar. Secondly, it is difficult to separate between socio-cultural and biological factors, as they influence each other.

According to Lise Eliot (2010), boys and girls are different in many ways. They differ in physical activity levels, performance in language, math skills, and interests. However, these differences are relatively small and do not justify the common expectation of men and women. Eliot notes that there are very few reliable differences that have been identified from a neuroscientific point of view. Even though boys have larger

brains and finish growing a year or two later during puberty than girls, these physical differences tell little about mental development. Looking at the academic performance, Eliot mentions that the National Assessment of Educational Performance in the USA shows a clear gender gap in performance. However, zooming out to an international level, a different picture is drawn. For example, math is considered a male strength in many western countries like the USA, but women outperform their male colleagues in Iceland and Thailand. Eliot further explains that analyzing these different math performances showed a correlation between higher female performances in math and gender equity in the respective country. Boys and girls start out with slight biological differences. However, our society and culture reinforce these differences and encourage boys and girls to identify with their gender stereotype [2] (Lise Eliot, 2010).

B–03. Ambition of female physicians

Looking for why female leaders are underrepresented in leading positions of hospitals, it seems noteworthy to look into gender differences in ambition levels. A study from the Boston Consulting Group (BCG) (Abouzahr et al., 2020) analyzed over 200'000 employee survey responses to understand the gender ambition gap better. Their findings showed that at the beginning of the career, women are as ambitious or more than men regarding their wish to become a leader. Furthermore, the research showed that having children does not affect the willingness of women to lead. However, the ambition level of women was suffering in organizations that did not value diversity and lacked a positive work environment for women. Abouzahr et al. (2020) demonstrated the differences in ambition with the example of a large company with several different sites. In sites where employees report that the company commits to the retention of women, the measured ambition level of women in middle management was on average 20% higher. Even though the study of BCG does not explicitly mention the medical industry, it demonstrates an interesting correlation between work culture and female ambition levels [3].

To better understand the situation in the medical field, let us look at the study of Buddeberg-Fischer et al. (2010) that researched the impact of gender and parenthood on young Swiss physician's careers. Buddeberg-Fischer et al. report that female physicians, especially those with children, are less career-oriented than male physicians and more drawn to part-time work as well as a break to bring up a family. These women also tend to work more in private practice as it often allows for more flexible working hours [4]. Furthermore, the study also highlights that female physicians aspire to achieve less in academia than their male colleagues, which influences their clinical career as academic achievements are often required for leading positions. The study mentions two reasons for the lack of women in academia: the lack of female role models and the rigid, demanding career path [5], which is hardly compatible with raising a family [6]. Considering the study from Abouzahr et al. (2020) mentioned above, one could conclude that the working culture in Swiss hospitals does not

value diversity and lack a positive work environment for female physicians. However, to better understand the female underrepresentation among physicians in leading positions, it makes sense first to highlight the process and requirements to get such a position.

B–04. Climbing the hierarchy in Swiss hospitals

For physicians in Swiss hospitals, there is a typical way to climb the ladder. After the final university examination, the graduates start as assistant physicians in a certain medical specialty like anesthesia or internal medicine (Maier,a) n.d.). To become an independent working physician, one has to practice and reach a certain threshold in his field of expertise and pass the specialist exam to gain the title of a specialist physician (Maier,b) n.d.). The thresholds vary depending on the specialization and can be a certain amount of years in anesthesia or a certain amount of different kinds of surgery procedures in surgical specializations. Senior and leading physicians decide who has the opportunity to take part in the necessary procedure and who gets supported to reach the required threshold faster. A specialist physician that continues working in a hospital and does not decide to leave for a practice normally becomes a senior physician automatically. By that time, many physicians have already engaged in research to progress their academic careers further. However, research prolongs the time to be an assistant physician as academic efforts need time often on the cost of clinical efforts. Academic achievements are required in many hospitals to reach further hierarchy levels after senior physicians: Leading physicians and chief physicians [7] (Buddeberg-Fischer et al., 2010). Additional to the academic experience, it can also help further educate oneself in the management field by completing an MBA program to climb the ladder further. However, this path is uncommon and not consistently recognized. Reaching a further step in the career as a senior physician often depends heavily on informal relationships with leading physicians and self-marketing as the competition is high (Schädeli, 2017) [8] . To sum up, climbing the ladder requires physicians to gain practical experience in one field of expertise, conduct research achieving academic accomplishments, and be well connected in the network of physicians and with superiors. In addition, a person needs to have strong resilience and robust intrinsic drive to bear the burden of these high demands, which implies a work commitment that goes beyond regular working hours and impacts private life heavily.

To better understand why female physicians are underrepresented in leadership positions, let us look at each of these three areas separately:

- Clinical and academic experience
- Networking and informal work relationships
- Work-life balance

B–04.1 Clinical and academic experience

To become a senior physician, young professionals have to go through their assistant physician's time and get a certain threshold of practical experience before they can attend their specialist exam. In this time, it is crucial to go through specific procedures and learn on the job. However, Pearce et al.'s (2020) study about gender effects in anesthesia training in Australia and New Zealand shows that women have inequitable access to procedural training [9]. Lower procedural training strongly correlates with physicians' confidence level for independent practice, even with no gender differences in this correlation. The confidence level among women is thus smaller [10]. These findings suggest that women are offered fewer opportunities to perform procedural training, or if offered, the chances are lower that they take them up. Additionally, the study mentions that similar findings have been made in other procedural-based specialties. In summary, women in medicine are underexposed to procedural experience, starting in education throughout their career.

The article of Tagesanzeiger (Anderegg, 2021) gives insights into the situation for surgeons in Swiss public hospitals. To get their 500 procedures, assistant physicians stand in line to reach the opportunity to perform their surgeries. As some leading physicians in surgery still think women cannot combine family and career, they do not further females as much as males. Already in the hiring process, young female physicians get asked about their family plans. As a result of this bias, female surgeons hardly get the chance to train and demonstrate their capabilities but instead get assigned to work in the emergency departments or to do more computer-related work [11]. In the same article (Anderegg, 2021), Anna Wang, the president of the Association of Swiss Assistant and Senior Physicians Zurich (VSAO), mentions a further problem. Since hospitals in Switzerland currently lack physicians, they promote assistant physicians earlier in their careers. As females experience difficulties getting as much experience as their male colleagues, especially if they work part-time to provide for their family, they have a smaller chance of climbing the ladder [12]. To sum up, gender bias makes it hard for women to get equitable access to their training and disadvantages their careers.

For a young assistant physician to get an adequate education in the hospital and gain experience in academia, it is beneficial to have a mentor. However, the research paper of Riska (2011) points out that women struggle to find mentors that support them on their academic path. Moreover, the study highlights that female physicians lack a supportive work environment that encourages them to advance their careers [13]. Additionally, Patton et al.'s (2017) study also states differences in the relationship between mentor to male mentee and mentor to female mentee. Male mentees, compared to female mentees, receive sponsorship more often [14]. Sponsorship in the study describes a mentorship relationship beyond the advisory role and requires mentors to use their influence and risk their reputation to advance high potential physicians. Patton et al. name the following reasons that might lead to this situation: female physicians have less influential mentors, less actively demand sponsorship, require other types of mentorship, and might less likely be thought of to be spon-

sored. Next to the gender bias that is responsible for the lack of support of female careers, the study by Soklaridis et al. (2018) also mentions the fear of men in power about false allegations of sexual misconduct to enter into a mentor relationship with women. However, the study highlights that focusing too much on these fears of men can deflect actual sexual misconduct and can discredit women speaking out against sexual harassment. In conclusion, the lack of mentorship, sponsorship, and support of female physicians in their clinical and academic careers hampers their professional development to reach leading positions.

B–04.2 Networking and informal work relationships

Benefiting from informal relationships in their network is another critical factor in the career advancement of physicians. Purcell et al. (2010) define these benefits as resources, information, or support that can transform into large disparities in status, work mobility, or income. Networks can reproduce inequality as they give advantages only to network participants. According to Buddeberg-Fischer et al. (2010), female physicians tend to choose their profession for their interest in treating patients. Compared to their male colleagues, women attach less importance to climbing the ladder or achieving powerful and high-income positions. Networking for women is less about putting themselves forward and more about empathizing with a person [15]. As a result, career support for female physicians in comparison to male physicians is less common.

The term homophily describes another aspect that makes benefiting from networking for women even more difficult. Purcell et al. (2010) describe homophily in their paper as the tendency to associate with culturally and socially similar people. Since most leaders in medicine are male (Hostettler & Kraft, 2019), this further impacts the career advancement of female physicians. Similar effects can also take place in hiring and promotion decisions. A health-system-strategy executive in the Mc Kinsey article (Berlin et al., 2019) mentions that we tend to hire what is similar to us. According to the article of Jaffe (2008) in Forbes, Rosabeth Moss Kanter, a Harvard Business School professor, states that “the first noticeably different person who ascends to a role will always be seen as a representative of the emerging group and never as totally legitimate.” The underrepresentation of female physicians in leading positions seems to make it harder for women to connect to their superiors and give them a disadvantage in the hiring and promotion process [16].

B–04.3 Work-life balance

Work-life balance is an important topic when looking at the healthcare industry. In Switzerland, according to Siebenhüner et al. (2020), the law stipulates a maximum of 50 working hours per week, but in 2016, the average healthcare professionals working hours was 56 per week. The study of Siebenhüner et al. (2020) indicates that “work overload in the form of frequent or excessive overtime work or permanent time pressure at work is an important job stressor that can strongly affect the satisfaction and well-being of those concerned” [17]. Furthermore, Siebenhüner et al. report that

almost 13% of Swiss physicians between the years 1980 to 2009 left patient care. According to the final report, the exit from curative medical practice, by Bolliger et al. (2016), there are four main reasons for the leave of patient care: The workload, the working hours, certain work contents, and insufficient compatibility of work with child care. If we look at the gender differences, female physicians leave patient care earlier and more often, about 1,2 to 1,6 times more than their male colleagues. Important reasons for female physicians to exit medical practice are the insufficient compatibility of work with child care and the consideration of their partners' careers 18 . To sum up, the healthcare industry has harsh working conditions, and as a result, more than one out of ten physicians leave their clinical practice behind. Women do so at an increased rate than their male colleagues, often to take care of their family.

In an article by Beobachter, Krättli (2013) highlights how poor the working conditions for physicians are. In a not peer-reviewed survey with 1500 physicians responding from different Swiss German hospitals, 85% of senior physicians and 80% of assistant physicians reported illegal working hours above 50 hours a week, even though more than 80% would like to work 50 hours or less. More than 50% of seniors and more than 60% of assistant physicians report that they do not even have time to have an uninterrupted 30min lunch or dinner break. Miodrag Savic from the VSAO says that there is massive insecurity among physicians. Many worry about not being enough and feel anxious to stand up for their rights. He reports that one reason for this is the questionable contract culture hospitals have with assistant physicians: Yearly contracts are standard. If a physician raises a critical voice, she or he can forget it to get the contract renewed 19 . The famous case of Natalie Urwyler (Freuler & Kučera, 2020) underlines these conditions. Urwyler was a high-achieving physician with the potential for a chief physician position. After she came back from a pregnancy leave, the hospital canceled her academic activities. Urwyler filed an official supervisory complaint against the clinic management. Five months later, she got fired. A legal dispute followed, in which Urwyler won as the termination was seen as a revenge act. However, Urwyler never got her job back. In conclusion, precarious working conditions seem the norm in hospitals, with critical voices being dismissed.

It is crucial to notice that women get hit harder by these working conditions as they are more often in a relationship with a full-time working partner than men, resulting in them spending significantly more time for chores and child care (Jolly et al., 2014). Additionally, women often take on more responsibility for looking after aging parents, even though this phenomenon has not yet been well-documented in the medical literature 20 (Butkus et al., 2018). A study of HBR (Ely et al., 2014) sheds light on female career priority expectations and how they get shattered in their relationship. In a Harvard Business School MBA alumni survey, only 25% of generation X women expected their partners' careers to prioritize; however, around 40% found themselves in a traditional relationship with their partner's career taking priority 21 . A considerable discrepancy can also be observed between the relationship expectation of women and men, as around 60% of male alumni compared to only 25% of females expected a traditional relationship with men having career priority. This discrepancy is supported by the career-related split-ups that women experience more than men

(Riecher-Rössler, 2017). The most significant difference can be observed with female professors: 31% have experienced such a split-up compared to only 15% of male professors [22]. The study by Ely et al. (2014) further reports that all women who did not live in an egalitarian relationship, meaning equal career priority and child care responsibility, tended to be less satisfied with their career growth than men. Besides the gender-stereotypical roles that might unconsciously influence couples to go for more traditional relationships, there are also structural reasons that encourage these arrangements. Female physicians earn 30% less than their male colleagues with the same experience in the same field (Federal Office of Public Health FOPH, 2018). Additionally, barriers like unequal parental leave policies and the progressive taxation for married couples make it even harder for couples to pursue an egalitarian relationship [23]. To sum up, even though most women expect their careers to be as meaningful as those of their partners, many women end up in a traditional relationship, in which classic gender stereotypes prevail. Women, therefore, end up with lower career satisfaction than males.

To highlight the severity of the experienced difference of female and male young physicians regarding work-life conflict, it is worth looking at the study of Guille et al. (2017). In their study, Guille et al. "investigated sex differences in depressive symptoms and how work-family conflict may impact the sex disparity in depressive symptoms during US-American physicians internship year." Before starting the internship year, male and female physicians experience a similar level of work-family conflict and depressive symptoms. However, only six months into their internship, both genders experience an increase in depressive symptoms, with women experiencing a significantly greater increase than men. One-third of this difference can be accounted to work-family conflict [24]. In conclusion, the work experience as a professional physician increases depressive symptoms for all genders, especially among women, due to their work-family conflict.

B–04.4 Implicit gender bias

Next to the discrimination women experience in the three requirements for a successful career, it is also essential to highlight the power of implicit bias that female physicians regularly experience. Implicit bias can be good-hearted and does not require someone to be actively mean; however, it influences people, impacts their career, and can strengthen traditional gender stereotypes. According to Jagsi et al. (2016), 66% of female physicians report experiences of gender bias compared to only 10% of male physicians [25]. In the study of Özdemir & Albayrak (2015), he describes bias that women are facing in a field that traditionally has been male-dominated as a more disguised bias, called second-generation bias. This bias reflects work cultures and practices that favor masculine values. Since such mindsets can be deeply entrenched, they can influence hiring, promotion, and salary decisions [26]. Involving social practices and patterns of interaction, second-generation bias can exclude non-dominant groups, which can be difficult to trace due to its fuzziness. However, it becomes visible in the underrepresentation of female leaders or in lower salaries of female physi-

cians (Federal office of public health, 2018). Supposing women have or acquire male attributes like being assertive, competent, and tough to be considered for leadership positions, they face backlash and are received as too aggressive and unapproachable. These behaviors do not fit with their traditional gender stereotypes and, as a result, lead to rejection. This phenomenon is described as a double bind since either behavior, caring, or being assertive does not lead to a successful career [27] . To sum up, in a historically male-dominated profession, women face different forms of bias, which can result in double bind situations and make it more challenging to achieve a successful career.

C. Primary research

C–01. Methodology

For primary research, the focus in this thesis lies on interviews with differently experienced physicians and experts. The author conducted seven interviews with young physicians, two interviews with chief physicians, and three interviews with experts. All interviews were held virtually over video or audio calls. The author had chosen an unstructured approach in the first interview, but due to the breadth and complexity of the topic, he realized that a semi-structured approach fits the subject matter better. Therefore, the researcher chose this approach for all other interviews. The main topic was separated into sub-themes relevant to the respective interview category. Specific questions were defined as must-haves in each category to ensure that the whole scope of the problem is covered. The interviews' durations were between 45 minutes and 75 minutes, depending on the interviewed person's willingness, talkativeness, and availability. All interviews were held between February and April 2021. The interviews were held in Swiss German, and translated to English for the analysis.

As mentioned earlier, different studies (Newlands & Marriage, 2014) (García-González et al., 2019) show that men and women experience gender inequality differently. In this thesis, the focus lies on the perception of female physicians, as their perceptions and experiences indicate a more severe inequality than their male colleagues'. However, to capture the whole problem, male perceptions, attitudes, and beliefs were also considered. Therefore, two-thirds of the interviews were conducted with female physicians, one-third with male physicians.

For each interview category, the same questions were asked, except for adjustments to the respective gender. For the expert interviews, the researcher adjusted the questions depending on the expert's experience, position, and background. Inspired by Spradley (2016), the author started all interviews with a short rapport process, explaining who he is, what the interview is about, and what can be expected to build some basic trust. Furthermore, the concept of a grand tour question at the beginning of all interviews was applied to get an unbiased impression of the participant's knowledge and position to understand where to dig deeper later in the conversation. The following introduction was used to start every interview:

The proportion of female physicians in Switzerland is declining in proportion to the increasing hierarchical level. While women make up 58% of assistant physicians and 47% of senior physicians, they only account for 27% of leading physicians and 13% of chief physicians.

- Do you think that this is a problem?
- Why do you think this is a problem?
- What do you think causes this problem?

Following each interview category is presented in more detail.

C–02. Interviews with young professional physicians

C–02.1 Goal

The goal of interviewing young physicians is to understand better their experience of working at a hospital, their aspirations, and how gender-based challenges might impact these goals.

C–02.2 Questions

The following sub-themes categorize the questions for the young professionals: Viewpoint, role model, aspirations, character and confidence, network and informal relationships, support and feedback culture, atmosphere and working conditions in hospitals, discrimination, and sexual assault, work-life balance, knowledge of existing gender equality measures, the responsibility of gender inequality. Some questions covered more than one sub-theme, depending on how the participants answered it. The questionnaire can be found in the Appendix (y–01).

C–02.3 Participants

Seven young physicians, five women, and two men have been interviewed. The interviewed physicians were from various specialties (surgery, anesthesia, urology), had different ages (26 – 32, most of them around 30), and were differently experienced. All participants were working on the hierarchical level of the assistant physician, except one male physician that was already promoted to a senior physician position.

- P1, Female, 32, currently working 100%, 3 years experience in clinic, 1 years experience in academic
- P2, Female, 26, currently working 100%, 2 months experience in clinic
- P3, Female, 31, currently working 80%, 3 years experience in clinic, 3 year academic, 1 child
- P4, Female, 31, currently working 100%, 3 years experience in clinic, 1.5 year academic
- P5, Female, 31, currently working 100%, 5 years experience in clinic
- P6, Male, 30, currently working 100%, 2 years experience in clinic, 1.5 years experience in academic
- P7, Male, 32, currently working 100%, 6.5 years experience in clinic, 5 years experience in academia

C–02.4 Analysis & findings

The analysis of the interview is sorted according to the sub-themes that were defined in the questions. The sub-themes “knowledge of existing gender equality measures” and “responsibility of gender inequality” were not considered as their findings did not seem relevant. The raw analysis of the interviews with all the content can be found in the Appendix (y–02).

Role models

Most participants do not really have a single role model.

Findings	Evidence	Reference
Some physicians mentioned a generational gap and explained that their life concepts did not exist in previous generations. Therefore they lacked role models among current leaders.	"I think the kind of lifestyle I am aiming for, with balancing work, family and leisure domains, did not really exist in the previous generations. Therefore it is also difficult to have role models." (P6) "I find it inspiring if physicians manage to reconcile their career domain and family domain. Currently we lack such role models. Among leading physicians, there are mainly male physicians with family, who have a wife that takes care of the family needs." (P3)	30

Table 01: Findings from young professional physicians about role models

Career aspirations

Regarding their aspirations, there was a difference between male and female physicians.

Findings	Evidence	Reference
Three female physicians noted that family plans changed or might change their career plans.	"I no longer aspire to a career. I would be satisfied with a role in a senior position or a private clinic. I used to aspire to a career with my previous partner because I did not want kids. But now I am in a different relationship, so I have different desires." (P3) "At the moment I strive for a career but family is also no topic yet. So who knows how the situation will look in five years. It might change." (P2)	31

Table 02: Findings from young professional physicians about career aspirations

Character and confidence

Findings	Evidence	Reference
Most physicians said that confidence is essential to get procedural training.	"In our field, self-confidence is really important. You have to say that you are able to do something that you get the chance to do it. That is the only way to train the different procedures and make a career. I also observed that with myself. I had to tell myself, I am able to do that, I do that and I tell them that I can do that. And then I was allowed to do it. If I had shown some self-doubt, I would not have had the chance to do it." (P2)	32

Most physicians mentioned that males are more confident than female physicians and named this as one reason they get less support and procedural training.	"I am reliable and precise, but I lack the self-confidence of a man. I am too self-critical and sometimes too hesitant." (P3)	33
Many women mentioned the lack of feedback as a factor that aggravates their female confidence issues. One participant mentioned that she experienced how a superior told her that it is his responsibility to balance the different confidence levels to further those with high aspirations equally. She found that inspiring.	"I think it is quite difficult to self-evaluate my performance. I think one gets little feedback. So often I just try and do, and then in the evening, I don't really know if I did a good job or not. Men seem to have less self-doubt and therefore maybe need less feedback." (P2) "There is little positive feedback to get strengthened in one's confidence." (P1) "I found it really inspiring when one of my superiors told me that it is his responsibility to balance out the different levels of self-esteem. Some people overestimate their skills, and it is important to curb them; others might be more careful and need encouragement. I think that is a very good approach. But this was the only person I have met that did it this way." (P4)	34
Many physicians (male and female) stated that stereotypical character traits associated with women are not valued for leadership positions.	"I think the typical character traits that are searched for in a boss woman tend to bring along less often. That's why women are often seen as inappropriate, even though these character traits do not necessarily make them good bosses." (P4)	35
One male physician mentioned that women are in a double bind situation as both their gender-stereotypical behavior and their adapted, more competitive, and assertive behavior is criticized as unsuitable for leadership.	"There is a discrepancy between how a woman should behave and how people perceive her. Everybody expects her to be assertive and dominant to be considered for the promotion, but deep inside us, there is an aversion for women that behave that way. Gender stereotypes are deeply rooted in our brain, and it results in a gut feeling that tells us: This does not fit. They once did an experiment and served green Ketchup to People. Even though it tasted the same, people just found it grows because Ketchup is supposed to be red." (P6)	36

Table 03: Findings from young professional physicians about character and confidence

Network and informal relationships

Findings	Evidence	Reference
Both male participants were in research groups of their superior and got furthered in their careers. However, none of the females reported such a relation-ship.	"Women and men get supported differently. While men get more support in a way as offsprings, women have to fight more for their support. It is more straightforward for men and vaguer for women." (P5)	37

Table 04: Findings from young professional physicians about informal relationships

Support and feedback culture

Findings	Evidence	Reference
All female participants criticized a lack of training and support culture in the hospital. On the one hand, in bigger hospitals, there is little contact with the same physicians and a high fluctuation, which makes it challenging to get good training. On the other hand, there is just a general environment in many Swiss hospitals that does not value teaching due to high competition, long working hours, and other reasons.	"We have too little contact with the same person, so it is difficult to get properly coached." (P3) "I think it is also a huge problem that superiors are so preoccupied with their own career that they do not have the energy to cope with trainees. They often just end up doing procedures themselves that stuff gets done without teaching it to others." (P1) "I know that performance review meetings exist, but it depends on who is responsible for it. In my case, I just never had one." (P1) "In Switzerland, teaching and on-the-job training has little priority and does not help someone to reach a leading position. It is different in the USA. Their medical education in hospitals has high priority and confers great status for physicians engaging in teaching. Overall, teaching is more valued, and the teaching culture is way more lived. The assistant education is also way more defined." (P4)	38
Female participants mentioned that the lack of feedback negatively influences their confidence and learning experience.	"Sometimes I find it difficult to judge my own perfor-mance as we do not get a lot of feedback." (P2) "It would help me a lot to get more feedback from supe-riors, especially regarding the procedural performance. There are existing systems that probably would work, but it has little priority. And I think it has a lot to do with a time issue, but also the anonymity of bigger hospitals and the shift work." (P4)	39

Many women mentioned the expectation of them to be more like the male stereotype.	"Once in my internship year, someone encouraged me to be more competitive to be more like a man, he said, so he asked me to call my superior to tell him that I will come to the surgery and not the other guy. I find that quite sad. I then instead talked to the guy who was supposed to assist and explained to him why I deserve it to be in the surgery." (P2)	40

Table 05: Findings from young professional physicians about support and feedback culture

Atmosphere and working conditions

Findings	Evidence	Reference
Most participants mentioned that hospitals' conversational tone is quite rough, the working hours long, and the competition high. Furthermore, most said that they receive little recognition from colleagues and superiors. One physician compared the working conditions to an industrial age factory.	"The environment in my hospital is quite political, and there is a lot of competition. Sometimes a rough conversational tone and there is little appreciation from superiors for the work we are doing." (P5) "Medicine is a very old school profession. Bosses are dominant; everything has to be evidence-based. And the working hours, the working conditions and the leadership styles are comparable to a factory in the industrial age." (P6)	41

Table 06: Findings from young professional physicians about working conditions

Discrimination and sexual assault

Findings	Evidence	Reference
Most female participants complained about subtle discrimination that is not overt and difficult to pinpoint. The predominant example was the better access of male colleagues for procedural training.	"For me, the best example is the surgery procedure allocation; male colleagues have it easier to get their experience. [...] One example is when another male colleague with less experience gets assigned to a surgery that I am supposed to do." (P1) "Males have more chances to go through procedural training." (P5)	42

Two participants mentioned the aspect that successful women get more under scrutiny compared to their male colleagues.	"As a woman, you get way more under scrutiny. For example, Beatrice Beck Schimmer got promoted as the first female vice president of medicine for the University of Zürich. As a result, the Weltwoche magazine Zürich wrote a bad article about Beck Schimmer, trying to attack her reputation. With men, this seems to happen less often. We had a similar example in our hospital where two women got promoted, and everybody gossiped that they were not qualified enough because they did not pursue an academic career. However, in the same department, two male physicians higher up also had no academic title and got their position, and nobody questioned their qualification." (P4)	43

Table 07: Findings from young professional physicians about discrimination and sexual assault

Work-life balance and family

Findings	Evidence	Reference
Most physicians said that it is really hard to combine family with their profession. Many women mentioned that they are overwhelmed with family planning as it seems there is no right moment in their career to get kids.	I actually feel overwhelmed with the decision at what point in my career I should have kids. It seems there is never the right moment to have kids. (P1) I would like to make a career, but I also want family, and that seems very tough. It just seems not realistic. I have to find out now if it is worth it for me to pursue a career. (P2) When talking to the partner about what point in time one wants to have family, one comes to the conclusion that there is never a right moment. (P5) My role in child-rearing is more important as my partner earns more. If we earned the same, the situation would be different. Now he works 90% and me 80%. (P3)	44
A few participants mentioned a generational gap between them and the leadership, who thinks that family responsibilities are not compatible with a career in medicine.	"My current boss actually furthered and promoted me quite a bit. But I am also happy that he will soon retire because my partner and I plan to have a family and as a result I plan to reduce my working hours. My boss would just not understand and tolerate that, and I would really struggle to tell him that. It feels like I can't do what I want as long as he is still there." (P6) "Already in our studies, a woman said that as a female physician you should not have kids. I remember that well. I actually find it very sad considering that 50% of the students are women." (P1)	45

One couple talks a lot about family planning and really attaches importance to an egalitarian relationship, others seem to find it not very easy to foster the conversation about the topic and have mixed expectations.	“My partner and I haven’t really talked about role distribution if we have a family, but for me, it is clear that both reduce to 80%.” (P5)	46

Table 08: Findings from young professional physicians about work-life balance and family

C–03. Interviews with Experts

C–03.1 Goal

The goal of interviewing experts is to better understand the structural, biological, psychological, and organizational factors that lead to the lack of gender diversity in leading positions. As two participants were female experts that demonstrated remarkable careers in medicine, the researcher also intended to get a better understanding of their experience while climbing the ladder and being a leader.

