
ABSTRACT
This article investigates the gender differences in nursing students’ expectations of hierarchical careers. Due to the relative weak representation of female nurses in management and senior nursing positions, it is important to understand how supply side mechanisms produce gender differences in nurses’ career progressions. A quantitative study of 360 undergraduate nursing students was carried out. The questionnaire was distributed in 2015 to all undergraduate nursing students in their final study semester at three universities in Norway (N=360). Data were analysed by linear regression analyses (OLS). The findings show that female nursing students have lower expectations of attaining a management position compared to their male peers, but equal expectations of achieving a master’s degree. This gender difference still pertains, even when controlling for ambitions, family situation and self-assertiveness. The results support the assumption of perceived gender discrimination as a relevant explanation for gender differences in career expectations. To convince female nurses to apply for management positions as often as male nurses do, the health sector has to improve their recruitment practices and hiring processes.

Key Words: Career expectations; Management position; Gender; Nursing students; Gender discrimination; Self-selection; Supply-side mechanism

INTRODUCTION
The nursing profession provides a wide range of career opportunities, with possibilities for both lateral and hierarchical career progression. It is widely known that male and female nurses make different career choices and experience different career development [1-3]. In Norway, as well as in other western countries, men are overrepresented in administration, psychiatry and acute medicine [4,5]. In addition, men advance to and acquire top positions in the health sector more quickly as their female colleagues [1,3,6-8]. Furthermore, men are three times more likely as women to achieve higher grades in nursing [9].

The aim of this study is to investigate female and male nursing students’ expectations of hierarchical progression in future career. The current study will add knowledge to gender differences in nurses’ career attainment and particularly female nurses’ low levels of representation in management positions and senior nursing positions. The central question raised in the article is whether gender affects lastyear nursing bachelor students’ career expectations, and if so, how these gender differences can be explained. In the empirical analyses we distinguish between two aspects of hierarchical career progression; attaining a management position and achieving a master’s degree.

Gender differences in nurses’ career expectations can stem from several causes. A common assumption is that women have lower career ambitions than men and that this results in them having lower career expectations [10,11]. Further, experience of parental obligations has been shown to influence men and women’s career expectations differently [12-24]. Lack of self-assertiveness has also been a proposed explanation of women’s low career aspirations [23]. In this study we will investigate the students’ academic self-assertiveness and what Bandura [14] calls general self-efficacy. Lastly, we consider perceived gender discrimination and perception of a “glass ceiling” as a cause for gender differences in expectations of achieving a management positions.

The study involves nursing students in the final study-semester of their bachelor degree in 2015. The analyses include 360 nursing students at three universities in Norway.

Previous research
Female nurses’ underrepresentation in management positions and other privileged positions in nursing has been the subject of a huge amount of research [1,4,7,15,16]. Many reasons are proposed to explain the apparent advantages that male nurses experience, and it is common to distinguish between explanations that focus on differential treatment in the workplace, and explanations referring to characteristics of the women themselves or their life conditions outside the workplace. This distinction reflects two types of explanations; demand - and supply side explanations [17]. In this article we will examine the relevance of four different supply-side explanations; ambitions, family obligations, self-assertiveness and perceived discrimination.

Career ambition
One common assumption is that men and women are different due to biology or socialization, and presumably have different values, attitudes and dispositions, which again lead to differences in career preferences [18,19]. In line with this, differing aspirations for female and male nurses are one of the most common postulated explanations in previous nursing research [10]. However, a Norwegian PhD dissertation by Karlsen [20] casts doubt on the notion that women nurses are less career-oriented than men are. The study does not show gender differences in students’ career ambitions in terms of advancement. Similar results were found among law enforcement students attending a professional policing bachelor programme in Norway [21].

