UMEÅ UNIVERSITET

It’s just a job

A new generation of physicians dealing with career and work ideals

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Umeå 2017

Dissertation for PhD

ISBN: 978-91-7601-764-7

ISSN: 0346-6612, New Series Nr. 1919

Cover picture: Marie Hult

Layout: Saima Diderichsen

Electronic version available at: http://umu.diva-portal.org/

Printed by: UmU Print Service, Umeå University

Umeå, Sweden 2017

I think that I may be the voice of my generation.
Or at least *a* voice. Of *a* generation.

/Lena Dunham

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Svensk sammanfattning

Bakgrund

Läkaryrket har gått från att vara mansdominerat mot en jämnare könsfördelning. Samtidigt kvarstår en könssegregering där män dominerar inom många prestigefyllda specialiteter och på ledarpositioner. Detta förklaras ibland med att kvinnor prioriterar tid för familj och fritid högt. Det finns också en oro över att den yngre generationen är mindre hängiven jämfört med den äldre generationen. Samtidigt kommer rapporter om läkares minskade makt över den egna professionen och ökade krav på produktion och administration. Den nya generationen läkare verkar alltså gå in i ett ansträngt hälso- och sjukvårdssystem där män fortfarande dominerar inom prestigefyllda specialiteter och på ledarpositioner.

Syfte

Avhandlingens övergripande syftet är att utforska genusaspekter av karriärplaner, livsprioriteringar, kliniska erfarenheter och förhandlingar av professionella ideal bland läkarstudenter och AT-läkare.

Resultat

De allra flesta läkarstudenter och AT-läkare beskrev sina karriärplaner i termer av ett givande arbete på en trivsam arbetsplats med tid för både familj och fritid. Män och kvinnor önskade en karriär inom i princip samma specialiteter och de motivationsfaktorer som spelade roll för specialitetspreferens skiljde sig inte heller nämnvärt mellan könen. Till exempel skattade både män och kvinnor intressant innehåll och tid för familj högre än lön och karriärmöjligheter.

Läkarstudenter och AT-läkare blev avskräckta av sjukhuskliniker som präglades av en tydlig hierarki där övertidsarbete och tyst lojalitet uppmuntrades. Vårat resultat visade också att kvinnorna inte inkluderades under de kliniska placeringarna i samma utsträckning som männen. En betydligt större andel män jämfört med kvinnor beskrev hur de blivit ointresserade av en specialitet på grund av att kunskapsområdet och arbetsuppgifterna verkade tråkiga. Samtidigt var det en betydligt större andel kvinnor jämfört med män som beskrev att de blivit ointresserade av en specialitet på grund av ett arbetsklimat som beskrevs i termer av exkludering, dåligt bemötande och macho-kultur.

Vidare, kunde vi se att manliga AT-läkare och läkarstudenter sågs som mer självklara i läkarrollen och lättare blev inkluderade i en yrkesgemenskap. De kvinnliga AT-läkarna förhöll sig till förväntningar om att vara osäkra och mer

juniora som läkare medan männen förhöll sig till förväntningar på sig om att vara färdiga läkare som kunde ta egna beslut.

AT-läkarnas erfarenheter illustrerade hur de både agerade och kämpade emot idealet av en hårt arbetande, lojal och självständig läkare. De höll ofta inne med frågor när de fick mycket ansvar och samtidigt saknade stöd från överläkare. Ingen av AT-läkarna beskrev att de hade diskuterat ångesten för att göra misstag med sina kollegor utan de flesta höll ihop på arbetet och flera av dem hade brutit ihop hemma.

Slutsats

Resultaten genomsyras av ett gemensamt ideal bland män och kvinnor där en inkluderande arbetsplats tillsammans med en rik fritid blir viktigt för att arbetet ska stämma överens med den egna förståelsen av självet. Jämför man läkarstudenter med AT-läkare ser man att läkarstudenterna har höga ambitioner om att hinna med både familj, fritid och ett givande arbete, medan de som börjat arbeta som läkare vill kunna bibehålla ork och empati under ett helt yrkesliv.

Det är också tydligt hur processen kring specialitetspreferens inte är så enkel som att välja efter intresse och talang. Vårat resultat tydde på att det är ett manligt privilegium att välja efter intresse, på grund av hur genus görs i exkluderande och inkluderande processer. Vi måste alltså vidga våra vyer från att bara se intresse, personlighet och könsstereotypa val till att se en mer komplex bild där kvinnor och mäns olika erfarenheter från kliniska placeringar skapar ojämlika förutsättningar för karriärval.

List of papers

I: Diderichsen S, Andersson J, Johansson EE, Verdonk P, Lagro-Janssen A, Hamberg K. (2011). Swedish medical students' expectations of their future life. *International Journal of Medical Education*, 2, 140-146.

II: Diderichsen S, Johansson EE, Verdonk P, Lagro-Janssen T, Hamberg K. (2013). Few gender differences in specialty preferences and motivational factors: a cross-sectional Swedish study on last-year medical students. *BMC Medical Education*, 13:39.

III: Kristoffersson E, Diderichsen S, Hamberg K, Verdonk P, Lagro-Janssen T, Andersson J. Choosing specialty according to interest – A male privilege? Gendered experiences in clinical training affect medical students' specialty preferences.
Manuscript

IV: Diderichsen S, Kristoffersson E, Verdonk P, Hamberg K. "You don't want to disturb, you want to fix it yourself" —Negotiations of professional identity in newly graduated doctors' narratives.
Submitted

Glossary

Physician/doctor: I use these two words synonymously to depict all those who have graduated from medical school and now work as physicians.

Junior doctors: This includes doctors who have not yet started their specialist training. In study IV, only junior doctors doing their internship are intended.

Residents: Doctors doing their specialist training.

Senior physicians/consultants: I use these two words synonymously to depict doctors who are specialists and who supervise junior doctors and residents.

PREFACE

I am not sure when my interest in research started. But what I do remember is the moment when my interest in gender started. I was 15 years old and some of my parents' friends were invited for dinner. I was sitting next to Kristina Eriksson and at one point, she leaned against me and said, "Just observe for a moment who is talking and who is listening at this table." It did not take me many seconds to get angry when I realized that all the men were talking and all the women were listening. That anger never really disappeared after that, and I am grateful for it.

When I had just started medical school, I found out that I could practice research for a month and get a small scholarship. All I knew was that I wanted to do something on gender, so I contacted Katarina Hamberg in the summer of 2008. She and Eva E Johansson got me involved with the questionnaire on gender and medical education. That summer, I read numerous articles on gender and medical careers and became upset by the fact that women were still underrepresented in high-status specialties like surgery, but also how the increase of women was often treated as a problem that needs solving. This opened my eyes to the gendered dimensions of medical careers.

A year later, one of our teachers was giving us career advice and promoted pathology as a specialty by arguing that it was the opposite of surgery when it came to working hours. He told us a story of a friend who was a male surgeon. The surgeon's daughter had just recently moved out and told her father that because they had not spoken until now she had no intention of speaking to him in the future. This story stayed with me. It seemed so unfair that wanting to have a relationship with your child should stand in the way of choosing a career. It was here that I started to wonder about what processes are in play when medical students think about their future work life.

I went through the rest of my medical school training constantly thinking about what specialty to choose and how it is not only about my own preference but also about choosing what type of person I want other people to think I am and what type of life I want others to think I have. Am I a psychiatrist type of person, or do I want an anesthesiologist type of life? That was something I was expected to consider already in my first week as a medical student. Where do these preconceptions come from, and what else is in play when we decide what we want to be when we grow up and become doctors?

The coversheet quotation by Lena Dunham illustrates one of many processes I have gone through as a researcher. At first, I think I have found something that is new and representative for our time. I really think I am on to something that is interesting and will change people's view of something. But then after reading some articles I realize that I am not the first person to discover this and that I really do not know that much about anything and that it is not really that

revolutionizing after all. And then I come further in my analysis and I find something that seems new and really says something about today's doctors, but then I realize again that I am just "*a* voice of *a* generation."

INTRODUCTION

This dissertation deals with the experiences and expectations of medical students and junior doctors. One important starting point was the gender segregation in medicine where male physicians still dominate many specialties. Even if it was more than 30 years ago that female medical students reached 40% (Swedish Council for Higher Education, 2017), the time lag phenomenon can no longer explain why women are underrepresented in high-status specialties like surgery and are instead clustered in specialties characterized by relatively low earnings or low prestige (Boulis and Jacobs, 2008; Einarsdottir, 1997; Riska, 2010; Swedish Medical Association, 2016). When starting this project, my co-researchers and I reviewed the literature, and we found that almost all studies on gender and medical careers had been done outside Scandinavia. This inspired us to investigate how Swedish male and female medical students think about work and their future career.

The study of gender and medical careers is an interdisciplinary field, reaching over several large research areas. Hence, this introduction does not cover the full range of the separate areas, but can rather be described as a patchwork of what could be considered relevant when creating a backdrop to this dissertation.

I will start by giving an account of my epistemological approach. Second, I will summarize the theories that have spurred my research, i.e. "doing gender" and the construction of identity. Third, I will summarize what got my attention and set me off within the area of gender and medical careers, i.e. the debate that has followed the increasing number of women entering medicine and research dealing with gender segregation in medicine. Finally, I will describe some of the research on the work situation for doctors, the gender dimensions of work-life balance, and the ideals that encompass physicianship and professional identity within medical education.

Epistemology

Science is created by people. No matter if it is a chemistry lab or a history department, conversation is key in all kinds of research. Hence, the researcher participates in the creation of facts. However, within positivist methods one could assume an unbiased and passive scientist who collected facts but did not take part in creating them, who separated facts from values (Charmaz, 2013). After Kuhn's description of the "paradigm shifts" (Kuhn, 1970), where the subjective perspective of scientists is emphasized, most scientific disciplines have acknowledged the existence of researchers' preconceptions, subjectivity, and ambiguity (Leder, 1990). Much later, after controversies on reproducibility of laboratory studies, measures were introduced to improve transparency (Anon,

2013). Nonetheless, within medicine the quantitative hypothetico-deductive biomedical method, with roots in positivism, has long been the dominant research approach. In this paradigm, knowledge is defined as facts that can be verified, thus including mainly phenomena and questions that can be measured or counted and analyzed by statistical methods.

Social constructionism and postmodernism merged from the criticism of positivist concepts of knowledge, and here the researcher is considered an active participant in the development of knowledge, i.e. "investigators are prepared to achieve partial understanding and to identify new questions about their research topic, rather than definite answers" (Malterud, 2001). However, one can argue that this is the case in most quantitative research as well. All research is about observing, describing, retelling and interpreting (Åsberg, 2001). Hence, the researcher is involved in the construction of knowledge, and the researcher's experiences, interests, methods, and theoretical frameworks can be considered to influence the research process (Charmaz, 2013; Haraway, 1988; Malterud, 2001). According to Haraway (1988), objectivity can be redefined by recognizing that knowledge is situated and partial. Thus, I am not thinking of myself as a blank sheet. My approach has been to try to be aware of my own pre-understandings, trying to nuance the findings and making sure that I have become surprised and have not just been rediscovering my own pre-understanding. Already in the research overview, I will try to highlight some ambiguity and opacity within the research area of gender and medical careers.

Theoretical framework

The following is a summary of theories that have influenced and affected this research process. First, I will define the concept of "doing" gender and the consequences of that perspective in terms of gender segregation and power. Second, I will define hegemonic masculinity. Third, I will describe the concept of identity construction.

"Doing" gender

Gender as a concept started as a reaction towards the biologically motivated discrimination of women. To emphasize the social construction of men and women, the term "gender" has been used to shed light on the differences between men and women that are not biologically determined (Fausto-Sterling, 2005; Moi and Granaas, 1998).

This research project is based on a gender theoretical framework. When studying men and women's career plans, we will consider gender as a constantly ongoing

social construction of what is perceived as “feminine” or “masculine.” This means that gender is not something passive or fixed; instead, we are all “doing gender” in the sense that activities and their interactions are organized to reflect or express gender. Gender is not “natural” and stable, but is subject to changes and negotiations. We are not “doing gender” within a vacuum, instead all acts are always judged against what is expected by the social environment. For example, a female physician is subject to evaluation in terms of normative conceptions of appropriate attitudes and activities for her sex (West and Zimmerman, 1987). Norms can be defined as generally accepted rules of desired behavior.

I use the concept of “doing gender” to emphasize that men and women are not inherently and essentially different. Within the field of gender and medical careers, there is the underlying question whether women have the same rights as men and have access to all medical specialties because they are human beings just like men, with the same competencies (sameness approach), or because they are essentially different and represent other values and experiences than men and therefore have something to add (difference approach). I would argue in support of the first alternative, that women who want to enter male-dominated specialties should be able to do so without being treated as exceptional and more or less suited for the job based on their gender. One can argue that male-dominated specialties cannot keep attracting the most talented and the most interested if the selection pool is reduced by half.