C–03.2 Questions

The questions are adjusted to the respective expert, their experience and field of expertise. The following sub-themes categorize the questions: Personal experience, psychological factors, biological factors, social factors, structural challenges, and organizational factors.

C–03.3 Participants

Three different experts have been interviewed. Two experts are former female chief physicians as well as professor emeritus, who strongly engage in the topic of gender equality. The other expert worked for several years in healthcare consulting and currently holds the position in a mid-sized hospital as CFO.

- Exp1, expert on gender equality, professor emeritus, former chief physician, female
- Exp2, expert on gender equality, professor emeritus, former chief physician, female
- Exp3, expert on healthcare organizations, CFO of a mid-sized hospital

C–03.4 Analysis & findings

The analysis and findings are sorted according to the sub-themes categorized in the questions.

Psychological factors

Findings	Evidence	Reference
Both experts on gender equality mentioned the deeply rooted gender stereotypes that influence the behavior of both genders.	“There is not only gender-stereotypical behavior among leaders that are responsible for these [misogynistic] structures but also among women themselves. There are studies that show that when women start off, they have similar aspirations as their male colleagues and only after the studies, they adjust their goals to family friendlier specializations.” (Exp 2)	50

Two experts reported that the most important psychological reason for women not achieving careers at the same rate as men is the difference in confidence levels.	"Women are quicker to feel that they do not have a chance to reach a certain position and give up before they even make themselves visible." (Exp 1) "The main psychological reason [for the lack of female physicians in leading positions] is the lacking confidence of women in contrast to men. [Let's take the example of] a man and a woman who go walking in a forest and come to a fork. If the man knows 80% which way to go, he will say: Let's go this way. If the woman knows 80% which way to go, she will say: I am not sure, maybe this way. As a result, women are also less assertive than men, and I think this is an essential difference. This behavior is learned in the upbringing." (Exp 2)	51

Table 09: Findings from experts about psychological factors

Biological factors

Findings	Evidence	Reference
One expert acknowledged that there are scientifically proven, biological differences between the genders. However, these differences are mean values and rather small, which means that the majority of men and women are biologically very similar.	"Each human should be looked at individually. Since there are only small biological gender differences on average, there is a huge overlap where men and women are very similar. It is important that each individual can decide themselves who they want to become, what their skills are and what they are interested in instead of pigeonholing humans into gender stereotypes." (Exp 1)	52

Table 10: Findings from experts about biological factors

Social factors

As both experts on gender equality also had a successful career while having a family, it was interesting to understand their knowledge in that sphere.

Findings	Evidence	Reference
One expert mentioned that gender stereotypes are setting wrong expectations on family responsibilities; they should be more shared between couples.	"Many have the gender stereotypes ingrained that family responsibilities are female responsibilities. That makes me really angry. We don't need more part-time positions for women; we need more part-time positions for both genders so that both can take on family responsibilities." (Exp 2)	53

One expert mentioned that the most important thing to combine family and career is the partner. It really surprises her that people often do not talk about aspirations and family plans enough.	"That people do not discuss these things in advance, that really surprises me. [...] At some point [in a relationship], it has to come to this phase where it is not only about being in love but also about a certain compatibility of world views. One should then take time and talk about how to deal with it when there are children, how to cope with these situations? Our [me and my partners] recipe was that one of both always had to wait for the other one, and that is ok, as long as it was alternating. It just does not work if one person always loses out to the other person. At some point, this comes back." (Exp 1)	54

Table 11: Findings from experts about social factors

Structural factors

Findings	Evidence	Reference
Two experts emphasized that the healthcare sector and Switzerland, in general, is still quite conservative. As a result, modern values like balancing different life domains or meeting people on the same eye level are not common yet.	"Structural reasons [for the lack of leading female physicians] are the lack of adequate part-time positions for young parents, mothers, and dads, so that family is compatible with the medical profession. Furthermore, there is a lack of affordable childcare. Then there is a societal stance in Switzerland that doctrines women to take care of children themselves and condemns giving children to childcare, which is really common in France or Scandinavia." (Exp 1) "The conservative mindset is still very strong in the healthcare sector, maybe one of the strongest compared to all other industries." (Exp 3)	55
All three experts mentioned the enormous burden that comes with a chief physician's position. While some pointed out that it is important to have a supportive social environment to cope with this workload, others suggested creating new, more flexible models to occupy these positions by splitting the different responsibilities.	"Chief physicians have an enormous workload, which really raises the question how this is compatible with having a family." (Exp 3)	56

Table 12: Findings from experts about structural factors

Organizational factors

Findings	Evidence	Reference
All experts reported that hospitals have very strong hierarchies with chief physicians holding very strong positions with a lot of power, which leads to strong division between the departments. One expert also mentioned how some leaders abuse this power.	"It is still quite common that chief physicians hold very strong positions, which they exploit and abuse." (Exp 3) "[Silo thinking in hospitals] is very pronounced. A good example is the management of the beds. Each chief physician says these are my beds and my department, and it is a big step for them to share these beds with another clinic. For capacity management, they have to stop just looking at their own beds and start to share more to overcome these silos." (Exp 3)	57
Two experts also emphasized that physicians strongly focus only on their specialist know-how with little focus on other relevant skills to hold leading positions.	"The know-how how to deal with other people is neither taught in the education nor is valued later on." (Exp 1) "[In medicine] one distinguishes oneself mainly through the specialist expertise and not through leadership competencies. [...] It would actually be more a specialist career than a leadership career." (Exp 3)	58
One expert mentioned the influence of the cost pressure that creates almost unbearable working conditions and encourages quantity thinking rather than a customer-centered life-quality approach.	"The working conditions really depend on the organization. There was a merger of two hospitals, one with good working conditions, a friendly conversational tone, and no crazy working hours. The other hospital was quite different, with a rough conversational tone and physicians getting forced to work unpaid overtime. So two cultures clashed; one could see that the salary cost per patient of the hospital with good working conditions was 35% higher, not because their physicians earned more, but because they did not partake in this practice. Those who do not partake in these practices make millions of losses until they also implement tougher working conditions." (Exp 3)	59

Table 13: Findings from experts about organizational factors

C–04. Interviews with Chief physicians

C–04.1 Goal

The goal of interviewing chief physicians is to understand how they experience the problem and how they intend to lead.

C–04.2 Questions

The questions are categorized by their experience of the problem and their leadership practice and ideals.

C–04.3 Participants

Cp 1, March 2021, female, chief physician for 13 years

Cp 2, March 2021, male, former chief physician for 17 years

C–04.4 Analysis & findings

The analysis and findings are sorted according to the categories in the questions. As these interviews included only one physician per gender, there are no major trends noticeable. However, the most interesting findings are presented below.

Experience of the problem

Findings	Evidence	Reference
The female participant mentioned that she experienced difficulties changing back to a full time workload after reducing it for family responsibilities. She called this the part-time trap, which has to be overcome to pursue a career.	"I experienced the part-time trap myself. If you want to strive for a leading position with a 60% workload, you need very good arguments to convince that you are the right asset despite the reduced availability. It is the typical life stage in which women have children and can't or don't want to provide a full-time commitment. This time lasts a few years, in which women lose ground to their male colleagues. " (Cp 1)	60
The female participant mentioned the importance of the partner, as it is only possible to pursue a career if both are willing to do their share.	[What is the most important thing to combine family and work?] "Eyes open when choosing a partner, no I mean, it is important to discuss a dual career plan together. Because if you have children, it is not possible that both accelerate their careers in overdrive mode at the same time. " (Cp 1)	61

The male participant described how female leaders get observed more critically than their male colleagues. Women are expected to behave maternal and caring in accordance to their gender stereotype.	"Women in leading positions were particularly critically observed. Men are allowed to show a certain toughness in leading positions, women are not allowed to be tough. Women are expected to be maternal and understanding for everything, even in leading positions. Where it is said that the man is assertive, it is said that the woman has a sharp tongue." (Cp 2)	62
The male participant mentioned how bad certain chief physicians are and how they abused their position of power, especially in negotiations.	"There are unbelievable chief physicians. What they get away with is sometimes unbelievable. Also in regards to sexualised language and derogatory comments. The more a situation is negotiation oriented, the worse it gets with these superiors." (Cp 2)	63

Table 14: Findings from chief physicians about their experience of the problem

Leadership practice and ideals

Findings	Evidence	Reference
In regards to the tough working conditions, the female participant mentioned the generational conflict that occurs in hospitals as certain structures and processes are outdated.	"There are different generations that work together as a result, there are different expectations and attitudes. [...] As there are certain traditional customs and structures in healthcare, some with and some without reasons for existence, it is rather special when these different generations work together. Hospitals are not start-ups and cannot just quickly try out things. It is a cumbersome business."	64
The male participant underlined the importance of providing adequate training to all physicians while understanding the goals and needs of each individual and trying to support those. However, if a person has always self-doubt, he mentioned that it is not the responsibility of the leadership.	"It is the responsibility of the boss to support all physicians so that they can finish their specialist training. On the other hand, it is difficult [for a boss] if there is a female physician that has many self doubts. It is not really the task of the boss to always take care of that. However, I think it is important to create an environment, where people feel comfortable to express their needs and desires. And of course it is the task of the boss to make sure that all needs get more or less taken care of. " (Cp 2)	65

Table 15: Findings from chief physicians about their leadership practice and ideals

D. Research Synthesis

Various topics and issues emerged during the primary and secondary research. To understand, analyze and summarize these issues, the findings from the research were clustered and allocated to summarized findings that directly relate to the problem. Some findings can be seen as evidence for the summarized findings, while other findings point to underlying causes. To understand where the findings come from, the numbers reference the findings back to the previous research.

Secondary research	Primary research	Summarized finding
1 Depending on our gender identity, we have different experiences and form different unconscious beliefs and personal filters through which we see the world 2 Boys and girls start with minor differences, but it is our society and culture that reinforces these differences and encourages boys and girls to identify with their gender stereotype	50 Gender stereotypes are deeply rooted and affect women and men 52 Even though there are small statistical biological differences between the genders, as these are mean values, the majority of men and women are very similar	Gender identity, which is mainly formed by socio-cultural learning, shapes who we are, how we behave, and how we experience the world.
5 In academia there is a lack of female role models	30 There is a lack of role models that manage to combine work and family needs	There is a lack of role models that inspire women to achieve a career.
9 Women have inequitable access to procedural training 10 Due to less procedural training, women have less confidence, which in turn has a negative impact on the number of training opportunities 11 Gender bias makes it harder for women to get procedural training 12 Lack of physicians leads to early promotion, which is a disadvantage for women that take maternity leave or work part-time due to the lower experience 13 Women lack a supportive work environment and struggle to find mentors 14 Women receive less sponsorship 25 Female physicians face substantially more gender bias than men	32 Confidence is essential to get procedural training 33 Women compared to men are less confident 34 Women need more feedback for their confidence and appreciate superiors that balance the different confidence levels 37 Women receive less direct support than men 38 Women experience a lack of a feedback culture in Swiss hospitals due to the high fluctuation, high competition, and the long working hours 39 Some women would appreciate more feedback to strengthen their confidence 42 Gender bias in hospitals is subtle, especially in procedural training allocation it becomes visible 57 63 Much power is accumulated in the position of chief physicians, which can lead to abuse of that power 65 It is crucial to create an environment where people can express their needs and leaders cater to those needs	Female physicians do not get adequately supported and furthered from male-dominated leadership.
3 Both men and women have similar ambitions to make a career. However, if organizations do not value diversity, female ambition can decrease. 8 Reaching further career steps requires informal relationship and self-marketing 15 Women network more to empathize with people than to put themselves forward 16 As it is easier to connect to people from the same gender, female physician benefit less from interpersonal relationships with superiors 26 Implicit biases create an organizational culture in hospitals where female competencies are less valued	35 Typical female characteristics are not recognized as leadership qualities 39 Female physicians are expected to adopt stereotypical male attributes like assertiveness 51 Confidence differences are one of the main psychological reasons why women have fewer careers 58 Physicians differentiate themselves through their expertise and achievements in their field; soft skills are neither valued nor taught	Organizational cultures in hospitals often do not recognize and value typical female characteristics as leadership competencies.

27 Women who display male characteristics to achieve a career often get rejected for being to aggressive and bitchy	26 Female physicians are in a double bind situation 43 62 Successful female physicians get more criticized than successful male physicians	Females that display typical male characteristics like being assertive are rejected for being too aggressive and bitchy.
4 Female parent physicians tend to change to private practice as it allows more flexibility than working in hospitals 6 A career in academia is tough and challenging to combine with family responsibilities 7 A career in academia is a double burden but is required in many cases for leadership positions 17 Work overload in the medical profession can affect job satisfaction and well-being 18 Female physicians leave patient care more often than men, most commonly to consider their partner's career or the insufficient compatibility of job and family 19 Physicians are afraid to defend their labor rights as they worry about losing their job 24 Young female physicians experience significantly more depression than male physicians partly due to the incompatibility of work and family	41 The working conditions in hospitals are tough and rough 44 Female physicians are overwhelmed with combining their career aspirations and family desires 45 Leading physicians from the older generation think that a physician's career is not compatible with family responsibilities and part-time work 55 64 Conservative mindset prevent change to make medicine as a profession more family-friendly 56 Leading positions in medicine are very demanding and imply an enormous burden which makes it very difficult to do justice to family needs 59 Hospitals are under cost pressure, which results in physicians being forced to work unpaid overtime	The tough and competitive working conditions are deeply rooted in medicine and make it very difficult for physicians to accommodate family needs while pursuing a career. As women currently take on the primary responsibility of childcare, it is mainly them who are affected by this in the organizational context.
20 Most working physicians have a full time working partner, which result in them contributing significantly more in chores, child and parent care 21 Many women end up in relationship arrangements with their partner's career having priority, even though they did not intend it that way	31 Female physician's career plan can change due to family plans 46 For some couples, it is difficult to talk about family planning 54 61 The right partner and having conversations about family values and plans is critical for women to combine family and career.	Female physicians take on more responsibility in chores and childcare even though, initially, many women do not aspire for that role.
22 Men and women have enormously different expectations on relationships regarding career priority, which leads to career-related split-ups. Women experience such breakups much more 23 Structural barriers like the gender pay gap, progressive taxation for couples, and unequal parental leave make it harder to pursue an egalitarian relationship	60 Working part-time after a child birth can make it hard to find the way back to a full-time position 53 Gender stereotypes set expectations on women to take on primary family responsibilities	Gender stereotypes, career expectations, and structural barriers make it harder for couples to pursue egalitarian relationships.

Table 16: Summarizing research findings

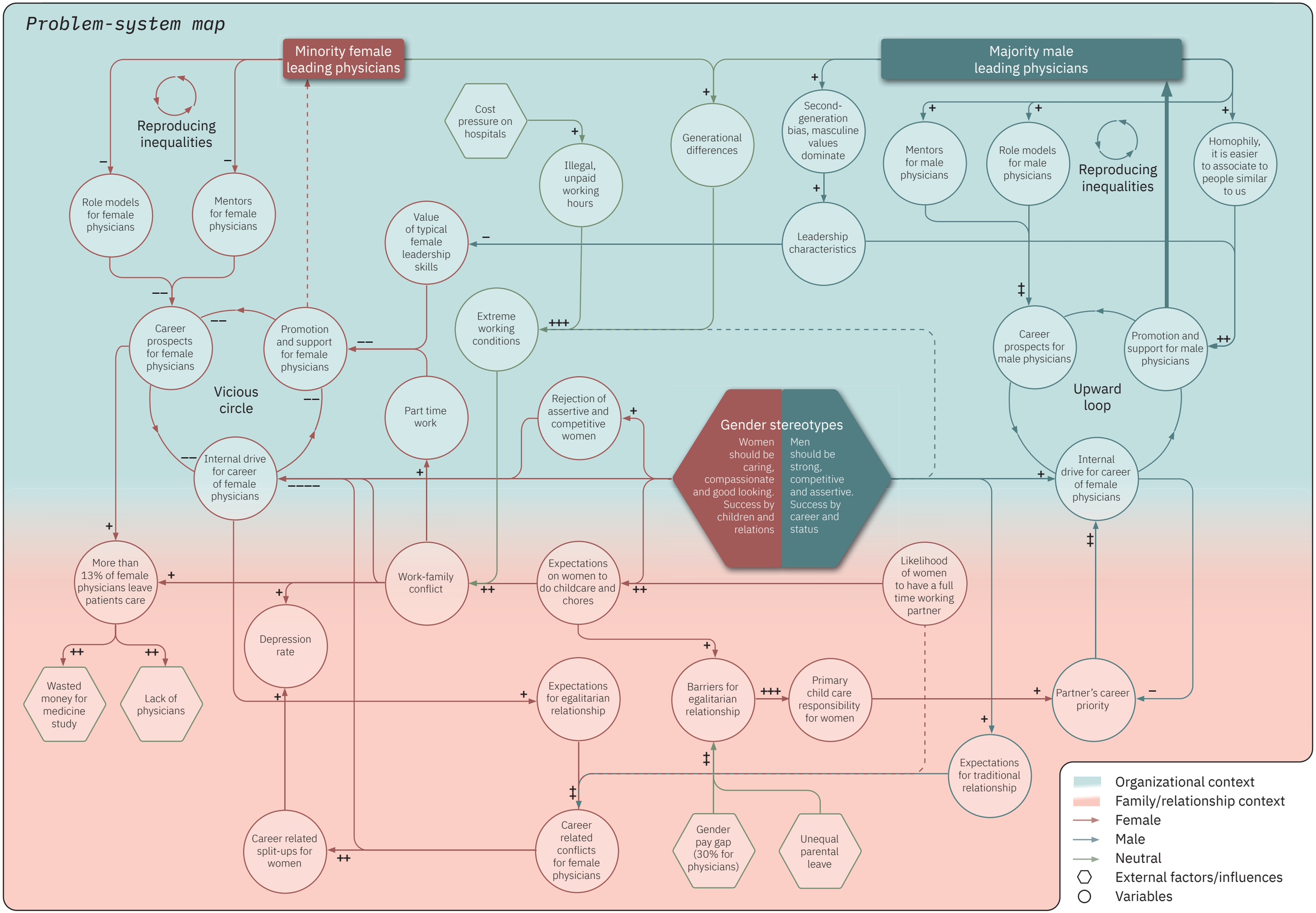
D–01. Systemic analysis

As the eight summarized findings do not show the relationships between the different issues, a systemic analysis of the problem was conducted. The following problem-system map (Figure 2) illustrates the complexity of the issue while highlighting the different relationships and underlying causes.

There is no one simple reason for the underrepresentation of female physicians in hospitals but a series of interrelated issues that reinforce each other and build negative feedback loops. The most predominant one is marked as a vicious circle in the system map. When starting their adult life, many women have career aspirations. However, they are slowly fading and changing once they enter the work context. As there are few role models or mentors, women lack a perspective and experience the first decrease of their internal drive to reach a leadership position. As the female gender stereotype does not encourage women to pursue a career but rather the opposite, women start already less driven than their male colleagues. Adding factors like the work-family conflict, career-related conflicts with their partners, and the rejection of assertive women, the burden of climbing the ladder can get untenable and challenging for women. If despite this resistance, women still strive for a career, they have to deal with the fact that part-time work decreases the chances of getting promoted and that their gender-stereotypical behavior is seen as weak and not appropriate for such positions. Women have to balance between fulfilling the expectation of their gender stereotype like being warm and caring while showing subtle forms of assertiveness and competitiveness to prevail. As a result, only few women reach this position, and the vicious cycle starts again.

Another interesting feedback loop is the reproduction of inequalities. As long as there is a significant minority of one gender in the leadership of hospitals, the organization's value system is going to be dominated by this gender, at least until we have overcome the traditional gender roles. This leads to fewer promotions of the gender minority, and a similar vicious cycle as described above thrives. Currently, this is happening to female physicians. Since there are only a minority of female physicians in leading positions and the gender roles are still quite dominant in current leaders, female physicians face many barriers to make a career. In addition, it is easier to connect to people that are similar to us, making it more difficult for females to connect to their superiors to benefit from informal relationships. To sum up, an unbalanced workforce representation can reproduce itself and make it harder for minorities to reach leading positions.

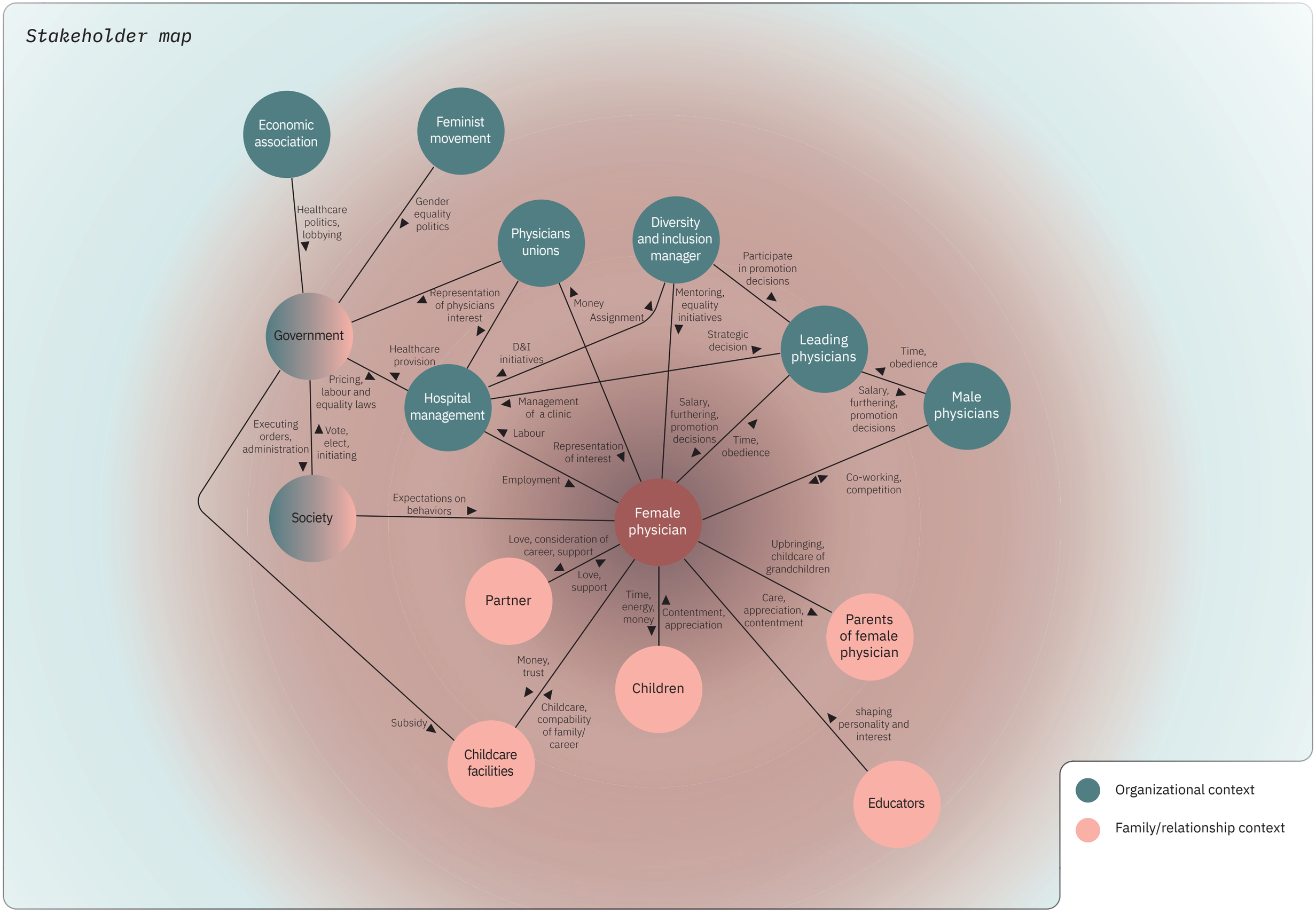
Figure 2: Problem system map



D–02. Stakeholder analysis

Figure 3 shows the relevant stakeholders and their relationships with one another. The most important stakeholders for the lack of female physicians in leading positions are the female physicians themselves. That is why it is vital to understand their challenges and aspirations. However, female physicians live in a complex world and have many influences and relationships. Early on in their lives, parents, family, educators, and society and its culture shape their experience, forming their belief systems, attitudes, motivations, and behaviors. Also, gender roles start to form in these early years. Even though many of these patterns stay, different stakeholders gain importance later on. Between 25 and 35 years, around 80% of women are in a relationship, around two-thirds of those living together with their partner (Federal Statistical Office, 2019). The questions regarding family desires arise, and crucial decisions about the women's career are made. It is also when women enter the work context as female physicians. Therefore, their superiors, the chief physicians from their clinic, and the hospital leadership become important. While their superiors shape the immediate experience and decide over furthering and support, chief physicians and hospital leadership shape the culture and strategy of the hospital. If women decide to have children, the availability of daycare nurseries becomes crucial. Otherwise, a career is only possible if their partner is willing to overcome his stereotype as a provider and take on the primary childcare responsibility. Alternatively, a closer social environment like parents can also support childcare responsibilities. As most physicians do not represent themselves, there are unions to take over that task. These interests are represented towards hospitals and towards the Swiss government, as the government makes decisions on labor and equality laws.

