

# A Longitudinal Study of Nurses' Career Choices: The Importance of Career Expectations on employment in care of older people

## **ABSTRACT**

**Aims:** To investigate how undergraduate nursing students' career expectations relate to their career choices, particularly employment in care of older people, in the first ten years of nurses' careers.

**Background:** Due to an increasing demand for nurses, it is important to understand nurses' career choices over the course of their careers.

**Design:** A quantitative longitudinal study of 445 undergraduate nursing students based on a questionnaire survey and register data.

**Methods:** Data were analysed by multinomial logistic regression analyses. The questionnaire was distributed to all undergraduate nursing students in 2001 and 2003 in their final study semester at four universities in Norway (n=445) to collect the students' career expectations. Register data on clinical fields for the first ten years after graduation were merged into the survey in 2014 (Statistics Norway).

**Results:** With exception of the very first years after graduation, care of older people is the most common field for undergraduate nurses to enter for a career. This choice can be understood in light of nurses' career expectations. Among newly educated nurses, the choice to work in care of older people (rather than general hospital care) correlates with expectations of achieving a management position. Ten years after graduation, the likelihood of working in care of older people rather correlates with nurses' expectations of part-time work.

**Conclusion:** The likelihood of moving into care of older people increases with time in nursing careers and relates to nurses' career expectations such as achieving a leadership position and working part-time.

## SUMMARY STATEMENT

### **Why is this research or review needed?**

- Due to an increasing demand for nurses, it is important to understand their career choices.
- We lack knowledge on the underlying motivation behind nurses' choices of clinical fields over the course of their careers.
- Few studies have addressed how career expectations influence nurses' employment in care of older people.

### **What are the key findings?**

- Except for in the very first years after graduation, care of older people is the most common field for nurses to enter into, during the course of their careers.
- Nurses' employment in care of older people relates to their career expectations, such as achieving a management position and/or working part-time.
- Nurses who leave care of older people enter mainly general hospital care, but transitions into peripheral nursing fields and fields outside the nursing profession are also common.

### **How should the findings be used to influence policy/practice/research/education?**

- Care of older people should improve nurses' professional environment and career opportunities in order to retain nurses throughout their careers.
- Nursing education should expose nursing students to career opportunities and professional challenges in care of older people.
- Recommend longitudinal research to produce new evidence of how professional values developed during nursing education, influence nurses' careers.

**Keywords:** career expectations, career mobility, clinical field, departure from nursing, care of older people, management position.

## INTRODUCTION

Due to the increasing demand for nurses, it is important to understand how they choose and move through clinical fields during their careers. Several studies show that care of older people, which is a large part of the community health care service in Norway, is one of the least attractive fields among nursing students in Western countries (Fagerberg et al 2000, Happel 1999, Kloster et al 2007). This attitude is reflected in career choices made by newly educated nurses (Abrahamsen 2004). However, lack of nursing personnel in care of older people does not only depend on newly educated nurses' career choices. To ensure sufficient nursing staff in this field in the future, it is crucial that nurses consider care of older people attractive for a lifelong career.

The present study draws attention to nurses' choices of clinical fields for the first ten years of their careers. Care of older people is given the most attention and nurse mobility related to this field is closely investigated. By describing the fields that nurses come from and those they move into after employment in geriatric care, the study sheds light on clinical field mobility as well as the attractiveness of the field. The most popular clinical fields among newly educated nurses are not necessarily the most popular fields at a later stage in their careers. The article distinguishes between five different categories of field: (1) general hospital care, (2) psychiatry, (3) care of older people, (4) fields outside the core of nursing (5) fields outside of nursing altogether. A key aspect of this article is investigating the relationship between nursing students' career expectations and their choice of field after graduation. The results reveal which fields nurses with specific career expectations find attractive during the first ten years of their career. Three dimensions of career expectations are examined: attaining a management position, working part-time, and expectations of a job without relevance to the nursing profession.

The nursing profession provides a wide range of career opportunities, with possibilities for both lateral and hierarchical career progression. Nurses have the opportunity to choose between several clinical fields, as well as fields outside the core of nursing, such as public health administration and nursing education. All these fields offer a variety of positions for nurses, including management positions. Given the increased demand for nurses, it is important to understand the emphasis nurses place on their career expectations when making career decisions. Some major concerns include career expectations that point toward reduced time spent in nursing activities, for example part-time work and employment outside nursing. Nurses' desires for employment in fields that best align with their expectations may make it difficult to obtain sufficient nursing personnel in the coming years, particularly in the least attractive fields.