Gender segregation and power asymmetry

Gender order is a concept describing a structuring principle in society that is characterized by segregation and power asymmetry between men and women on different levels, including the societal, workplace, and family level (Connell 2002). For example, at a societal level women as a group do more unpaid work at home than men as a group (Statistics Sweden, 2016)

. At a workplace level, there is a horizontal and vertical gender segregation in the labor market, where women and men are found in different workplaces and women are underrepresented in leadership positions (Anker, 1998; Löfström, 2004). At a family level, the female physician is seen as maturing when going from being career oriented to being more family oriented (Eriksson, 2003).

In most situations, the gender order implies that women, and what are considered to be feminine characteristics and capacities, are less valued and subordinate to men and to what are seen as masculine traits (Hirdman, 1988). An example from the medical field is that male-dominated specialties tend to be more prestigious and are often considered to require more talent and competency

and fewer obligations outside of work than specialties dominated by women (Hinze, 1999; Pratt et al., 2006).

Hegemonic masculinity

The ideal physicianship in terms of professionalism, includes both caring and competency (MacLeod, 2011; Phillips and Dalgarno, 2017). Even so, the ideal has been shown to also share characteristics with a hegemonic masculinity that can be described as a culturally idealized form of manhood that most men do not live up to but feel they have to at least relate to or negotiate their way out of (Carrigan, Connell, and Lee 1985; Connell 2005b; Eriksson 2003; Robertsson 2003). Hegemonic masculinity has also been described as something that men can adopt when desirable; but the same men can distance themselves strategically from it (Wetherell and Edley, 1999). The hegemonic masculinity includes hierarchical authority, decisiveness, rationality, emotional detachment, competitiveness, and objectivity (Connell 2005b; Davies 2003; Eriksson 2003). Thus, men are not to be perceived or to perceive themselves as gender-neutral representatives of humankind. Being the norm and being perceived as "sexless" does not mean that men are "doing gender" to a lesser extent than women.

Professional identity construction

The concept of professional identity construction was chosen to reach beyond career preferences as something individual and made within a vacuum. Medical education is often described as a form of professional socialization and moral enculturation whereby the profession transmits normative expectations for behavior and emotions to its novices (Haas and Shaffir, 1982; Hafferty and Franks, 1994). Through teachers, supervisors, and role models, students and newly graduated doctors learn professional values and norms in order to establish legitimacy as physicians-to-be (Bleakley, 2014; Lave and Wenger, 1991; Phillips and Dalgarno, 2017). Even though all medical students and young doctors are affected by these norms, they are not all socialized into the exact same professional identity. To explain the diversity, conflict, and resistance in the process of becoming a doctor, a more active and dynamic approach is needed.

We found the concept of professional identity (re)construction useful when studying the way individuals deal with their complex, ambiguous, and often contradictory experiences of working conditions, norms, and organization (Alvesson et al., 2008; Sveningsson and Alvesson, 2003). Identity is hard to define, but it can be seen as loosely referring to our constant efforts to address the questions "Who am I?" and "How should I act?" The concept of "identity work" is described as the ongoing mental activity where individuals construct a self-narrative or understanding of self that is coherent, distinct, and positively

valued (Alvesson et al., 2008; Sveningsson and Alvesson, 2003). Professional identity work is triggered by a mismatch between self-understandings and social ideals or it may arise from encounters with others that challenge understandings of self and cause uncertainty, anxiety, and self-doubt. Hence, in an attempt to answer the questions "Who am I?" and "Who are we?" the individual crafts a self-narrative by drawing on cultural resources as well as memories and desires to reproduce or transform their sense of self. This means that professional identity work entails a constant becoming, where a self-narrative is crafted to make one's sense of self consistent, even when it does not agree with social ideals.

Defining identity as a narrative has several advantages. It allows us to grasp the complexities of clinical experiences where individuals create several more or less contradictory and often changing identities rather than having one stable, continuous, and secure identity. Moreover, it allows the incorporation of several ideas that are central to different identity theories, such as identity as a question of sameness and difference; as a situational, multifaceted, and relative construct; as a site of struggle; and as a performance (Duits, 2008).

As an analytical tool, doing identity lets us examine the impact of clinical experiences on medical students' specialty preferences and how the concept of the ideal doctor is negotiated in young physicians by shifting our attention from internal matters of the individual to situated performances and interactions.

Gender and medical careers

New gender compositions meet old patterns

One important point of departure for this dissertation is the ongoing discussion on the so-called "feminization of medicine." The concept of feminization is problematic because it presents the medical profession as a homogeneous group and that women are an anomaly (Riska, 2010). Hence, using the term "feminization" consolidates the norm of the physician as male, and it also creates an image of a female domination that is not actually present. In 2014, the medical profession was one of few with a gender-equal composition, and currently only about 15% of Swedish women and 16% of Swedish men are found in vocations with a gender-equal distribution (Statistics Sweden, 2016). When looking within medical specialties, the gender distribution is equal in almost half of them. Swedish female physicians constitute more than 60% in 10 specialties compared to men who represent more than 60% in 25 specialties (Swedish Medical Association, 2016). Moreover, during the last two decades, the proportion of women has increased faster within gynecology and obstetrics than within family medicine and surgery (see figure 1) (Swedish Medical Association, 2017).

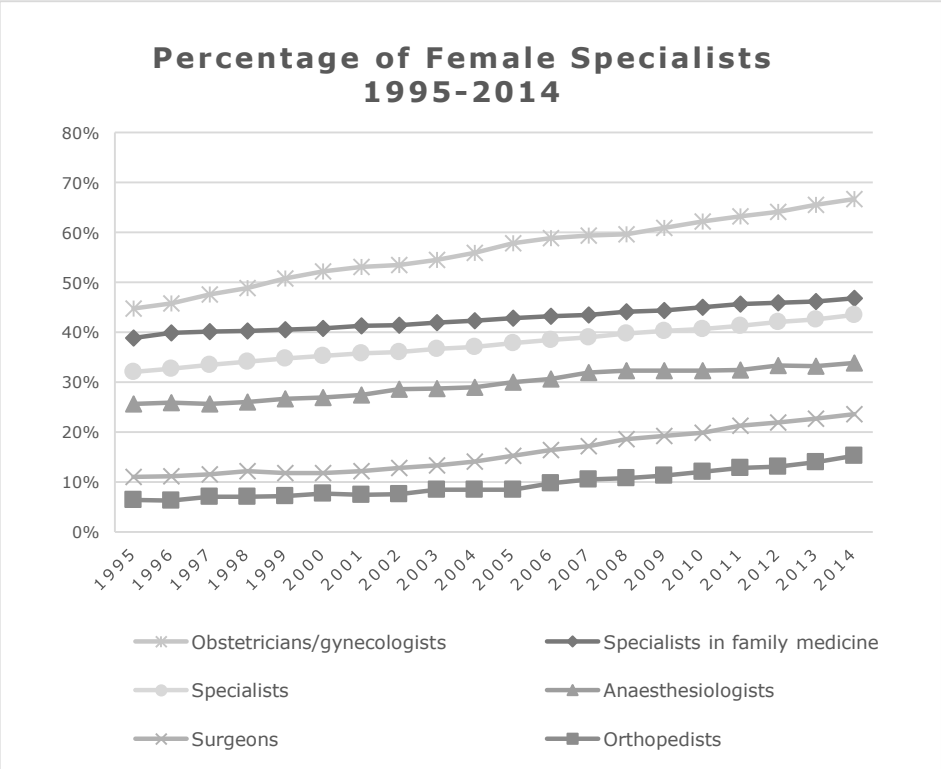

Figure 1. *Percentage of female specialists in total and within five specialties, 1995–2014* (Swedish Medical Association, 2017)

This more gender-equal distribution was preceded by hundreds of years of male dominance (Florin, 2011). Medical school was closed for women up until 1873 when higher education in general was formally opened for women. However, the Swedish constitution stopped women from entering an academic career because it was argued that only men can have leading positions. The resistance included men in politics and academia. The arguments differed between groups and over time. Some used moral and religious arguments, stating that educating women was not in line with God's will and that a woman's place was in the home. During the early 20th century, debaters argued that, according to science, women's bodies were too fragile for engaging in intensive study and that their ovaries would atrophy and that they would not be able cope with all the knowledge because women's brains were not developed like men's. Later, the arguments changed, and in the 1920s it was claimed that women had too little authority and character to manage academic studies (Florin, 2011). The resistance towards women in academia has continued even to modern times. In 1950, women only

accounted for 9% of medical students. It was in 1996, 123 years after the formal opening of medical school, that women reached 50% of graduated medical students (see figure 2) (Statistics Sweden, 2017).

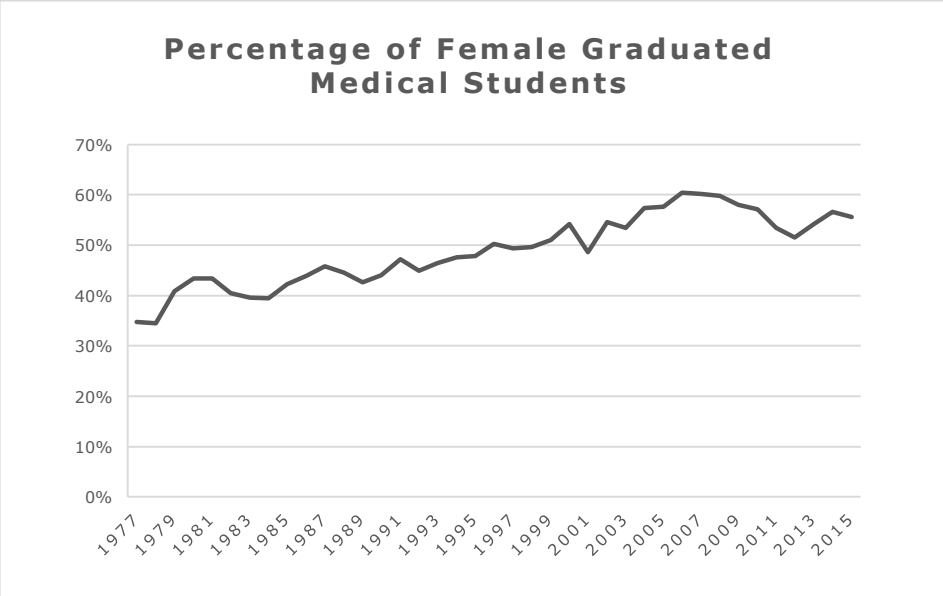

Figure 2. *Percentage of women graduating from medical school 1977–2015* (Statistics Sweden, 2017).

Nowadays, when the medical profession is one of few with an even distribution of men and women, there have been concerns that the medical profession has lost its prestige due to the increasing number of women in medicine. Perhaps these concerns were present when the National Agency for Higher Education decided to use quotas in 2003 to increase the number of men in higher education, including medical school (Lövtrup, 2008). At that time, there were still more men than women working as doctors. Even though this practice ended in 2011, the percentage of men who apply to medical school is nevertheless higher than the percentage of men admitted, 39% compared to 47% (Swedish Council for Higher Education, 2017). In all medical schools in Sweden, a third of the students are admitted based on their SweSAT-score (SweSAT = Swedish Scholastic Aptitude Test). Among those who apply to Swedish medical schools with their SweSAT-score, there are 61% women and 39% men. Among those who are admitted 34% are women and 66% are men (Swedish Council for Higher Education, 2017). This test has been criticized for being gender biased; i.e. men score on average 8-9

points higher than women (Drevinger, 2016). Admission to medical school by SweSAT favor white men from upper social class more than admission by step-wise procedures and school grades (Cliffordson, 2006). Moreover, SweSAT does not have a high predictive validity for academic achievement compared to school grades (Cliffordson, 2008).

Today, women constitute more than half of the medical students in North America and several European countries (AAMC 2017; BMA 2016; Canadian Medical Education Statistics 2016; Riska 2010; Swedish Council for Higher Education 2017). However, almost 150 years after the first women entered higher education, there is still extensive gender discrimination (Fnais et al., 2014; Spak et al., 2014; Swedish Medical Association Student, 2017; Zhuge et al., 2011). According to the time lag phenomenon, women will slowly but surely increase in all sections of society. However, time can no longer explain the stable and almost universal gender segregation where female physicians are underrepresented in high-status specialties like surgery and are instead clustered in specialties characterized by relatively low earnings or low prestige (Einarsdottir, 1997; Kilminster et al., 2007; Riska, 2010; Swedish Medical Association, 2016). Researchers have tried to explain the persistent horizontal gender segregation using at least three different theoretical approaches.