Figure 3: Stakeholder map



D–03. Guidance for ideation — Problem areas and design criteria

From the analysis of the primary and secondary research findings, three problem areas evolved, which helped guide the development of a design intervention: Misogynistic organizational culture, stressful working conditions, and relationship challenges around gender stereotypes. The three problem areas are significantly influenced by gender-stereotypical mental models deeply rooted in our society. Figure 4 shows the connections between the problem areas and the underlying mental models.

D–03.1 Misogynistic organizational culture

Medicine is a traditionally male-dominated profession that still upholds many stereotypical male values. As a result, women face many subtle gender-based challenges like inadequate support, lack of feedback, lack of role models and mentors, no recognition of typical female leadership qualities, double-bind situation, abuse of power, and discrimination in salary decisions. To thrive in a work environment with constant headwinds and little prospects for career success is very challenging.

D–03.2 Stressful working conditions

Hospital environments are very tough working environments. Even though the Swiss law stipulates a maximum of 50 working hours per week, many physicians work significantly more and are even forced not to write down these additional hours. To do justice to patients takes time. Reaching leadership positions imply even more extreme working conditions, especially since commonly also academic achievements are required. Since the medical profession requires a lot of training and the traditional leadership culture still upholds much prejudice against part-time positions, it is difficult to reach leading positions while not working full time. To take on responsibility in the family domain while pursuing a career is for both genders extremely challenging. However, currently, especially women are affected by this, as they often take on the primary role in child-rearing.

D–03.3 Relationship challenges around gender stereotypes

In private life, women face challenges around the typical gender stereotypes. Even though many women initially do not expect their partners' careers to prioritize, still quite a few end up in such relationships where they are the primary caregiver for the children. Gender stereotypes influence both men's and women's expectations of family ideals, which leads to differences. To live a content life, couples have to overcome their different expectations by negotiating fair compromises. However, as our current society is not supporting egalitarian relationships, it is more difficult to reach such outcomes. Women earn less and get more parental leave which automatically underlines their positions as the primary caregiver. Additionally, there are disadvantages for double income married couples, and childcare services in Switzerland are very pricy, which further discourages egalitarian relationships. As most women in a relationship have a full-time working partner, they mostly forego their career aspirations to accommodate family needs.

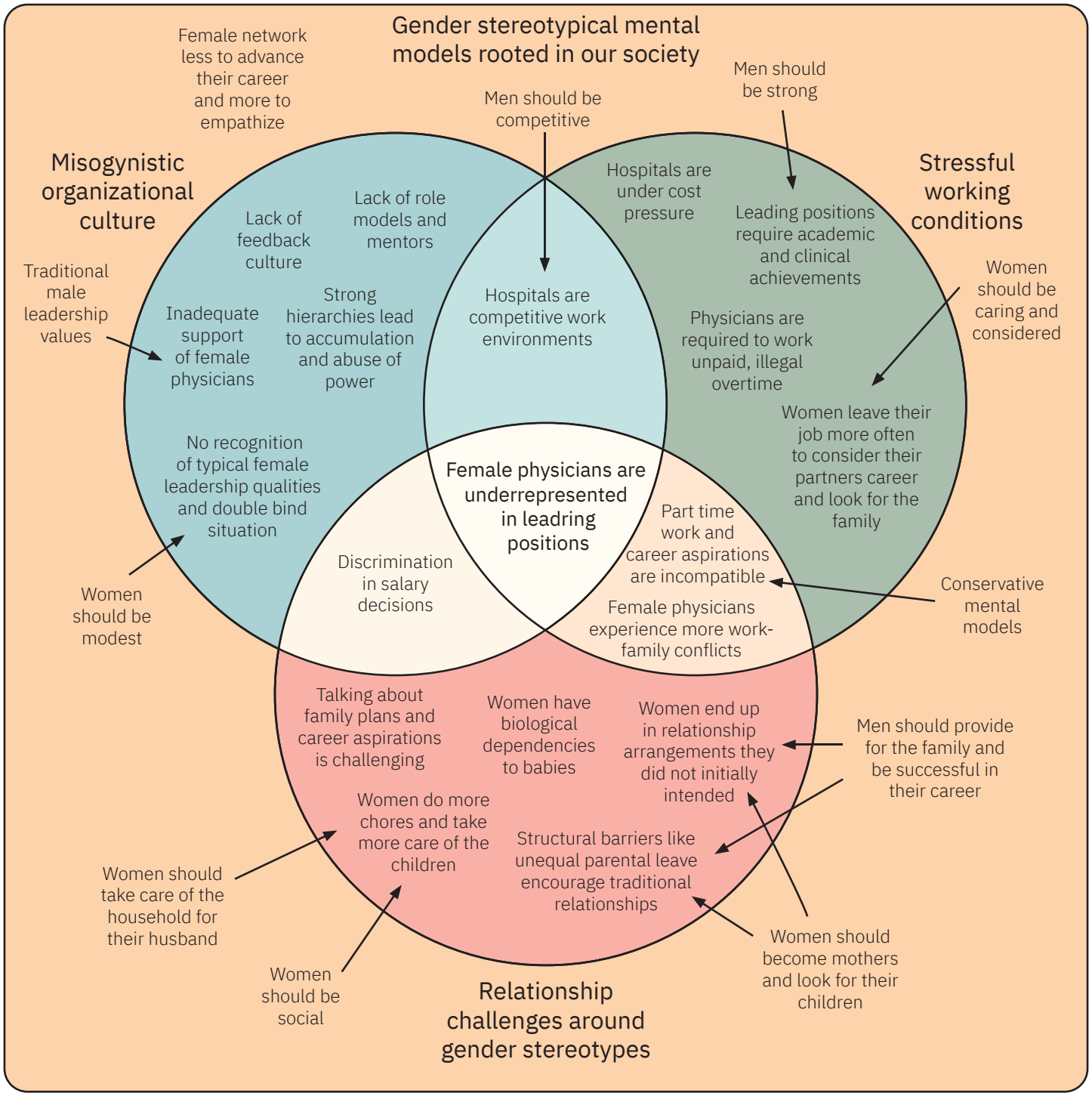


Figure 4: Problem areas and underlying causes

D–03.4 Design criteria

From the summarized findings, design criteria were developed that guide the design of a problem intervention.

Summarized findings	Design criteria
Gender identity, which is mainly formed by socio-cultural learning, shapes who we are, how we behave, and how we experience the world.	The design intervention should not encourage gender stereotypes but consider physicians as individuals with different needs and beliefs.
There is a lack of role models that inspire women to achieve a career.	The design intervention should inspire physicians to pursue their goals.
Female physicians do not get adequately supported and furthered from male-dominated leadership.	The design intervention should support all individuals adequately.
Organizational cultures in hospitals often do not recognize and value typical female characteristics as leadership competencies.	The design intervention should be inclusive and value all physicians equally.
Females that display typical male characteristics like being assertive are rejected for being too aggressive and bitchy.	The design intervention should not set any gender-stereotypical expectations on physicians.
The tough and competitive working conditions are deeply rooted in medicine and make it very difficult for physicians to accommodate family needs while pursuing a career. As women currently take on the primary responsibility of childcare, it is mainly them that are affected by this in the organizational context.	The design intervention should consider the challenging and competitive working conditions that make it enormously challenging to combine family responsibilities and career aspirations.
Female physicians take on more responsibility in chores and childcare even though, initially, many women do not aspire for that role.	The design intervention should help female physicians to reconcile their career aspirations and personal responsibilities.
Gender stereotypes, career expectations, and structural barriers make it harder for couples to pursue egalitarian relationships.	The design intervention should encourage couples to live in egalitarian relationships, even though our society is not supporting such arrangements.

Table 17: Design criteria

E. Ideation and Evaluation

E–01. Desired Future

The problem areas described in Figure 4 demonstrate the current situation that prevents female physicians from reaching leading positions at the same rate as their male colleagues. To overcome the existing situation, it is essential to understand in what direction a future could evolve. The current narratives and mindsets can be overcome, and pathways can be designed by envisioning a transformative future scenario. Winston Churchill said (Geller, 2018): “Those that fail to learn from history are doomed to repeat it.” But learning from history without providing alternative futures has only little chance of success.

Each problem area can be redefined into a desirable future.

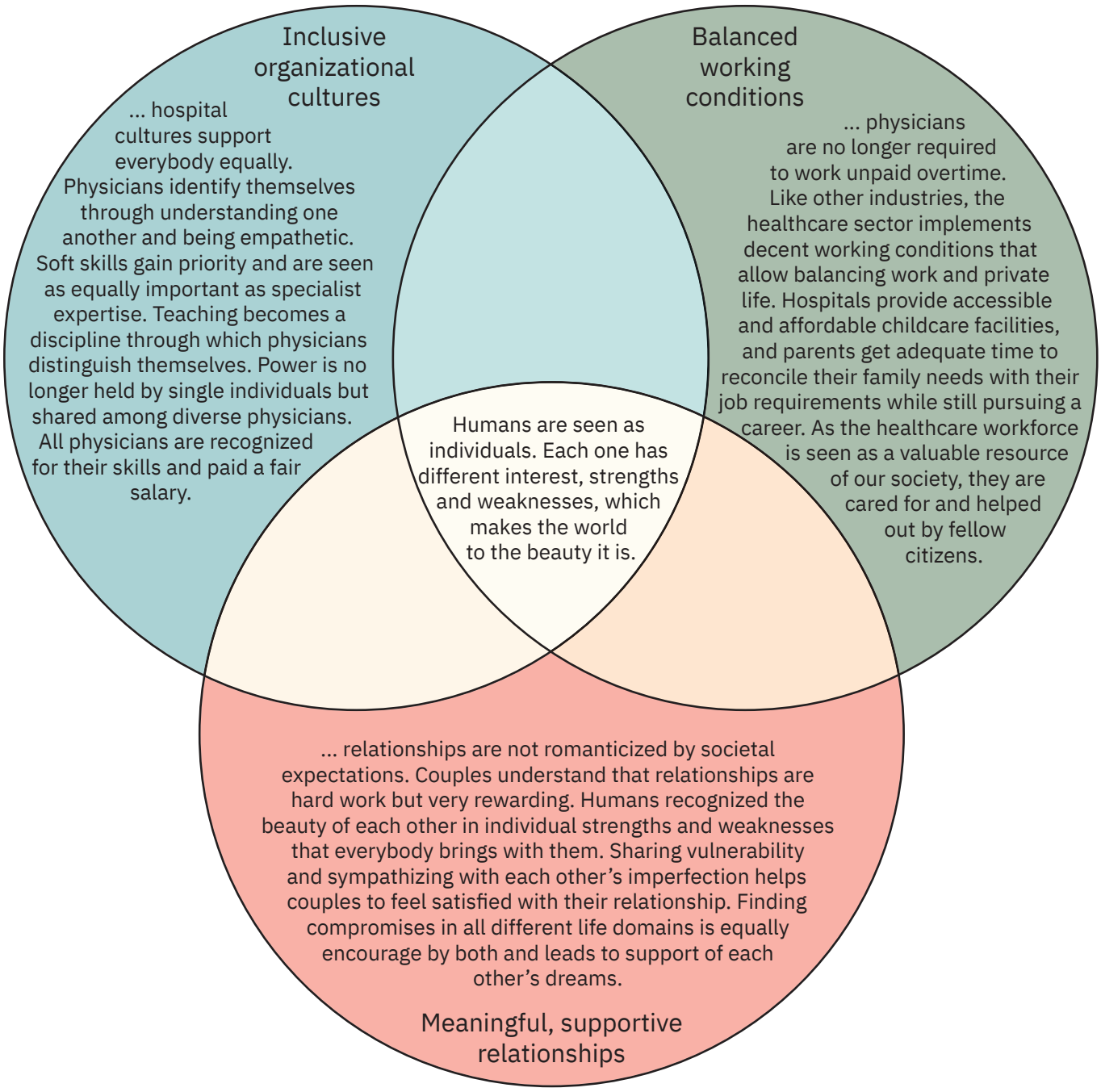


Figure 5: Problem areas developed into desirable futures

E–01.1 PEST analysis

To reach the described futures in the three problem areas, a bigger societal change would be necessary. The PEST framework highlights four important spheres that are relevant for such a shift: The political, economic, societal and technological sphere.

Political sphere	Economic sphere
In order for humans to meet each other as individuals on the same eye level, it is important that legal frameworks are supportive of equality. The law should not differentiate between men and women if it is biologically not necessary. Structural challenges to living egalitarian relationships should be replaced by equality-promoting initiatives.	On the one hand, it is important to change our relationship to work so that status is no longer defined by career success but by the true calling of individuals that benefits society. On the other hand, our healthcare system requires initiatives to relieve the cost pressure on hospitals to provide decent working conditions for physicians.
Social sphere	**Technological sphere**
Early on humans need to learn about interpersonal skills and understanding each other's needs. Our schools need to educate not only cognitive intelligence, but also foster emotional and social intelligence. By building our society on community principles, an environment can be created that encourages people to look after each other without gender stereotypical expectations.	Technological advances and automation can make many aspects more efficient so that our society can focus even more on human needs. Physicians can focus on the interpersonal aspect with patients, while technology efficiently assists them in diagnosing and treatment. As a result, the burden on physicians can be lowered and the working conditions improved.

Table 18: PEST analysis of the desired future

The briefly described future scenario demonstrates the complexity of the shift to overcome the gender stereotypes-based challenges in our society sustainably. Even though such a shift seems almost utopic in our current world, it helps orient ourselves and gives direction for design interventions. By focusing on the earlier identified problem areas, the developed concepts aim to create an impetus for this greater shift in our society.

E–02. Design concepts

After brainstorming alone and in group with other students from the Design Management bachelor studies, the following three concepts emerged to tackle the earlier identified problem.

E–02.1 Concept 1 — What makes a good physician?

Data driven, transparent and holistic performance measurement of physicians

Without consistently measuring physicians' performance, it is impossible to promote the most qualified one to a leading position. Unfortunately, the research showed that in hospitals, performance measurement is often neglected. By evaluating physicians' performance not only by the number of procedures but by looking at value-based patient outcomes, peer feedback, self-evaluation, and bottom-up and top-down feedback, a holistic performance indicator could be established. Such an indicator would benefit female physicians as it creates transparency and a basis for objective comparison. Additionally, women would see how well they perform and gain self-confidence.

Especially the trend of value-based patient care that is already partly established in some clinics is a crucial step to achieve transparency among physicians. In a Deloitte article by Bethke et al. (2020), the problem of the current model is highlighted. Physicians do not get compensated for treatment outcomes but for the procedure volume, which means that the quality provided to the patient is neither measured nor rewarded. Measuring the outcome quality of physicians' work could improve comparability and motivate physicians to learn from each other to reach better patient outcomes. Additionally, measuring peer feedback would highlight how a person influences the working culture and what he or she is contributing to the working atmosphere. The bottom-up feedback would focus on the teaching and leadership capabilities and the top-down feedback on the overall performance. By combining these performance indicators and comparing them with self-evaluation and future goals of physicians, an individual, fair and adequate furthering and career plan could be created, and a leadership position could be given to the best fit.

Target audience

The concept targets all physicians at hospitals.

Features

- Measurement of patients outcome and satisfaction
- Measurement of costs against the quality of the outcome
- Measurement of interpersonal and leadership skills
- Self-evaluation and career planning
- Comparability and transparency of physicians performance
- Redefinition of promotion criteria

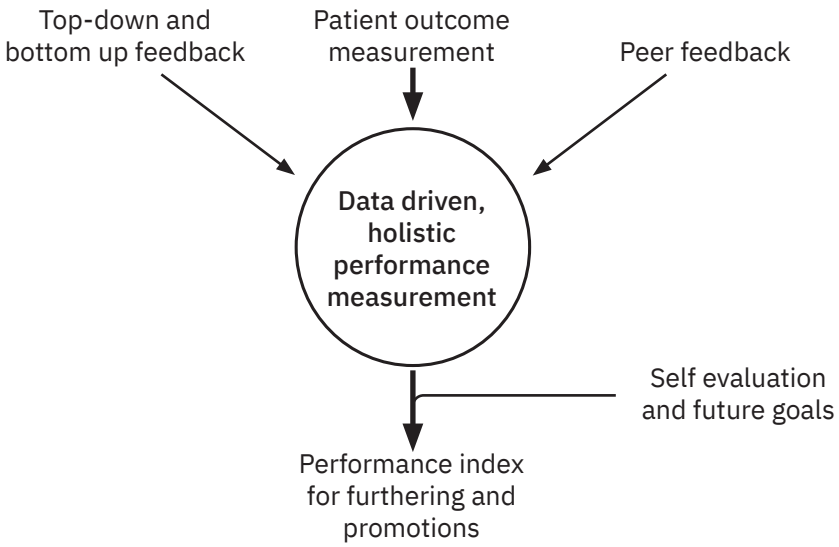


Figure 6: Holistic performance measurement of physicians

Scenario

Julia is an introverted, reticent physician and performs very well with patients. She understands that possible medical interventions are not always the best for patient outcomes and is good at mediating potential pathways for patients. In the team, she is rather shy and not a loud voice as she is very considered for the people around her. She would like to become a leader but thinks she is not good enough. With the new performance measurement system, she better understands her qualities and can focus on the area that she needs to improve the most to lead others: being assertive when it is required. Her boss sees great potential in her, especially since she decided to take an extra course for modern hospital leadership. Together they have defined goals that will help her to reach her career aspirations.

E–02.2 Concept 2 — Who are you?

Partner communication for egalitarian relationships

Most working female physicians have a full-time working partner and end up in a traditional gender stereotypical relationship. Men have career priority, and women take over the primary childcare responsibility. While most men expect to end up in such relationships, many women initially do not aspire for such circumstances. By playfully supporting the communication between couples and encouraging them to consider alternative living concepts than the gender stereotypical ones, female physicians could be encouraged to pursue their career aspirations, and chores and childcare could be fairly shared.

To overcome the socially ingrained gender stereotypes, couples need to understand each other's challenges to live with their stereotypical expectations. Creating a vulnerable space where couples could openly share their fears, delights, and chal-

lenges of their life, a self-reflection process on their relationship could be encouraged. If couples work together towards an egalitarian relationship, they feel supported to reach their dreams while understanding where they need to compromise for their loved ones.

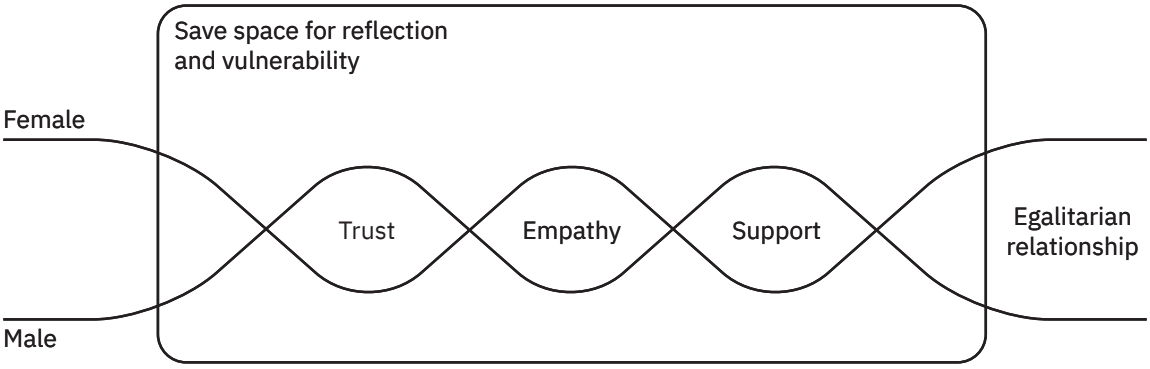


Figure 7: Save space for partner communication

Target audience

The concept targets all couples, not just the ones in healthcare.

Features

- Tool or game to facilitate a conversation and reflection
- Instructions for the tool or game
- Insights about gender stereotypical mental models
- Stimulating vulnerability
- Encouraging equality

Scenario

Peter and Nora live a happy relationship. Both studied medicine, but Peter is a bit older than Nora and already has more work experience than her. He also earns more. However, Nora has dreamed of being an outstanding surgeon ever since. Her grandpa planted this seed as he was a widely respected surgeon and always told her of his great surgeries at Christmas dinners. Nora also wants a family to share stories with her children and grandchildren. Since Peter is a successful gynecologist, Nora thinks her dreams are less important. Without ever really broaching the topic, Nora settles for the prospects of being a caring mother while working part-time in anesthesia. At work, Nora hears from a friend of this new card game. Nora borrows it from her friend and brings it home. She convinced Peter to play it with her. The atmosphere gets very intimate. Nora feels suddenly encouraged to share her dream of being a surgeon. In tears, she tells Peter that she thinks it is impossible to have a family and reach these aspirations. Peter is surprised, as he always thought Nora's biggest dream is to have a family. They rethink their work distribution at home so that Nora can pursue her career dreams and one day tell her grandchildren of her great surgeries.

E–02.3 Concept 3 — Share for welfare

Sharing the workload, complementing each other's strengths

The research has shown that medicine is a very tough job. Many physicians work illegal working hours, and family desires and career goals are hardly compatible. Especially working in leading positions is very demanding and requires physicians to be proficient in various tasks: Treating patients, people leadership, management of the clinic, research, teaching, and more. Excelling at everything is not possible. Therefore it would make sense to split these positions so that two physicians that complement each other could share the responsibility and activities of a chief and leading physician.

It is not a new concept to share such a role, and there are a few examples that successfully do that; however, it is everything else but the norm. If hospitals require potential candidates for specific positions to team up with a physician that complements them, it could make leading positions a lot more accessible. Furthermore, the burden on the chief physician would lower while the expertise doubles. Since the procedural experience, academic experience, and leadership capabilities could be split, each leader could focus even more on their strengths. Sharing the power could also reduce the risk of abuse, as both equally hold the responsibility, and no one would think he or she is almighty. Finally, such shared positions could change the prospects for women and motivate them, as it would no longer be incompatible with family desires.

Target audience

The concept targets all physicians, as it not just changes leading positions but also the prospects of future physicians.