The present study includes undergraduate nursing students from the three-year bachelor-level nursing program at four universities in Norway and their choices of clinical fields for the first ten years after graduation. Regardless of which university the undergraduate students attend, the curriculum is based on a national plan for undergraduate nursing education. This means that all undergraduate nursing students are trained in the same subjects. After completing their nursing education, the graduates obtain a general nursing authorization (Kyrkjebø et al. 2002).

## BACKGROUND

The premise of this study is the assumption that throughout their career, nurses desire a job that gives them the best opportunities for realizing their professional expectations. A positive relationship between nurses' career expectations and their choice of field is in line with Bandura's theory (1986), whereby individuals choose careers that correspond to past professional success and motivation in order to maintain self-efficacy and ensure a greater likelihood of future success. Several studies support the argument that career expectations closely match career outcomes. According to Johnson, (1995) career expectations are closely related to career choices and achievements. He claims that career expectations represent career pursuits that an individual considers realistic and accessible. A previous study on nurses reveals a relationship between choice of clinical field in their early careers, professional qualifications, and job values (Abrahamsen 2015). Three factors appear relevant for recent graduate nurses' career choices: altruism, theoretical knowledge and practical skills. In contrast to the hypothesis, nursing students with a high score on 'perceived theoretical knowledge' are as likely to choose care of older people as general hospital care after graduation. As pointed out in the article, this result may indicate that undergraduate nursing education has succeeded in exposing students to the professional challenges arising in care of older people (Abrahamsen 2015). The present study will reveal both the attractiveness of geriatric care, and the career expectations that nurses in this field emphasize during their first ten years of employment.

A limitation of Bandura's model, based on individual interests and desires, is the inability to account for barriers to career choice. Obtaining a job does not only depend on an individual's interests and desires. The labour market situation (labour supply and demand) and employers' preferences are key factors (Abrahamsen 2015). A long running shortage of nursing personnel in Norway has given rise to excellent opportunities for nurses to obtain a job within their preferred field.

Based on nursing students' notions of the type of patients they envision providing care for after graduation, general hospital care appears to be the most attractive field for newly educated nurses (Ganz and Kahana 2006, Lund 2012). Hospital care is considered attractive due to a broad professional environment (Kloster et al. 2007). In care of older people, nurses are usually the only highly educated personnel at work. The majority of other health personnel are auxiliary nurses or unskilled staff (Høst et al. 2010). As a consequence, nurses employed in care of older people frequently achieve a management position. It seems likely that newly educated nurses are aware of this opportunity and a positive relationship between nursing students' expectations of attaining a management position and their future employment in care of older people can be expected. This corresponds with the tendency for nurses who choose care of older people to emphasize autonomy in their work more often than those who choose general hospital care (Abrahamsen 2015). We may therefore hypothesise that a high expectation of attaining a management position will increase the likelihood of choosing employment in geriatric care (compared with general hospital care).

Another reason for nurses to seek employment in care of older people is the desire to reduce inconvenient working hours (Gautun et al. 2016). Part-time work is common among Norwegian nurses, but particularly widespread in care of older people where more than 60 per cent of the employees work part-time (Moland & Bråthen 2012). The possibilities for adapting working hours to family obligations are usually better in care of older people than in general hospital care, and this may explain recent findings. Based on nursing graduates' perceptions of opportunities in different fields, one hypothesis is that a desire for part-time work will increase the likelihood of choosing employment in care of older people over general hospital care.

From a societal perspective, the most important decision for nurses is the choice to enter a position within or outside nursing. Some nurses already plan to leave the nursing profession once they have graduated and some may have a plan to leave nursing at a later stage of their career, or at least plan to leave the core fields of nursing. Care of older people is undoubtedly a core field in nursing, however, good opportunities for management positions may also make this field attractive during early career years for nurses who are attracted to a future career within management (within or outside the nursing profession). A hypothesis here is that high expectations of moving into non-nursing related work will increase the likelihood of seeking employment in geriatric care as well as moving into fields both outside of nursing, and outside of the core fields of nursing, as opposed to general hospital care.