Family obligations
A second explanation refers to the fact that men and women often have different life conditions. Acker [12] points out an implicit assumption in managerial jobs - the need of a partner who can take full responsibility for the family. In line with this, working part-time [9], taking career breaks, and having children [22] are common explanations of the gender differences in nurses’ career experiences. In a recent Norwegian study, female nursing students have higher expectations of spending a lot of time with family and working part-time than male nursing students. Furthermore, male students are more likely than female students to agree that the husband should be the main breadwinner of the family [20].

Self-assertiveness
Thirdly, self-assertiveness has also been a proposed explanation of gender differences in career expectations. When women evaluate their capabilities in what we conventionally understood as male tasks, they tend to underrate themselves [23]. Bandura [14] introduces the concept of general self-efficacy, meaning the belief in one’s personal capabilities and resources to meet the demands of a specific task. Some studies reveal that men have more

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self-efficacy in their leadership qualities than women [24,25], while others do not find any gender difference [26]. These studies are important in understanding why men and women tend to pursue different careers and their assertiveness at the workplace [23]. In our study, we examine the effect of academic self-assertiveness, measured by the students’ expectations of achieving a master’s degree in the future. Further, we also examine the effect of general self-efficacy based on the concept developed by Bandura [14].

According to Bandura, nursing students with low level of general self-efficacy will presumably have low expectations of attaining a management position and achieving a master’s degree.

**Perceived gender discrimination**

In addition, we propose a forth explanation: perceptions of gender discrimination. Such expectations can influence women to self-select themselves from education and positions, and occur because women try to avoid gender discrimination [27]. Individuals use their previous experience and knowledge to predict their future career, and behave accordingly [28,29]. Beliefs come from three different sources, namely direct personal experience, different sources of communication (for example - family, friends, school, media) or may stem logically from other beliefs [30].

Previous research shows that women expect to encounter gender discrimination more often than men [31,32]. Similar results are found in recent Norwegian studies [33-35]. According to Orupabo perceptions of discrimination develop prior to students’ labour market entry, and are crucial to how they consider their future career opportunities. Research concepts and research questions

According to Johnson [36], career expectations relate to career choices and achievements. He claims that career expectations represent a career pursuit that an individual considers realistic and accessible. This reality-check makes expectations different from ambitions, which rather reflect an individual’s inner dreams or desires. In the present study, we distinguish between students’ expectations of achieving a managerial position in their prospective professions and expectations of attaining a master’s degree.

Two research questions will be investigated:

1. Does gender affect nursing students’ expectations of achieving management positions and expectations of a master’s degree?
2. If so, how can gender differences in career expectations been explained?

The results of the first question show how female and male nursing students diverge in their expectations of career expectations, and whether gender affects expectations of management position and master’s degree differently. The second question reveals which supply side factors produce gender differences in nursing students’ career expectations. The impact of students’ ambitions, family obligations, self-assertiveness and perceptions of gender discrimination, will be investigated. The nursing students in the present study are not directly asked about their perceptions of gender discrimination. Rather, we ask about their expectations of entering a management position in their future career. We argue it is likely that gender differences in expectations of attaining management positions largely reflect perceived gender discrimination when controlling for several supply side explanations like individuals’ ambitions, family situations, academic self-assertiveness and general self-efficacy.

Data, variables and methods

**Data:** The analyses are based on StudData, a Norwegian panel survey containing professional bachelor students in selected study programmes. The survey includes 360 undergraduate nursing students in their final study semester: 323 women and 37 men. The questionnaire was distributed in 2015 to all undergraduate nursing students at three universities in Norway. The questionnaires were completed in class and collected by the teacher or an administrative official. The students were informed prior to the distribution of the questionnaires that participation is voluntary. Those who did not want to participate could return a blank questionnaire. The survey includes 360 undergraduate nursing students in their final study semester: 323 women and 37 men. The questionnaire was distributed in 2015 to all undergraduate nursing students at three universities in Norway. The questionnaires were completed in class and collected by the teacher or an administrative official. The students were informed prior to the distribution of the questionnaires that participation is voluntary. Those who did not want to participate could return a blank questionnaire. The response rate was 62 per cent.