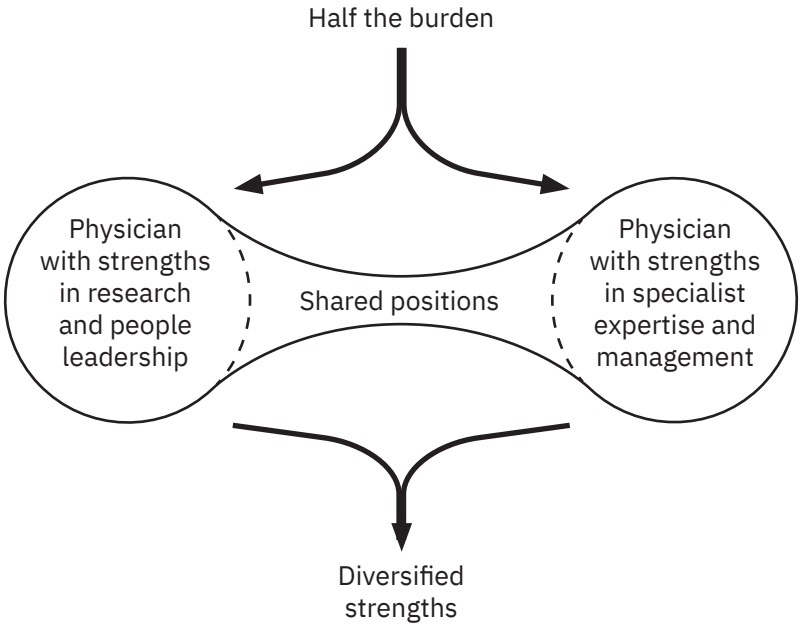


Figure 8: Shared leadership positions

Features

- Shared positions
- Complementary applications
- Distribution of power
- Compatibility of work and family
- Redefinition of promotion criteria

Scenario

Sandra just started working again after her maternity leave. She loves her job, especially working with her colleagues, and serving the patients makes her content. Sandra has a great talent to listen to people and to understand their needs, both for patients and colleagues. Since she reached a senior position, she enjoys teaching the young curious assistant physicians about her expertise in her field. She loves to engage with them. Coming back from maternity leave, Sandra decided to work 60%, as she also wants to spend time with her newborn. The new possibility of sharing a leading position and teaching already as a leading physician fits Sandra well. She likes taking on more responsibility at work.

E–03. Concept evaluation

Each of the three concepts can be allocated to one of the earlier identified problem areas. While each concept mainly impacts that allocated problem area, they will also change the other areas, indirectly and in the long term. For example, the concept "Who are you?" can be allocated to the problem area "Relationship challenges around gender stereotypes". The concept would change how couples deal with gender stereotypes and help them to achieve egalitarian relationships. If women no longer have the enormous burden that comes from the primary childcare responsibility, it would also mean that women have more energy to climb the ladder at work, be more represented in leading positions, and influence the organizational culture. Additionally, if couples deal with the questions around gender-stereotypical expectation and its consequences privately, it would also bring that mindset to organizational culture through both the man and the women. However, for a change to be most effective, it would make sense to launch interventions in all problems simultaneously.

In order to keep the scope of this thesis manageable, the different concepts were analyzed, and the most feasible, desirable, and viable one was further developed. Desirability focused on what value is generated for female physicians and hospitals. Feasibility focused on the difficulties that arise when implementing the concept. Viability focused on the economic values generated and the financial resources that are required. In three discussions with different experts, two management and organizational experts and one chief physician, the different advantages and disadvantages of the concepts in the three different categories were evaluated.

Concept 1 — What makes a good physician	Desirability, Rating: 4/6 This concept would provide great value for hospitals as they could transparently support and promote their employees according to their performance indicators. For female physicians, this concept bears some risks. Firstly, performance measurements are often influenced by gender bias (Rivera & Tilcsik, 2019). Secondly, transparent performance indicators can make the already competitive hospital environment even more competitive. However, women could also greatly benefit from fair, transparent performance indicators, as it would leave less room for discrimination and consider more typical female attributes.
	Feasibility, Rating: 3/6 Evaluating the performance of one physician in a hospital can be very difficult, as often several different physicians are involved in one procedure. Furthermore, it is very demanding to create a tool that does justice to all different specialties, procedures and tasks.
	Viability, Rating 4/6 On the one hand, measuring performance can increase productivity, motivate employees, and highlight where costs arise, which would positively impact the hospital from a financial perspective. However, on the other hand, it can be costly to set up and maintain a holistic performance measuring system.
Concept 2 — Who are you?	Desirability, Rating: 5/6 For hospitals, this concept would have mainly a positive impact. Firstly, it seems that couples with solid relationships where both parties feel understood and appreciated perform better at work. Secondly, if female physicians better share the workload at home, they can take on more responsibility at work, resulting in more diversity in leadership. For female physicians and couples in general, the concept could provide great value, strengthening the relationship and empowering both to be treated equally.
	Feasibility, Rating: 6/6 The project seems very feasible. The hospitals, associations, foundations or the government could be the initiator.
	Viability, Rating: 6/6 The costs involved in the concept are moderate. Financially the concept is mainly beneficial for couples who decide to work and use child nursery to bridge the time when the children are young. Even though using a child nursery might not benefit the couple, long term, it is worth it as both stay in their job.

Concept 3 — Share for welfare	Desirability, Rating: 5/6 For hospitals, the concept provides excellent value. Two chief physicians or leading physicians can complement each other and better navigate the challenges that arise from such high-profile positions. Making the position less burdensome also opens it up to more people, and a greater talent pool might evolve. Female physicians who are deterred by the workload of leading positions could be motivated by the possibility of sharing the burden. Furthermore, it could also motivate male physicians to take on more responsibility in child-rearing if the possibility of shared positions is offered.
	Feasibility, Rating: 4/6 In single cases, this concept is already taking place and very feasible. However, it is unclear who would prescribe such a policy to enforce on a larger scale. As hospitals are very political and competitive environments, there is little chance that voluntary adoption of such a policy would take place. It also seems unlikely that the government would enforce such a policy.
	Viability, Rating: 5/6 The costs involved in implementing such a concept are moderate. In addition, hospitals might benefit from the shared position with additional capabilities that could lead to better management and value generation.

Table 19: Evaluation of the concepts

Concept two seems to be the most promising. As the concept tackles a systemic societal problem, it could encourage a shift targeting underlying mental models rather than symptomatic events. However, it is essential to note that it is not the couples' responsibility alone to change the lack of female physicians in leading positions. For a sustainable shift, hospital cultures need to become more inclusive and family-friendly, and society at large needs to become more oriented around each individual's desires, interests, strengths, and weaknesses, detaching itself from gender stereotypes and the expectation that arises from them.

F. Advancement of the selected concept

"Who are you?" is not about designing a game or tool but about designing a conversation between couples that should encourage them to equally share their responsibilities so that both feel they live a fair and on-the same-eye-level relationship — An egalitarian relationship. The conversation should create trust so that couples feel like they can share their secret thoughts. It should encourage empathy so that both feel understood and not accused. Moreover, it should help couples support each other to reach their dreams while compromising equally for the relationship.

The following question guides the development of the concept:

How can a game or tool foster a conversation for couples to better achieve living an egalitarian relationship?

For the development of the final intervention, a participatory approach was chosen. By ensuring that the end-user was included in the intervention development, a human-centered approach was achieved, decreasing the risk of failure and increasing the likelihood of the intervention being adopted.

F–01. Prototype and testing – first iteration

F–01.1 Goal

The goal of the first iteration of prototype and testing was to find out how the participants would go about to address inequality or their needs in a relationship. Furthermore, the goal was to understand what requirements they think are important for games that fosters these conversations.

F–01.2 Approach

For the approach of the first iteration, an asynchronous, generative questionnaire was chosen (The prototyp can be found in the appendix y–05). Each partner (if possible) filled out a questionnaire independently, which intended to generate rather than evaluate existing ideas.

F–01.3 Participants

Six couples participated. Four couples involved a female physician, one of these couples was even a double physician's couple. Two couples did not involve any physician at all. All participants except those from one couple were between 25 and 35 years old.

F–01.4 Output

The following points were stressed as important aspects to address inequality in a relationship:

- A trusting relationship that allows open, honest communication about dreams, goals, and needs without accusing each other

- Choosing the right moment for difficult conversations rather than start it out of the heat from a moment.
- Role models, like parents or friends that inspire to stand up for one's own needs.
- Setting a clear, concrete plan about the goals.
- Focus at the beginning of such a conversation only on the wishes and dreams and consider the realization of those wishes in a second step to avoid financial arguments killing the dream of one person.
- Couples should early on talk about goals and dreams and how they are compatible with the relationship.
- Specific methods can help that the opposite does not get offended: Let the other person talk first and use I/me statements when talking to emphasize that this is your perception of the situation rather than a global truth.

Regarding the features of a conversation facilitation game or tool, almost all aspects were similarly rated:

- Two participants highlighted that a non-digital tool is free of distractions and better fits the intimacy of a difficult conversation.
- Some participants highlighted that a group game could generate greater input. In contrast, others mentioned that the complexity of a group game is too high, especially creating an intimate atmosphere can be challenging in a group.
- For many participants, the balance between entertainment and intimacy was crucial for creating value and being desirable.

F–01.5 Reflection

Without giving concrete examples of how such a game or tool could look like, participants had difficulties imagining what features it should have. Therefore, in the next iteration, a practical tool or game was developed to make the testing more tangible.

F–02. Prototype and testing – second iteration

F–02.1 Goal

The second prototype and testing iteration goal was to quickly self-test first ideas of more concrete prototypes and discuss them with different stakeholders. The aim was to end up with a more defined prototype that all the participants from the first round could further test.

F–02.2 Approach

As the author himself is in a relationship, he was able to test certain concepts himself and with his partner to make a first evaluation. In discussions with three further stakeholders, the different ideas were validated. A variety of existing social card games were tested to explore different game modes.

F–02.3 Participants

The author, his partner, and three additional stakeholders, two female and one male, participate in the second iteration.

F–02.4 Preliminary Output

- A guide for a conversation around career, life, and family plans has little originality as there are already many self-help and relationship advice books and guides out there.
- A card game has the potential to be entertaining and intimate while being portable and easily accessible.
- As it was challenging to create a meaningful game for groups, the idea was to first create one for couples which in the next step could potentially be extended.
- Inspired by the emotional wheel (Karimova, 2021), the ability to name and share emotions about a particular situation with the partner was very appealing. It seemed to educate emotional intelligence while creating intimacy with each other.

F–02.5 Rapid prototyping based preliminary output

After smaller iterations of testing primarily question-answer-based game modes, the first more sophisticated, playable prototype was developed. It included Story Cards, where gender-stereotypical situations were described, and Feeling Cards, which displayed 30 different feelings. The idea was simple. Person Alpha reads a story card to Person Beta, while Person Beta tries to select the feeling card that best fits how the person in the story feels. Subsequently, person Alpha tries to guess the feeling Person Beta has chosen.

Figure 9: How would you feel as...?

F–02.6 Output of rapid prototyping

While this first game prototype was fun, discussions and testing raised the point that it did not necessarily stimulate the conversation and reflection about one's relationship but only around gender stereotypes.

A second level was added to the game to provoke a discussion about the players' relationship: On the flip side of the story card, a personal question about the players' relationship that derived from the gender stereotypical story on the front side was enclosed. The question could be answered with you, me or both, which were added as the "Who cards" to the game. The idea was that after person Alpha guessed the emotion correctly, the story cards got turned around to reveal the personal question, which both had to answer by putting the respective "Who card" covered on the table, without talking. Afterward, the "Who cards" on the table get revealed and the couple has a basis for discussion. Do they have opposing views? Are they content with how it is?

Figure 10: In your relationship, who...?

F–02.7 Reflection

Working with rapid prototyping helped a lot to generate more concrete ideas. The short self-testing sessions by the author and his girlfriend gave great direction for the development and showed early on, whether a concept is worth pursuing or not.

F–03. Prototype and testing – third iteration

F–03.1 Goal

The goal of the third prototype and testing iteration was to test the card game developed in the second iteration on a wider user base to identify if the game is understandable, if it provokes a conversation and if it generates value for the couple. Furthermore, the aim was to find potential improvements.

F–03.2 Approach

The prototype developed in the second iteration was produced, packed, and sent to 8 different couples. The participants independently tested it and answered either via a questionnaire, an interview or both.

F–03.3 Participants

Seven couples participated. Four couples involved a female physician, one of these couples was even a double physician's couple. Three couples did not involve any physician at all. All participants except those from one couple were between 25 and 35 years old.

F–03.4 Output

- The game was comprehensible for all couples.
- All couples liked how the game provoked discussion, many were even surprised that even for them there were triggers for important conversations.
- It took a moment to find out what cards are used for what, and some cards were too dark to read — the design of the cards was reworked to make them more comprehensible.
- The game engaged the conversation, especially if both partners did not have the same answers.
- The positive feelings were hardly used as the stories were more pointing towards negative feelings — more stories that provoke positive feelings were added.
- Some feelings serve as an umbrella term and do not help pinpoint the feeling — the feeling frustrated and frightened were removed.
- Some couples discussed their differences in opinion about what feeling fits best. While these discussions can be very interesting, it is essential to respect that everybody feels differently — such a statement was added to the instructions.
- The game works well. The first part of describing the feelings are good introductions into the conversation about one's relationship.

F–03.5 Reflection

People seemed delighted to test a physical prototype. Many people gave mainly positive feedback, which is nice to hear but harder to use for further development. Conversations provided richer feedback than asynchronous questionnaires.

G. Final design intervention

The final design intervention builds around the game " Is your relationship gender trapped? The fun way to get to the serious topics". As the title states, the game is a tool for couples to explore the effects of gender stereotypes on their relationship. It enables them to achieve an egalitarian relationship so that partners can meet each other on the same eye level and equally support each other's dreams while understanding what compromises are required for the relationship.

The game achieves its effectiveness on three levels. Firstly, the game presents different examples of what challenges couples might face around gender stereotypes in their relationship. Couples learn about what difficulties others face, might become aware of patterns in their relationship that they have not identified yet, or might think about challenges that could arise in the future, when for example, children are planned. Secondly, the couples learn more about each other and their emotional worlds. By having to name emotions for specific situations, couples might become aware that their opposite does not feel the same or perceives some situations differently. This strengthens their emotional intelligence and is the perfect transition to the last and third point. Finally, the couples reflect on their relationship and are challenged to share their opinion about a question related to their relationship without knowing the other person's answer. This stage can reveal imbalances in the relationship and most certainly will cause discussions.

Figure 11: Impression of "Is your relationship gender trapped?"

The game will not change the whole relationship, but in some cases these three steps might initiate a long-term transformation. It might enable a partner to become the “right partner”, which one former female chief physician stated is the most important thing to have a career and a family at the same time: “The absolute most important thing is the right partner, it is apparent. If the person that should support one the most, does not do that, [how should it work?]” (Exp 1) For those women that already feel supported by their partner, the game might raise topics that are relevant but not yet thought or talked about so that they are better prepared for what is to come. In any case, the game will bring a couple together to have some quality time and talk about things that matter.

Figure 12: Impression of the feeling cards

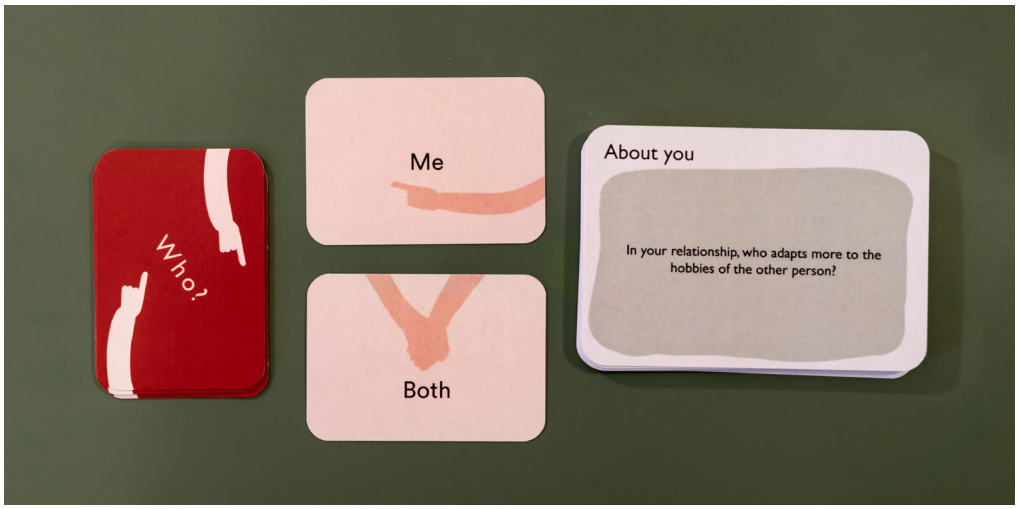


Figure 13: Impression of the who cards

G–01. Implementation concept

As the proposed intervention is relevant for society at large, the implementation strategy targets a broader context than just physicians. For the card game to be most effective, it is essential that as many couples as possible play the game and have these conversations. Since it can be tough to identify the need for such a conversation oneself, it is difficult to market such a product traditionally. In the third iteration of the prototype testing, many couples were surprised that the game provoked an interesting discussion even for them. It seems that many couples would not think they need to play such a game, as they might not see the challenges around gender stereotypes that are present or could arise in their relationships. Gender stereotypes are often subconscious and hard to identify. As a result, the card game needs to be accompanied by an awareness campaign to ensure that even those people are reached that are unaware of their gender trap.

As an initiator of such a campaign, many different stakeholders are possible. As the purpose of the game and campaign are charitable, foundations, non-profit organizations, and governmental organizations seem particularly fitting. In April 2021, the Swiss government decided on its first national strategy to promote gender equality (Federal Council, 2021), which has as one of its four main topics the improvement of work-life balance. The Federal Office for Gender Equality is commissioned for this task. One of their initiatives, fairplay-at-home, focuses on a fair division of housework to engage couples to put it into action (Federal Office for Gender Equality, n.d.). It would make much sense to add to this initiative. The Federal Office for Gender Equality could work together with other foundations to launch a campaign around gender stereotypes and gender bias to help couples better navigate their responsibilities in the

Figure 14: Campaign to promote egalitarian relationship and the card game

private sphere to increase the number of female leaders in all industries. Like the campaign “Wie geht es dir?” (Wie geht’s dir-Kampagne, n.d.), the gender stereotype campaign could offer different touchpoints, one of them, the card game. Couples could order their game online or pick it up in the store that makes them available. The game would be for free but would encourage people to donate if they think it provides value.

One effective way to encourage couples to use the game themselves is when friends recommend it to each other. Since the game is probably not used more than one time by a couple, it would make sense to motivate them to pass it on after playing it to someone they think could benefit from it. Similar to a chain letter, the game could be passed on from friends to friends. To encourage such a behavior, two stickers are on the packaging. Firstly, there is a text on the inside of the metal packaging lid, motivating the couple to be part of the change by passing the game on. Secondly, a sticker at the bottom of the packaging allows couples to write their name and date to log their conversation. This should motivate others to play the gameas well, as they can see how many before them played the game. Once the list is complete, a QR code forwards the player to an extended online list.

Figure 15: Packaging of the card game to promote sharing

Initially, between 5000 and 10000 units of the game would be produced. Since the game motivates couples to share it with other couples, more couples could be reached than the number of units produced. By introducing social media hashtags, #gendertrapped #fairistoshare, an online resonance could be generated to allow people to share the game via that community.

By making this campaign about gender stereotypes, it is likely that the game would get quite some attention, maybe even go viral, so that many couples would feel encouraged to try the game out. This could initiate a shift that starts in the private context but would soon also reach the organizational context, as these couples would bring their attitudes and beliefs to work.

G–02. Evaluation of the design intervention

The card game tackles underlying mental models in relationships, which not only apply to physicians but to all couples. However, this thesis aims to tackle the lack of female physicians among leading positions in Swiss hospitals. To understand how the proposed design intervention improves the stated problem, the fulfillment of the previously identified design criteria is demonstrated in the table (number).

Design criteria	Fulfillment of the design intervention
The design intervention should not encourage gender stereotypes but consider physicians as individuals with different needs and beliefs.	Yes, the design intervention considers individuals and their needs and even tries to mediate each others uniqueness between partners.
The design intervention should inspire physicians to pursue their goals.	Yes, the design intervention inspires couples to equally consider their goals and helps them to support each other to get there.
The design intervention should support all individuals adequately.	Partly, the design intervention encourages couples to have difficult conversations. However, in an abusive relationship, or if couples feel strong resistance to change, the intervention might not adequately support them.
The design intervention should be inclusive and value all physicians equally.	Yes, the design intervention aims to value both equally by encouraging a conversation around how each partner contributes to a fair relationship.
The design intervention should not set any gender-stereotypical expectations on physicians.	Yes, the design intervention raises awareness about gender expectations and tries to overcome them by mediating what feelings they might trigger.

The design intervention should consider the challenging and competitive working conditions that make it enormously challenging to combine family responsibilities and career aspirations.	Partly, the design intervention does not consider the tough working conditions at hospitals. However, the intervention can help share the work at home better so that female physicians can take on more burdens at work.
The design intervention should help female physicians to reconcile their career aspirations and personal responsibilities.	Yes, the design intervention raises awareness about gender stereotypical roles that female physicians can better negotiate personal responsibilities with their partner.
The design intervention should encourage couples to live in egalitarian relationships, even though our society is not supporting such arrangements.	Yes, the design intervention stimulates the conversation to encourage couples to achieve a relationship where both feel heard, valued, and supported.

Table 20: Evaluation of the design intervention

Despite fulfilling most design criteria, the proposed intervention only indirectly tackle two of the three problem areas: Misogynistic organizational culture and Stressful working conditions. To fully solve the problem, other interventions in these spheres must be designed as well. The proposed design intervention focuses on relationship challenges around gender stereotypes. In this problem area the intervention seems very effective as it tackles all previously identified findings well (Analysis can be found in the appendix y–10).

G–03. Risks and barriers

Three different stages need to be considered when analysing the risks and barriers for a success of the design intervention: the stage until the couple plays the game, the effects the game has on them and the resulting impact this has on society.

G–03.1 Adoption of the game

Will enough couples be interested in playing the game? The implementation plan already highlighted the challenges around the adoption. It is difficult to motivate couples to question their behavior and provoke a discussion if they do not feel the urge for that conversation. Furthermore, many couples could perceive their relationship as private and might feel a resistance to adopt certain ideas indoctrinated by governmental or ideological organizations through this game. In the interview with experts, many of them mentioned that interventions in the private sphere seem odd for them as it seems inappropriate to intervene in this personal space.

To mitigate the risk of social resistance, the author decided to not initiate such an intervention from the employer, as many people might feel even greater resistance if their workplace starts to intervene into their private sphere. By choosing a more

neutral body like the government or independent foundation, this risk might be reduced. Additionally, by reaching first the people who are already interested and open-minded regarding such topics, the less intrinsically motivated couples can be reached through these early adopters. Since the game encourages the couples to share it with friends, more critical people can be reached over a more personal, trustworthy way which could circumvent the resistance even more and increase the likelihood that the couples play the game.

G–03.2 Effects on couples

Two scenarios seem important to consider: A couple or one person in the relationship is unwilling to engage in the conversations the game provokes or that one person realizes that they are with the wrong partner and split up. The first scenario seems very likely with people that already feel a certain resistance to the game. As the game does not take away the burden of the difficult discussion but rather lays the ground for it, the work still needs to be done by the couple. It might be easier to start the conversation, but it might still be confronting to gain most of it.

To eliminate superficial discussion, certain precautions have been taken. On the one hand, easy go-to feelings like being overwhelmed, angry or frustrated were removed from the game. These feelings are little informative and do not help the couples to comprehend each other's feelings. They do not provoke discussions. Additionally, by not allowing the talking when using the "Who Cards", the couple has to think about the personal question and answer it without knowing the other person's answer. The third testing round showed that the game provoked most couples to discuss certain aspects of their relationship that they did not discuss before. It is questionable how sustainable one meaningful conversation for a couple is, but it provides a basis to work upon.

Regarding the risk of couples breaking up, it is not clear whether this would be positive or negative. On the hand it is important to work on a relationship, as every relationship is a process that needs constant maintenance. On the other hand, if one person does not feel valued or able to meet their partner on eye level, then a break-up might also be positive. Abusive relationships can be very bad for victims. The game warns in it's instructions about the potential side effects, that might include break ups.

G–03.3 Effects on society and hospitals

For the intervention to generate long-lasting effects on society and hospitals is the most challenging part. All previous stages need to be successful, that individuals who played the game with their partner can impact society at large, politics, and organizations. It seems especially difficult to change hospital cultures. As many leaders in hospitals are from an older generation that might uphold traditional values, it can be hard for young striving professionals to implement their egalitarian, gender bias-free norms into the work context. One male research participant mentioned that he looks forward to the retirement of his boss. Even though the boss supported his career a lot, he felt pressure from him that prevented him from living up to his expectations of

an egalitarian partner. Hospitals are slow when it comes to transforming their culture. Additionally, those physicians who manage to successfully cope with the burden of climbing the career ladder might hold opinions that others should go through that as well. To overcome such entrenched barriers, interventions that would specifically target the organizational context are required. Furthermore, the government should enforce the working hour regulations that are already in place, like they do in any other industry.

G–04. Value generated by the design intervention

Throughout this thesis the value of gender equality and egalitarian relationships has already been mentioned. Below a compilation of the most important points.

G–04.1 Societal value

The proposed design intervention aims to improve equality in intimate relationships. On the relationship level, an egalitarian approach increases fairness and can improve the relationship as no one feels treated unfairly. Ruppanner et al.'s (2018) study indicates that relationship quality decreases if couples do not share the housework equally. Especially when there was a mismatch between the perception, meaning that the man reported equal sharing of the housework while the woman reported that she contributes more, the relationship was of the lowest quality and most unstable. As the game encourages couples to communicate about their feelings, wishes, and desires, different perceptions can be aligned, and through empathy for the other partner's situation, the relationship can be made more resilient. Furthermore, sharing the work at home equally can also reduce the work-family conflict, which Guille et al. (2017) showed hits women significantly harder than men. This could result in a decrease in depressive symptoms and related healthcare costs.