## **THE STUDY**

### **Aim**

The aim is to investigate how undergraduate nursing students' career expectations relate to their choices of clinical field in the first ten years of their careers. Particular attention is paid to the choice of care of older people, which is one of the least popular fields among nurses in Western countries. Due to an increasing demand for nurses, it is important to understand the underlying motivation for nurses' career choices over the course of their careers.

### **Design**

A longitudinal quantitative study of 445 undergraduate nursing students' career expectations and their fields of employment in the first ten years of their careers.

### **Sample**

All nurses in the final study semester of an undergraduate nursing degree in the years 2001 and 2003 at four universities in Norway (n=445).

### **Data collection**

The analyses are based on data from a questionnaire survey (StudData) and register data collected by Statistics Norway. StudData is a longitudinal panel survey developed and made

available by the Centre for the Study of Professions (CSP) at Oslo Metropolitan University (OsloMet). A questionnaire survey (paper-based) was distributed to undergraduate nursing students in their final study semester in 2001 and 2003. The survey contains questions about learning environment, learning outcomes, professional commitment, career preferences and career expectations. It takes a maximum of 30 minutes to complete the survey. The response rates were 71% (2001) and 70% (2003). In the present study, register data on fields of employment at the end of 2001 - 2013 were used. The register data were merged and anonymised at the end of 2014. The data were made available for analysis by CSP in 2014.

Self-reported career expectations were used in this study. The items were not part of a well-established measurement instrument, but developed by researchers at CPS, OsloMet and extensively used to map students' and graduates' career expectations (Abrahamsen & Drange 2015). The measurement instrument has so far been included in twelve student and graduate surveys (StudData, 2000-2015). The three dimensions of career expectations are measured by one item each. The use of single items is usually considered to be disadvantageous because it increases the likelihood of random measurement error.

## **Variables**

### *Field of employment*

Field of employment is based on register data from Statistics Norway. The register data contains information on respondents' fields at the end of each year from 2001 to 2013. The data was organized into ten variables; field year 1, field year 2, field year 3, and so on. Year 1 is the first year after graduation. For this study, the fields are divided into five categories: (1) general hospital care, (2) care of older people, (3) psychiatry and drug abuse treatment, (4) outside core fields of nursing, and (5) outside nursing. The category 'care of older people' includes care of older people and care of disabled persons, and comprises both care in nursing homes/institutions and care in patients' own homes. The category 'outside core fields' includes a number of areas, including teaching (nursing education, auxiliary education and other nursing educations at high school level), public administration, voluntary social work, and preventive health work. The nurses' fields of employment at 1 year and 10 years after graduation are shown in Table 1. In the multinomial regression analysis (Table 3), 'general hospital care' is the reference category.

### *Career expectations*

Three dimensions of career expectations are included in the analysis: expectations of management position, expectations of part-time work and expectations of non-nursing work. The responses refer to the following statement given to the nursing students in final study semester: Imagine your life situation ten years in the future. How likely are the following statements to apply? (1) I have achieved a management position, (2) I work part-time, and (3) I have a non-nursing relevant job. Responses were rated on a five-point Likert scale (1-5). The mean and standard deviation values for each dimension are shown in Table 2.

### *Gender*

Of the 445 nurses included in this study, approximately 87% were women. In the analyses gender is recoded: women = 0, men = 1.

### **Ethical considerations**

Research Ethics Committee approval was obtained from the universities before commencing this study. The survey (including the questionnaire and the storage of data) was approved by the Norwegian Social Science Data Services. A week before the questionnaire was distributed, the students were informed via their internal website, with assurances that participation was voluntary. They were also informed that they could reject the merging of survey data and register data.

### **Data analysis**

The data were analysed with the Statistical Package for the Social Sciences (SPSS), version 24. The data of two cohorts of graduates (2001 and 2003) was merged into one data file. Descriptive statistics (per cent, mean, standard deviation) were generated for all variables included (Table 1 and 2). Nurses' clinical field mobility during the ten-year period is presented in the Figures 1, 2, 3 and 4. In this article, mobility is defined as changing job from one year to the next (from year 1 to year 2, from year 2 to year 3, and so on). Two aspects of mobility, entering and leaving a field, are estimated. The estimates are expressed as a percentage of all nurses included in the study (N=445). In the figures each estimate includes three years of field mobility (summarized); entering fields the years 2-4, the years 5-7 and the years 8-10; leaving fields the years 1-3, the years 4-6 and the years 7-9. Summing up estimates reduces the number of random variations in field mobility. Multinomial logistic regression analysis was performed to examine the relationship between nurses' career expectations and choice of field at two points of time: 1 year and 10 years after graduation (Table 3). Odds-ratios, 95% confidence intervals and P values are presented.