**Dependent variables**: The variables Expectations of a management position and Expectations of a master’s degree are students’ responses to the following questions posed during their final study semester. Imagine your life situation 10 years in the future. How likely is the following statement to be true? (1) I have achieved a management position; (2) I have achieved a master’s degree. Responses were rated on a 5-point scale (1=very likely, 5=not likely at all). The scales were inverted. The variable of Expectations of a master’s degree is both a dependent and an independent variable in the study. As an independent variable, Expectations of a master’s degree refers to an individual’s academic self-assertiveness.

For the variable of Career ambition, two job values were added together. The students answered the following statements: (1) How important are opportunities for career advancement when seeking a job? (2) How important is high income when seeking a job? Responses were rated on a 5-point scale (1=not important at all, 5=very important). The variable of career ambition is both a dependent and an independent variable in the analyses.

**Independent variables**

The variable General self-efficacy is a ten items Likert scale ranging from 1-4 (1=not at all true, 4=exactly true) taken from Schwartzer and Jerusalem [37]. The scale refers to individual’s perception of his/her capabilities and resources to deal with unexpected or challenging events [14]. Cronbach’s alpha >0.855. Gender was coded 0 for men and 1 for women. The presence of Children was coded 0 for respondents without children and 1 for those who have children.

**Statistical methods**

In addition to estimating means and percentages (Table 1), we used ordinary least squares (OLS) linear regression analyses on career ambition, expectations of a management position and expectations of a master’s degree (Table 2).

**RESULTS**

**Descriptive results**

Table 1 provides means and standard deviations regarding career expectations, career ambition and general self-efficacy for male and female students.

**Table 2**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management expectations, mean (SD), scale 1-5</td>
<td>3.91* (1.11)</td>
<td>3.58 (1.14)</td>
</tr>
<tr>
<td>Career ambition, mean (SD), scale 1-5</td>
<td>3.69* (0.75)</td>
<td>3.95 (0.61)</td>
</tr>
<tr>
<td>Master’s degree expectations, mean (SD), scale 1-5</td>
<td>3.27 (1.40)</td>
<td>3.25 (1.39)</td>
</tr>
<tr>
<td>General self-efficacy, mean (SD), scale 1-4</td>
<td>3.14 (0.41)</td>
<td>3.09 (0.37)</td>
</tr>
<tr>
<td>Have children, %</td>
<td>31*</td>
<td>12</td>
</tr>
<tr>
<td>Gender composition, %</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>323</td>
</tr>
</tbody>
</table>

Note: *Significant differences between men and women, p<.05.

**Table 2**

Linear regression analyses (OLS) of career ambition, expectations of a master’s degree and management position among final-year nursing students. Unstandardized Beta-Coefficients (Std. Error).

<table>
<thead>
<tr>
<th></th>
<th>Career Ambition, scale 1-5</th>
<th>Expectations of master’s degree, scale 1-5</th>
<th>Expectations of management position, scale 1-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>0.25* (0.11)</td>
<td>0.05 (0.25)</td>
<td>-0.45* (0.19)</td>
</tr>
<tr>
<td>Have children</td>
<td>-0.10 (0.10)</td>
<td>0.06 (0.22)</td>
<td>0.20 (0.17)</td>
</tr>
<tr>
<td>General Self-Efficacy</td>
<td>0.15 (0.09)</td>
<td>0.40 (0.21)</td>
<td>0.70** (0.17)</td>
</tr>
<tr>
<td>Career Ambition, scale 1-5</td>
<td>0.29* (0.12)</td>
<td>0.29* (0.09)</td>
<td></td>
</tr>
<tr>
<td>Expectations of master’s degree, scale 1-5</td>
<td>0.12* (0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>3.00** (0.36)</td>
<td>0.81 (0.89)</td>
<td>0.69 (0.70)</td>
</tr>
<tr>
<td>N</td>
<td>318</td>
<td>318</td>
<td>318</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.018</td>
<td>0.021</td>
<td>0.126</td>
</tr>
</tbody>
</table>