First, several researchers explain this unequal distribution as the result of individual choices made by men and women without considering the context. Any differences found are often explained by stable gender roles such as women's focus on having time for family. For example, studies have shown that female students more often consider working hours and patient orientation, whereas their male peers are more prone to consider technical challenge, salary, career prospects, and prestige (Baxter et al., 1996; Buddeberg-Fischer et al., 2010, 2003; Lefevre et al., 2010; van Tongeren-Alers et al., 2014, 2011). This approach can be considered deterministic because it reproduces traditional gender roles and hence is less useful to explain changes.

Second, many researchers consider institutional barriers where the focus is on structural obstacles such as lack of flexible working hours and childcare as well as informal social networks, and a scarcity of role models (Bickel, 2001; Boulis and Jacobs, 2008; Stratton et al., 2005). This could also be considered deterministic because it is often assumed that it is only women who need flexible working hours and childcare. However, by looking at institutional barriers, the perspective is widened beyond women's individual choices.

Third, the quite stable pattern of horizontal and vertical gender segregation can also be seen as a (re)construction of a gendered order within the medical profession (Eriksson, 2003). Hence, to retain a superior position in medicine, men continue to be predominant in specialties with high prestige by means of

male homosociality and exclusionary practices (Crompton and Le Feuvre, 2003; Einarsdottir, 1997; Gjerberg, 2002). These exclusionary practices have been shown to start already in medical school, and women report difficulties in terms of limited possibilities to receive supervision or to participate in practical training (Bickel, 2001; Larsson et al., 2003; Nora et al., 2002). Moreover, it is mainly female students who experience discrimination and sexual harassment during their education (Nora et al., 2002; Rademakers et al., 2008; Witte et al., 2006), and the prevalence of such intimidations has remained high over time (Fnais et al., 2014). Harassment and discrimination are considered to include a wide range of behaviors that medical trainees perceive as being humiliating, hostile, or abusive (Fnais et al., 2014). According to a report by the Swedish Junior Doctors' Association, 26% of the female and 3% of the male junior doctors have experienced gender discrimination, and this group is overrepresented among those who wanted to change jobs (Spak et al., 2014). The Swedish Medical Association states that male and female physicians should be able to choose a career based on talent and interest and should not be hampered by conventional preconceptions, working conditions, norms, or values. However, a majority of both male and female doctors believe that there are structures in the working environment and working conditions that hamper doctors from choosing a specialty according to interest and suitability (Swedish Medical Association, 2008).

In this dissertation, we will consider gender segregation as a (re)construction of a gendered order to reach beyond personality characteristics and individual choices as being made within a vacuum.

Demanding working conditions

Although, the medical profession is characterized by a high degree of professional identity and relatively prestigious compared to many other vocations (Brante et al., 2015), there has been much debate on the reduced status of the medical profession. Some argue that the increasing number of women has been responsible for this. However, according to both Swedish and American researchers this is not the case (Boulis and Jacobs, 2008; Nordgren, 2000). Nordgren (2000) concluded that it was not the decreased proportion of men that negatively affected the professional prestige and power position of physicians. Instead, processes such as: the erosion of vocational authority, reduced autonomy and decreased influence in the political processes governing health-care were at play. Because these changes all took place when the male majority was still present, women's entry in the field is neither the cause nor a consequence of the lowered prestige of the medical profession. (Nordgren, 2000).

As market-oriented reforms were introduced in the publicly funded Swedish health-care system, there was a gradual introduction of New Public Management. This is an umbrella term for governance principles from the private sector getting introduced in the public sector in Sweden since the 1980s (Brante et al., 2015; Hedegaard and Ahl, 2013). This performance-based management has put more responsibility on the individual clinics and at the same time vesting more power in central management (Hedegaard and Ahl, 2013). This performance-based reimbursement system, combined with the administration of quality records and chronic staff shortages, has been shown to put doctors' wellbeing at risk (Brante et al., 2015; Forsberg et al., 2001; Fredriksson and Broberg, 2001; Numerato et al., 2012; Stiernstedt, 2016).

The Swedish health-care system has also gone through changes in terms of new knowledge and views on health-care. Patients' rights and participation in care have been clarified through legislations. All of this has required new work procedures and new forms of organization. The aging population, the increase in retirement, a rise in sick leave, work-related stress, protests against low salaries among nurses, and long educational training have made the supply of health-care professionals a major challenge (Arnetz, 2001). Thus, Swedish doctors and other health-care professionals face a series of new and demanding challenges. Reports from other countries show a similar picture (Boulis and Jacobs, 2008; Brignall and Modell, 2000).

A Swedish study (Holmström and Sanner, 2004) showed how medical students tended to have a pessimistic view of the working conditions. They see themselves caught in a system that drained their energy sources, leaving them emotionally and physically exhausted. The students expressed deep concern about developing work-related health problems such as burnout.

Even if there is little evidence of increased mental ill-health among doctors, reports on the subject are mounting (Dyrbye et al., 2014; Ochsmann et al., 2011; Shanafelt et al., 2016; Tyssen and Vaglum, 2002). Long-term sick-leave among Swedish doctors' has increased by almost 40% between 2009 and 2014, and this was mainly explained by more female physicians suffering from mental ill health (Lövtrup, 2016). However, the increase in long-term sick-leave is even higher in the rest of the Swedish population during the same period of time (Lidwall et al., 2015).

The job satisfaction of physicians is important because it might be inversely associated with levels of stress as well as burnout (McManus et al., 2004; Visser et al., 2003). Also, job satisfaction might affect patient satisfaction (Haas et al., 2000) and patient adherence (DiMatteo et al., 1993). Consequently, in order to formulate interventions to increase the job satisfaction of both male and female

doctors, we need explore the experiences of medical students and newly graduated doctors, using a gender perspective.

Gendered work-life balance

That women generally take more responsibility for children and domestic work has been a common explanation for gender differences in men and women's individual career choices (Baxter et al., 1996; Buddeberg-Fischer et al., 2010, 2003; Kilminster et al., 2007). Because career choices are made in relation to the possibilities and limitations that can be found in a certain context, Sweden is an interesting place to study male and female medical students' career preferences because the norms of gender equality are relatively strong, especially among the highly educated. Moreover, Sweden has made several policy changes to enable gender equality, including the parental leave insurance that replaced maternity leave in 1974 and the expansion of the public sector that not only created jobs for women in care and education, but also resulted in widespread high quality and heavily subsidized public child care (Evertsson, 2014; Evertsson et al., 2009). As a consequence, 94% of children aged 4–5 are in licensed child care in Sweden (Brohede et al., 2016). Swedish women have one of the highest labor force participation rates in the world, and Sweden has many institutional supports for working parents (Björnberg, 2002; UNDP, 2015). Since 1991, men have not increased their number of hours on unpaid domestic work (21 hours per week in 2011), whereas women have decreased their number of hours on unpaid work by 7 hours (26 hours per week in 2011) (Statistics Sweden, 2016). Thus, Sweden is very slowly coming closer to a more equal division of housework among heterosexual couples. However, the reforms do not seem to have had any effect on equality in working life. In general, women have poorer working conditions and are paid less than men – although the gender pay gap in Sweden is narrower than in most other EU countries. Björnberg (2002) suggests that the gender equality reforms have contributed to (or at least not counteracted) gender segregation in the public service sector because this has enabled an adaption to women taking more domestic responsibility (Björnberg, 2002). This process can be explained by the phenomenon where workers who do not fit the profile of an unencumbered worker, free from out-of-work obligations, tend to be disadvantaged in the workplace (Acker, 1990). Thus, the very perception of women's desire for work-family balance and men's lack thereof is seen as a driving force in gender segregation.

Researchers with a more essentialist approach assume that career choices are made based on stable and dichotomized gender roles (Baxter et al., 1996; Buddeberg-Fischer et al., 2010, 2003; Hakim, 2002). Within research on medical students and young physicians, attention is being paid to their concern for work-life balance. Studies showing that medical students and young physicians of both

genders value lifestyle factors and consider balance between work and private life when opting for specialties have often explained this phenomenon as a matter of a new generation rather than a gendered pattern (Dorsey et al., 2005, 2003; Sanfey et al., 2006). This is in concert with studies where a controllable lifestyle is shown to be important for both women and men (Aasland et al., 2008; Johansson and Hamberg, 2007; Tolhurst and Stewart, 2004). Nevertheless, an association between gender and work-life balance is often assumed. The "family-friendly" and flexible employment policies are focused on women and their family responsibilities (Connell 2005a). There is, however, Scandinavian examples where the opposite seems to be true. Looking at figure 1 again (p. 8), we see that among five different specialties, the most prominent increase of women is found within gynecology and obstetrics, which would not be considered "family-friendly" in terms of on-call work. In a similar vein, Gjerberg (2002) found that women who quit residency in surgery often changed to gynecology and obstetrics, suggesting that male exclusionary practices rather than "family-unfriendliness" is at play.

We need to ask medical students and newly graduated physicians about their experiences and their work-life priorities, in order to extend our understanding of what processes are operating when career choices are made.

Traditional doctor ideals

In the previous chapters, we saw that the physicians' private and professional spheres have gone through major changes over the last several decades. Nevertheless, the image of a fully dedicated, capable, and self-sufficient doctor seems to be relatively unaffected by these changes because such an image is still communicated in the hospitals (Beagan, 2001; Curzen, 2016; Johansson and Hamberg, 2007; Phillips and Dalgarno, 2017). For example, there is an ongoing discussion on whether the doctor's calling is becoming ancient history because many young doctors now think of the medical profession as more of a 9-to-5 job (Andersson 2016; Curzen 2016; Johansson and Hamberg 2007). In this debate, the ideal of a fully devoted, unencumbered doctor who is free from out-of-work obligations (Acker, 1990) is present and communicated by an older generation of doctors who are pointing at the younger generation saying they need to change their attitude. The older generation argue that that the younger physicians have to realize that the medical profession needs to be considered a calling; to be a good doctor for your patients you need to be available at all times so as to ensure patient continuity (Andersson 2016; Curzen 2016). There is also a gender dimension to this traditional doctor ideal. According to Acker (1990), a hypothetical (disembodied) worker who exists only for the work is the "ideal worker," and too many obligations outside the boundaries of the job would make a worker unsuited for the position. The closest the "ideal worker" comes to a real

worker is the male worker whose life centers on his full-time, life-long job, while his wife or another woman takes care of his personal needs and his children. However, this constellation is a rarity today because the division of work in the private sphere is becoming more gender equal (Statistics Sweden, 2016). Male and female physicians often choose highly educated and employed partners (Boulis and Jacobs, 2008; Brante et al., 2015) who tend to have full-time jobs. Thus, traditional heterosexual relations between a male physician and a stay-at-home-wife seem to be a relic of the past.

Constructing a work identity in a male-coded medical context is problematic for women because the ideal physicianship has been shown to share characteristics with a hegemonic masculinity (Connell 2005b; Davies 2003; Eriksson 2003). For example, men more easily fit the physician norm whereas women are considered anomalies and are expected to present a balanced physicianship by aspiring to the masculine physicianship but at the same time living up to conceptions of a "feminine" inner core (Eriksson, 2003; Risberg, 2004).

Doctors' professional identity

Researchers within the social sciences have been interested in the socialization and professional identity of doctors since before Becker et al.'s "Boys in White" (Becker et al., 1962). During the past two decades, the concept of professional identity formation has been used when discussing how to best teach professional development in medical education (Cruess et al., 2015). Researchers within medical education often use professional identity formation to look beyond the acquisition of knowledge and relevant skills. Professional identity formation has also been formulated as a theoretical approach to research on medical education and professional development. Such an approach includes a series of complex processes, including professionalism, socialization, and identity construction (Cruess et al., 2015; Holden et al., 2012).

Identity formation is described as the progression into a competent and able professional by experiencing oneself as an accepted individual with increasing participation in the "community of practice," and hence as embodying the role of a physician without feeling like a fraud (Holden et al., 2012; Lave and Wenger, 1991; Pratt et al., 2006). This emphasis on inclusion and acceptance when developing an identity is also seen when the fundamental motivator in identity construction or formation of professional identity is described as achieving alignment between identity and work (Kahn, 1990; Pratt et al., 2006).

Teaching professionalism has been described as students being provided with opportunities to look at their biases, to challenge their assumptions, to know people beyond labels, and to confront the effects of power and privilege (Wear

2003). Martimianakis et al. (2009) reviewed several different approaches to professionalism, and argued that it is limiting to frame professionalism as either a checklist of behaviors or a role played, as it misses the ways in which professional identity is constantly socially constructed and reproduced through institutional structures (Martimianakis et al., 2009, p. 832). Martimianakis described professionalism in a more contextual and dynamic way arguing that the factors which constitute professionalism are not static but rather "a nexus of power with dimensions of gender, race and class" (p. 836). Even if the importance of gender in identity formation has been recognized (Martimianakis, Maniate, and Hodges 2009; Monrouxe 2010; Wear 2003), studies using a gender perspective on professional identity formation within medical education are scarce.