### **Validity and reliability**

The analysis includes two cohorts (2001 and 2003) of undergraduate nurses. A relevant question is whether the labour market contexts at the time the data were collected were similar for the two cohorts. The labour market situation for nurses has remained relatively stable in the period 2001-2013. The shortage of nurses, which is particularly prevalent in geriatric care, was still a challenge in 2013, as in 2001 and 2003. Fields of employment for the first ten years after graduation were examined for each cohort of nurses. Similar patterns in the two cohorts were found.

## **RESULTS**

## Descriptive results

Table 1 shows nurses' employment in clinical fields for the ten first years after graduation. In year one, 63 per cent of the nurses worked in general hospital care, 26 per cent in care of older people, 6 per cent in psychiatry and 6 per cent outside the core fields of nursing. In the passage of time, the proportion of nurses in general hospital care decreased, and at ten years after graduation, just 44 per cent of the nurses were employed in general hospitals. Over the ten-year period the percentage of nurses in the fields of psychiatry and care of older people increased slightly up to 9 and 28 per cent respectively. During the ten-year period, nurses employed in peripheral nursing fields increased from 6 to 11 per cent. Finally, nurses employed in fields outside of nursing increased from 0 (one year after graduation) to 8 per cent ten years after graduation.

Table 2 shows average scores on nursing graduates' career expectations when they look ten years ahead (all variables are recorded on a Likert 1-5 scale). The results reflect the career expectations that nurses express shortly before they enter their first nursing jobs. The average score on the nursing students' career expectations varies between the different aspects of such expectations. Table 2 reveals the highest score on expectations of attaining a management position (3.28). Expectations of non-nursing related work have the lowest score (2.27). The average score on part-time expectations is 2.71.

## Clinical field mobility in the first ten years of career

Figure 1 shows clinical field transitioning, specifically which clinical fields nurses move *into* during the first ten years of their careers. The size of the columns shows the proportion of the nurses who enter each clinical field for a period of three years. With the exception of the very first years, care of older people appears to be the most common field for nurses to enter. The proportion of nurses who enter this field is relatively stable during the three periods, about 9 per cent of the two cohorts, approximately an average of 3 per cent per year. In the first three-year period, the proportion of nurses who entered general hospital care was slightly higher (11%) than those for geriatric care (10%). In the last two periods however, fields outside the core of the nursing profession appeared slightly more attractive to enter (about 7%) compared to general hospital care (6%). The period from 5-7 years after graduation stands out regarding movement into fields outside the nursing profession. Closer analysis reveals that year five appears to be the turning point for attraction to fields outside the nursing profession. Every successive year, an average of 2 per cent of the cohorts entered a field outside nursing.

Looking at Figure 2, which shows the proportion of nurses who *left* each clinical field, some results must be mentioned. Firstly, general hospital care, which is the field that nursing students consider as the most attractive, definitely has the largest departure rates in all three periods (11%-8%). Importantly, the departure rates for general hospital care are significantly higher than the entering rates (see Figure 1 and Figure 2). Further, the departure rates for care of older people are also relatively high during the ten-year period (6%-8%), however, the proportion of nurses who left this field is slightly lower than the proportion



who entered. It is also interesting that nurses frequently leave the peripheral fields of nursing as well as fields outside the profession. This means that some nurses return to a clinical field within the profession.

Summing up, the average mobility rate is about 30 per cent within each of the 3-year periods. The proportion of the nursing cohorts who moved from one field to another appeared relatively stable during the period, although their choice of fields varied (Figure 1 and 2). Dividing the 3-year mobility rates into rates per year indicated an average yearly mobility rate of 10%.