On a broader level, egalitarian relationships can retain women in the workforce, reducing dependence on their partners. As our society currently faces a lack of physicians, more women staying in the workforce could partly defuse that situation. Furthermore, women staying in the profession helps to ensure a greater return on investments for medical education.

For society as a whole, every initiative that mitigates the expectation of gender roles provides excellent value. For humans to discover their real interests, beliefs, and desires absent of societal gender role expectations can unfold their true potential.

G–04.2 Organizational value

The proposed intervention also provides great value for organizations. Women that live stable, egalitarian relationships in their private sphere can better achieve their career aspirations as they can bring more energy to work. This can dramatically increase talent pools and help organizations to harvest the benefits of diversity. Additionally, couples that successfully adopt egalitarian ideals for their relationship, might also bring a similar mindset to work. Thus, currently already demanded change

for more inclusive work environments can be reached more easily, and organizations' reputation can be strengthened. For hospitals, a decrease of the work-family conflict can mean that more women have the motivation and capacity to take on leadership positions. This could sustainably change how medicine is practiced, making the working conditions in hospitals more family friendly. Finally, an equal representation of female physicians in leading positions of hospitals would change the organizational culture, eliminating the inherited misogynistic thinking.

H. Conclusion

This thesis has identified three problem areas for the lack of female physicians in Swiss hospitals: Misogynistic organizational cultures, stressful working conditions, and relationship challenges around gender stereotypes. The underlying cause for all three problem areas are the gender-stereotypical expectations in our society, which are deeply entrenched in our thinking and behavior, shaping our environments. Women should be caring, modest, and good-looking, and men should be strong, assertive, and successful in their careers. Overcoming these expectations is a complex task. It requires a shift in our cultural and social understanding of who we are; Not man or woman, but individuals with our own personalities separate from our gender. One single initiative will not bring the change required, but a series of interventions will be necessary. This thesis focused on the hospital and family/relationship context, however, to sustainably change the situation, it is essential that other contexts like upbringing, education, and politics are targeted as well.

Many initiatives like gender quotas, women networking and empowerment activities, mentoring programs, and awareness actions are already going on. Altogether, they slowly but steadily promote the transformation to a more gender-equal world. The proposed design intervention, “Is your relationship gender trapped? The fun way to get to the serious topics”, aims to add to the already existing initiatives and encourage couples in their private sphere to work on the topic. As the partner is the closest, most intimate person for most grown-ups, it seems like a good way of tackling a vulnerable topic like gender equality expectations. Together couples can work through their suffering of gender role expectations, trying to overcome them in their private lives. This will also impact how they act in the world and can, for example, lead to more female physicians that feel empowered to take on the burden to strive for a leading position. Additionally, an egalitarian couple will also impart such values on their offsprings, which can substantially add to the transformation. As a result, gender diversity in hospital leadership will increase.

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y. Appendix

y–01. Questionnaire for young professional physicians

Topics:
Viewpoints

Role models
Motivation and goals
Confidence
Network and informal relationship
Support, guidance and feedback culture
Atmosphere and working conditions in hospitals
Discrimination and sexual assault
Work-life balance
Knowledge and use of existing gender equality measures
Responsibility of women respectively men

Der Frauenanteil von Ärztinnen in der Schweiz sinkt in korelation zu steigender Hierarchiestufe. Während Frauen 58% von den Assistenzärztinne ausemachen und 47% von den Oberärzten, machen sie bei den leitenden Ärzten nur gerade 27% aus, und bei den Chefärzten nur noch 13%.

W both Is it a problem?

W both What leads to the female underrepresentation in leadership positions among physicians?
Wieso denkst du sind Frauen unter repräsentiert?

R both Do you have any role models?

M C both Do you aspire to a career?

D men Do you think it is easier for you to make a career than it is for women?

D N _women Do you experience discrimination or disadvantages because of your gender? What kind?

N S _both Do you get supported? Do you have a mentor?

C S _both How do you assess your own skills as a doctor?

C S _both Is it easy for you to assess your skills?

C S _both How do you measure your skills?

C_both Do you know the imposter syndrome and people who suffer from it?

N S _both Do you have a good relationship with your superiors?

A _both How do you experience the working atmosphere in the hospital?

D _both Did you experience or observe sexual harassment?

D _both Did you experience or observe verbal discrimination for your or the appearance or gender of others?

W both How do you go about your work-life balance?

W both Do you plan to have a family?

W both Do you actively plan with your partner's career and private life?

R_men What responsibility do men have to increase gender diversity among leading physicians?

R_men Are men ready to do their part?

R_women What responsibility do women have to increase gender diversity among leading physicians?

M _women Do women want to rise in leading positions?

R_women Do you feel that women hold themselves back?

K _women Do you know if your hospital has measures to improve gender equality?

K _women Did you take advantage of them?

W _both How would you solve the problem?

W _both Do you think a gender quota for leading positions in Swiss hospitals is necessary?

y–02. Interview analysis of young professional physicians

Viewpoint and attitude

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	I am surprised that even that many women work in leading positions, but I guess in my field, which is surgical, there are fewer women working. Surgery is still a very proud subject, gods in white. For me, gender is not important in the professional world but only the performance. But someone has to be able to judge that without bias, and everybody needs to be treated the same.	In my field, which is a surgical one, the hierarchy is still very strong, and the people in charge rather old school.	Surprise that there even are even that many leading physicians. Surgery is still very conservative. Gender is not important, but the performance should be.
P2, Female, 26, currently working 100%, 2 months clinic	I think it is, on the one hand, a timely aspect. It was not that long ago that women were a minority in medicine.		Traditionally male-dominated profession.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	I think Women suffer from a triple burden; one has to make a career, one has to look after the family, and while doing both, one has to look good. The shortage of physicians can get exacerbated by women not reaching leading positions.	It is an expensive education, as far as I know, about 1 Million Swiss Francs. So it is just frustrating when so many women get educated, but so little that they can further train themselves properly.	Expectations on women are very high, family, job, and appearance.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	Women get less supported and sponsored, and the environment is not made for women to be successful.	I am even surprised that there are 13% chief physicians.	Surprise that there even are even that many leading physicians.
P5, Female, 31, currently working 100%, 5 year clinic	Since over 60% of the medical students are female, it can enhance the lack of physicians if these women can't reach leading positions. If one gender is dominant in leadership, I think this can lead to challenges for the leadership culture.		Leadership culture is suffering from a lack of diversity. Surprise that there even are even that many leading physicians.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	Personally, I just don't find it fair. And on a societal level, it is just unsustainable. We are losing talented women if we do not give them the opportunity to progress in their careers. Medicine is a family hostile and women hostile (misogynist) environment. If you expect the woman to take care of the kids, it hits her double.		Lack of physicians can get exacerbated. Medical profession is a anti-women and anti-family environment.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	Old patriarchal thinking still in the head of older leading physicians heads. It is not only a gender problem but also a generational problem. The younger generation prefers more to work part-time also early on as assistant physicians. This did not exist for the older generation. They worked 70+ hours a week. Therefore they have little understanding for these younger generations.		Many older leaders still uphold patriarchal values. It is not a gender problem but a generational problem. Only the older generation discriminate against women.

Solutions

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	A clear path for the assistant physician's education could make it more equal than not just people decide who gets supported. Talking to all assistant physicians to understand the different career goals could help to prioritize.	I women can get pregnant and can get children, there needs to be a way to deal with it. And if a woman comes back from maternity leave, it is important that she gets treated the same.	Training should be more formalized. It has to be possible to get pregnant and return to the career where a woman has left off. Managing different career expectations and support physicians accordingly.

P2, Female, 26, currently working 100%, 2 months clinic	It would be cool to have clearer processes that regulate fairness so that everybody has the chance to train equally. I think that would help the working climate. I think, first of all, it is important that our society understands that child-rearing is the responsibility of men and women. I think the person who does the job the best should get the job. There should be more availability for part-time jobs in a leading position. For the moment, I think a quota could help to improve the current situation, but once certain equality is reached, I think it is no longer required.	I hope that my boss values my work without me being super competitive so that I can stay authentic. Some senior physicians, male and female, sometimes seem quite unauthentically stubborn.	Training should be more formalized. Society has to understand that child-rearing is a responsibility of both genders. The best person should become the job. Part-time should become more available. Quota could help. Having a balanced team of both gender can reduce the risk of cockfights.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	I am not that interested in the topic. Women that share similar goals should meet. More part-time positions for working mums. Women also have to want		Women that have similar aspirations should exchange. Part-time should become more available.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	I think it is important that everybody should deal with the gender topic, for example with workshop or other lessons. I would try to support subordinates respective their character and also further them if they do not yet have a great self-confidence. Their are also men, that are not that assertive but still very good physicians and potential good leaders. But as mentioned, expeciall women		Educate staff and leaders on gender stereotypes. Take on the responsibility as a superior to balance the different charachters and support not just the most assertive ones.
P5, Female, 31, currently working 100%, 5 year clinic	I think it is important to get the right people into positions of power. The current leader should get educated to be more aware of gender-based challenges. Incentives behaviors that are inclusive and focus on educate you physicians rather than those that just focus on their career. In the current situation, I think a quota is required. But this could change later on.		Get the right people into positions of power. Incentives inclusive and teaching behaviors. Quota could help.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	It is important to raise the self-awareness of gender norms. For example, one study shows that males tend to overestimate their skills while women tend to underestimate their skills. Therefore it is important that physicians in a leadership position are aware of these differences and balance them. I think it is important to scientifically understand the problem and educate people about it. Like this, the problem gets less personal and more objective, which makes it easier to take measures without blaming. On an institutional level, I think it is important to have an institutional body that takes care of gender diversity problems. It is not difficult to resolve the gender pay gap. You have to take power away from single persons to take certain decisions and make sure that regulatory adjustments are made and enforced.		Raising the self-awareness of hospital staff. Science could help to better understand the problem and communicate it in a neutral way. An institutional body has to regulate gender equality. It is not difficult to close the gender pay gap.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	It is important that hospitals offer part-time solutions that are compatible with a career. It is very important that women get supported early so that qualified physicians can get promoted later on naturally, and a quota is no longer required. It is important that women not get promoted for their gender but for their qualifications.	It is important that if female physicians have a baby, still can come back to work afterward and continue their career.	Part-time should become more available. A baby should not hinder the career of women. Furthering women early on is important that enough qualified women are there to get promoted.

Role models

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1			
P2, Female, 26, currently working 100%, 2 months clinic	I don't really have a role model. The article that I have recently read in Tagesanzeiger about female surgeons was inspiring, but I don't really have role models. I don't think it is due to the lack of women.		Women that manage to pursue a career and look after their family are inspiring.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	Women in leading positions can often are stressed and lose their human skills.	I find it inspiring if leading physicians manage to reconcile job and family. Currently, we lack such role models. It is only leading male physicians with a family that have a wife at home.	There is a lack of female and male physicians that manage to balance family and career well.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	I used to have one; she is a successful female physician that really kept her way of being, like being emotionally available. But I realized that she is quite a workaholic and competitive, and that is not aspirational to me. For me, it is important to have a private life.	I think one has different role models. In the clinic, there are physicians that are inspiring for their surgery skills; others are inspiring for their way of being.	Women that manage to pursue a career and look after their family are inspiring. Being competitive and a workaholic is not desirable.
P5, Female, 31, currently working 100%, 5 year clinic	Different role models for different things, some are good at operating; others have a very nice way of being towards others. I also have negative role models that show me how I don't want to become.		There are no role models that match every aspect of professional and private life.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	Even though both my parents are very successful in their profession, I do not want to be just like them. I think I can learn from both. My current boss is a workaholic and really does not look after his family. People often assume that because I already published quite a few papers and planned to habilitate, that I am aiming to work crazy hours and that professional success is my main focus in life. That is just not true.	I think the kind of lifestyle I am aiming for, with balancing work, family, and leisure domains, did not really exist in the previous generations. Therefore it is also difficult to have role models.	Being competitive and a workaholic is not desirable. Balancing different life domains is desirable.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	Mainly my parents.	At work, there are different people that inspire me in different aspects. Some are inspiring for their clinical work, some for their academic achievement, and some for their leadership and interpersonal skills.	There are no role models that match every aspect of professional and private life.

Motivation and goals

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	It is going to be hard for me to reach that goal. I don't mind working a lot.	My initial goal would have been an academic career because I like teaching. And for teaching, you need a certain title, which you can only get if you are supported by your superiors.	I am not sure if I can reach my goal. It seems very hard, especially with no furthering from superiors.
P2, Female, 26, currently working 100%, 2 months clinic	I would like to make a career, but I also want family, and that seems very difficult.	At the moment, I strive for a career, but family is also no topic yet. So who knows how the situation will look in five years. It might change.	I am in a conflict between family and career. Currently, I am pursuing a career because family is not relevant yet.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	I grew up in a traditional setting, and I actually liked it.	I no longer aspire to a career. I would be satisfied with a role in a senior position or a private clinic. I used to aspire to a career with my previous partner because I did not want kids. But now I am in a different relationship, so I have different desires.	I used to aspire to a career, but now I have kids and am no longer that eager.

P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	It is important for me to always have contact with patients and not solely an administrative person. I am not sure yet. I also would like to work part-time, and if there are no structures to work part-time in leading positions, then I would not want to work in a leading position. Men are more active in academia because to progress one's career in certain hospitals requires certain academic achievements. I only know men that research for that reason. Some women also like to research, but they often do it because they are interested in it. But in general, that is why fewer women are active in academia, maybe. Men are motivated to become bosses.		Family and patient contact are more important to me than a career, but if it is compatible with leading a team, I would like that. While men conduct academic research to advance their careers, I don't see this among women. Women tend to research because they like it. Men seem more eager to pursue careers.
P5, Female, 31, currently working 100%, 5 year clinic	Yes, I work towards a career. I think it quite difficult. But I am also quite active in health politics. So for me, it is between a clinical career and a health politics career.	Making a career is also quite dependent on luck if you have the right mentor and if you get supported accordingly.	I aspire to a career, but I am not sure if clinical or health political.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	For me, it is important to pursue academic and clinical work experiences, as I like doing both. I can imagine working in a leading position to more freely decide what I want to do. I also like being able to further people.	I plan to reach a professor title at some point, as I like teaching and giving young students something on the way.	It is important to me to balance my academic and clinical achievements.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	I am very happy with where I am at. A good mixture of research and clinical work. I would like to have a leading position at some stage, but if I want to become a chief physician, that I don't know yet	Men have a greater willingness to make a career.	It is important to me to balance my academic and clinical achievements. I want to pursue a career. Men seem more willing to pursue careers.

Confidence and character

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	In surgery, you need to fill your surgery catalog. You are dependent on your superiors that they assist you in operations; if they do not help you, you can't become a senior physician.	There is little positive feedback to get strengthened in one's confidence.	There is a lack of positive feedback from superiors to increase one's self-confidence.
P2, Female, 26, currently working 100%, 2 months clinic	Currently, everything is new, so it is hard to judge. But I think I am a good physician. For the patients, it is mainly important to empathetic, but for the performance, it is important to have a lot of experience. I think doubts make you a better physician for patients, but it is not the skill to advance your career. I experienced this myself that I said I could do something, but then I had to double-check with my superior. !! I don't think that women should become more like men. I think women have the qualities to take on leadership positions. However, it seems to almost be expected of women to be more competitive and behave more like men to forego family plans. I think women can also be feminine and become a leader.	I think it is quite difficult to self-evaluate my performance. I think one gets little feedback. So often I just try and do, and then in the evening, I don't really know if I did a good job or not. Men seem to have less self-doubt and, therefore, maybe need less feedback. In my internship year, in conversation with different physicians, it seemed that female physicians are less confident. But I do not know where it comes from. I also asked that myself. In our field, self-confidence is really important. You have to say that you are able to do something that you get the chance to do it. That is the only way to train the different procedures and make a career. I also observed that with myself. I had to tell myself, I am able to do that, I do that, and I tell them that I can do that. And then I was allowed to do it. If I had shown some self-doubt, I would not have had the chance to do it.	Doubtful physicians might be more careful and therefore better physicians, but doubt does not advance your career. Self-evaluation is difficult. There is a lack of feedback. Women seem less confident than men. Self-confidence is really important to get access to procedural training and obtain the skills to make you more self-confident and further your career. Women should not have to change their behavior to become a leader. Leadership attributes like empathy that are more common in women, are valuable leadership qualities.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	Some women also think they are not able to make a career. For clinical work, it can have advantages and disadvantages to be tentative. Sometimes it can mean that one is more careful, sometimes it can mean that one is not fast enough with a reaction. It depends on the situation. I am not sure why women have less confidence; maybe they lack role models.	I am reliable and precise, but I lack the self-confidence of men. I am too self-critical and sometimes too hesitant.	Being doubtful and tentative has advantages and disadvantages. Women sometimes don't think that they would be able to make a career. Lack of role models leads to lower self-confidence of women. I lack self-confidence; I am too self-critical.

P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	To me, it seems that women are more concerned about the patient's health and more careful, whereas men are more ready to take risks. In the beginning, sometimes I said that I did not feel ready to do a procedure. I never heard of men that said he is not ready to do a certain procedure. I think I am a good physician. I am careful, show interest in the patients, and I often can see a problem that is coming. I also always kept respect for the profession. It is a dangerous time after one year of assistant physician experience because many overestimate their skills at some point but actually do not have much experience yet.	I found it really inspiring when one of my superiors told me that it is his responsibility to balance out the different levels of self-esteem. Some people overestimate their skills, and it is important to curb them; others might be more careful and need encouragement. I think that is a very good approach. But this was the only person I have met that did it this way. I think it is difficult for me to self-evaluate the clinical skills. I think the typical character traits that are searched for in a boss women tend to bring along less often. That's why women are often seen as inappropriate, even though these character traits do not necessarily make a good boss.	Women are more concerned about patients and less ready to take risks compared to men. My foresight and patient-centeredness make me a good physician. Overestimation of skills can be dangerous, and self-reflection is important to prevent it. Balancing different levels of confidence should be the responsibility of superiors. It is difficult to self-evaluate clinical skills. I generally underestimate my skills compared to how others estimate my skills. Character traits that are associated with leadership are typically associated with man.
P5, Female, 31, currently working 100%, 5 year clinic	I think I am a good physician, but I think everybody thinks that he or she is a good physician. It is not that easy for me to self-evaluate my own skills. We do not get a lot of feedback about our own performance and potential areas for improvement.		It is difficult to self-evaluate clinical skills. We lack feedback about our performance and how we could improve ourselves.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	The traditional character traits that are associated with medical leaders are assertiveness and dominance. In society, these character traits are associated with male character traits. As a result, a woman that wants to become a leader can only lose. Either she pursues her traditional gender stereotypical character traits like being compassionate and caring, which results in her not being considered as leaders. Alternatively, she adopts or naturally has a non-stereotypical behavior of dominance and assertiveness that results in criticism of her being hysteric and unlikable. This situation is described by literature as a double bind situation because there is no escape. The impact is enormous; already in employee assessments as senior physicians, females have to balance their different character ab adjust them to the situation to be likable but still manage to be considered for a career later on. I think I am an ok - good physician. I measure it by feeling how well I can cope with the daily professional life. But it is a vague feeling. In my subject, the task is relatively clear, so you understand when you made a mistake. I find it difficult to assess my own skills. I always underestimate my own skills compared to the rating of others. However, that can also be due to the kindness of others. I think it is just the expectation on the image of women to be a certain way which is little compatible with a career.	It results in a discrepancy between how a woman should behave and how people perceive her. Everybody expects her to be assertive and dominant to be considered for the promotion, but deep inside us, there is an aversion for women that behave that way. Gender stereotypes are deeply rooted in our brain, and it results in a gut feeling that tells us: This does not fit. They once did an experiment and served green Ketchup to People; even though it tasted the same, People just found it grows because Ketchup is supposed to be red.	Male character attributes are more associated with leadership than female attributes. Female physicians are in a double bind situation; society expects a certain behavior of them that is not compatible with leadership. Being in a double bind situation uses a lot of energy. My self-evaluation is based on a vague feeling. I generally underestimate my skills compared to how others estimate my skills. Characteristics of leadership do not match the characteristics of female physicians.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	I try to make sure that the patients are secure and adequately treated, I like my job, and I did not cause any bigger incidents. Let's say I have not caused any major incidents; surely, bad things occur, but often it is clear whether I am responsible for that or if the patient was incurable. Maybe women tend to be less confident, but in the end, it really depends really on the person.		I am a good physician because I did not have any major incidents. If something bad happens, I do not struggle to understand whether it was my fault or the patient was incurable. Confidence really depends on the person. Women seem to be less ambitious.

Networking and informal relationships

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic			
P2, Female, 26, currently working 100%, 2 months clinic	Depending on the hospital and clinic, once I was in a clinic that were about 90% men, there I think it was hard to be taken seriously. But in general, I feel ok among my superiors, also in my current position. It also seems that there are equal numbers of females on the assistant and senior level.		
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child			
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	I have a good relationship with my superiors. For me, it seems like that the medical industry, compared to other industries, has fewer informal opportunities to network; mainly, we go to have lunch in the mensa. This is good for women, as the informal event can be uncomfortable for women, especially if co-workers or superiors get tipsy and start to hit on you. Maybe it is higher levels in the career; informal relationships become more relevant. Pursuing a career in academia is more based on informal relationships. There it can get more creepy.		
P5, Female, 31, currently working 100%, 5 year clinic	I think women maybe support each other less as they see each other as competition. It is easier for men to support men because of the matching gender.	Women and men get supported differently. While men get more supported in a way as offsprings, women have to fight more for their support. It is more straightforward for men; for women, it is more diffuse.	Women support each other less because they think they are competing.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	The boss in from our department furthered me a lot.		
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	My boss furthers me. I am part of a research group through which I can benefit from grants. Clinical furthering is rare. I got a fast promotion that was cool. Nobody supported me by saying you should do that or that.		

Support and feedback culture

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	I am not sure how my performance is measured. I only know it if I do something bad. I should get feedback from my superiors, but I hardly get it. Teaching is a huge problem in our department. A mentor should be within one department. We have a mentoring system in our department, but it does not work. Probably because of the high fluctuation. If I had a mentee, I would seek the conversation; I would try to point out what he needs to reach the specialist title etc. I think it is important to have a neutral education plan, that interpersonal relationship does not decide whether somebody gets supported achieving more experiences and some are just left behind. There are mentors that guide, and others do not do it. It really depends on the person. It is difficult to have a constancy in mentoring when people change all the time. Both male and female physicians hardly get positive feedback. Feedback from patients boosts me. We have too many that want to get educated. If someone wants to go into a private clinic, he does not need to know the complex surgeries.	I know that performance review meetings exist, but it depends on who is responsible for it. In my case, I just never had one. I think it is also a huge problem that superiors are so preoccupied with their own career that they do not have the energy to cope with trainees. They often just end up doing procedures themselves that stuff gets done instead without teaching it to others.	It is not clear how performance is evaluated. Feedback is hardly given. Due to high fluctuations, our mentoring system does not work. Mentors should seek the conversations with their mentees regularly to give feedback. Training should not be influenced by personal preferences but by a plan that gives everybody equal opportunities. Mentors being busy with their own careers, often do not invest time in training assistant physicians. Even though performance review meetings exist, I never had one. Depending on the career plans, not every physician needs the same training. Going into a private clinic does not require knowing the complex procedures.