Aim

The overall aim of this dissertation is to explore aspects of gender in work-life priorities, career plans, clinical experiences, and negotiations of professional ideals among medical students and newly graduated doctors, all in a Swedish setting.

The specific aims of the papers and manuscripts included in this dissertation were as follows.

Paper I: To investigate the future life expectations among women and men at the beginning and at the end of medical school by way of an open-ended question.

Paper II: To investigate and compare male and female students' specialty preferences and the motives behind these choices.

Manuscript III: To explore the impact of medical school experiences on medical students' specialty preferences, focusing on gendered patterns.

Manuscript IV: To explore how newly graduated doctors experience and negotiate gender and professional ideals.

The research process: how one paper led to another

In the first paper, we asked first-year and final-year medical students about their ideal future. The results of that study set the focus of this dissertation on gender and career plans among doctors-to-be. That both men and women spoke of time for leisure and family already in their first week of medical school raised new questions. We wanted to see if specialty preferences were relatively gender neutral as well, and our hypothesis was found to be true when we conducted the work for paper II.

Men and women in paper II preferred similar specialties and ranked similar motives highly. We also saw that many added a motivational factor of their own, the most common being that a good working climate and having nice colleagues. This spurred us to outline study III in order to extend our understanding of this good working climate by asking about clinical experiences. Many of the accounts in study III were general descriptions of atmosphere rather than detailed critical incidents. Hence, performing in-depth interviews felt like a natural next step.

We chose to study junior doctors because they had some clinical experience of working as doctors but still had not made their specialty choice. This would allow us to capture the decision process in the making rather than as a retrospective recollection of their decision. However, as the interviews began, the decision process became secondary to the identity work that their narratives illustrated, and we changed the focus of the study. Thus, instead of extending our understanding of specialty choice, we focused on professional ideals and how they clashed with clinical reality. This helped us to explore work-life priorities even more, which seem to be important in the career plans of future physicians.

Methods

Paper I-III were based on data from the same questionnaire given to medical students, whereas the fourth study is based on interviews with junior doctors. In this section, I will start by describing the setting of Swedish undergraduate and graduate medical education. Then I will present the questionnaire and the questions that were used as data in each of the papers. To avoid unnecessary repetition, I will describe mixed methods that was used in paper I and III generally and then more specific for each study. Then I will describe the quantitative analysis employed in paper II. Finally, I will describe the data collection and analysis conducted in study IV.

Table 1. *Overview of data sources and analysis paper I-IV.*

	Population	**Data Source**	**Year of data collection**	**Analysis**
Paper I	First-year and final-year medical students	Open-ended question (questionnaire)	2006-2008	Mixed Methods
Paper II	Final-year medical students	Specialty preference and motivational factors (questionnaire)	2007-2009	Logistic regression
Study III	Final-year medical students	Two open-ended questions (questionnaire)	2011-2013	Mixed Methods
Study IV	Junior doctors doing their internship	Interviews	2014-2015	Qualitative analysis inspired by grounded theory

Setting

In Sweden, undergraduate medical school is 5.5 years. The program setup differs somewhat between the seven universities offering such education. In several of the universities, including Umeå University, the first 2.5 years include mainly lectures and seminars, and the last 3 years include about half-time lectures and seminars and half-time clinical training. During clinical training, the medical students rotate through different wards at the university hospital (sometimes also regional hospitals) and health care centers in the respective region. The undergraduate curriculum is followed by 18–24 months of internship, after which

one can apply for a license to practice medicine and for a position as a resident. The internship includes rotations at different clinics, and a certain number of months are compulsory: 9 months for internal medicine and surgery, 3 months for psychiatry, and 6 months for general practice. According to The National Board of Health and Welfare, the Swedish internship is defined as education and medical work under professional supervision, and it should provide an opportunity for both professional and personal development (SOSFS 1999:5).

The questionnaire studies

The three first studies based on data from the questionnaire (see appendix), all had a cross-sectional design and the participants were all medical students at Umeå University in Sweden. The questionnaire was a Dutch collaboration (Lagro-Janssen et al., 2007). The questions concerned different aspects of gender in medical education, including gender and medical career as well as gender awareness (Verdonk et al., 2008). The questionnaire also included socio-demographic information such as students' sex, age, country of birth, sexual orientation, civil status, as well as parents' country of birth and education.

The questions used in the questionnaire that concerned gender and medical career are the focus of this dissertation. Comparisons between Dutch and Swedish medical students' gender awareness has been the focus of an earlier study within the research project (Andersson et al. 2012). The Dutch medical students' specialty preference has also been studied separately and compared to Swedish medical students (van Tongeren-Alers et al., 2014, 2011).

The first-year students at Umeå University filled out the questionnaire in their first week of medical school, and the final-year students filled it out at the end of their 11th and final semester. Participation was voluntary, and those agreeing to participate stayed on after an ordinary lecture to answer the anonymous questionnaire.

The first question in the questionnaire was an open-ended question about the students' expectations of their future life: "Ideally when I graduate as a physician, my life will look as follows (in the next 10–15 years)." This was put first to avoid any influence from the other questions. The answers were analyzed in paper I. The questionnaires included in paper I were collected over a three-year period where all first-year students from four classes (autumn 2006 – spring 2008) and all final-year students from four classes (spring 2007 – autumn 2008) were invited to answer (see table 1). A total of 600 first-year and final-year students were invited, and 507 (85%) were included.

Later in the questionnaire, the students were asked to choose one out of seven specialties or the options "something else, namely…" or "I don't know." Based on the literature, ten motivational factors that might contribute to the students'

preference for specialties were defined and included in the questionnaire (Lugtenberg, Heiligers, and Hingstman 2005; Soethout, van der Wal, and Ten Cate 2007). The students were asked to rate (on a Likert scale of 1 to 5) how important these factors would be when they were to choose their specialty. These questions about specialty preferences and motivational factors were analyzed in paper II. Here, six classes of final-year students (spring 2007 – autumn 2009) were included; 421 students were invited and 372 (89%) answered the questions on specialty preference.

From autumn 2011, the questionnaire directed to final-year students also included two new open-ended questions: "Can you describe an event that has made you interested in working with a certain specialty?" and "Can you describe an event that has made you uninterested in working with a certain specialty?" This question was placed before the students were asked to rate the motivational factors analyzed in paper II. The two open-ended questions were formulated to explore incidents perceived by the students to be highly influential on their specialty considerations. These answers were analyzed in study III. Here, five classes of final-year medical students (autumn 2011 – autumn 2013) with a total of 305 students were invited to answer, and 250 (62%) answered the open-ended questions.

Mixed methods (I & III)

Mixed methods can be defined as research where "the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches" (Tashakkori and Creswell 2007). This is a deliberately broad definition and includes a variety of different combinations of qualitative and quantitative methods. We considered this design appropriate because our aim was to explore the immediate thoughts of medical students: their ideal future and the clinical experiences affecting their specialty preference. Instead of fixed alternatives, the students formulated their own thoughts using their own words. We also wanted to see if there were any gendered patterns on group level and therefore we chose to combine the explorative character of answers to open-ended questions with a quantitative comparison between women and men.

In papers I and III, a so-called sequential mixed model design was applied (Kaul Nastasi et al., 2010) in which the initial inductive analysis of the free-text answers was conducted followed by statistical analysis of the elaborated categories. It was sequential in the sense that in the first part, qualitative content analysis (Graneheim and Lundman, 2004) was used to identify categories that could be analyzed and compared quantitatively in the second part. The descriptive character of content analysis was well suited for analyzing short answers to open-ended questions. The answers in paper I and study III were blinded during

qualitative analysis in the sense that the answers were separated from demographic information. However, a couple of the students revealed their gender in their answer.

In paper I, the proportions of themes (clustered categories) and categories were compared between men and women and between first-year and final-year students using Pearson's chi-square test. The same sequential mixed methods approach (Kaul Nastasi et al., 2010) was utilized in study III. This approach enabled us to qualitatively explore the students' incentives and concerns and to make quantitative comparisons between the answers from male and female students.

In study III we focused on the qualitative results because we wanted to explore the complexity of experiences affecting specialty preference. Here, we also included citations from the medical students to show how our analysis was grounded in the data. We excluded p-values because our aim was to explore gendered patterns rather than to test a hypothesis. Moreover, the significance level should be calculated before the data are collected, which was not the case here.

In hindsight, p-values should have been excluded in paper I as well considering the sample, and the explorative character of the method design and aim. However, the focus on quantitative results enabled and tempted us to both test and explore our hypothesis of a gender-neutral ideal future.

Quantitative analysis (II)

In paper II, we studied the associations between motivational factors (on a Likert scale of 1 to 5) and specialty preference to test our hypothesis of gender-neutral career preferences. Regression analysis is appropriate when estimating the strength and direction of the relationship between variables, and it has been shown that "parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of 'coming to the wrong conclusion'" (Norman 2010, p. 631).

We applied binary logistic regression to our data because the outcome was binary; either they opted for a certain specialty or they did not. In this regression analysis, men and women were analyzed separately. To assess gender differences in these links between motivational factors and specialty preference, sex was combined with each motivational factor as the interaction term. This was done because sex is a moderator that might have an effect on the direction or strength of the relationship between the motivational factor and specialty preference. The analysis was performed in SPSS 20.0 for Mac, and the Pearson chi-square test was used to determine the association between specialty preferences and motivational factors. Significance was set at $p<.05$.

The interviews (IV)

Data collection

The empirical data for study IV consisted of thematic interviews with 15 interns. The interviews were audiotaped and had a duration of 1–3 hours. To include a diversity of experiences, we applied a purposeful sampling strategy covering junior doctors from different types of hospitals and with different backgrounds in terms of sex, civil status, age, and working experience. We contacted the human resources managers at the different hospitals and asked them to mail a pre-formulated invitation to their junior doctors doing internships about their interest in participating in a study on working conditions and professional development. This was not a theoretical sampling in the sense that coding directed further data collection, which is considered essential in grounded theory. Instead, the initial purposeful sampling continued to be purposeful throughout the data collection process in the sense that the codes differed somewhat between men and women and between smaller and larger hospitals. Thus, a theoretical sampling might have given similar results because the coding was shown to differ according to our purposeful sampling.

The junior doctors were recruited from university hospitals and smaller county hospitals in 6 of Sweden's 20 county councils. A total of 17 junior doctors agreed to participate, but two women were excluded because another two women at their hospital had already been interviewed. In total, nine women and six men between 26 and 47 years old (median = 31 years) were interviewed. One participant had migrated to Sweden from the Middle East as a small child, and another had parents from Southern Europe. There was also a participant who had studied abroad in a central European country and then moved back to Sweden after graduation. Nine lived with a partner, and three (one man) had children. All except one had worked as junior doctors before starting their internship (time ranging from 3 to 18 months).

The participants were in different stages of their internships, three of them were at the last stage whereas the rest were half way or at the beginning. The working hours differed significantly between the participants, ranging from 30 to 70 hours per week on average.

The credibility of a qualitative interview includes the degree of closeness and mutual respect established between the interviewer and interviewee (Hamberg et al., 1994). In this study, the interviewer experienced a relatively confident atmosphere with all participants, which enabled personal considerations and disagreements with the interviewer. There was no apparent power asymmetry because both the interviewer and interviewee were junior doctors.

In line with grounded theory, data collection and analysis were concurrent, and each interview was read and reflected on before the next interview (Charmaz, 2013). In this way, it was possible to include new insights and improve the interview questions. The interview guide included open-ended questions to enable reflection on the three themes of "one's own ideals and others' expectations," "working conditions," and "future career." Some examples of the questions are "What has the internship been like for you?" "Have you experienced that certain efforts or personal characteristics are favored?" and "Can you describe how you want to be as a doctor?" The participants were repeatedly asked to give concrete examples of situations and to describe how they (re)acted, for example, "Can you give an example of what you mean?" and "How did you react then?" The interview guide was revised, and among others, we added the questions "Have you ever been in a situation where you felt insecure?" and "Have you ever felt low?"

Analysis

The analysis was inspired by constructivist grounded theory and was undertaken in four steps (Charmaz, 2013). First, a summary and memos, including thoughts and ideas, were written after each interview. These summaries were later used as an important tool linking data collection to the preliminary categories and helping to specify category properties and to identify gaps. Second, initial coding was conducted, meaning that segments and lines of data were coded to keep close to the data and to capture the participants' views and actions. This initial coding was conducted in MAXQDA11 for Mac. The third step included focused coding, where we looked for patterns in the initial codes and focused on finding actions and processes. The most significant codes (in relation to the aim) were used and revised to explain larger segments of data; i.e. subcategories were mapped out. In the fourth and final step, theoretical coding was conducted by specifying the relationships between subcategories and merging them into two larger categories. The researchers met for joint discussions on the coding and the category framework. An important tool for increasing credibility is to remain open to alternate interpretations (Hamberg et al., 1994), and discussing different interpretations among the researchers spurred the analysis because either the categories needed to be specified or an umbrella term was created to include the different interpretations of a category.