### **Entrance and departure from care of older people**

Figures 3 and 4 reveal a closer look at the mobility into and out of care of older people. They show the fields nurses leave before entering care of older people (Figure 3), and which fields they move into after leaving care of older people (Figure 4). The Figures show how the entrance and departure rates of the field develop during the first ten years of nurses' careers (divided into periods of three years). Figure 3 shows clearly that the majority of the nurses in geriatric care came from general hospital care, although the proportion decreases during the ten-year period (7%, 5% and 4%). A smaller proportion of nurses came from peripheral fields of nursing (2%, 3% and 2%). In the last two periods, some nurses left fields outside of nursing in favour of care of older people (1% and 2%).

Nurses who left care of older people (Figure 4) in the first three years after graduation, did so mostly in favour of general hospital care (6%). In subsequent years (years 4-10), transitions from care for older people to general hospital care decreased significantly (2% and 1%). In this stage of their careers however, there is a tendency among nurses to enter fields outside the profession after they have left a position in care of older people (2% and 2%). During the three periods, transition from geriatric care into peripheral nursing fields is on average between 2% - 3% (three years summed up).

### **The role of career expectations**

Table 3 shows the results of the multinomial logistic regression analysis of fields of employment at 1 year and 10 years after graduation. Odds-ratios, confidence intervals and p-values are estimated. Nurse employment is divided into five categories: general hospital care (the reference category); care of older people, psychiatry and drug abuse treatment, fields outside the core of nursing, and fields wholly outside nursing. Several independent variables are included: gender, expectations of achieving a management position, expectations of part-time work, expectations of employment in a non-nursing related job.

The results show that students' career expectations are relevant factors ( $p < 0.05$ ) based on clinical fields in the first ten years after graduation. However, these factors do not relate consistently throughout the period. More specifically, the results show that already one year

after graduation expectations of achieving a management position relate to nurses' choice of care of older people. Higher scores on management expectations results in an increased likelihood of choosing care of older people (over general hospital care). The odds-ratio for this relationship is 0.284 ( $p=0.01$ ). Ten years after graduation expectations of a management position do not relate significantly to any choice of clinical fields.

Expectations of part-time work do not relate to nurses' choice of fields one year after graduation. However, ten years after graduation such expectations relate to nurses' employment in care of older people. Higher scores on part-time expectations result in a higher likelihood of being employed in care of older people (OR =0.228,  $p= 0.03$ ).

Expectations of having a non-nursing related job relate positively to employment in certain fields at both one year and ten years after graduation. Higher scores on expectations of non-nursing jobs mean more likelihood of being employed outside the core fields of nursing, as opposed to general hospital care, one year after graduation. The odds-ratios are 0.455 ( $p=0.01$ ). Ten years after completed education, such expectations relate positively to employment outside the nursing profession. The odds-ratio is 0.344 ( $p=0.03$ ).

Gender relates to choice of psychiatry both one year and ten years after graduation. Men are more likely to choose employment in psychiatry. The odd-ratios are respectively 1.971 ( $p<0.01$ ) and 2.410 ( $p<0.01$ ).

## **DISCUSSION**

With the exception of the very first years after graduation, care of older people appears to be the most common field for nurses to move into during the first ten years of their careers. Most of the nurses who enter this field come from employment in general hospital care. In Norway, as in Western countries in general, geriatric nursing has a low status while general hospital care is a high status field. Nursing students often describe care of older people as both more demanding and requiring less knowledge than acute care (Fagerberg et al. 2000, Kloster et al. 2007). Therefore, it is interesting that general hospital care is the field with the highest average departure rate, and that most of the nurses who enter care of older people come from general hospital care. Several researchers have pointed out the influence of cultural context on nursing students' perceptions of clinical field (Karaoz 2004). In contrast, this study indicates that many nurses emphasize pursuing their career prospects, over pursuing status in their career choices.

The study reveals a relationship between nursing students' career expectations and their choice of clinical fields in the first ten years of their careers. The role of expectations of attaining a management position, expectations of part-time work and expectations of a non-nursing related job is investigated. Based on the assumption that nurses desire a job that gives the best possibilities for realization of their professional expectations (Bandura 1986), the positive relationship between employment in care of older people and expectations of

management positions and part-time work was expected. Nurses employed in care of older people tend to have higher desires for management positions and part-time work compared to those who choose general hospital care, albeit in different stages of their careers.