Note:*p<.05, **p<.01.
Nursing students' career expectations: Gender differences and supply side explanations

The study confirms that self-assertiveness correlates with expectations of attaining a management position. We examined both the effect of general self-efficacy [14] and academic self-efficacy, measured by the students' expectations of achieving a master's degree in the future. The results apply to both aspects of self-assertiveness and supports the assumption that low self-assertiveness in this studies students' career expectations [23]. However, self-assertiveness does not produce gender differences in career expectations among nursing students. This because female students are just as confident in their intellectual abilities and self-efficacy as men students are. It must also be mentioned, that we do not find it useful to include a management specific self-efficacy in our study. Measures developed for this purpose are based on questions like "How easy would it be for you to succeed in a leadership position?" [26]. The problem with such measures is that it is impossible to differentiate between lack of self-efficacy and expectations of discrimination. We think this distinction is pivotal, because different plans of action for creating gender equality stem from it. If women lack self-assertiveness, one should offer them coaching, while expectations of discrimination require other solutions like the evaluation of recruitment practices and improvements of hiring processes. This study supports the assumption of expectations of gender discrimination as a relevant explanation for gender differences in the expectation of attaining a managerial position.

This is in line with previous studies that show that many women (and men) believe they encounter gendered barriers at the workplace when they aspire to become a manager [34,35,44]. One important observation from this study is that expectations of discrimination are necessarily rooted in individuals' own labour market experiences, but likely exist even prior to labour market entry [43,45]. It is likely that students' perceptions of gender discrimination come from what Olson et al. [30] call secondary sources, such as family, friends, school or the social media. The powerful "glass ceiling" metaphor has strongly influenced an ongoing debate in media, as well as in the nursing literature [1]. Our study shows however, that women are not more pessimistic than men about their future nursing careers in general, as more of them expect to achieve a master's degree than men. This suggests that they view the education system as fair and non-discriminatory, but not the labour market [46,47].

LIMITATIONS

A limitation of the study is that the population comprises students from only three out of approximately 30 institutions offering nursing bachelor programmes. Consequently, it is not possible to generalize the findings to the whole population of nursing students in Norway. This is due to differences in local labour market opportunities. Attainment of management positions and the opportunity to attend a master’s degree course in nursing might vary across geographical areas. In present study, the three universities included are located in the three largest cities in Norway where graduates have good local labour market opportunities and possibilities for achieving a master’s degree in nursing.

The national context is likely to be of importance for the findings in this study. Consequently, it is not possible to generalize the findings to all western countries. The fact that men and women have equal ambitions and that children have a similar effect for both genders, is likely a result of strong gender equality values and the welfare systems in Nordic countries that makes it possible to combine family and work. Perhaps however, societies valuing gender equality highly might also be more prone to perceive discrimination against women [46]. In such a context, expectations of gender discrimination might be an important cause that hinders the movement of women into management positions.

CONCLUSION

This study shows that female nursing students have lower expectations of achieving a management position in their future career compared to male students. These results support the assumption of perceived gender discrimination as a relevant explanation for gender differences in career expectations. As students' career expectations influence their future actions, perceived gender discrimination is an important possible explanation for gender differences in nurses' hierarchical career progression. To avoid being exposed to gender discrimination women nurses simply do not apply for management positions to the extent their career ambition imply.

From the study, we have learned that female nursing students do not lack career ambition, self-assertiveness, or general self-efficacy; in fact they have higher career ambition than their male colleagues. To convince female nurses to apply for management positions as often as male nurses do, the health sector therefore has to improve their recruitment practices and the
hiring processes. The health organizations have to take action to reduce and eliminate the advantage of being male in recruitment and hiring processes. Further, it is of vital importance that the health organizations understand how their recruitment strategies affect women’s representation in top positions, and eventually reconsider their plans for gender equality.

CONFLICTS OF INTEREST

No conflicts of interest.

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REFERENCES