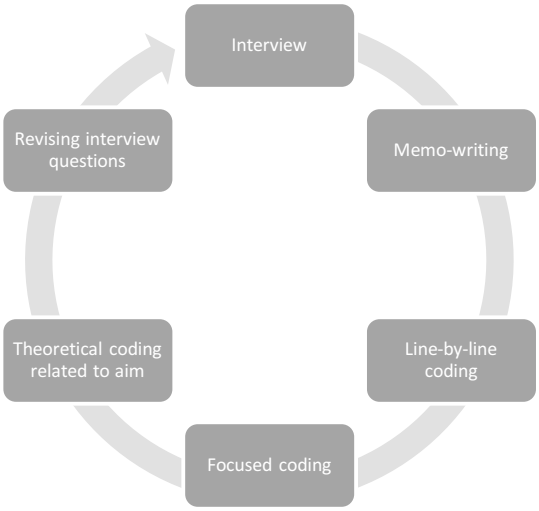

Figure 3. *The steps of the qualitative analysis.*

We found that the properties of the categories were saturated after 15 interviews in the sense that the range of variation within the categories was not increasing in the three last interviews (Charmaz, 2013). New things were of course said, but the accounts were easy to recognize and could be coded using the existing categories. We therefore decided to stop the analysis at that point.

When the categories were mapped out, we applied a theoretical framework where "doing gender" (West and Zimmerman, 1987) and professional identity were seen as ongoing (re)constructions of a self-narrative (Alvesson et al., 2008; Sveningsson and Alvesson, 2003). Defining gender and identity as narratives allowed us to see the accounts as situational, as sites of struggle, and as performances (Duits, 2008). We hoped to grasp the complexities of clinical experiences by this approach where individuals are creating several more or less contradictory and often changing identities in negotiation with ideals and expectations, rather than having one stable, continuous, and secure identity. For example, we became increasingly aware of how the junior doctors constructed gendered narratives of self in their interactions with senior physicians by negotiating and renouncing expectations and ideals. Furthermore, these approaches made it possible to question established norms of physicianship and to obtain new insights into gendered aspects of young doctors' identity work.

Ethical considerations

The Regional Ethical Review Board at Umeå University approved the questionnaire studies (reg. nr: 2011/262-31M). The questionnaire was confidential and completely voluntary. The Regional Ethical Review Board at Umeå University stated that no ethics approval was needed in study IV (reg. nr: 2014/90-31Ö).

The studies were conducted in accordance with good research ethics (The Swedish Research Council's expert group on Ethics, 2017). The interviewees were provided with both oral and written information about the study and its voluntariness. The informants signed a form verifying that they had received information that it is possible to at any time withdraw the consent. We made sure that no dependent relationship existed between the participants and the interviewer.

The data confidentiality was assured in the sense that data containing personal information was made inaccessible to unauthorized people. The data was only used for research purposes. The participants were not recognizable in the published results.

Results

The participants (I–III)

The proportion of men and women included in the studies were 55-60% women and 40-45% men, reflecting the proportion in Umeå and other Swedish medical schools. The first-year medical students had a mean age of 22 years old and for the final-year medical students the mean age was 27-28 years. Medical students as a group are very homogenous. Almost all the participants were heterosexual and were born in Sweden. Most of our participants had highly educated parents who were also born in Sweden. They all entered medical school after stiff competition and the unemployment rate among doctors is almost zero (Parker and Jaktlund, 2013). Hence, medical students belong to a privileged group in several ways.

Shared preferences – gendered selection process (II–IV)

In paper II, we found that male and female final-year students opted for similar specialties; i.e. there were similar proportions of women and men opting for surgery and family medicine. Looking at the motivational factors associated with specialty preference, both male and female students had a relatively high rating of *Interesting content*, *A lot of direct patient contact*, *In line with technical skills*, and *Combining work with family*. In contrast, *Career prospects* and *Good salary* were rated relatively low on average among both men and women. Thus, male and female medical students share preferences for the same specialties and give high ratings to the same motivational factors.

Looking at the associations between certain specialty groups and motivational factors in paper II, we found that the preference for a surgical specialty meant a low rating of *Combining work with family* for both women and men.

Studying the medical students' motivational factors using fixed alternatives gave us clues that we might have missed out on something because 120 participants added a motivational factor of their own under "other, namely." The most common account in these free text answers included a good working climate and having nice colleagues. Therefore, it was not surprising that the final-year students' descriptions of clinical experiences (study III) illustrated that specialty preference was seldom as simple as selecting according to interest and aptitude. The students in study III included not only the character of work within certain specialties, but also described work-life priorities and impressions of the workplace as important. The results suggested that any preference was complicated by perceptions of workplace culture, supervision, and participation,

as well as role models – which determined whether the students felt recognized and included in the different clinics and health-care centers:

> The clinic and my co-workers will be of greater importance than the work itself. (W, final-year student, study III)

It seemed to make a very strong impression on both male and female students whether they were invited to actively participate in specific working tasks. Experiences as both observer and victim of exclusion and an unpleasant workplace culture could also eliminate interest in a specialty:

> At first, I was very interested in surgery, but when I saw what the jargon was like at several clinics and how unpleasant many surgeons are, I was no longer interested in working there, although I still think it is an exciting subject. (M, final-year student, study III)

The participants described clinics with deterring workplace cultures as "hierarchical," "macho," and "tough." At these workplaces, students noted the prevalence of "abuse of power," "sexist jargon," and seeing senior physicians who treated junior colleagues, students, and patients badly:

> There was a chauvinistic and macho atmosphere on every morning round. When sexist jokes were told, I lost interest completely in that clinic. I just wouldn't be able to stand it there. (W, final-year student, study III)

Comparing male and female students' answers, the largest difference was that considerably more women had been dissuaded by negative workplace cultures; nearly half of the women compared to less than a seventh of the men had been discouraged by macho culture. In contrast, almost half of the men compared to a fourth of the women had been deterred by the specialties' knowledge areas and working tasks: i.e. "seems boring to attach bowels for hours."

Several female junior doctors' stories displayed similar experiences of exclusion:

> There was a quick round, and then everyone left and they didn't say where they went. I didn't know if someone would come back or if I was expected to do the round myself. It not only made my job harder, but I also felt completely invisible. (W, junior doctor, study IV)

Experiences of inclusion such as invitations to active participation and feedback could also evoke and maintain the medical students' interest in a specialty:

> They showed so much interest in me, and this made me feel like a competent and nice person. (W, final-year student, study III)

In sum, both medical students and junior doctors described on-call work and unpleasant atmosphere as discouraging factors. Their experiences also illustrated gendered processes of exclusion and inclusion, which seemed to make it a male privilege to choose according to interest.

Gendered negotiations of doctor's ideals (IV)

There was an overarching gendered pattern in how male and female junior doctors handled professional ideals. All men were aware of fitting the norm of a male physicianship, and their narratives illustrated how they "passed" more swiftly in taking on the appropriate doctor's identity. When asked what characteristics were the most important, it often took a moment for the men to come up with something, and some said it was enough just to be a likeable and social colleague. Several men described interactions with consultants using phrases such as "discussing," "cracking jokes," and "mutual trust." In contrast, none of the women described this type of equal relationship with the consultants:

> When I see patients or report patients to consultants, I am perceived as less of a doctor compared to the male junior doctors. (W, junior doctor, study IV)

Later, the same participant concluded that "men bond and women look down on each other," suggesting very different relationships between doctors depending on gender.

Also, several women described a process in their physician identity construction that included standing their ground in their relationship with consultants and nurses:

> Like when the nurse says: 'But then we have to move around the beds and that's such a drag.' In the beginning, you were like 'Okay, then I'll call the consultant again,' now it's more like 'This patient needs a bed, go ahead and fix it.' (W, junior doctor, study IV)

In contrast, several men described how nurses and senior physicians often expected them to take independent decisions. For other men, this sometimes resulted in what can be described as faking competence:

> If you're a bit verbal and can act confidently, people easily get the impression that you're competent. But you're not. It's often the opposite actually. (M, junior doctor, study IV)

Another man described a strategy where he took "smaller decisions" on a hunch, but was open to changing them depending on the nurses' reactions. Some of these

men also described how they were going from faking competence towards revealing their hesitation.

Both men and women's narratives outline how the self-sufficient ideal together with a high production rate impelled them to minimize questions or to only ask about the most urgent matters. Another factor contributing to the junior doctors wanting to appear more competent than they felt seemed to be a fear of being perceived as unfit for the doctor's profession:

> The consultant was always available on the phone if you called, but you're reluctant, you don't want to disturb, you want to fix it yourself. I mean, I hated my job there the first weeks and felt: 'This is all wrong, I have chosen the wrong profession' (M, junior doctor, study IV)

The junior doctors were both resisting and acting according to a self-sufficient, loyal and fully devoted doctor's ideal; i.e. they had been overburdened, tired, and listless but still presented themselves as doctors who would have time for a rich life outside of work. Most of them had a hard time standing up for themselves, and they took individual responsibility when they were overburdened. One man had been tired and listless when he came home because he was so overworked during his placement at an understaffed clinic:

> Then I would have gone to my boss and said: 'I'm not doing this, I quit, I don't give a shit about this.' But I didn't say anything, I just worked a lot. (M, junior doctor, study IV)

However, several women could stand up for themselves, and they presented themselves as not acting according to junior doctor norms. One woman stood up for better working conditions for all her colleagues, but even if the other junior doctors had the same complaints, they did not want to join her when taking them to the administration:

> There were a few who told me directly, but most of them said behind my back, that they felt uneasy about me bringing these things up with the boss. (W, junior doctor, study IV)

Her complaint resulted in individual solutions for her, leaving the other junior doctors in an unchanged work situation.

All the women had experienced being taken for a nurse by patients, but this was presented as commonplace. Several women had also experienced sexual harassment from consultants, and all described getting angry and avoiding confrontation:

> He should at least understand that even if they are not meant as advances, they can be perceived as advances. I could get so damn angry, but I absolutely didn't want to stir anything up, so I kept my distance. (W, junior doctor, study IV)

Keeping the distance only worked in part, the participant above described not getting a hand on her thigh anymore, but still getting her cheek pinched.

To sum up, the junior doctors kept their loyal heads down in a health care system in which staffing and support from senior colleagues were often insufficient. Male junior doctors passed as doctors more swiftly, being perceived as independent and decisive doctors, whereas the women were often perceived as self-doubting and felt like outsiders.

Controllable lifestyle (I–IV)

The results from the first study on the medical students' ideal future suggested that there are few differences between men and women in their future life expectations. Neither the male nor female medical students' future expectations were characterized as either work or family, but rather as work and more:

> I am a competent doctor, married to my girlfriend, we have four children. We both have time to train jujutsu and spend time with our family. I have a nice house and lots of stuff and still don't work myself to death. (M, first-year student, paper I)

Even if the female students were slightly more family-oriented in their accounts, they were just as work-oriented as their male peers.

All four studies illustrate how the desire for a manageable workload and a rich life outside work was gender neutral. The same pattern was also seen among the junior doctors, and for them choosing a specialty was a lot about choosing a workload. Either they wanted to be able to work part-time, or they were considering specialties with nights on-call to gain more time for life outside work. All the male junior doctors and most of the female junior doctors considered time for family in their reasoning about choosing a specialty; however, this only led to down-prioritizing certain specialty interests by the women, and not by the men. Similarly, in paper II the number of ideal working hours correlated with how women rated *Combining Work with Family*, but there was no such correlation among the men. Moreover, a majority of the female medical students (54%) compared to a good third of the male medical students (36%) preferred to work part-time.

The junior doctors all described controllable working hours as important when choosing a specialty. For some, this meant specialties with no on-call work. For others, on-call work was the way to prioritize life outside work:

> If you want time to see your family and friends as well as travelling then those five weeks are not enough. Then it's good to be able to take some on-call work from time to time to be able to take some time off. (W, junior doctor, study IV)

The workload for the junior doctors shifted from one day to another. When the workload was high, their support from consultants often decreased, and the pressure of efficiency and independency increased. In the interviews, it was also described how patient production and efficiency was communicated among the junior doctors:

> The other junior doctors competed with each other, saying things like 'today I managed this many patients,' as if it was a proof of how good or effective you are. And I'm like, I have managed two patients, one took 5 hours because it was all chaos. 'Two? I took like fourteen.' I'm like, I don't care. I don't think that kind of competition belongs in health-care. (W, junior doctor, study IV)

This type of competition was also described by other junior doctors in negative terms. Even if none of the participants described competing themselves, several acknowledged that they had to accept a certain patient rate to not delay the "production" of health-care.