P2, Female, 26, currently working 100%, 2 months clinic	I feel like that I get supported. If you want to do surgery, and they see that you are highly motivated, they also support you in achieving it.	Sometimes I find it difficult to judge my own performance as we do not get a lot of feedback. Once in my internship year, someone encourages me to be more competitive to be more like a man, he said, so he asked me to call my superior to tell him that I will come to the operation room and not the other guy. I find that quite sad. I then instead talked to the guy who was supposed to assist and explained to him why I deserve to be in the operation room.	Lacking feedback I find it hard to assess my own performance. Demonstrating high aspirations results in more support. To get the chance to train procedures, one has to compete with others. Someone told me to be more like a man.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	Women have just less time for research, and men get furthered to work in research groups.	I had a mentor when I started after studies, but unfortunately, he left our department. He really supported my career and also introduced me to different people. Unfortunately, he soon left. We have too little contact with the same person, so it is difficult to get properly coached.	In the university hospital, we have little contact with the same people, which makes it hard to get coached. Due to high fluctuations, our mentoring system does not work. Man gets furthered by working in research groups.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	One of the physicians also really paid attention to the words I used. When I said I am an "Arzt"; he said no, you are an "Ärztin." I think a true mentoring relationship should happen naturally. And the problem is that physicians always change and go on rotations. Therefore you also get new mentors assigned. We generally get little feedback. Mostly indirectly by being asked to do something. It is important to create structures to encourage women that are too cautious and men that overestimate their skills. Interpersonal skills to balance are very important for physicians. Women have less opportunity to train because they are not as furthered in training by their superiors as men.	I found it really inspiring when one of my superiors told me that it is his responsibility to balance out the different levels of self-esteem. Some people overestimate their skills, and it is important to break them; others might be more careful and need encouragement. I think that is a very good approach. But this was the only person I have met that did it this way. It would help me a lot to get more feedback from superiors, especially regarding procedural performance. There are existing systems that probably would work, but it has little priority. And iI think it has a lot to do with a time issue, but also the anonymity of bigger hospitals and the shift work. In Switzerland, teaching and on-the-job training has little priority and does not help someone to reach a leading position. It is different in the USA. Their medical education in hospitals has high priority and confers great status for physicians engaging in teaching. Overall, teaching is more valued, and teaching culture is way more lived. The assistant education is also way more defined. [...] I think if the person responsible for performance reviews and feedback would be motivated, he would also find the time. I don't think we are able to make women and men the same, for example, when it comes to assertiveness. Therefore, I think it is important that leading physicians pay attention to the different levels of self-confidence and try to balance them out.	Due to high fluctuations, our mentoring system does not work. Educating trainees on gender equality is inspiring. Feedback is hardly given and, if so, indirect. Balancing different levels of confidence and character should be the responsibility of superiors. Feedback on procedural performance would help me. The existing feedback system would be good but is not properly enforced. The reasons why feedback doesn't work are time and anonymity. Training is not incentivized by Swiss work culture. In the USA, being a good teacher confers status and helps getting promoted. Women get less furthered in training than men and, as a result, get less opportunity to train.
P5, Female, 31, currently working 100%, 5 year clinic	I think in certain aspects, I get supported, but in other aspect, I think it is not that dominant.	In procedural training, you do not automatically get what you need to become a specialist.	My training does not foresee automatically what I need, I have to stand up and compete to get adequate training.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	The boss in from our department furthered me a lot. Negative feedback you get a lot and directly, but in a neutral non-personal way. A minority of leading physicians also give positive feedback, but that hardly happens.	I think that gender norms influence feedback a lot. Feedback often means if expectations are fulfilled or not. And since gender norms shape these expectations, it is difficult to give unbiased feedback.	The boss furthered me a lot in my career. Mainly negative feedback, but in a neutral, non-personal way. Feedback is influenced by gender norms as expectations form the basis to dive feedback on.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	As soon as one is senior physicians, there are few further training opportunities available. As an assistant physician, one can rotate to different hospitals, and there is a wide range of offerings to get further training. We get feedback from the bottom-up and top-down. It helps me to validate respectively to reflect on my self-perception. The feedback culture is good.		The boss furthered me a lot in my career. I got promoted fast. There are few training opportunities as senior physicians compared to the time as assistant physicians. Top-down and bottom-up feedback helps to self-evaluate. Good feedback-culture.

Culture, Atmosphere and working conditions			
Participant	**Relevant answers summary**	**Quotes**	**Findings**
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	The behavior is professional, but the conversational tone is rough. In the beginning, I struggled with the rough conversational tone; I had to learn it. By now, it is easier. The stressed environment should not justify that person being rude. Older patients often do not see you as a physician.		Conversational tone is rough. I had to adapt to the rough tone. Older patients often assume physicians are male.
P2, Female, 26, currently working 100%, 2 months clinic	The atmosphere is generally quite good. Sometimes competitive to get the opportunity to have the chance to operate. There are both males and females who are more egoistic and just make sure that they have enough chances to train and do not care about others. I think it is important that a team is balanced with the genders. In my internship year, I have experienced that often it is the only man in leading positions and sometimes and this lead to a cockfights atmosphere between those men.		Good atmosphere. Competitive atmosphere when it comes to procedural training opportunities.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	The atmosphere heavily depends on the mood of individuals; sometimes, people have to vent their frustration.		Atmosphere depends on individuals. Sometimes physicians have to vent their frustrations.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	The atmosphere is different in every hospital. Often it seems that people are a bit overworked and tired. In my current position, even though the atmosphere is not great, the leading physician is a woman, and at least she makes it a topic and recognizes that it is a difficult time. I prefer to work in bigger teams because the atmosphere is better. Probably because it is easier to find a replacement for absent people and therefore there is less pressure on the individual. In a smaller team, sometimes I just have to fill in, even though it is my free day and I already work more than 50 hours a week. This can affect the mood of the whole team. Hospitals are actually not supposed to plan everybody fully in because people have to jump in anyway.	It often seems that the louder someone states his desires, the more he gets them, and women are naturally probably more restrained.	The louder someone expresses his/her desire, the more that person gets what he/she wants. The atmosphere depends heavily on the hospital. Hospital staff is often overworked. One gets little recognition for the work one is doing. Bigger teams have better capabilities to cope with absent staff, the burden on single physicians is less. Only a professional relationship to my superiors.
P5, Female, 31, currently working 100%, 5 year clinic	I think one interesting point is the relation of female physicians to the often female nurses. Female physicians seem to struggle with the hierarchy if it is a female physician that they are working with. For males, it is easier to assert themselves and female nurses better accept it. The female nurse always sees female physicians as competition. It is hard for nurses to accept female physicians. I think the relationship with my superiors is ok but only professional.	The environment in my hospital is quite political, and there is a lot of competition. Sometimes a rough conversational tone, and there is little appreciation from superiors for the work we are doing.	Nurses question the authority of female physicians. Nurses and female physicians are in competition with each other. The working environment in the hospital is political and very competitive. The conversational tone is rough, and physicians get little recognition from their superiors for their engagement.
P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	General good atmosphere, but since everybody is on the edge of their capacities, the mood can change fast. Medicine is a very old-school profession. The working conditions and leadership is comparable with a factory in the industrial age. There are just no modern leadership strategies or up-to-date working conditions. Probably it has to do with the fact that in medicine, the responsibility is really high as human lives are on the line.	Sometimes when you get up at 5 o'clock in the morning again, you really question the professions. Especially the lack of human dignity from the employer side really is unpleasant. On the other hand, there are really interesting days which I really like the profession. Medicine is a very old-school profession. Bosses are dominant; everything has to be evidence-based. And the working hours, the working conditions, and the leadership styles are comparable to a factory in the industrial age.	Early work start, long working hours, and lack of human dignity for employees from their superiors make me sometimes question my profession. Generally, there is a good mood. People often are overworked; the mood can change fast. The responsibility of medical leaders is really high. Working conditions and leadership strategies are outdated in medicine.

P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	University hospitals are quite competitive. There are many physicians here that want to achieve a good career. It is quite anonymous due to the high fluctuations. The conversational tone can get quite rough.	I worked in Winterthur, and in this hospital, it was more a cuddle working climate, and I have to say for me, that is not important. For me, it is important to have interesting cases, that I get supported by superiors and that I can pursue my interests.	University hospitals are quite competitive. Bigger hospitals can be quite anonymous due to the high fluctuations. The conversational tone can get rough. Smaller hospitals have a different climate. The atmosphere is, for me, less important; I want interesting cases, furthering from my superior.

Discrimination and sexual assault

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	I often think that you actually have a dream, but depending on your boss, it is not possible.	For me, the best example is the surgery procedure allocation; Male colleagues have it easier to get their experience. [...] One example is when another mal colleague with less experience gets assigned to a surgery that I am supposed to do. The discrimination is subliminal. The image that women get children and then take a break from work is still very dominant in surgical fields like mine. Since the surgery requires a lot of training, it is suboptimal to have less training. For me, it should not depend on gender at all but solely on performance. And somebody needs to judge that without bias. I mean, it is crazy that gender even is a thing. I sometimes think daily about this: I have a dream, and depending on who my superior is, it is over.	Discrimination happens subliminally. For women, it is more difficult to get allocated to procedural training. Depending on the specialization field, there are still very traditional expectations for women to have a family.
P2, Female, 26, currently working 100%, 2 months clinic	It is hard to judge; probably it is harder for women to be taken seriously, also mainly of patients. One form of discrimination that is really subtle is the surprise when a woman performs well. When a woman does something well, it becomes a topic that it is a woman who does a good job, whereas if it is a man, gender is not mentioned. I think it often is a topic of what gender one has; I find that unnecessary. Or saying like: now women catch up. I heard that there is a leading physician that thinks women do not belong in the field of surgery, but I have not met him yet. He seems quite rude to people in general. I think this physician operates a lot and generates a lot of money; therefore, it seems that not even the chief physician can say something. It seems hard to replace him.	I have experienced sexual harassment in my internship year from a patient, and my male colleague just found it funny. That was totally not ok!	Discrimination happens subliminally. Women are taken less seriously than men, especially by patients. Gender mainly becomes a topic if you are a woman, not if you are a man. Some individuals with power have very discriminatory opinions, but due to their power can't be removed. Sexual harassment is not really a topic from a coworker, but it happened once from a patient, and my colleague did not react appropriately.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	One of the leading physicians demonstrates an attitude that men are capable anyway and doubts the capabilities of women.		Some individuals with power have very discriminatory opinions.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	One of the professors only show women how to use a certain tool and has a lot of body contact.	As a woman, you get way more under scrutiny. For example, when Beatrice Beck Schimmer got promoted as the first female directorate of the university medicine in Zürich. As a result, the Weltwoche magazine Zürich wrote a bad article about Beck Schimmer, trying to attack the	Female physicians in leading positions get more under scrutiny than their male colleagues. One physician has body contact with women but not with men when showing

P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	As a man, I have to invest less energy in reflection on how I am being perceived. I think women in medicine really have to be adaptable and meet so many different expectations. It is maybe comparable with the code-switching of racial minorities. I think this constant switching between different roles has to be very exhausting for women. There is a lot of sexism, which sometimes maybe is meant well, but is an additional burden on women. One leading physician always shows women certain procedures with a lot of body contact.	A good example of sexism is when a woman is asked if she plans to have children soon.	Female physicians have to invest thought to how they are being perceived is comparable with the phenomena of code-switching with racial minorities. This behavior is probably very exhaustive. Some discrimination is maybe well intended, but still inappropriate. For example, asking a woman if she really wants to work 100% after her pregnancy is discriminatory. Some discrimination is just inexcusable. For example, asking a woman for her family plans in a decision for promotion or hiring interview. One physician has body contact with women but not with men when showing procedures.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	I think if a woman does not want children, as long as their superiors do not have a conservative thinking approach, it should not be a problem for her to make a career. University hospital in Zürich has a quota for women, and many men are angry about this because they think women get promoted for the quota even though there would be more suitable men.		Some men feel discriminated against by the new gender quota in University hospital in Zürich. It seems that not the best-qualified person gets promoted for the job. Discrimination depends a lot on the attitude of superiors. Other than pregnancy, there is no discrimination taking place with many superiors.

Knowledge and use of existing gender equality measures

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	Yes, I know the person. I visited a training day from female physicians in Switzerland, and Prof. Landau was talking there. A very inspiring person. They support women. My boss asked me to go to this meeting to find out how we can better support women in our field. I know that there is a grant. I also know of a mentoring program. It did not seem relevant yet, and I did not understand how I might benefit from it.		I am aware of the program and heard the talk of Prof. Dr. Landau, who is the responsible person for gender equality in the university hospital in Zürich. I know of grants and a mentoring program, I have not used them. It was not relevant to me, and I did not see the benefit.
P2, Female, 26, currently working 100%, 2 months clinic	I think it is strange if there are only supporting programs for women, but maybe that is just for the moment to create a better equilibrium. But generally, I would like to benefit from supporting programs.	I don't know if my hospital has measures to improve the gender equality problem.	I am not aware of gender equality measures in my hospital.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	In our department, these initiatives are not well promoted. I am not really aware of any.		In our department, these initiatives are not well promoted, so I do not know much about them.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	In my current position, I have a female superior, and with her, we talked about the gender equality topic. Maybe I will take advantage of female-specific grants in the USA.	I think many of these gender quality measures are only relevant later in my career.	Many gender equality measures are only relevant later on in the career. I might apply for a female-specific grant.
P5, Female, 31, currently working 100%, 5 year clinic	I think it is important to see that one program alone won't change the whole culture and solve the problem.	I do not have time to attend events and programs because of working hours and other engagements of me. It is not really known what the hospital does for equality and what offerings there are.	The gender equality measure is not well known. It needs more than just one program to change the deeply ingrained gender equality problem. I do not have time to engage in gender equality programs.

Work-life balance & Family

Participant	Relevant answers summary	Quotes	Findings
P1, Female, 32, currently working 100%, 3 year clinic, 1 year academic	Yes, I would like to have a family. But it is difficult to plan. There should be away. We have a few people that work part-time. In general, I told my partner that I want to go my way. But we have not yet talked about family. It also seems that more and more men want to work part-time.	I actually feel overwhelmed with the decision at what point in my career I should have kids. It seems there is never the right moment to have kids. Already in our studies, a woman said that as a female physician, you should not have kids. I remember that well. I actually find it very sad, considering that 50% of the students are women.	The compatibility of family and work as physicians is hardly possible. There is no right moment in the career of a physician to have a family. Being a physician and planning a family is overwhelming. More and more men also want to work part-time. The incompatibility of family and career is already taught in studies.
P2, Female, 26, currently working 100%, 2 months clinic	It is just as women not possible to constantly work 100% and have a family. Even just due to the pregnancy and maternity leave. Which gives you a disadvantage in comparison to men. My partner and I talk about work-life balance. I think it is untypical for women to work 80% after one year of working less. I think many still think that women want children and that this is their only wish. I know many that now strive for an egalitarian relationship. For me, it is hard to think about a family plan because it seems so far away. On the other hand, I think that family planning seems to be a major reason. Most of the men in leading positions seem to have a family at home, whereas most women in leading positions do not have a family. I think it is difficult to become a leading physician and have a family?	I would like to make a career, but I also want family, and that seems very tough. It just seems not realistic. I have to find out now if it is worth it for me to pursue a career. I think one has to forego a lot to be successful.	Women are disadvantaged due to biological factors. Getting kids and taken maternity leave takes away at least three months of experience that is relevant to advance. Many women still want kids and renounce their career plans to reach them. Many couples strive for egalitarian relationships. Making a career and having a family seems very unattainable. To achieve a career, one has to forego many things. Currently, I am striving for a career, but this might change when the topic of the family becomes more relevant.
P3, Female, 31, currently working 80%, 3 year clinic, 3 year academic, 1 child	To achieve a career in medicine, next to the job with extreme working hours, it is also important to research in the free time. For me, that is just not worth it. We can discuss it quite well, and I am satisfied with the situation. Due to the fact that women have to birth the children, men are faster at the point where they can do the next career step. If one becomes a traditional mum, one also gets judged.	My role in child-rearing is more important as my partner earns more. If we earned the same, the situation would be different. Now he works 90% and me 80%.	I am not willing to work additional hours in my free time, as we already have very long working hours. My partner earns more. That is why my role in child-rearing is more important. My partner and I exchange about the topic. Giving birth slows women down, as they have to pause for a while. Traditional mums also get judged.
P4, Female, 31, currently working 100%, 3 year clinic, 1,5 year academic	I think nowadays it is important that employers offer dynamic part-time offerings. In smaller hospitals, almost nobody works full-time in our field.		Part-time options for work are crucial to me.
P5, Female, 31, currently working 100%, 5 year clinic	There is little free time, but if I am off work, I don't have to work. It is a lot harder if you want to make an academic career. I mentioned to my partner that I want a family. My partner and I haven't really talked about role distribution if we have a family, but for me, it is clear that both reduce to 80%.	When talking to the partner about what point in time one wants to have family, one comes to a conclusion that there is never a right moment. My partner and I haven't really talked about role distribution if we have a family, but for me, it is clear that both reduce to 80%.	Academic career also uses free time, which is scarce as a physician. My partner and I have not talked about role distribution yet. I expect to have an egalitarian relationship with my partner, both working 80%. There is never the right moment to have a family.

P6, Male, 30, currently working 100% 2 years clinic, 1,5 year academic	I think quite a few men from our generation struggle with the lack of capability of family and the medical profession. However, men just have way less expectation of how they should be. In my specialist area, the work time is predefined by an amount of time. And once I am home, I can relax. In the future, I plan to reduce my working hours to have time for my family on other interests. My partner and I agree to share the same value when it comes to equality, and we talk a lot about it. The hostility against women is often not conscious, so it important to raise awareness about it and teach people the impact of such biases. However, the hostility against family in hospitals is conscious, and that is more difficult to change.	My current boss actually furthers and promoted me quite a bit. But I am also happy that he soon gets retired because my partner and I plan to have a family, and as a result, I plan to reduce my working hours. My boss would just not understand and tolerate that, and I would really struggle to tell him that. It feels like that I can't do what I want as long as he is still there. I feel that many couples do not talk enough about gender stereotypes and how they influence us. It would be really important for them to understand the impact of these norms.	Compatibility of work and family life is important for men and women. My working hours are predefined by my specialist area. I plan to reduce my working hours to look after my family. My partner and I extensively talk about gender stereotypes and their influence. We share similar values. Many couples seem to talk not enough about gender stereotypes. I am afraid to confront my boss about work/life balance aspirations because he would not understand nor accept them. The anti-family environment is a conscious decision and no subconscious. Raising awareness won't solve the problem.
P7, Male, 32, currently working 100%, 6,5 years clinic, 5 years academic	Naturally, the woman has to breastfeed after birth, so it is difficult for a man to take an equal role at this time. Later on, it really depends on the couple. For me, it is not that difficult to find a work-life balance. I have a child with my ex-girlfriend, but I only look after him/her every two weeks. If someone has a family at home, it can be harder to deal with work-life balance because it can happen that one has to stay longer at night. I had imagined my father's role when I was young. It was probably different, but I accept the circumstances how they are and still think I can be a good dad. Pregnant women that need maternity leave are inconvenient.	It is very difficult for women to bring everything under one roof if they want a family. If the children are small, it is primarily the women that are the reference person for the baby.	Women have to breastfeed after birth. Therefore men can't take an equal role. The couple decides how they form their relationship. I only look after my child every other weekend. Family and long working hours can create conflict. I am ok with my father role I am currently in, even though I had imagined it differently when I was young. For women, it is difficult to combine work and family. Maternity leave is inconvenient.

y–03. Quotes from expert interviews

Analysis of expert interviews

Personal experience

Exp 1, an expert on gender equality

Some people say that emancipation is accomplished when a female leader can be a total jerk.

Exp 2, an expert on gender equality

Doesn't matter how I behaved as a boss, my actions always got criticized. If I did not change things, I got criticized, and if I changed things I also got criticized.

Psychological factors

Exp 1, an expert on gender equality

It is still societally rooted that female careers are less important and that women are mainly responsible for social and family aspects. That is still present in many heads.

Women are often still less confident and therefore are less drawn to powerful positions. It is not acceptable for men to stay at home.

Women have quicker the feeling that they do not have the chance to reach a certain position and give up before they even make themselves visible.

Having doubts now and then is very important but constantly doubting is very unhealthy. It needs a balance between healthy confidence without arrogance. [...] The willingness to constantly learn more is the most important thing.

Exp 2, an expert on gender equality

There is not only gender-stereotypical behavior among leaders that are responsible for these [misogynistic] structures but also among women themselves. There are studies that show that when women start off, they have similar aspirations as their male colleagues, and only after the studies, this goal adjust to family friendlier specializations.

Why do women not become leaders? Women care more about the patients than about research and often do not dare to become leaders. To be reticent and modest are learned behaviors from their upbringing.

Self-confidence is the key to a successful career, and girls just do not get this instilled in their upbringing, only the boys.

[A good example for discrimination is] that my boss never furthered me to submit for the habilitation, even though I had published enough studies to qualify.

1

This double-bind situation is typical, if women prevail they get criticized for being offensive and considered. If women do not prevail, they get criticized for not being able to lead. It is important to get coached on that.

The main psychological reason [for the lack of female physicians in leading postions] is the lacking confidence of women in contrast to men. [Let's take the example of] a man and a woman who go walking in a forest and come to a fork. If the man knows to 80% which way to go, he will say: Let's go this way. If the woman knows to 80% which way to go, she will say: I am not sure, maybe this way. As a result, women are also less assertive than men, and I think this is an essential difference. This behavior is learned in upbringing.

The female depression rate is worldwide twice as high compared to the male depression rate. In those countries that try to overcome gender-role traditionality the number of female depressions decreases.

Biological factors

Exp 2, an expert on gender equality

On average, there are small biological differences between men and women. Women tend to be more interested in the care of relationships, more sociable, and more drawn to care of the brood. But that this should have an effect on the career is not understandable to me.

Each human should be looked at individually. Since there are only small biological gender differences on average, there is a huge overlap where men and women are very similar. It is important that each individual can decide who they want to become, what their skills are and what they are interested in instead of pigeonholing humans into gender stereotypes.

The most obvious biological difference is strength. Man is stronger than women. Therefore men had the dominated many professions over centuries. But nowadays, there is a huge shift. Things that needed a lot of strength are done with machines and the main new requirements for work are intellect, communication, and relationships. Women can excel in that.

If one thinks that women take on less burden, that is not true. Studies show that women take on much more work and have less leisure time. Women are more resilient.

There is probably a biological difference in assertiveness between men and women. Genes are already primed intrauterine, which means that men are exposed to high levels of testosterone already in their mothers. Later men also have more testosterone, which makes them more aggressive than females. This is probably the reason that if men want something, they go about it more aggressively.

There is a minimal biological difference between the genders, which gets reinforced by early childhood education and the role models children are exposed to.

2

If women want something and they do not go about it that aggressively, that is probably biologically influenced. But the low confidence that women have that they do not dare to make a career, that is educated.

Family and relationship factor

Exp 1, an expert on gender equality

The most important thing [to combine family and career] is the right partner. If the person that should support one the most does not do that, [how should it work?]

That people do not discuss these things in advance, that really surprises me. [...] At some point [in a relationship] it has to come to this phase where it is not only about being in love but also about certain compatibility of world views. One should then take time and talk about how to deal with it when there are children, how to cope with these situations? Our [me and my partners] recipe was that one of both always had to wait for the other one, and that is ok, as long as it was alternating. It just does not work if one person always loses out to the other person. At some point, this comes back. Either that the person having a career find it no longer interesting with the person staying at home or that the person staying at home feels neglected. Making compromises is important.

Today we have the possibility of childcare services. It has to be good and it should cost something, but not as much as it does in Switzerland.

If people say that it is not worth it for women to work because the whole money goes to the childcare service then I just say: so what? The same woman stays in the business world and still has a job when the kids get older. It is worth it to stay in the job financially but also to progress.

At what time one would have kids as a physician, it is never suitable. It is always a challenge.

A relationship is work.

Exp 2, an expert on gender equality

Many have the gender stereotypes ingrained that family responsibilities are female responsibilities. That makes me really angry. We don't need more part-time positions for women, we need more part-time positions for both genders so that both can take on family responsibilities.

3

Structural factors

Exp 1, an expert on gender equality

The social environment is really important for a woman that wants to pursue a career at a university hospital, as it also requires a lot of effort.

They say that approximately one-third is necessary, that a minority can be represented in a board. Not just to be visible, but that a single person is not representing the whole minority but that the person is seen as an individuum.

Exp 2, an expert on gender equality

Structurally reasons are the lack of adequate part-time positions for young parents, mothers, and dads, so that family is compatible with the medical profession. Furthermore, there is a lack of affordable childcare. Then there is a societal stance in Switzerland, that doctrines women to take care of children themselves and condemns giving children to childcare, which is really common in France or Scandinavia.

In Canada and the USA, there are double positions for couples to apply so that both in a relationship have the motivation to move somewhere for their career.

For role modeling, it is really important that men can also take paternity leave and that couples can choose who takes the main role. In my experience, after seeing how nice it is with a newborn, many men really appreciate building a relationship with their child and afterward want to work part-time.

Since we know to live so long, it would make sense to move back the pension age and relieve the burden on families by offering lower work hours. The workload is tremendous during family time.

Leading positions in university hospitals have an enormous burden. One has to teach, research, and practice patient care while leading the department.

Exp 3, an expert on healthcare organizations

The conservative mindset is still very strong in the healthcare sector, maybe one of the strongest compared to all other industries.

Chief physicians have an enormous workload, which really raises the question of how this is compatible with having a family.

4

Organizational factors

Exp1, an expert on gender equality

[Some reasons for the lack of female physicians are] strong hierarchies, big responsibilities, and power structures that people in power do not want to give up just like that.

It is important to differentiate between the University of Zürich and University Hospital Zürich, as the university has a diversity and inclusion department for quite a long time, whereas it is new to have something like that in the hospital. In general, universities are further than hospitals.

The aim of the University hospital Zürich is to have at least 30% of women on the level of leading physicians.

The promotion process is going through the hospital direction and I check over the suggestion and analyze the situation in regards to gender equality to make sure that capable women also get promoted.

For men, it is no longer that easy to just have a good relationship with the boss to get promoted to leading positions as the hospital is now striving for more transparency.

It is important for young women to see that there is no glass ceiling.

We soon launch a program that targets assistant physicians to better prepared to pursue a career and to plan ahead. The program is together with the Insel Hospital Berne, the University Hospital Basel, and the University Hospital Zürich. It includes mentoring, project work, and come together to better connect with each other and is only for women.

The University Hospital Zürich has also workshops to educate middle management and leadership positions on unconscious bias. It is important that people are aware of unconscious bias, as this is the first step for change.

Since Spring 2020, there is a specialist department from HR for diversity and inclusion. [...] Their responsibility is to take care of all kinds of inclusions.

The first thing when I started was to collect the data.

There are clinics that have a culture where people no longer feel comfortable and leave. These cultures often just support people that are similar to the leader. It is more predictable and easier that way but can be problematic.