The tendency to enter care of older people (opposed to general hospital care) among nurses with high expectations of achieving a management position is supported in the study, but only in the very beginning of their career. Ten years after graduation, there is no longer a significant connection between expectations of attaining a management position and nurses' fields of employment. The results indicate that newly educated nurses with high expectations of a management position more frequently start their careers in care of older people as in general hospital care. At later stages of their careers, experienced nurses appear equally attractive for leadership positions in various clinical fields, including fields outside the nursing profession.

Further, the tendency for nurses who have high expectations of part-time work to enter care of older people also supports the hypothesis. This may be due to better possibilities for part-time work and less shift work in the geriatric care compared to other fields in nursing (Gautun et al 2016). The results indicate that nurses who are unsatisfied with the working hours in general hospital care, enter geriatric care after some years of employment, presumably looking to improve the possibilities of adapting the working time to family obligations. Nurses who leave general hospital care in favour of geriatric care appear to have more family obligations than those who move in the opposite direction (Skjøstad et al. 2017). Care of older people does have a higher proportion of part-time work compared to other clinical fields in Norway (Moland & Bråthen 2012), but the extensive use of part-time work is not beneficial for the field, where the demand for nurses is increasing. A relevant question is to what extent nurses' expectations of part-time work are realized. Previous research on young Norwegian nurses indicate that a desire for part-time work does not mean a desire for continuous part-time work throughout their careers, but appears to be a desire for temporary part-time work in some periods of life (Abrahamsen 2009). Extensive use of shift-work makes it difficult for many nurses with small children to work full-time. Part-time work appears to be an adaptation strategy among nurses wanting to combine employment and family obligations. As with many young Norwegian women, nurses do not appear to desire part-time work for its own sake, rather they desire positions that allow them to combine employment with family obligations.

The assumption of a relationship between high expectations of non-nursing related work and employment in care of older people are not supported in the study. Nurses with high expectations of non-nursing related work do seem initially to enter positions outside the core fields of nursing. However, ten years after graduation these nurses do have a tendency to be employed completely outside the nursing profession. The results indicate that graduates who are interested in non-nursing related work seek employment within the profession (peripheral fields) for some years before they leave the profession, however, care of older people does not seem to be a particularly attractive field for those nurses.

## Limitations

Limitations of the study include the small size of the sample and a population that comprises undergraduate nursing students from just four universities out of a total of 25 institutions. The response rate is relatively high (70 percent), but the sample size is less than 10 percent of the whole population of nursing students (final year). It is not possible to generalize the findings to the whole population of undergraduate nursing students in Norway. The choice of clinical field might vary across different geographical areas due to local labour market opportunities. In the present study, three out of four universities are located in the three largest cities in Norway, which indicates that most of the students in the study have good labour market opportunities.

## CONCLUSION

The study reveals that every year approximately 10 per cent of the nurses change their clinical field. Leaving a job in general hospital care in favour of a job in care of older people appears to be the most common transition, with the exception of the very first years after graduation. The popularity of geriatric care is promising because of an increasing demand for highly qualified personnel in the field. The results indicate that good possibilities to achieve management positions and possibilities of adapting working hours to family obligations are important for nurses' interest in care of older people. The findings indicate however, that the field could do more to improve its attractiveness to newly educated nurses.

The increasing demand for nurses highlights the need to understand their career decisions regarding employment and mobility between clinical fields. Longitudinal research is recommended to explore nurses' career decisions and to gain better insight of how professional values and expectations develop during nursing education, and influence nurses' career choices. Additional knowledge on nurses' career decisions is essential both to develop recruitment strategies and to improve nurses' professional environment in the less popular nursing fields.

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**Table 1** Fields of employment after graduation. Nurses graduated in 2001/2003. %.\*

	1 year after graduation (%)	10 years after graduation (%)
General hospital care	63	44
Psychiatry	6	9
Care of older people	26	28
Outside core fields of nursing	6	11
Outside nursing	0	8
Sum	101	100
n	445	445

\* Care of older people, care of older people and disabled persons; Psychiatry, psychiatry and drug abuse treatment; Outside core fields of nursing, nursing educations (different levels), public administration, voluntary social work, preventive health work, and more.

**Table 2** Career expectations looking ten years in the future. Nursing students in final study semester (n=387). Graduated in 2001/2003. Mean (SD), rising scale 1-5.