The junior doctors were often handling these conditions by working hard and being loyal, but they were all reluctant toward the ideal of the fully devoted doctor that was communicated in several clinics. One of participants described a morning round where he had expressed how tired he was after working 24 hours straight. The consultants dismissed his complaint:

> There is no consideration that one might have physical limitations, and it's just 'Take it or leave it, get in there, don't complain, just shut up.' (M, junior doctor, study IV)

Setting workload limits was communicated as a weakness by several senior physicians. The junior doctors who worked more than full-time were often ambivalent; seeing many patients was considered positive for professional development, but at the same time they described how hard it was to be a competent doctor when working many hours per week:

> I had worked 20 hours straight, and a patient came in. I was so tired that I almost fell asleep, and I couldn't remember what the patient just told me. (W, junior doctor, study IV)

To sum up, the medical students and junior doctor's ideal future can be described as having stimulating work that gives energy and time for a rich life outside work. The junior doctors who had experienced heavy workloads and coming home tired and listless were renouncing the ideal of an overcommitted physician.

Discussion

The overall aim of this dissertation was to explore aspects of gender in work-life priorities, career plans, clinical experiences and negotiations of professional ideals among medical students and newly graduated doctors, all in a Swedish setting.

When looking at the work-life priorities of medical students and junior doctors it is clear that both men and women want more to life than work in their ideal future. The junior doctors renounced fully devoted ideal and presented a self-narrative where family and leisure was important to cope and stay empathic throughout their professional lives. The specialty preferences and the highly rated motives for choosing them were relatively gender neutral. However, the gender neutrality ended when the final-year medical students described clinical experiences that affected their specialty preference. Here, women were more often deterred by workplace cultures, whereas men more often described boring working tasks, suggesting that it is a male privilege to choose a specialty according to interest. Among the newly graduated doctors, another male privilege seemed to be that men could pass more swiftly as real doctors, whereas the women experienced greater dissonance between their self-understanding and being perceived as more junior and self-doubting.

My position as researcher

During my PhD work, I have been close to my research in the sense that I have been a medical student and now am a junior doctor myself. This dual role required me to be highly aware of my pre-understanding in order not to mix my own perspective with the results. According to my epistemological approach, all knowledge is situated, and hence my own view cannot be deleted. Nonetheless, I had to be aware of that my view might take over the analysis. I thus had to make sure that I did not just filter out everything that was *not* according to my view and had to always remember to stay open and to look for variation, alternative interpretations and surprising data. By writing down my pre-understanding before and during the analysis, I could read it later on, compare with the preliminary results to identify any overlap. Then I could go back to the data context and see that there was a clear connection between the data and my codes.

Being close the subject of the research was also an advantage, because it gave me very useful field knowledge that worked as a map that showed both dead ends and which open doors not to knock on.

Results discussion

Bromance but no womance

In study III, both male and female students stressed the need to feel included to gain and maintain interest in a specialty, whereas the opposite –exclusion and humiliation – had a deterring effect. That more women than men had been discouraged by lack of supervision and participation suggests a gendered exclusion process. In a similar vein, previous studies have shown that the persistence of gender stereotypes in medicine results in gender bias, affecting which students are taken seriously and perceived as a future colleague and offered active participation – usually to men's benefit (Fnais et al., 2014; Hill and Vaughan, 2013; Kristoffersson et al., 2016). Moreover, a Swedish study (Johansson and Hamberg, 2007) found that although seniors described their own specialty choice as mere coincidence, they gave straightforward gendered advice to students. Male students were encouraged to stick to what they aspired for, not to bother about work burdens, and to let family priorities come second.

Hence, even if our male and female students expressed a similar desire for supervision and participation, previous research indicates that male students are more likely to have these needs fulfilled. Judging by some students' testimonies where they had been completely dissuaded or completely encouraged by one single critical event, the self-assessed impact of these experiences seems considerable. It should also be noted that participation was a prerequisite for the positive accounts of specific work tasks, i.e. one does not know if one will enjoy something until one has the opportunity to try it. Similar findings were made in a report written by the student section of the Swedish Medical Association (2017); several female students' described not being invited to participate in teaching sessions because they were assumed to be nurses.

The example of the increase of female specialists in gynecology/obstetrics compared to several other specialties (Swedish Medical Association, 2017) could also be an example of these processes of inclusion and exclusion. Hence, entering a specialty with an uncontrollable lifestyle seems a lot easier for women when it is not a male-dominated specialty, suggesting that male exclusionary practices rather than family-unfriendly working hours are at play in such choices (Gjerberg, 2002).

Depending on whether the medical students and junior doctors reconciled with or renounced the attitudes, values, and behaviors of the working environment they encountered, they felt more or less drawn to a specialty. In concert with earlier research (Hill and Vaughan, 2013), our results indicate that in the process of constructing a professional identity the students either accepted the group they wanted to belong to or – if they could not reconcile with the current order of

things – they intended to use their individual agency to seek a career elsewhere. This is in line with earlier studies showing that the fundamental motivator in identity construction or formation of professional identity is described as achieving alignment between identity and work (Kahn, 1990; Pratt et al., 2006). Hence, if the medical students thought that they could not align themselves and accept the current order of things in a specialty or workplace, they intended to find a workplace that meant less identity reconstruction.

However, this individual agency might change when they start specialist training. According to Pratt et al. (2006), lack of job discretion favors identity change over changes in work among medical residents. Then, when the residents gain autonomy through experience or expertise, the work might become more discretionary and work customization will occur (Pratt et al., 2006).

Costello (2005) studied professional identity and success among Law School and Social Welfare School students at a prestigious university. The reason for the disproportionate white male success in higher education was explained by them acquiring the appropriate professional identity swiftly without inner conflict, whereas women, people with working-class background, and ethnic minorities experience "identity dissonance." This "identity dissonance" was described as experiences of uncertainty about their own values, ambitions, abilities, and self-worth (Costello, 2005). The women in our studies did not describe any uncertainty about their self-worth, but they described having to present themselves as less uncertain because they felt perceived as self-doubting.

Seeing other people's disadvantages is often easier than seeing your own privileges (Costello, 2005; McIntosh, 1988). Several men in study IV seemed to be unaware of their privilege because they had difficulties coming up with personal characteristics that were favored by senior physicians and nurses. This male privilege was also reflected in how the male junior doctors described their relationship with senior physicians as "discussing," "cracking jokes," and "mutual trust." One of the female junior doctors said that "men bond and women look down on each other," suggesting that men have a stronger group identity based on male homosociality. According to Eriksson (2003), interest groups are created in all unequal structures because these out of necessity create groups who will benefit from supporting or will lose by changing the structure. A gender order where men dominate women cannot avoid constituting men as an interest group who want to defend their position and women as an interest group who are interested in changing their position. This is a structural fact, irrespective of whether men also believe in equality and change (Eriksson, 2003). The male junior doctors in our study were reluctant to openly disagree with senior physicians, and one male junior doctor explained his silence as feelings of loyalty. The women who openly criticized poor working conditions seemed to worry less about loyalty and acted as if they had a greater freedom to take on a battle than

the men. Perhaps the men were locked in a power position and had a harder time standing up for change on their own, whereas the women by default had the position where they wanted change and therefore crafted their self-narrative accordingly. It seems that accessing the physician identity more easily entailed having more to lose if deviating from the norm.

To sum up, the men in our studies seemed unaware of their privilege in relation to senior physicians, whereas several women struggled with identity dissonance and stood up for better working conditions alone. It seems that the female outsider is the new hero within a health-care system where overtime and unquestioning loyalty are encouraged.

Renouncing obsolete ideals

Our results reflect the medical students and junior doctors negotiations of several obsolete ideals that can be described as a hegemonic masculinity (Connell 2005b) dressed in scrubs – including the fully devoted and loyal ideal (all four studies), the emotionally detached macho doctor (study III and IV), and the self-sufficient and composed ideal (study IV).

The most common accounts in the students' ideal future included having a stimulating job with nice colleagues, family time, and leisure activities. Similarly, the medical students in papers II and III described wanting to combine work with family. Very few medical students described the medical profession as a calling in the sense that they did not express their devotion or readiness to sacrifice out-of-work obligations. This is in line with a Swedish study (Johansson and Hamberg, 2007) where medical students described having a job as a doctor rather than being one. At the same time there is the fully devoted and loyal ideal that is communicated within health-care where silent toiling is encouraged (Andersson 2016; Curzen 2016; MacLeod 2011; Phillips and Dalgarno 2017). The ideal of the silently toiling junior doctor might also be a conflict of interest between the senior physicians and junior doctors; i.e. junior doctors who set limits to workloads usually means more work for the senior physicians. Even so, all junior doctors renounced this ideal of an unencumbered worker who is free from out-of-work obligations (Acker, 1990), including those doctors who were nonetheless living up to the ideal by working 70 hours a week and coming home tired and listless. In concert with Acker (1990), the female junior doctors who openly renounced this ideal were disadvantaged at work in the sense that their critique of working conditions was perceived as an individual insufficiency.

Drawing on West and Zimmerman's (1987) concept of "doing gender," the junior doctors were accepted when acting according to normative conceptions of physicianship; i.e. silently toiling away and taking a lot of on-call work. All participants experienced ambivalence between fulfilling the fully devoted and

loyal ideal and defending a controllable lifestyle. However, none of the men were perceived as openly deviating from the fully devoted and loyal ideal, even if they felt overburdened and desired change. Some of the women revealed their conflict with prevailing norms when they were openly criticizing their working situation. A similar pattern was found in a study on junior management consultants where both men and women strayed from the expected identity of the "ideal worker" (Acker, 1990); men tended to pass, whereas women revealed their deviance (Reid, 2015).

The fully devoted and loyal ideal is somewhat related to the macho doctor because setting limits on one's workload was communicated as a weakness by the consultants. Both the fully devoted ideal and the macho attitude were most often found in participants' experiences from male-dominated wards. The macho attitude described in our results is overlapping with the hegemonic masculinity, which favors decisiveness, emotional detachment, sexism, and competitiveness over collaboration (Bleakley 2014; Connell 2005b). In our data, neither medical students nor junior doctors described macho attitudes and the fully devoted and loyal ideal as incentives to choose a specialty or clinic. Many described how they had considered surgical specialties but then were dissuaded because they disapproved of the jargon and behavior where themselves, other health professionals, and/or patients were mistreated. Among the junior doctors, men and women were dissuaded by the extensive on-call work. However, several men had considered surgical specialties and had lived up to the ideal of the loyal and fully devoted physician, but then reconsidered their choice mainly because they found the same ideal to be inhumane or unhealthy in the long run. Perhaps passing more swiftly into the doctor's identity in a male-dominated surgical field gave the male junior doctors an increased level of participation and hence gave them a different position where they were deterred by the fully devoted and loyal ideal and not the jargon.

Our results suggest that the mounting reports on doctors' mental ill health (Dyrbye et al., 2014; Ochsmann et al., 2011; Shanafelt et al., 2016; Tyssen and Vaglum, 2002) have become part of the junior doctors' self-narrative and professional identity (re)construction. Another Swedish study found that medical students tended to have a pessimistic view of the working conditions in Swedish health-care and were deeply concerned about developing work-related health problems such as burnout (Holmström and Sanner, 2004). This supports how the junior doctors in our study renounced the fully devoted and loyal ideal in order to maintain their sense of empathy and to be able to last as doctors. That line of thought seems reasonable when considering how Swedish doctors' long-term sick-leave increased by almost 40% between 2009 and 2014, mainly explained by more female physicians with mental ill-health (Lövtrup, 2016).

Hence, one can assume that the risk of suffering from burnout is significant among Swedish doctors, especially among women.

The self-sufficient and composed doctor ideal can be described as a doctor who has few needs and who performs "a body in control of itself" (Wear 1997). Some of the male junior doctors presented this composed ideal as part of their self-narrative, describing how they shut down their anxiety about making mistakes. In contrast, several female junior doctors struggled with their anxiety about making mistakes and had accepted not being fully composed and emotionally detached when leaving work. Both men and women were renouncing emotional detachment in the patients encounter and were presenting a self-narrative of a doctor who wanted to be authentic, empathic, and patient-centered in the doctor-patient encounter. Other studies have identified abandonment of emotional involvement as a stage that junior doctors recognize and must pass through to become effective physicians, i.e. they have to detach themselves from emotions and compassion and become objective experts in order to fit in to the profession (Doja et al., 2016; Phillips and Dalgarno, 2017). This is in contrast with our results as our participants emphasized empathy towards patients and that it was only some of the men who were detached in relation to their own anxiety of making mistakes.