Physicians have a bad feedback culture. There are many examples when people got good performance reviews for the last three years and suddenly it explodes and they get fired.

In the [medicine] study, there is nothing about leading people.

There is a certain arrogance among physicians against people from sociology or organizational psychology. For physicians, they are not scientists and therefore not important. For that reasons, HR has also not really any power in hospitals.

The know-how how to deal with other people is whether taught in education nor is valued later on.

Exp 3, an expert on healthcare organizations

Hospitals sometimes have sexism that is not taken seriously. There is often no responsible body to place it as HR often takes more the role of traditional staff management. […] The hierarchy difference between HR and chief physicians is so big, that there is no discussion on eye level.

[Regarding the behavior of chief physicians] There are maybe many similarities star bankers 10-20 years ago. Especially in certain specializations and bigger hospitals.

It still quite common that chief physicians hold very strong positions, which they exploit and abuse.

I think it is also a generational question, the new generation of leading physicians ticks differently. They often are less conservative and have more social competencies.

[In medicine] one distinguishes oneself mainly through the specialist expertise and not through leadership competencies. […] It would actually be more a specialist career than a leadership career.

[Silo thinking in hospitals] is very pronounced. A good example is the management of the beds. Each chief physician says these are my beds and my department and it is a big step for them to share these beds with another clinic. For capacity management, they have to stop just look just at their own beds and start to share more to overcome these silos.

It depends on the hospital leadership. In one example that I know, the chief physician that got fired mobilized the whole basis and as a result, the hospital management had to leave.

I feel like management education is not looked for by chief physicians. Educations like an MBA get questioned.

There are many physicians that think that they are here to practice medicine and look after the patients and not to follow economical principles.

The biggest trend is this equal salary certificate, where hospitals try and close the pay gap.

There is resistance among physicians and nurses against administrative positions as the cost pressure, in the end, is on physicians and they are required to work unpaid overtime.

The working conditions really depend on the organization. There was a merger of two hospitals, one with good working conditions, a friendly conversational tone, and no crazy

working hours. The other hospital was quite different, with a rough conversational tone and physicians getting forced to work unpaid overtime. So two cultures clashed, one could see that the salary cost per patient of the hospital with good working conditions was 35% higher, not because their physicians earned more, but because they did not partake in this practice. Those who do not partake in these practices make millions of losses until they also implement tougher working conditions.

The [healtcare sector] gets destroyed by the cost pressure.

The conservative way of thinking also leads to tough working conditions as chief physicians think I also had to go through that. It is also a widespread opinion that you have to work 60-80 hours a week to become the best specialist.

Certain hospitals introduced the minimum case numbers for physicians for certain procedures to ensure quality. This promotes the system that quality is only dependent on quantity which makes it more difficult to work part-time [...] and progress in the career.

[Standards like ICHOM that measure quality in healthcare by the improvement on the patients quality of life] can help to change direction to more quality competition and away from quantity thinking. Currently, the main way of thinking is in quantity.

I can imagine that women suffer under that quantity thinking, the more the better, and would that they would be better off in a quality competition.

Reaching certain comparability, objectivity, and transparency [in physicians' performance] is definitely a direction that we should go.

y–04. Quotes from chief physician interviews

Analysis of interviews with chief physicians

Personal experience of the problem

Cp 1, female chief physician

I never had the feeling that I had can't stay true to myself or that I have to do things that are opposing my values. One has to deal with unpleasant experiences but that is not dependent on gender.

The way to a leadership position is competitive and needs a certain degree of ambition.

I experience the part-time trap myself. If you want to strive for a leading position with a 60% workload, you need very good arguments to convince that you are the right asset despite the reduced availability. It is the typical life stage in which women have children, and can't or don't want to provide a full-time commitment. This time lasts a few years, in which women lose ground to their male colleagues.

Before we had our first child, we discussed beforehand that it is not an option for me to just exit my career and become a housewife. That was clear from the beginning.

When the kids were young, we had a lot of support from our parents. Without that, it would not have been possible. [...] It is important to have a network around, especially in a profession with working hours that are not nine to five.

Eyes open when choosing a partner, no I mean, it is important to discuss a dual career plan together. Because if you have children, it is not possible that both accelerate their careers in overdrive mode.

Work for the family is not recognized in our society as work experience, which is a problem.

The higher up a position you get, the less honest feedback you get, if you do not ask for it.

Cp 2, male chief physician

Women in leading positions were particularly critically observed. Men are allowed to show a certain toughness in leading positions, women are not allowed to be tough. Women are expected to be maternal and understanding for everything, even in leading positions. Where it is said that the man is assertive, it is said that the woman has a sharp tongue.

I think women are more often self-critical. You can ask a man and he can always do everything and you know he is not able to do it. Women are more careful. But I don't think it is necessarily a question of confidence but of realistic self-assessment. Men have too much self-confidence and brag about things they maybe should not brag about. A little reticence would sometimes be good.

1

Man always has the feeling that they need to know everything and that they can't show any weakness. Women are more relaxed in this regard.

Leadership practice and ideals

Cp 1, female chief physician

I do not follow any specific leadership models. For me, it is important to be lead authentic, which can be directive, but I also always try to respect people and understand their needs and act upon them. It really depends on the situation.

I learned to lead in small steps. In the education for the specialization, later then I had shift responsibilities, and then one gets smaller responsibilities for smaller tasks. Step by step. And then with the MBA, it was a major step.

[I am a good physician] because I listen to the people. I think I am authentic which means that people know who I am and how I react. I am honest, even if it is uncomfortable and I have professional expertise.

I think there has been a certain learning process, that no longer only physicians that are good on paper are hired but that also soft skills matter. I experience that in the selection procedure that I am involved in.

As long as [chief physicians] have the ability to self-evaluate their weaknesses and try to improve them or get them compensated by someone else, they can also be a good boss with deficits. Everybody has deficits.

There are different generations that work together as a result, there are different expectations and attitudes. [...] As there are certain traditional customs and structures in healthcare, some with and some without reasons for existence, it is rather special when these different generations work together. Hospitals are not start-ups and can't just quickly try out things. It is a cumbersome business.

It is a challenge to meet the different needs of the different generations.

It is important that the employer provides certain flexibilities regarding fixed days off work, so that [having a family next to the job] is possible.

Cp 2, male chief physician

In medicine, you not only need to have certain cognitive skills but the profession also requires an interest in humans and helping. One also has to be relationship-oriented. Skills that are more attributed to women than men. So the question is, where are all the women?

To achieve an academic career, it is important to be persevering, to have a lot of patients, and to be resilient.

2

Everybody, that gets into a leading position experiences resentment from others.

I have learned that recklessness can be very successful in the job short-term, but long-term it does not advance oneself.

It is a balance between giving your employees the freedom and responsibility and being there if you need to take on the responsibility yourself.

In medicine it sometimes seems difficult to employ women: many women do not want to work full time, many want to work half days, 60% or 80%, women get pregnant and then they are normally responsible for the children.

The specialist medical training last five to seven years, but if you only do it half-days, it takes ten to twelve years, which is just inacceptable. [...] If you start your career 5 years later, you are always at the back. There are always windows when you can apply for certain positions like chief physician and if you are 5 years behind everyone else, it is just harder.

In academia, the situation is even worse. You only get into the final selection if you have the best academic record. Clinical communication is not considered but just expected. [...] Interpersonal skills and emotional intelligence are important for such positions [academic leading positions], but they are not demanded.

Women get judged differently, already on the level of senior physicians. Women can afford less and have to be always considered.

It is the responsibility of the boss to support all physicians so that they can finish their specialist training. On the other hand, it is difficult [for a boss] if there is a female physician that has many self-doubts. It is not really the task of the boss to always take care of that. However, I think it is important to create an environment, where people feel comfortable expressing their needs and desires. And of course, it is the task of the boss to make sure that all needs get more or less taken care of.

There are unbelievable chief physicians. What the getaway with is sometimes unbelievable. Also in regards to sexualized language and derogatory comments. The more it is negotiation-oriented, the worse it gets with these superiors.

If somebody worked part-time, I could not allow them to partake in all the meetings, because otherwise, they would not have seen patients anymore.

3

y–05. Prototype one

Hi there,
Thank you very much for participating in my asynchronous co-design/prototyping and testing session. Your input is greatly valued.

One of the problems for the lack of female physicians in Swiss hospitals that I have identified in my research is the traditional relationship model. Many couples initially do not aspire for such relationship constellations. However, due to societal pressure and structures (double taxation, men earn more than women, unequal parental leave) that encourage gender stereotypical roles, many couples fall back on traditional relationship models, especially after the first child's birth. A traditional relationship model means that women take on the primary child care and housework responsibility by reducing their workload while their partner keeps working full time.

My design intervention (solution) aims to facilitate the discussion between couples so that they can become more aware of the consequences of such relationship models and how it feels for each partner to face these traditional gender stereotypes.

The following scenario describes one aspect of how such a game could impact a relationship:

Peter and Nora live a happy relationship. Both studied medicine, but Peter is a bit older than Nora and already has more work experience than her. He also earns more. Nora, on the other hand, has always dreamt of being an outstanding surgeon. It was her grandpa who planted this seed as he was a widely respected surgeon and always told her of his great surgeries at Christmas dinners. Since Peter is a really successful gynecologist, Nora thinks her dreams are less important. Without ever really broaching the topic, Nora settles for the prospects of being a caring mother while working part-time in anesthesia. At work, Nora hears from a friend of this new card game. Nora borrows it from her friend and brings it home. She convinced Peter to play it with her. The atmosphere gets very intimate. Suddenly, Nora feels encouraged to share her dream of being a surgeon. In tears, she tells Peter that she thinks it is impossible to have a family and reach these aspirations. As he always thought Nora's biggest dream is to have a family and look after the kids, Peter is surprised. However, now that he knows how important medicine is for her, he thinks it is essential to support her dream. Together they decide that they want to equally share their childcare responsibility and that Nora should pursue her career dreams so that she can tell her grandchildren of her great surgeries one day.

To find out how such a conversation could be facilitated, I would like to ask you a few questions:

1. **Imagine you are Nora and the card game did not exist.**

   What would Nora need to get encouraged to bring such a profound topic up with her partner?

   How could Nora bring the topic up without accusing or blaming Peter?

2. Barbara and Max are both working full time and are quite successful in their job. Barbara just recently got promoted. At home, Barbara likes cooking, and she often prepares the meals. Since Max is quite under pressure from his work, it is also Barbara that often does the dishes, the laundry and the cleaning. But Barbara feels like it is no longer bearable, especially with her new position. She wants to tell Max that they should do an equal share in their relationship.

   Imagine you are Barabara...

   What would be the best way for Barbara to tell Max?

   What setting would be necessary to tell Max?

3. Robert and Kristina are married for three years. They have decided to go for a traditional relationship setting. Kristina takes care of the three kids at home, while Robert works 100% as a banker. Recently the environment at work is quite tough, and Robert feels like quitting. He needs a break. But he feels embarrassed, as he feels the pressure to provide for the family. The kids need clothes and toys, and who would cover the rent if he no longer works.

   Imagine you are Robert...

   How could Robert be encouraged to make himself vulnerable and show his feelings?

1

How could Robert create a space for such a difficult conversation?

4. If there would be a tool that could help Nora, Barbara, and Robert facilitates such a difficult conversation, what attributes do you think should that tool have?

☐	It should be digital
☐	It should be analog
☐	Both digital or analog could work
Why?	
☐	It should include facts about gender stereotypes
☐	It should demonstrate examples of gender stereotypical behaviors
☐	It should show how gender stereotypes are formed in our society
☐	It should show the advantages of egalitarian relationships
☐	It should support the conversation about feelings and emotions
☐	It should include a framework that helps to plan the future
☐	It should help to set goals and targets
Why?	
☐	It should be for couples only
☐	It should be for groups
Why?	
☐	It should be intimate and serious
☐	It should be fun and entertaining
☐	It should be factual and informative
☐	It should be a good mix of entertainment and intimate
Why?	

Is there anything else that comes to your mind that could be relevant?

2

3

y–06. Analysis of first iteration prototype and testing

Answer summary from the first prototype

Nora wants to become a surgeon.

1. **What would Nora need to get encouraged to bring such a profound topic up with her partner?**

Mi:Vertrauen in die Beziehung, dass sie ein solche Thema anprechen kann und sie mit ihrem Partner eine Lösung finden kann. Weiter muss sie selbst davon überzeugt sein, dass beides zusammen möglich ist. Ev. könnte hier ein Vorbild (zB eine andere Ärztin welche Familie und Karriere unter einen Hut bringt) helfen.

Ma:Trust and open communication in the relationship

Fr: Open communication in their relationship where they talk openly about needs, dreams, and goals (not only career-wise). It would be easier it her partner already had some thought about that before their talk and is aware of the problem

Or: A trusting relationship, where from the beginning of the relationship honesty and openness is allowed and valued. In an oppressive relationship (ie not especially Peter and Noras relationship, but the general man woman relationship on gender roles) it is helpful for the oppressor (ie Peter) to initiate this conversation or be very open to suggestive comments from the subordinate. Assuming their oppression is not based on malicious intent but on Peter's ignorance, the first mentioned values may help sustain conversation, but still initiation may need to come from Peter. If his privileges are based on ignorance, the advancement of women's rights in our society and especially the media will confront Peter with the topic making him able to initiate this conversation. If however, in this scenario Peter is willfully suppressing Noras career because it is beneficial for his own career to have a primary caretaker for their children, no card game or constructive conversation may be able to solve their problem.

Ri: self esteem, support by friends and family, role models and good examples, practical plan how to achieve their dreams for both of them, preparedness to make a fair deal

Sg: confidence and comfort in the relationship, To talk openly about everything. Maybe already have a concrete plan how to achieve her goals.

To: A good relationship were both parties can talk about their dreams and life goals. There shouldn't be a need for encouragement to bring up any topic. Especially the topic regarding having kids and who will care about the kids. Further, as in the daily business of work, from time to time one always needs to re-evaluate the goals of the project (= relationship) and figure out with all the stakeholders (= partner) if the current goals and set-up still satisfy everyone. If not, actions are needed - regardless of the consequences.

Li: Ich denke die Basis für sich selbst und seine Bedürfnisse einzustehen beginnt schon im Kindsalter. Wobei die Rollenverteilung der eigenen Eltern eine grosse Rolle. Vorbilder, das Umfeld sowie das gesellschaftliche System hat während der Weiterentwicklung sicherlich einen Einfluss. Ressourcen aufzubauen und darauf zurückzugreifen würde Nora helfen.

Mo: Wenn die ungleichheit von Mann und Frau in den Medien, Gesellschaft ein grössere Präsenz hätte würde dies sicherlich die Hemmschwelle von Nora senken die Thematik anzusprechen. Allenfalls eine Freundin welche bereits in einer Partnerschaft ist in welcher auf eine gleichmässige Karrierechancen für beide gewährleistet und Nora motiviert die Ungleichheit und ihre Wünsche anzusprechen.

1

Lu: I think in the first place Nora has to get encouraged to deal with her personal wishes and ask herself what role she wants for the future. This is related to her career as well as to her desire to have a family.

In addition, of course, it is a matter of seeking a conversation with her partner, in which space must be created so that both parties can freely express their wishes for the future without being judged or debated about feasibility.

2. **How could Nora bring the topic up without accusing or blaming Peter?**

Mi: Ich denke man kann dieses Gespräch ohne Vorwürfe führen. Sie sollte möglichst früh in der Beziehung offen kommunizieren was ihre Träume sind.

Ma: Open discussion about how she feels. It's not a blame game.

Fr: if they brought up the subject before even having children it would have been a neutral situation

Or: Primarily me focused conversation could help „E.g. I feel like I cannot realise my potential". Although trying to explain the concept of male privilege to a person who benefits from it will naturally cause opposition. Still, it is important to be confronted with the truth and not just personalized „me-focused-phrasing". Peter is the oppressor in this relationship and be it out of malicious intent or ignorance he needs to be confronted, which must be uncomfortable to him. One cannot cradle the oppressor's feelings too much, even though the need to be considered a little for the conversation to be successful.

Ri: asking for his dreams first and asking regarding his anxieties in a double career partnership

Sg: C'est le ton qui fait la musique :) I guess it is a really sensitive topic. But starting to explain what Nora's actual plans/dreams were before she was in the relationship with Peter is a good way to go. It is a discussion where both have to be open and direct. This is (I think) how a good relationship works especially with two having such a time consuming job. Telling a partner that you are unhappy is never easy, but to change something you need to take the risk and be honest.

2

To: I don't see how Nora is accusing Peter. As usual, missing or wrong informationen caused the problem in the first place - Peter thought that this was Nora's dream, but apparently never asked. But to stay in the example, Nora could

- ask Peter over a nice glass of wine, how he imagines their future

- after he explained his view with Nora's biggest dream with the family and staying at home

- she could say that she understands it, but then correct the perception of Peter, as it is quite wrong

Li: Nora sollte in der ich Form von ihren Bedürfnissen erzählen.

Mo: Nora sollte bei dem Gespräch den Fokus auf Ihre Bedrürfnisse legen und ihre Bedürfnisse direkt aussprechen. Eine solche Aufteilung in einer Beziehung ist meist ein Resultat von unterschiedlichen Einflüssen. (Gesellschaftlich, Komunikation eigener Bedürfnisse, keine Vorbilder usw.)

Lu: As mentioned above, the space should be clearly created in which both can freely express their own and common wishes for the future. It is important that feasibility and, for example, financial weighting do not yet have a place. This should possibly be clearly agreed upon before the conversation. Only in a second step should compromises and external realities be discussed.

Barbara is doing the majority of the chores.

3. **What would be the best way for Barbara to tell Max?**

Mi: Barbara soll Max einfach sagen wie es ihr geht. Falls möglich mit Vorschlag wie man es machen könnte.

Ma: Openly tell Max how she feels about the current situation and that "house work" should be evenly divided within the relationship, especially in regards to her new position.

Fr: Trying to avoid accusation so that max doesn't feel offended. In the end, they both caused the current situation she should have spoken up earlier in their relationship before being stuck with all the chores. Maybe he's not even aware of the situation

Or: Straightforward and honest. In this scenario the problem seems to be of a more acute setting and not as deeply rooted as in the Peter-Nora setting. Here both are working full time, taking equal shares of work work they should take equal shares of house work. However, it is Barbara who has to take on more house work may is still based on Maxes male privilege and this should also be brought up in the conversation.

Ri: set a date for a conversation on the equal sharing of domestic duties and maybe also help from outside talk in a quiet atmosphere but openly, straight forward without excuses, put it forward as a natural question

Sg: Again, be honest and direct. Sometimes the truth hurts. But your partner may not notice that you are suffering.

3

To: I would take a look at their history together. Ideally, in the beginning the work was more equally shared and started to shift as Max got more pressure from work. Then I would add, that with the new promotion Barbara couldn't handle the whole workload at home. Then they have two solutions: Equal split or get additonal support from the outside (maid, etc.)

Li: Nicht davon ausgehen, dass der Partner selbst darauf kommt an der Situation etwas zu verändert. Diese Themen sollte Barbara direkt ansprechen.

Mo: Die Beförderung und die dadurch veränderte Gesamtsituation an Arbeitsbelastung / Doppelbelastung bietet eine gute Gelegenheit die Aufteilung der Aufgaben im Haushalt und Beruflich zu Thematisieren. Eine Veränderung der Aufgabenbereiche kann sich auch sehr positiv auf Max auswirken wenn er Beispielsweise sein Arbeitspensum verringen könnte.

Lu: That probably depends a lot on the relationship. Barbara's new position and the accompanying change in everyday life is certainly the basis for a conversation here.

4. **What setting would be necessary to tell Max?**

Mi: Es sollten beide genug Zeit haben um das Thema ausdiskutieren zu können. Es sollte möglichst genau ausgemacht werden wer was macht.

Ma: Depends on the relationship. Glass of wine doesn't hurt ;-)

Fr: Open conversation, finding out why he wasn't able to contribute to household chores so far understanding his view of the situation.

Or: A trusting, solid relationship with good conversational grounds.. However even in this optimal situation, trying to challenge the privilege of a person who benefits from it will naturally cause opposition. Simply explaining the concept male privilege, may mot be enough to convince Max (either because he is sceptic of the concept or because it challenges his self-image). Using storytelling to illustrate how male privilege can impact women can be an effective strategy: E.g. especially in this case, the story is unequal work load.

Ri: telling him that this is having a good relationship being open with his wife using role models

Sg: A day where both are not under too much stress and in a good mood to start such a conversation. At home, maybe with a glas of wine. It should not start while Barbara is stressed about doing the dishes and laundry...

To: Same as with Nora: A good relationship were both parties can talk about their dreams and life goals. There shouldn't be a need for encouragement to bring up any topic.

Li: Egal wo. Diese Themen jedoch nicht in der Wut sondern in einer emotionalen Ausgeglichenheit ansprechen.

4

Mo: Die Atmosphäre sollte entspannt sein und den Berufsalltag nicht bereits wieder oder immer noch im Kopf sein. Eventuell könnte ein verlängertes Wochenende für eine solche unterredung genutzt werden, wo beide sich nicht in ihrem Alltag befinden. Es könnte sonst sein, dass er das Gespräch als aggression verstehen. Da er aus einer egozentrischen und gestressten Sichtweise heraus agiert und eine Abwehrhaltung einnimmt.

Lu: It is certainly important that both acknowledge the change and the consequences that come with Barabara's new Position. Whether a democratic distribution of tasks is necessary, whether Max now does the major part of the household or whether they hire a domestic help must ultimately be decided together and in consideration of mutual appreciation.

Robert feels the pressure to provide for his family.

5. **How could Robert be encouraged to make himself vulnerable and show his feelings?**

Mi: Durch Freunde, Ehefrau, Familie

Ma: Make him aware that he does not have to be embarrassed about anything. Quitting a job does not mean he will not be capable to provide for the family.

Fr: They should be open for their respective needs and feelings. If they both struggle with that they could get help from outside through couples therapy/conversation with family and friends

Or: If they entered this agreement consciously with possible aftereffects in mind, he should be able to now bring up this topic. Evaluating their possibilities: Him looking for a less stressful job, him taking on caretaker responsibility and Kristina taking on work. Here it must be mentioned that staying at home looking after three kids is also Avery stressful job. Maybe the solution for their problem may not be on a personal level, but on a social safety net that would allow him to take some time off work.

Ri: telling him that this is having a good relationship being open with his wife using role models

Sg: Tough question. For a man i guess it is even more difficult to make himself vulnerable especially when it is about the job. Here it is demonstrates the traditional relashionship setting for a man, taking care of the family. Even more difficult to talk about feelings, but maybe his wife is even happy to go to work instead of him alone taking care of the fincances?

To: I still see the same set-up: A good relationship were both parties can talk about their dreams and life goals. There shouldn't be a need for an encouragement to bring up any topic. If you are close to quitting the job with no follow-up - it's not just a "simple" job change - it is already pretty far and in your mind you have already quitted the job. Therefore, I imagine Kristina also figured out that something is wrong, because if you are close to a burn-out, you better hope you partner realises it too. I see the issue with beeing vulnerable and maybe not longer be able to provide for the family, therefore the pressure which is on the husband in this set-up, but the alternative is even worse which I imagine often leads to burn-outs, suicde and

so on. Is that any better? Hopefully, after the talk some of the pressure is relieved from Robert as he no longer feels like failing his family and they can figure out the next steps together. In my line of work, project management, it always boils down to communication and a partnership full-fills all the criteria for what a project is, expect - hopefully - for the fixed time span.

Li: Das Anliegen mit befreundeten Personen besprechen oder Mithilfe professioneller Unterstützung angehen.

Mo: Wenn Robert von der Gesellschaft nicht einem so enormen materiellen Druck augesetzt wäre würde es ihm einfacher fallen finanzielle Einbussen hinzunehmen. Hilfreich wären da sicherlich Vorbilder welche einen ähndlichen Lebenswandel duchlebt haben mit welchen sich Robert austauschen könnte. Diese könnten ihm von den positiven veränderungen in ihrem Leben erzählen was ihr zu der selben Handlung bewegen könnte. Die zwischenmenschliche Beziehung und positive Emotionen zwischen Kinder und Vater/ Mutter besteht auch wenn weniger finanzielle Mittel zur verfügung stehen.

Lu: The key to a healthy and successful relationship is probably trust and honesty. If Robert has to be ashamed, I think it's generally necessary to work on these points in the relationship. This probably applies to all the cases listed here. Furthermore, I think that social pressure plays a big role here, as well as in the other examples. Here, all the means that make society aware of such situations can help. This can happen cinematically, in a public debate, through a game, or in other media. It is important that the normality of such situations is propagated and education is provided, so that Max, for example, does not have to feel alone in his situation.

6. **How could Robert create a space for such a difficult conversation?**

Mi: durch ein offenes Gespräch

Ma: Look for a setting where he feels comfortable to talk, where he can open up.

Fr: He could start the conversation and see where it goes. If it doesn't go in the right direction find out why

Or: Like described in the answer above. But here also the card game or some other facilitation by therapy, books, courses may help.

Ri: set a date for the conversation with the rough topic

Sg: I think it is always good if these conversations are started when both are in a good mood and maybe the kids are at the grandparent's house and the two have some quiet time. It should be an atmosphere where both feel comfortable and are not stressed. And maybe it is also good to set a date together for such a talk and not start it spontaneously.