Have achieved a management position	3.28 (1.12)
Working part-time	2.71 (1.33)
Have a non-nursing relevant job	2.27 (1.27)

**Table 3** Multinomial logistic regression analysis of nurses' employment in clinical fields. 1 year and 10 years after graduation. Nurses graduated in 2001/2003. General hospital care is the reference category.\*

	Care of older people		Psychiatry		Outside core fields		Outside nursing	
	OR (95% CI)	P (Wald)	OR (95% CI)	P (Wald)	OR (95% CI)	P (Wald)	OR (95% CI)	P (Wald)
<b>Year 1</b> (n=347)								
Men	0.62 (0.19-2.00)	0.43	7.17 (2.18-23.58)	<b>0.00</b>	1.32 (0.26-6.55)	0.72	-	-
Management position	1.32 (1.05-1.66)	<b>0.01</b>	1.23 (0.76-2.00)	0.39	1.37 (0.89-2.11)	0.14	-	-
Part-time work	1.14 (0.93-1.39)	0.18	1.12 (0.74-1.72)	0.57	1.16 (0.81-1.64)	0.40	-	-
Non-nursing relevant job	0.86 (0.70-1.06)	0.16	1.10 (0.75-1.60)	0.62	1.57 (1.13-2.18)	<b>0.00</b>	-	-
<b>Year 10</b> (n=328)								
Men	1.61 (0.53-4.87)	0.39	11.13 (3.37-36.76)	<b>0.00</b>	1.95 (0.52-7.23)	0.31	1.71 (0.31-9.32)	0.53
Management position	1.20 (0.95-1.52)	0.11	0.86 (0.58-1.26)	0.43	1.19 (0.85-1.65)	0.29	1.43 (0.94-2.18)	0.09



Part-time work	1.25 (1.01-1.55)	<b>0.03</b>	1.33 (0.92-1.92)	0.12	0.95 (0.70-1.30)	0.77	1.36 (0.95-1.94)	0.09
Non-nursing relevant	0.88 (0.71-1.09)	0.27	1.37 (0.99-1.90)	0.06	1.06 (0.80-1.40)	0.65	1.41 (1.02-1.94)	<b>0.03</b>

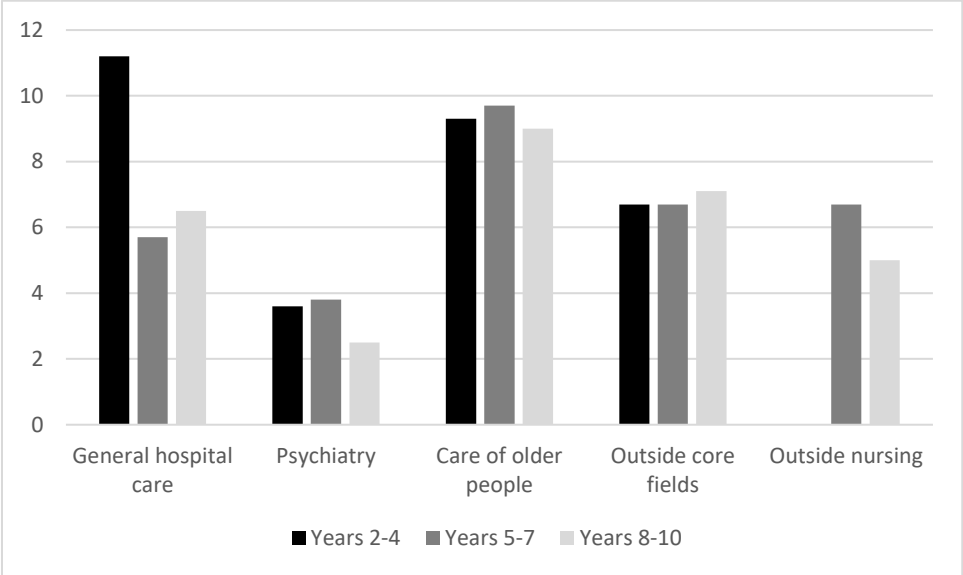
\*OR, Odds-ratio; 95% CI, 95% Confidence Interval; P (Wald), P value.

Care of older people, care of older people and disabled persons; Psychiatry, psychiatry and drug abuse treatment; Outside core fields of nursing, nursing educations (different levels), public administration, voluntary social work, preventive health work, and more. Management position, expectations of achieved management position; Part-time work, expectations of part-time work; Non-nursing relevant, expectations of employment in non-nursing relevant job.