Another aspect of hegemonic masculinity is decisiveness. One study found that the pressure for making independent decisions in clinical work originated in junior doctors' desire to lay claim to the identity of a doctor and in organizational issues such as heavy workloads and constant evaluations (Kennedy et al., 2009). The male and female junior doctors in our study saw the self-sufficient and decisive doctor's ideal somewhat differently. The women were wondering whether they would be perceived as self-doubting, while the men worried about being perceived as reckless and cocky. They all aimed for something in between being overly confident and insecure, but from different positions. This balanced independency was also described in a Swedish study where recruiters of Swedish junior doctors appreciated autonomy but nonetheless daring to ask questions, whereas being overly confident was considered a disadvantage (Lindberg, 2012). According to Bleakley (2014), theories of learning that privilege autonomy also serve to mirror medicine's traditionally heroic, masculine stance at the expense of more collaborative approaches. This more collaborative ideal was reflected in the medical students and junior doctors' narratives because they described an inclusive workplace culture that is open to questions as being in consonance with their professional identity.

Even though the participants were performing the ideal of daring to ask, they had experienced being isolated and lacking support in the sense that they had worried about patient safety. According to another study on junior doctors, the availability of support seemed to affect their willingness to seek help because feelings of

resentment, competition, and being scapegoated had a negative influence on their interactions with colleagues (Kroll et al., 2008). There have been a number of reported cases of patient mistreatment related to junior doctors being left alone without support from consultants (Kroll et al., 2008; Lindgren, 2013). This could be explained in part by Amalberti et al.'s (2006) migration model showing how pressures to maximize productivity and individual gain might cause health-care teams to migrate beyond the boundaries of safe practice.

To sum up, the junior doctors were highly aware of the production pressure and created a self-narrative of a doctor who sets limits to their workload in order *not* to become an emotionally detached and macho doctor. Their self-narratives described someone who values empathy, collaboration, and a climate that is open to asking questions.

It's just a job – negotiating heavy workloads and low control

According to Whitehead (2010), "the professional behavior of an individual physician cannot be understood separately from the political and economic forces that drive professional organizations." The medical students and junior doctors are (re)constructing their professional identity within a profession that over the last few decades has moved towards weakened vocational authority, lowered autonomy, and reduced power (Nordgren, 2000). The media has reported about physicians who stand up for patient safety or simply quit in protest of bad working conditions in a health-care system that is described as going through a crisis (Greider, 2017; Jansson, 2017). When quitting is considered the only alternative, then one can assume that the working conditions have worsened and that the physicians' influence over their work situation is very low.

The medical students and doctors want to work, and only a few had had doubts about their vocational choice. Nonetheless, the aspect of leisure activities and time for family was a common theme among the junior doctors and in the medical students' ideal future. The junior doctors' narratives depicted leisure activities such as friends, sports, and travel as a part of their identity work where they created a distance to a "calling" by saying that there is more to life than work. Several junior doctors described leisure as their way to plan for sustainable working conditions within a highly demanding medical profession where hard work and no questioning is encouraged. Similarly, the medical staff in another study (Verdonk et al., 2014) were described as rarely paying attention to the medical students' experiences of stress, and the students accepted being left alone with their distress because doing otherwise might negatively influence their future careers.

The junior doctors' narratives illustrated how they took individual responsibility for organizational flaws. This could in part be explained by the new performance-

based management putting more responsibility on the individual clinics and at the same time vesting more power in central management (Hedegaard and Ahl, 2013). Hence, when one has little or no control over the working conditions, there are few alternatives other than saying no to extra on-call work, and then seek career elsewhere. In concert with our results a recent study showed that final-year medical students valued working conditions highly (Cleland et al., 2017). As newly graduated doctors, the students would require compensation of an additional 44% above average earnings to move from a post with excellent working conditions to one with poor working conditions.

Several junior doctors also reported a lack of support from their colleagues. This is reflected in a Swedish report (Fredriksson and Broberg, 2001), which found that the doctors together with nurses, cashiers in the retail sector, and teachers have the highest shares of people working under high pressure without getting support from managers and colleagues. Low work control combined with high workload has been shown to be associated with mental distress (Fredriksson and Broberg, 2001), suicidal ideation, and suicide completion among physicians (Center et al., 2003; Fridner et al., 2011, 2009). Consequently, including leisure and time for family in the (re)construction of one's professional identity could be understood as taking individual responsibility for a strained health-care system with high production pressure and little control over the working situation. It seems that the decreased autonomy and increased governing has induced the construction of a new ideal where the medical profession is seen as just a job like any other.

In studies III and IV, there was a gendered pattern in terms of work-life balance. The expectation of women to take family responsibility was reflected in both the medical students' clinical experiences and the junior doctors' narratives. The heterosexual parenting norm where prioritizing time for children is an obligation for women and a choice for men was replicated in our results (Eriksson, 2003). The female medical students seemed to plan for a family to a larger extent than male students because there was a stronger association between part-time plans and the importance of being able to combine family and work. This was underscored by how the male junior doctor with children who worked 70 hours a week expressed how he was not, but wanted to be, a present father, whereas the female junior doctors who had or planned to have children spoke of how they had reconsidered surgical specialties because of the difficulties in combining that specialty with time for family. This delayed family consideration among men compared to women is in concert with a Swedish report (Swedish Medical Association, 2008), which concluded that women consider time for family when choosing a specialty, whereas for the men time for family became important when they changed from one specialty to another. The male and female junior doctors who did not mention time for family described friends or travel as important factors for a manageable workload.

To sum up, the medical profession's loss of prestige appears to have affected the new generation of physicians' self-narrative, in the sense that a rich life outside of work is now a part of their professional identity. Among the women, considerations on time for family seemed present already in medical school, whereas the men had a more delayed ambition to be a present parent.

Method discussion

Mixed methods design

The development of qualitative methods can be understood as a reaction to quantitative methods and positivism. Thus, there has been an on-going antagonism between these two traditions, which can partly explain why researchers argued a few decades ago that it is impossible to combine qualitative and quantitative methods (Tashakkori and Creswell, 2007; Tashakkori and Teddlie, 2003). This positioning led to mixed methods being formulated as a separate method, even if the mixing of qualitative and quantitative approaches had been done long before. The critique has mainly concerned the combination of two different definitions of knowledge; i.e. constructivism and positivism.

Others argue that the antagonism between qualitative and quantitative approaches is unnecessary because there is no such thing as quantitative and qualitative method, only data consisting of numbers (quantitative) and words (qualitative) (Åsberg, 2001) and "numbers and words are both needed if we are to understand the world" (Miles & Huberman, 2014, p. 42). Thus, there is a purist position and a more pragmatic position, acknowledging the benefit of integrating different positions.

In recent years, research that integrates quantitative and qualitative methods has become increasingly common, and also increasingly recognized as valuable because it can potentially capitalize on the respective strengths of quantitative and qualitative approaches (Bryman, 2006; Östlund et al., 2011). Mixed methods can be defined as research where "the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches" (Tashakkori and Creswell 2007, p. 4). This is a deliberately broad definition so as to include a variety of mixed method approaches.

My co-researchers and I found the combination of width and depth within the same study to be a good fit for our aim to explore the ideal future and clinical experiences of physicians-to-be. In papers I and III, we used qualitative data (open-ended questions) and conducted content analysis (Graneheim and Lundman, 2004) and then quantitative comparisons of the elaborated categories. By combining the hypothesis generation of the qualitative method with the

hypothesis testing of the quantitative method, we could quantitatively test a hypothesis and at the same time explore the studied processes (Kaul Nastasi et al., 2010). Using categories grounded in the empirical data enabled us to go beyond fixed alternatives without losing the width that statistical analysis gives. Moreover, one must have in mind that the medical students only had a few lines in which to describe their experiences, which enabled simplification of the complex process of specialty preference. Thus, our mixed methods approach generated more complexity than fixed alternatives but was still a simplification of the process of specialty preference.

There is a problem with basing counts on participants mentioning something or not. The possible meaning of a category coded as a zero count is relevant, and zero signifying that something was not mentioned is meaningfully different from signifying something that did not exist. However, one can argue that there is no guarantee that every respondent answering a questionnaire was interpreting and responding to the same categorical question with fixed alternatives in the same way (Bazeley, 2010). Also, the students all got the same question in the same context and hence had the same opportunities to answer the open-ended questions.

In paper I, and to some extent in study III, the fact that women were more detailed in their answers could explain the gender differences in part. Being aware of this, we could consider which categories that were the most common among women and among men respectively, rather than only looking at the gender differences in each category separately.

In study III, we asked for specific situations, but some responses contained descriptions of general impressions and overall evaluations of certain clinics. Nonetheless, a majority of answers depicted concrete educational experiences.

Quantitative analysis

Paper II was a purely quantitative cross-sectional study, looking at motivational factors associated with specialty preference. Seven out of ten motivational factors were useful when measuring their link to specialty preference, including *Interesting content*, *A lot of direct patient contact*, *In line with technical skills*, *Combining work with family*, *Career prospects*, *Good salary*, and *Research opportunities*. The two factors *In line with my former student experience* and *In line with my former work experience* were not used in the analysis because they showed no association with the specialty preferences. This is interesting because the students in study III could describe experiences during medical school that had a strong impact on their specialty choice. However, the two "experience" factors could be used as umbrella terms that included the other motivational factors, such as *Interesting content* and *Combining work with family*. In study

III the experiences could be described as *Knowledge area and practice* and *Workload*; i.e. some of the categories based on the medical students' own formulations were similar to some of the pre-formulated motivational factors. Perhaps no association was found because they were equally associated with all specialty preferences.

The factor *Attractive working hours* was also excluded because it correlated strongly with the factor *Combining work with family* in both women and men. Even if the three motivational factors (*Attractive working hours, In line with my former student experience*, and *In line with my former work experience*) were excluded from the final analysis, there might still be some overlap of the categories in terms of level of abstraction. *Interesting content* could be argued to include both *In line with technical skills* and *A lot of direct patient contact*. Nonetheless, these motivational factors are common in the literature (Aasland et al., 2008; Buddeberg-Fischer et al., 2003; Dorsey et al., 2005; Lefevre et al., 2010). Moreover, several of the categories elaborated in study III had similarities with the pre-formulated motivational factors.

Another problem with the motivational factors is how they are formulated. Patient contact is not formulated as a skill but as something one might want a lot of. However, technical motives are formulated as a skill. This assumes that talent is needed within more technical specialties but not in specialties with a lot of patient contact. It almost seems like male-coded activities such as using technical instruments require talent, whereas the more female-coded activities such as communication and caring are valued lower by default, only requiring interest and not talent.

Paper II was cross-sectional, and therefore one should be cautious about causality. It is probable that motivational factors and specialty preference were both influenced by a general attitude toward work and the social discourses associated with the study being conducted at a Swedish university. The participants were final-year students and still had to complete an internship that lasts at least one and a half years before choosing a specialty. Hence, they had quite some time to change their mind. Thus, students' preferences during medical school can, at their best, be used as an indication of what specialty they finally end up in. Using fixed alternatives together with a fixed scale implies a risk of neglecting factors of importance for career choice. Looking at the motivational factors that the students added themselves and our results in study III, it is clear that in study II we missed important motives such as workplace atmosphere and experiences of inclusion and exclusion.

I found it difficult to see gender as a "doing" in paper II, when all I had was numbers. How can one apply a constructivist approach when using logistic

regression? My solution was to explain the quantitative results in a more constructivist manner. It was very appealing to search for and report mainly significant differences between men and women, but then I remembered my chemistry teacher from high school saying that negative results are also results. Being aware of my own bias, I aimed for a more nuanced approach, reporting both negative and positive results. Also, it was clear that many gender differences could be explained in part by the women rating most of the motivational factors higher than the men. Therefore, I reported these results in terms of ranking rather than rating.

There are several problems with p-values that have gotten attention recently (Goodman, 2008; Nuzzo, 2014). The p-value was originally developed to see if an experiment was worth repeating, not proof in itself of the significance of the result (Goodman, 2008). The statistician and geneticist R.A. Fisher, who introduced the p-value as a formal could not explain exactly its inferential meaning and there was no mention of a "hypothesis" rejection.

Several statisticians argue that one has to look at the actual percentages and use one's background knowledge to judge the numbers rather than clinging to an arbitrary cut-off of significance (Nuzzo, 2014). Goodman (2008) argues that research should not end with numbers but start with them.

Qualitative analysis

Within qualitative methodology, there is a common theoretical principle that many different versions of reality exist and that they can all be valid simultaneously (Malterud, 2001). What people say in interviews might not be what they do, have done, or will do, and interviews are performances that participants give for certain purposes (Charmaz, 2013). Hence, we will not know exactly what happened in the situations that the participants described, only what they perceived, and thus we only see the experiences through the eyes of the narrator.