To: As this will result in a change of the current situation, you always first need to describe the

current situation. Then you show your options (e.g. live on the savings, move to a cheaper house) or alternatives (e.g. split up). There is no happy space to have this kind of a conversation - it will be tough and maybe there will be tears. But once you realise that doing nothing will keep on hurting you and eventually your family, you simply have to. There are always options - you may not like them, but they are there and by talking about the issues, you may realise that there is a fourth option, that maybe you wife supports you all the way or that you need to split-up. What ever the option is you choose, at least you won't have to hide it any more and that in itself can reduce your pressure.

Li: Sicherlich nicht wenn die Kinder anwesend sind, in einem ruhigen Moment ohne Störfaktoren. Robert sollte schon vorhin Kristina mitteilen, dass er etwas besprechen möchte. Somit kommt es nicht zu einem Überfall.

Mo: Er könnte eine gemeinsame Unternehmung mit der Familie nutzen um das Thema anzusprechen. z.B. Wie wichtig Ihm die Zeit mit der Familie ist und er gerne mehr Zeit mit den Kindern haben möchte. Natürlich muss er sich zuvor überlegen ob er zuerst das Gespräch mit Kristina sucht. Denn jemanden in einer solchen Situation in die Enge zu treiben wäre fatal. (Kristina sollte sich nicht vor den Kindern äussern müssen, denn das erzeugt enormen Druck und Spannungen)

Lu: As in the other examples, it is important that Robert creates space for himself to express his concerns freely and that he is allowed to ask for support in the relationship so that solutions can ultimately be found together.

Features for the tool

	It should be digital
II	It should be analog
IIIIII	Both digital or analog could work
Why? Conversations around analog things are usually better, there's probably also less interaction through digital games Analog may be more intimate, more real and more grounded for such a heavy topic. both have advantages; analog more intimate, digital can give more structure Die Atmosphäre für eine solche Konversation ist essenziell, denn nur wenn mann sich wohl fühlt kann man sich öffnen und über ein so wichtiges und dennoch teilweise sehr intime Gefühle oder Haltungen sprechen. Daher wenn in der richtigen Situation angewand kann ein analoges aber auch ein digitales Tool funktionieren. With a digital tool it is certainly easier to reach a large mass. Whereas I think that an analog tool can be more personal and leads to less distraction.	
IIII	It should include facts about gender stereotypes
IIII	It should demonstrate examples of gender stereotypical behaviors
IIIIII	It should show how gender stereotypes are formed in our society
IIIIII	It should show the advantages of egalitarian relationships
IIIIII	It should support the conversation about feelings and emotions

IIIIII	It should include a framework that helps to plan the future
IIIIII	It should help to set goals and targets
Why? It's important to educate people who are not aware of those patterns, however, if a couple has an open convo that's probably enough I think the most important thing is to create mutual understanding. Here, personal stories and confrontation probably help more than an intellectual debate about the social position of the sexes. Although this is certainly not irrelevant and certainly be good food for thought to become clear to his own needs.	
III	It should be for couples only
IIIII	It should be for groups
Why? Inputs from other people can also benefit a conversation/relationship but the final conversation has to be in the relationship Too complex for groups Im besten Fall ist es für beides verwendbar (groups und couples) Der Gruppenaspekt fördert das Bewustsein bez. dieses Themas. I think it's mainly about living together and relationships in general. Whether you live this out as a group or as a couple is not necessarily relevant in my opinion.	
III	It should be intimate and serious
	It should be fun and entertaining
IIIII	It should be factual and informative
IIIII	It should be a good mix of entertainment and intimate
Why? It should be a little entertaining, so people would be interested to continue playing, but the focus should be on an intimate and informative content - as the topic probably requires. Wenn es zwischen durch unterhaltsam ist dann Locker dies die entstehenden Diskusionen auf und führt hoffentlich zu einem besseren Resultat. I think a good mix is certainly necessary to create a pleasant atmosphere. The challenge of a tool is probably to find a good balance here, so that it simultaneously informs, advances the relationship and motivates through sociability to use the tool.	

Additional notes:

Fr: I think awareness education should happen at an early stage before it even becomes relevant for the couple. Once you're stuck in the wrong pattern it's hard to break it up. Awareness of the partners' needs and goals is important in any relationship. And the question whether you're on the right track as a couple too (not only career wise)

Sg: I think a big part is not only the traditional relashionship setting itself but how the couple communicates on a daily basis. Anxiety of both parties is a big deal. But for example friends could have a positive impact on such conversations too and motivate you to talk to your partner.

To: The tool is called having a face-to-face meeting. Maybe a tool can help to persuade a person to

have the actual meeting, but no matter the souroundings the meeting will be tough and serious. Maybe a tool with some smart questions (what do you want to achive in you life? do you want kids? are you fine with doing the household by yourself?) could help the users. As they try to answer them, they might realise what they actually want. Then they could use these answers as facts for the meeting.

In general, it remains to be said that in all of the examples mentioned, the conversation and the resulting culture of conversation are the key to all disputes. With a tool I see a great potential to stimulate these and sharpen their culture.

Findings:

- A trusting relationship that allows open, honest communication about dreams, goals, and needs
- Straightforward, honest communication, without accusing is key
- Choosing the right moment for difficult conversations is very important. Planning it in the right setting ahead rather than acting out of the affect is crucial especially that the other person does not feel ambushed
- Role models, like parents or friends that inspire to stand up for one's own needs
- Setting a clear, concrete plan about the goals
- Couples should early on talk about goals and dreams and how they are compatible with the relationship
- Certain methods can help that the opposite does not get offended: Let the other person talk first and use I/me statements when talking to emphasize that this is your perception of the situation

y–07. Prototype three

Hi there...

Disclaimer: Im letzten Prototypen habe ich vergessen zu erwähnen, das unser Studium auf Englisch ist. Deshalb sind meine Prototypen und Design Intervention auf Englisch. Ihr könnt aber gerne auf Deutsch antworten.

(You can find the updated instructions at the end of this document)

Today I have sent you my second prototype  : It is a card game for you and your partner. It would be very cool if you both would find time to give it a go and test it. After testing, it would be fantastic if you could answer the following questions either via this form or via a call together:

Is the game comprehensible?

Did the game stimulate a discussion with your partner?

Were there enough "Feeling Cards" to appropriately answer the questions?

What parts of the game work well?

What parts of the game do not work that well?

What would you change about the game?

To make the game more diverse and close to reality, it would be very cool if you could provide stories from your relationship or people you know. For example, what did you observe that challenges your relationship?

Updated Instructions:

1. There are three different kinds of cards in this set.
   Story Cards: 
   Feeling Cards: 
   Who Cards: 
   The story cards have two sides; the light green one is played first. Additionally, the set contains a "Feelings List" and this instruction.

2. Put the "Story Cards" with the light color side facing up between you and your partner. One Person (Beta) gets the "Feeling Cards", the other Person (Alpha) gets the "Feelings List". The "Who Cards" are shared among the both of you, each receiving one of each card.

3. Alpha reads out the light green side of the first "Story Card" to Beta.

4. Beta now has time to think and chose the feeling from the "Feeling Cards" that best fits the question. Choose wisely. Beta puts the selected "Feeling Card" upside down on the table so that Alpha can't see it.

5. Alpha tries to guess the feeling that Beta has chosen. The "Feeling List" gives a clue about what feelings are available. The fewer guesses, the better. Guess wisely.

6. Once Alpha guessed correctly, the story card gets turned around to the dark green color. Both have to answer this question by using a “Who Card”. Talking is not yet allowed. Once both put their chosen “Who Card” facing down on the table, the “Who Cards” can be revealed. **Now discussions are very important. Why is one or the other responsible? If both are responsible, how can it be made sure that both do their equal parts? Are both satisfied with how the situation is?**

7. If there is nothing else to say, put the “Story Card” at the bottom of the “Story Card” pile and start again with step 1. Take turns; Alpha becomes Beta, and vice-versa.

3

y–08. Analysis of third iteration prototype and testing

Answers to prototype 3

Is the game comprehensible?
V: yes it is. Die Differenzierung der Kartentypen ist zu Beginn nicht ganz klar. Man könnte bei den Karten den Typ jeweils oben rechts auf die Karte schreiben.
B: Das Spiel ist verständlich Und interessant.
R: Yes
O: Yes it is.
W: Ja
E: Language barriers but comprehensible

Did the game stimulate a discussion with your partner?
V: Yes, it did. Die beidseitige Wahrnehmung von der Aufgabenteilung/Verantwortlichkeiten hat sich bestätigt, was wir jeweils auch erhofft haben.
B: Ja die Diskussion wurde stimuliert sogar bei uns
R: Yes. Even more, than expected!
O: Yes it did, especially when we did not have the same answer to the personal question.
W: Ja. Wir waren zwar meist gleicher Meinung. Dies wahrscheinlich auch weil bei uns die ganzen Zukunftspläne noch sehr hypothetisch sind.
E: In provoked discussions, was hard to no talk until the cards. It always provoked a discussion, sometimes more sometimes short. Once we had me, both, that was interesting

Were there enough “Feeling Cards” to appropriately answer the questions?
V: Yes, more than enough. Die positiven Feelings waren jedoch nicht wirklich benötigt. Ggf. kommen hier ja noch stories, wo wir die brauchen können.
B: Es gab eher zu viel Gefühlskarten, zum Beispiel frustrated könnte man wahrscheinlich weglassen weil das eher so ein Oberbegriff ist zu dem schnell gegriffen wird und der relativ wenig spezifisches aussagt
R: Kind of. Maybe more positive feelings?
O: Maybe there could be more stories that also provoke a positive feeling.
W: Ja, wir haben die ganzen positiven vom Grateful bis Thrilled jedoch nicht gebraucht;)
E: Sometimes it feels like it is a combination of words.

What parts of the game work well?
V: All the steps during the game worked well.
B: Gut funktionieren die zuordnungskarten ich du beide
R: The general example into personal question works well. Introduction of discussion.
O: The game overall worked well.
W: Am meisten Diskutiert haben wir bei den den You/Me Karten.
E: The second part stimulates the discussion more than than the first part. But the first part makes also sense

What parts of the game do not work that well?
B: die Kärtchen sollten aber etwas heller gestaltet sein für abends, Muttersprache waäre näher beim emotionalen

1

R: Picking emotions from the cards is hard because there is no overview, it’s easier with the feelings card.
W: Die Fragen zu Julie, Paul etc. gaben bei uns etwas weniger her.
E: Language barriers, once we had a bit of a strange transition because we did not agree on something.

What would you change about the game?
V: Die Story cards könnten noch etwas genauer beschrieben werden. Bei Paul, der die Kinder holen muss, ist zum Beispiel nicht ganz klar, ob ihn das wirklich stresst oder nicht. hier könnte noch die Situation in der er ist genauer beschrieben werden.
B: Sollte man die Bedeutung der Farben erklären? Es geht hier nicht um Inhalte sondern um zuordnung zwischen Liste und Kärtchen oder?
R: Nothing, its very good as is!
O: Maybe add some stories that could provoke a positive feeling.
W: Bei den grünen Fragen hatten wir oft das gleiche Feeling, ich fände es noch spannend wenn man Fragen würde, wie der Andere die Situation lösen würde. Ich denke, dass dies noch eine intensivere Diskussion auslösen würde. Eventuell würde ich die Both Karte entfernen da sie einen Rückzug darstellt wenn man nicht konfrontieren möchte.
E: Maybe the discussions around one topic could be prolonged.

To make the game more diverse and close to reality, it would be very cool if you could provide stories from your relationship or people you know. For example, what did you observe that challenges your relationship?
V: In jeder Beziehung ist es ein challenge gewisse Themen, die Emotionaler Natur sind anzusprechen. Es braucht Überwindung und man hat Respekt vor der Antwort des Partners/in. Kommunikation ist einer der häufigsten Schwierigkeiten in einer Beziehung. Auch wir (zusammen seit knapp einem Jahr) müssen noch lernen, wie das geht. Dieses Spiel hilft sehr, gewisse Themen in einer Beziehung anzusprechen, wo man sich sonst nicht getraut oder nicht daran denkt. Die Hemmschwelle ist dabei vielleicht etwas gesenkt.
B: Zwei Probleme sind relativ ähnlich mit der plötzlich anderen Kinderbetreuung, stattdessen noch ein Problem aus einem anderen Bereich vielleicht? Zum Beispiel aus dem Arbeitsbereich? Das Beispiel mit der Chirurgin und der Diskussion ihres Berufstraums war doch ganz gut.
R: Wer holt das Kind von der Kita. Alpha und Beta arbeiten beide gleich viel. Heute wäre Alphas Tag, er/sie muss aber länger in der Klinik bleiben. Darum wird Beta gefragt ob nicht er/sie die Kinder holen könnte.
W: Vereinbarung Hobby - Job - Familie, Wohnort Stadt - Land - Nähe zur Arbeitsstelle

Findings:
- The game was comprehensible
- It took a moment to find out what cards are used for what and some cards were too dark to read - the design of the cards could be reworked to make them more comprehensible
- The game really engaged the conversation, especially if both partners did not have the same answers

2

- Positive feelings were hardly used as the stories were more pointing towards negative feelings - more stories that provoke positive feelings could be added
- Some feelings serve as an umbrella term and do not help to pinpoint the feeling - the feeling frustrated and frightened could be removed
- Some couple had a discussion as they were a different opinion about what feeling is fighting best - stating that everybody feels differently and that this is ok should be added to the instructions
- The game works well and the first part with describing the feelings are good introductions into the conversation about one’s relationship

3

y–09. Final design intervention

Is your relationship in the gender trap?

Human beings are unique, each one has our own beliefs, desires, interests, strengths, and weaknesses. But do we really know them? Do we know how we feel? There are so many expectations on us; it is hard to hear you're own voice in all the noise. Gender roles are a major contributing factor to these expectations. Knowing yourself and being able to communicate your needs is essential for a successful relationship. Knowing your partners needs and being empathic with their feelings is crucial to show your love. It is these simple things, that are difficult but make a relationship to what it is.

This card game confronts you with expectations around gender stereotypes, helps you empathize with the struggles that arise from them, and brings it back to your relationship. If you are ready to openly discuss and to be honest with yourself and your partner, this card game can stimulate your development and the growth of your relationship. Bearing your truest self, free from the burden of expectations that we carry every day and making yourself vulnerable to another person is an important step in this development. Make some time, open a bottle of wine and find out how you're in the gender trap.

Caution: This game can be confronting. Side effects may include: improved quality of relationship, growth, clarity, break-up (but then it wasn't meant to be)

Instructions

1. There are three different kinds of cards in this set. Story/ About you Cards, Feeling Cards and Who Cards.
2. Put the "Story/About you Cards" with the Story side facing up between you and your partner. One Person (Player B) gets the "Feeling Cards", the other Person (Player A) gets the "Feelings List". The "Who Cards" are shared among both players. Each player receives a Me, You and Both card.
3. Player A reads out a "Story Card" to Player B.
4. Player B now has time to think and chose the feeling from the "Feeling Cards" that best answers the question. Choose wisely. Player B puts the selected "Feeling Card" upside down on the table so that Player A can't see it.
5. Player A tries to guess the feeling that Player B has chosen, by looking at the "Feeling List". The "Feeling List" corresponds with the feelings on the "Feeling Cards". It is ok, if both do not agree on the same feeling, everybody feels differently. Having a discussion about it is what counts.
6. Once Player A has guessed correctly, the "Story Card" is turned around to the "About you side". Both players have to answer this question by choosing a "Who Card" and placing it face down on the table. Talking is not yet allowed. Once both players have placed their selected card on the table, the "Who Cards" can be revealed. Now discussions are very important. Why is the situation like this? Are both satisfied with how the situation is?
7. If there is nothing else to say, put the "Story Card" at the bottom of the "Story Card" pile and start again with step 3. Take turns; Player A becomes Player B, and vice-versa.

Story

Barbara had always dreamed of becoming a surgeon like her grandfather, but when her husband Martin was promoted to a leading position, she devoted herself to the role of being a mother.

How would you feel as Barbara?

About you

In your relationship, who is forgoing / will forgo their career to look after the family?

About you

In your relationship, who takes on / will be taking on the main responsibility of a steady income?

Story

Marco is working a lot these days. He hardly gets a break. Even at home, his wife expects him to look after Ian and Nadine, their kids. Marco wants to be a good dad and he likes spending time with the kids but all of it together is just too much for him. But he can't just quit his job, they need the money.

How would you feel as Marco?

Story

Paul loves being a father. He enjoys picking his children's outfits, teaching them how to cook and playing with them outside. Paul never minded staying at home so that Rebecca could pursue her career. Next week the children have a day off and Paul plans to take them to a Theme Park. He asks Rebecca if he can have some money for their day out?

How would you feel as Paul?

About you

In your relationship, who makes the financial decisions?

About you

In your relationship, who shows more consideration for the other person?

Story

Francis was frustrated and moody. He felt like he hadn't achieved anything all day at the office. Julie was tired from a big day at work. She arrived home before Francis and cooked dinner for them. At the table, Francis sat silently, and Julie gave him the space he needed. Wordlessly she cleaned up after dinner.

How would you feel as Julie?

Story

Max tickled his baby's tummy and felt his heart grow warm at the tiny giggle. "Max, what are you doing, he should be sleeping!" Max sighed. It felt like he never did things the right way with the baby.

How would you feel as Max?

About you

In your relationship, who is setting / will be setting the tone in the upbringing?

About you

In your relationship, who makes / will make sure that the free afternoons of the children are covered?

Story

Lilly has gotten her new timetable from school and is comparing it to her sister's to see what afternoon they can play in the garden together. The release of the timetable is stressful for her parents as the free afternoon always changes. "I will cover thrusdays" her mum says. "You already covered it the last time, I think it should be my turn" her dad replies.

How would you feel as Lilly's dad?

Story

Lea and Joel, both successful physicians, met at work. They have been together for 6 years and have 2 children. Today is Joel's day to pick up George and Harry from childcare. A severe accident in the city prevents him from leaving work, as he has to care of critically injured patients. It's Lea's evening off and she had planned to meet friends. Joel asks her to pick up the kids.

How would you feel as Lea?

About you

In your relationship who is more flexible?

About you

In your relationship, who gets / will get the kids, when they need to be picked up from childcare unexpectedly?

Story

When Michael started his architecture firm four years ago, he couldn't have imagined the success they would have. It is tough but very exciting. His wife, Mia, works 40% as a psychologist, during which time their two kids are in childcare. The childcare calls to say that the kids are sick. Mia is busy with a patient so Michael has to get the kids, even though its a busy day for him too.

How would you feel as Michael?

Story

Maggie is in the kitchen cooking. David enters and turns on the music. Maggie does not feel like music, they always listen to the same stuff. David loves rock. Maggie asks if they can cook without music. "I am just here to help, you can cook by yourself then" David snaps.

How would you feel as Maggie?

About you

In your relationship, who displays more empathy?

About you

In your relationship, who decides more often what people you meet?

Story

Anna realises that it has been quite a while since she saw her friends. Since being together with Mirco, she has hardly ever been out. It is just so comfortable at home, watching Netflix together. Mirco also doesn't like Anna's friends, so they don't really see them together. They spend a lot more time with his friends.

How would you feel as Anna?

Story

Pedro and Tanja have been very close friends for years. They have been on road trips together, cook together and spend hours deep in conversation. Their relationship has always been platonic. Pedro's new girlfriend likes Tanja as well, but there is still a discomfort when she sees them together laughing and having fun.

How would you feel as Pedro?

About you

In your relationship, who is more jealous?

About you

In your relationship, who adapts more to the hobbies of the other person?

Story

Michelle used to love rollerblading. Her boyfriend Pascal always makes fun of it, he finds it so silly. Pascal introduced Michelle to surfing and since being together, that is the only sport they do together. Michelle likes it, but she is not mad about it. She misses the feeling of the wind in her hair while rollerblading and would love to share that with Pascal.

How would you feel as Michelle?

Story

Loris had a wild Saturday night. Earlier in the week he had agreed to a Sunday night family dinner with his girlfriend Paulina's parents, but it feels like his skull is cracking. "No worries darling, I can go alone and we go and see them together another time", Paulina assures her hungover boyfriend.

How would you feel as Loris?

About you

In your relationship, who is more open to engaging with the family of the other partner?

About you

In your relationship, who is bossier?

Story

It is the annual Christmas dinner of the company Oskar is employed at. All employees are invited together with their partners. Emma loves going to Oskar's Christmas dinners, as it is always super entertaining and the food is really yum. They are getting ready to leave when Emma says, "Oskar, that shirt doesn't fit the pants, you should wear something else."

How would you feel as Oskar?

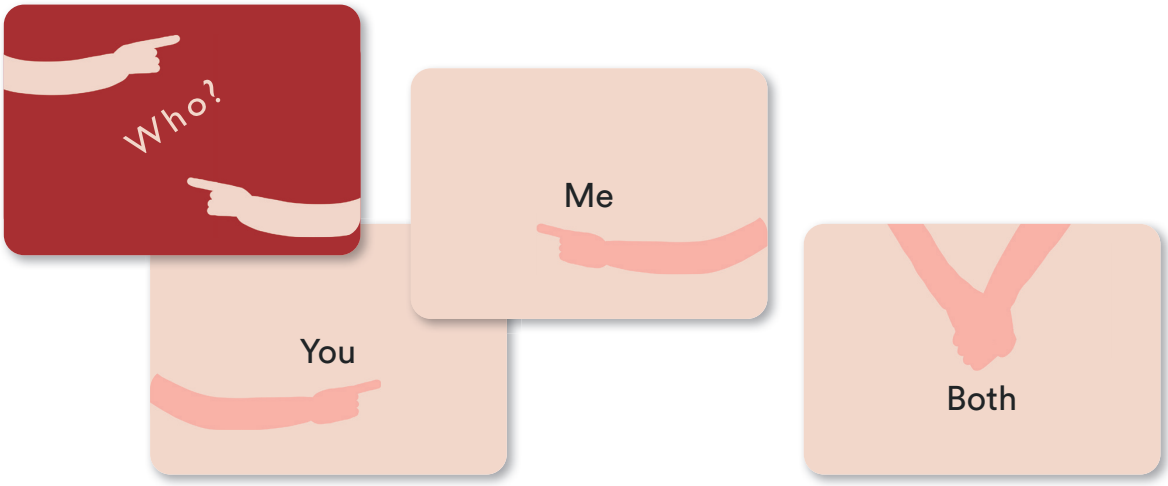
Story

Carl comes home from a long day of work. Ronja is waiting in the bedroom, she has a surprise for him. It has been while since they last had sex. Carl enters the sleeping room. He knows it has been while but with all that stress at work, he is just not in the mood.

How would you feel as Carl?

About you

In your relationship, who initiates sex more often?




Feelings
Grief
Neglected
Grateful
Despair
Guilty
Triumphant
Inferior
Embarrassed
Proud
Jealous
Attacked
Thrilled
Courageous


Humiliated
Worthless
Astonished
Respected
Relieved
Rejected
Trapped
Lonely
Powerless
Insecure
Confident
Disillusioned
Peaceful
Hurt
Worried

y–10. Design intervention evaluation

Initial finding for relationship challenges around gender stereotypes	Fulfillment of the design intervention
20 Most working physicians have a full time working partner, which result in them contributing significantly more in chores, child and parent care	The design intervention motivates couples to negotiate the different aspects of their relationship so that both feel treated fairly.
21 Many women end up in relationship arrangements with their partner's career having priority, even though they did not intend it that way	The design intervention raises awareness of gender stereotypical roles so that couples can navigate around them.
22 Men and women have enormously different expectations on relationships regarding career priority, which leads to career-related split-ups. Women experience such breakups much more	The design intervention highlights that a relationship comes at a price. One has to invest into it and make compromises so that both feel on the same eye level.
23 Structural barriers like the gender pay gap, progressive taxation for couples, and unequal parental leave make it harder to pursue an egalitarian relationship	The design intervention raises awareness about structural barriers so that couples can acknowledge and plan their goals and desires around them.
31 Female physician's career plan can change due to family plans	The design intervention raises awareness of future challenges that couples might face as their family grows while making them think about how to deal with them.
46 For some couples, it is difficult to talk about family planning	The design intervention encourages couples to talk about their family plan. Furthermore, it mediates the conversation helping them to achieve a solution that is fair for both.
54 60 The right partner and having conversations about family values and plans is critical for women to combine family and career.	
61 Working part-time after a child birth can make it hard to find the way back to a full-time position	The design intervention raises awareness about the part-time trap.
53 Gender stereotypes set expectations on women to take on primary family responsibilities.	The design intervention raises awareness around these expectations, encouraging couples to find a solution that best fits both of them.

z. Affidavit

I, Thierry Fehr, hereby certify that the attached Bachelor's Thesis, Is your relationship gender trapped? A human centered design approach to understand and improve the lack of female physicians in leading positions at Swiss hospitals, consisting of 13750 words as defined in the DMI Bachelor's Thesis Guidelines (excluding tables and figures), is entirely my own and that I have indicated all sources (printed, electronic, personal, etc.) that have been consulted. Any sections quoted from these sources are clearly declared and indicated and the sources are explicitly given. I further declare that I have included acknowledgment of the name of any person consulted in the composition of the final Bachelor's Thesis. Unless explicitly stated, no parts of this work have been published before submission.

Date, Place

25.05.2021, Zürich

Signature