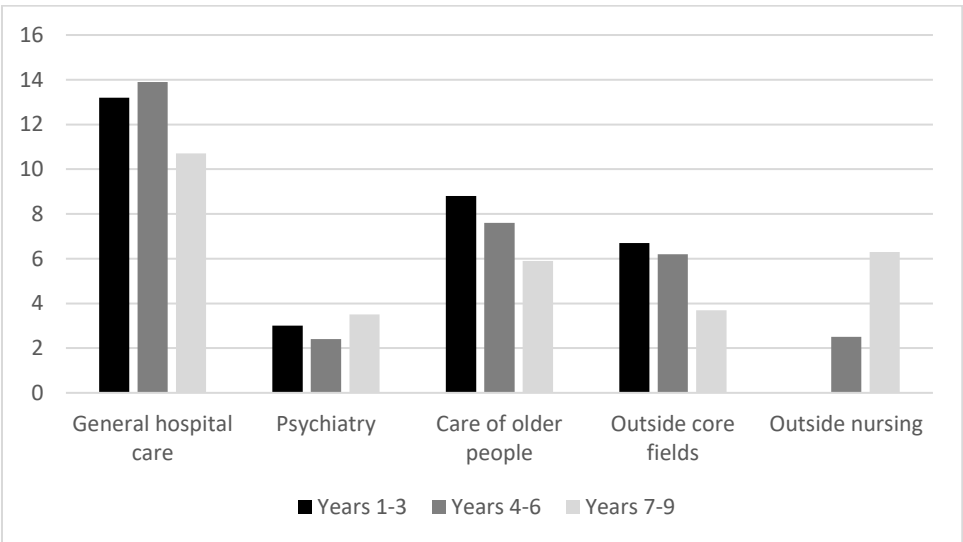
a. Pseudo R2 (Nagelkerke) =0,106; -2log-likelihood =384,979.

b. Pseudo R2 (Nagelkerke) =0,127; -2log-likelihood =556,559.

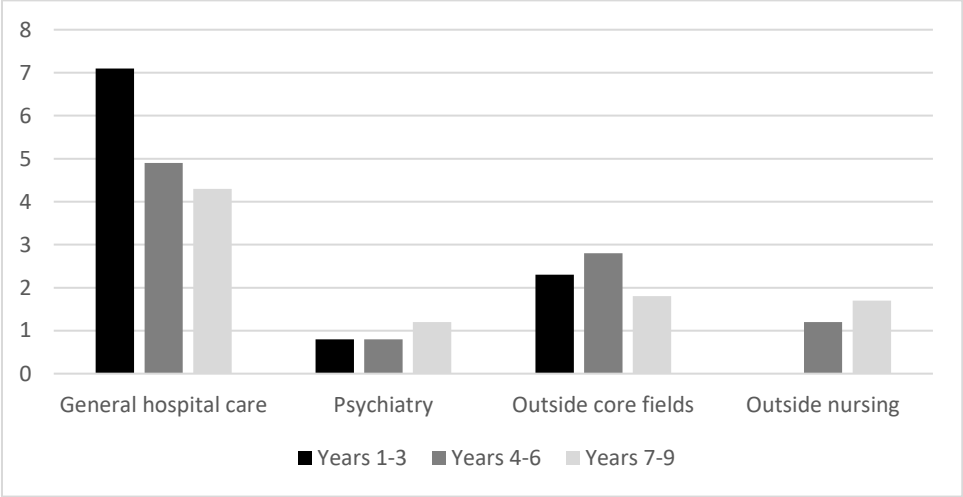
**Figure 1** Mobility into clinical fields in the first ten years of nurses' careers. Three years summaries. Nurses graduated in 2001/2003. %. n=445 (year 1), n=431 (year 10).



**Figure 2** Mobility out of clinical fields in the first ten years of nurses' careers. Three years summaries. Nurses graduated in 2001/2003. %. n=445 (year 1), n=431 (year 10).



**Figure 3** Clinical fields nurses leave before entering care of older people in the first ten years of their careers. Three years summaries. Nurses graduated in 2001/2003. %. n=445 (year 1), n=431 (year 10).



**Figure 4** Clinical fields nurses enter after leaving care of older people in the first ten years of their careers. Three years summaries. Nurses graduated in 2001/2003. %. n=445 (year 1), n=431 (year 10).