Moreover, the stories were created in dialogue between the interviewer – who was also a newly graduated physician – and the junior doctors. Being a newly graduated physician gave important field knowledge, but I might have missed out on aspects of being a junior doctor because of blindness to the things that both I and interviewees took for granted. To maintain credibility, it is important to remain open in the interpretation of the data (Hamberg et al., 1994), and therefore I wrote down my pre-understanding both before and during the process in order to keep an open mind during the interviews. If one has not been surprised during the data analysis, there is a high risk that one has not gone beyond one's pre-understanding. When comparing the pre-understanding with the interview data, there were some unexpected findings. The participants' situations were both

worse (their worst examples) and better (general impression) than my preconception. I was surprised that so many of them had questioned their vocational choice and whether they would be able to manage as physicians. It also came as a surprise that those who worked a lot of overtime in spite that saw themselves as someone who prioritized time for family and leisure activities.

It also inspired the analysis to have co-researchers with other pre-understandings and other interpretations that sometimes challenged the coding and category framework. This often led to finding an umbrella term that contained the variation, specifying the categories, or adding questions to ask in the next interview.

It is likely that the participants were more aware of problems in working conditions than their colleagues who did not volunteer for this study on junior doctors' working conditions. However, having interested participants is also beneficial because they have probably put a lot of thought into the interview themes.

We looked at the dimensions of "doing gender" and "(re)construing identity" and considered what these experiences are valid for rather than asking whether the narratives reflect the truth about the participants' experiences. This theoretical framework helped us to see how the junior doctors negotiated several professional ideals, for example how they presented the self-narrative of a doctor who prioritized time for family and leisure and renounced the fully devoted ideal.

The question of saturation is an ongoing debate within qualitative research. Mason (2010) looked at the sample sizes of 560 qualitative PhD studies and found that the distribution of sample sizes was non-random; there was a statistically significant proportion of studies that presented sample sizes that were multiples of ten. These results suggest that saturation is not wholly congruent with the principles of qualitative research, but is instead pre-planned. I recognize this in my own research process in the sense that I found it tempting to do many interviews, when thinking about how hard it might be to publish a study with a smaller sample size. Thus, it is easy to conduct a few extra interviews even if saturation might already have been achieved. There is also the so-called issue of the thousand pages (Kvale, 1996), where one must consider that the amount of data should be manageable. I felt that after 13 interviews it was difficult, but still possible, to maintain an overview of the data. In order to work out the depth of what is said, the data cannot be too extensive (Kvale, 1996).

As a PhD student doing my first qualitative interviews, I found that the hardest part was being a skilled interviewer and getting the interviewees to describe their personal experiences and feelings rather than general statements and views.

However, I think I developed as an interviewer, and in my next interview study I might need fewer participants before I reach saturation, depending on the studied phenomenon.

Rather than asking whether the participants' experiences reflect the truth, we considered what they are valid about, i.e. in which situations our findings can be applied beyond the context where we discovered them. Our results might have relevance outside of a medical context, for example, for other newly graduates from high-prestige vocations, because previous research showed similar gendered patterns in junior management consultants (Reid, 2015), law school students as well as social welfare school students (Costello, 2005).

Our results might be valid outside of Sweden because similar findings have been made in the Netherlands (Verdonk et al., 2014) and North America (Doja et al., 2016; Kennedy et al., 2009; Phillips and Dalgarno, 2017). The gendered patterns of inclusion and exclusion found in our results are of concern considering the Swedish context with strong norms of gender equality, especially among the highly educated (Evertsson et al., 2009). If we have reached this far in gender equality and there is still extensive discrimination, then what?

Conclusions and implications

This thesis has expanded the knowledge of aspects of gender in work-life priorities, career plans, clinical experiences, and negotiations of professional ideals among medical students and newly graduated doctors by both supporting and contrasting with earlier research, as well as filling a gap within gender and medical career.

First, the work-life priorities medical students can be described as work and more, suggesting that they renounced the fully devoted ideal, much like the junior doctors. The self-narrative of a present parent with time for leisure activities seem to be a part of the medical students and junior doctors' professional identity (re)construction.

Second, when the students and newly graduated doctors described clinical experiences affecting career plans, we found gendered processes of inclusion and exclusion. The women were more often dissuaded by an unpleasant workplace culture whereas the men more often described boring working tasks. It seems to be a male privilege to choose one's specialty according to one's interests.

Third, our results suggest that men passed more swiftly into their professional identity whereas the women were struggling with identity dissonance because their self-understanding was inconsistent with the professional ideals and macho cultures that they experienced. Thus, the understanding of gender as a mere background characteristic, priming women and men for different specialties, needs to be revised.

We need to counteract the gendered processes of exclusion and inclusion that seem to cause women and men to opt out of specialties that they are interested in. The feelings of exclusion were mainly due to supervisors behaving unprofessionally in a clinical context. If we expect professionalism from medical students and newly graduated physicians, we need to expect the same from teachers and organizational leaders. Hence, gender awareness in health-care and medical education need to increase by acting both on an institutional level (politics) and at cultural level (interactions).

There needs to be a clear prioritization of gender in medical education at a national level. In 2018, aspects of gender inequality in health and men's violence against women will be included in the Swedish national goals for medical school. The introduction of gender matters in medical education is an important first step towards increased gender awareness. Moreover, on a cultural level, we need to educate teachers, health-care personnel, and people at leadership positions in these matters in order increase awareness of and to work against gender discrimination and sexual harassment. Naturally, the other grounds for

discrimination (transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation, and age) should be included.

The reports of doctors resigning in protest of heavy workloads and understaffing with negative effects on patient safety, calls for urgent interventions. If doctors have lost much of their power over their working conditions and can only save themselves by changing workplaces, then the patients will, or perhaps already are losing out on best possible health-care. The question of job satisfaction and patient safety is not to be solved on the hospital floors, but higher up in the hierarchy. Thus, politicians and bureaucrats need to acknowledge that healthy physicians are a prerequisite for patient-safe health-care.

Tacksamhet

Efter nästan ett decennium av sommarjobbande, läsande, kategoriserande, analyserande, konferensande, statistikande, intervjuande, livspusslande och skrivande, skrivande, skrivande är jag nu färdig. Eller blir man någonsin det? Hur som helst så hade jag inte kommit ens i närheten av att vara ”*a* voice of *a* generation” om jag inte haft så många fantastiska personer i min omgivning.

Katarina Hamberg and Eva E Johansson, ni har varit inget mindre än två helt fantastiska handledare. Efter alla handledarträffar har jag känt mig glad och laddad för att fortsätta kämpa med att förbättra texter och analyser. Katarina, du har varit min klippa i nästan ett decennium. Dina råd har förändrat mitt liv, till det bättre. Alltifrån att beordra mig att köpa silikonöron-proppar för att kunna sova de nätter när jag inte hade ”Hasse-passet” till att vid varje handledning uppmana mig att skriva tydligare och mer förståeligt. Eva, ditt stabilt brinnande intresse och högljudda pepp för våra resultat räddade min motivation, varje gång. Och dina skarpa iakttagelser lyfte alltid analysen en våning till.

Petra Verdonk, you have been my sharp and funny Dutch supervisor. You made me realize that research is about asking your own questions. Your supernatural power to give great comments within an hour have been just awesome. And I will never forget your family’s whistle-when-coming-home tradition.

Emelie Kristoffersson, min vän och jobb-granne. Du har varit min vardagshjälte. Jag är obeskrivligt glad och tacksam över att vi jobbar så bra ihop. Låt oss fortsätta erövra genusforskningens medicinska marker tillsammans!

Jenny Andersson, det har varit en fröjd att samarbeta med dig. Du var en klockren konferenspartner som förstod vikten av en bra balans mellan turistande, shopping och konferens.

Toine Lagro-Janssen, thank you for our great collaboration with the Swedish-Dutch questionnaire and for your insightful and sharp comments.

Thank you, Susan Phillips, for letting us stay with you in Kingston. You were an awesome guide! I didn’t know that it was possible to combine research with so many beautiful trees, great restaurants and an adventurous save-the-Snapping-Turtle-mission.

Stort tack till min examinator Annika Forssén. Vi går ”way back” som det heter och det har känts oändligt tryggt att ha med dig på den här resan.

Stort tack till alla mina kollegor på Allmänmedicin: Lotta, Maria, Marie, Karin, Eva, Joel, Hanna, Olle, Roger, Lennart, Lena, Anna-Lena och Anette m.fl. Jag lärde mig alltid något nytt om bär, hundar och Västerbotten på fikat.

Mina vänner på min bonusarbetsplats Epidemiologen: Ida, Anna, Klara, Frida, Evelina och Anna-Karin. Tack för att ni varit där i närheten och alltid varit pepp på lunch med glass. Med er blev det alltid en härlig blandning av skratt och ångest. Ett extra tack till Anna Brydsten, dina tips räddade mig de där sista darriga dagarna.

Anna-Karin, Lisa och Sofia. Ni har varit med hela vägen och jag är er evigt tacksamma för ert enorma stöd från början till slut. Alla dessa luncher och fikaraster när ni lyssnat på mig, sagt precis det jag vill höra och skrattat åt mina skämt. Vad mer kan man önska?

Ett stort tack till alla mina vänner i Umeå: Stina, Helena, Nina, Annika, Krut, Klara, Aina, Karin, Karin, Elsa, Clarissa, Johanna och Camilla. Ni är ju helt fantastiska. Er kan jag träffa oavsett dagsform och så ändå alltid studsa hemåt med ett leende på läpparna. Och vem hade kunnat ana att laserdome var det som behövdes för att orka hålla fanan högt de sista hetsiga dagarna?

Stort tack till er i föräldragruppen som hjälpt till och peppat med glada tillrop i slutspurten. Helena, Ida, Annelie, Viktor, Jennie och Magnus! Tack vare er har det senaste året varit himla kul och väldigt uthärdligt.

Tack till min ridlärare och ridgrupp. Det har vart en otroligt värdefull paus att få kliva in i stallet, luta kinden mot en hästmule och sen koordinera hela sin kropp för att få hästen att förstå vad man vill. Ett särskilt tack till min ridlärare gav mig ett råd för livet: ”fortsätt och rid över hela hindret”.

Tack också till mina fantastiska Stockholmsvänner. Lina, Mats, Klara, Charlotte, Martina, Emma, och Malin. Och så mina fina vänner i söder: Hanna, Ditte, Micke och Anna. Det är ynnest att ha kvar så fina gamla vänner som er. Oavsett hur länge sen det var vi sågs sist så kan vi djupdyka direkt ner i det som är viktigast i livet just nu. Ni gör mig klokare och gladare, varje gång vi ses.

Stort tack till alla läkarstudenter och till intervjudeltagarna som ställde upp och tog sig tid. Tack till min fina svåger med familj och mina vänner som jag kunde bo hos när jag var på mina intervjuturnéer.

Tack till Matthew Hogg för snabb och säker språkgranskning.

Tusind tak til min danske familie som været helt vidunderlig. Jeres varme og omhu om hinanden er inspirerende. Jeg ønsker det var familietræf hver uge. Kristine, du er og har altid været mit idol.

Oändligt stort tack moster Marie för att du tackade ja och gjorde en helt fantastisk akvarell till avhandlingen. Det blev helt perfekt. Vi vet ju att det första intrycket består, så tack för att du gjorde min avhandling till något alldeles speciellt.

Stort tack till pappa som funnits där och stöttat med fina ord och kompletterande statistikreferenser. Det är alltid kul att diskutera med dig för det blir bara roligare

när vi är oense. Tack brorsan för att du hjälpte till när det knep. Dina skarpa och kondenserade analyser av omvärlden fortsätter att inspirera mig. Stort tack mamma för allt stöd och pepp. Alla dina fina metaforer har varit guld. Jag tänker särskilt på de hejande musvännerna i kavajfickan på mittseminariet. Och stort tack till min fina svärmor som ställt upp med kort varsel alla de där gångerna när livspusslet plötsligt saknade tidsbitar.

Till sist, ett oändligt stort tack till min familj: Joakim, Elsa, Nils och Hasse, ni har varit fantastiska att komma hem till i denna tidvis hektiska period. Joakim, tack för att du alltid lika självklart steppade upp. Du fick mig att känna att allt var lugnt och under kontroll, även när det inte var det. Med dig är livet både lättare och roligare. Elsa och Nils, tack för att ni hela tiden påminner mig om vad som är viktigt här i livet. Hasse, tack för att du aldrig har någon som helst tolerans för att jag är stressad. Din frustration, dina tårar och ditt skratt får mig alltid att gå rakt in i nukänslan.

Köksbordet, Obbola 21 september 2017

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Appendix

The questionnaire used as data in paper I-III (in Swedish)