

Department of Neurobiology, Caring Sciences and Society, Division of Clinical
Geriatrics, Karolinska Institutet, Stockholm, Sweden

Municipal elderly care: Implications of registered nurses' work situation, education, and competence

Karin Josefsson



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*“Affirm the joy,
the pleasure, and the life”*

ABSTRACT

Registered nurses (RNs) are key figures in municipal elderly care. It is a challenge to create necessary conditions that enable them to provide quality nursing care. These studies aimed to increase insight into RNs work conditions in municipal elderly care, and to compare RNs working solely in dementia care (DC) with RNs working in general elder care (GC). The specific aims were to describe RNs' perceptions of: **(I)** their work situation, regarding demands, influences, and social support, as well as RNs characteristics; **(II)** violence and threats directed at them, other staff, and care recipients, as well as access to prevention measures and routines for handling violence and threats; **(III)** their education and competence development; **(IV)** their needs for knowledge, possibilities for competence development, supervision, organisation of RNs' development, financial support, competence utilisation, and managers' competence. A descriptive and comparative design was used. The setting consisted of 60 special housing with subunits in a large city in the middle of Sweden. A total of 213 RNs participated, with a response rate of 62%. Of those, 95 (45%) worked in DC and 118 (55%) in GC. A structured questionnaire, designed for these studies was used. Study **I** showed on average high time pressure in both groups. Greater knowledge and higher emotional and conflicting demands were found in DC. The majority reported greater opportunities to plan and perform daily work tasks than to influence the work situation in a wider context. On average, there was a high level of support at work from management and fellow workers. Study **II** indicated that RNs had witnessed and experienced a high degree of indirect threats, direct threats of violent acts, and violent acts, with care recipients also subject to threats and violence. The RNs in DC had greater access to education in managing threats and violence, and routines for managing violence and a door with a lock to their working unit. Study **III** revealed that RNs possessed a broad range of formal competence. On average, the RNs had 18 years of work experience as an RN. The majority lacked a Degree of Bachelor in Nursing. Few had adequate specialist competence. RNs in DC were willing to invest more in competence development whereas RNs in GC were more motivated to invest in competence development by seeking another position and by attaining a greater authority to make important decisions at work. Study **IV** showed that, on average, the RNs did not lack or hardly lacked knowledge in the examined domains. RNs in GC lacked knowledge of dementia, falls, and fall injuries to a greater extent than RNs in DC. RNs in DC perceived greater possibilities for competence development at work. Most RNs, especially in GC, requested a better organisation for competence development. The majority of RNs had no supervision. Although the utilisation of the competence of RNs was high, RNs used their highest competence about half of the working hours. The employers' financial contribution to RNs' continuing education was poor. Conclusions drawn from the studies are: **(I)** RNs' time pressure needs to be decreased and their influence on decisions increased. **(II)** Violence occurs equally frequently without any difference between DC and GC. More often, RNs in DC are offered education on how to manage violence and threats, and have routines for management of violence. Therefore, municipal authorities should increase staff education for management of violence and creating safety routines. Violence needs to be taken seriously with a 'zero tolerance' attitude. **(III)** It is important to develop the RNs' competence and increase the utilisation of their competence. It is also essential to increase the number of RNs who have specialist competence. **(IV)** Better organisation and greater possibilities for RNs' competence development is needed. Employers need to make a greater financial contribution to RNs' competence development. RNs also need supervision. When combined, high demands and low control in the work situation form the most critical combination for the health of RNs. This may lead to sick-absenteeism and staff turnover. Thus, RNs' time demands should be decreased, violence be minimised, and influence in decision-making increased in both groups. Further research is required on RNs' competence development, family conditions, leisure, health, their 'ideal work', and the concept of general elder care.

Keywords: registered nurse, nursing, municipal elderly care, work situation, demand, control, influence, support, violence, education, competence, competence development, questionnaire.

SAMMANFATTNING

Sjuksköterskor är nyckelfigurer i kommunal vård och omsorg för äldre personer. Det är angeläget att förutsättningar finns för deras yrkesutövning för att tillgodose god vård och omsorg av äldre personer. Avhandlingens övergripande syften var att öka insikten om sjuksköterskor i kommunal vård och omsorg för äldre personer och att jämföra dem som enbart arbetar i demensvård (DV) med dem i allmän äldreomsorg (AV). Specifika syften var att beskriva sjuksköterskors uppfattningar av: **(I)** arbetssituation med fokus på krav, inflytande och socialt stöd samt deras karaktäristiska; **(II)** våld riktat mot dem, övrig personal, vårdtagare och tillgång till preventiva åtgärder och handlingsrutiner vid våld; **(III)** deras utbildning och syn på kompetensutveckling; **(IV)** med fokus på kunskapsbehov, möjligheter för och organisation av kompetensutveckling, handledning, kompetensanvändning, ekonomiskt stöd och arbetsledarnas kompetens. Designen var beskrivande och jämförande. Sextio särskilda boenden med underliggande enheter ingick i studien i en storstad i Mellansverige. Totalt deltog 213 sjuksköterskor med en svarsfrekvens på 63%. Nittiofem (45%) arbetade i DV och 118 (55%) i AV. En strukturerad enkät användes och data jämfördes mellan och inom grupperna. Studie **I** visade hög tidspress i båda grupperna. Större kunskapskrav, känslomässiga och motstridiga krav uppfattades i DV. De flesta hade större möjlighet att påverka dagliga arbetsuppgifter, jämfört med över arbetssituationen i stort. Stödet från arbetskamrater och arbetsledare var högt och högre i DV. Studie **II** indikerade att sjuksköterskorna i hög grad blivit utsatta för våldshandling, indirekta hot och direkta hot om våldshandling. De hade bevittnat hot och våld mot vårdtagare och personal. Tillgång till utbildning i hantering av hot och våld var större i DV, liksom befintliga rutiner vid våld. Studie **III** visade att de hade en bred formell kompetens och en lång erfarenhet som sjuksköterska. Majoriteten saknade kandidatexamen i omvårdnad. Det var få som hade adekvat specialistutbildning. De i DV ville investera mer i sin kompetensutveckling. I AV motiverades de till kompetensutveckling i högre grad av att få större inflytande över för dem viktiga beslut och genom att söka annat arbete. Studie **IV** visade att de i medeltal knappast eller inte alls saknade kunskap i undersökta domäner. Kunskap om demens, fall och fallskador saknades i högre grad i AV. Möjlighet för kompetensutveckling på arbetet uppfattades som större i DV. De flesta och särskilt de i AV efterfrågade en bättre organisation för deras kompetensutveckling. Majoriteten hade ingen handledning. Deras kompetens användes i hög grad, där högsta kompetensen användes halva arbetstiden. Arbetsgivarens finansiella bidrag var ringa till deras kompetensutveckling. Slutsatser från studierna är **(I)** att minska tidspress och öka deras inflytande över beslut i arbetet. **(II)** Våld förekommer frekvent utan skillnader mellan DV och AV. I DV erbjöds utbildning oftare i bemötande av våld och hot samt rutiner vid våld. Det ställer krav på att kommunala myndigheter ökar personalutbildning i bemötande av våld och hot samt skapar säkra rutiner. Våld behöver också tas på allvar med en attityd av nolltolerans. **(III)** Det är viktigt att utveckla och öka användningen av sjuksköterskornas kompetens. Det är angeläget att öka antalet specialistutbildade sjuksköterskor. **(IV)** Bättre organisation av och större möjlighet behövs för sjuksköterskornas kompetensutveckling. Arbetsgivaren bör i större grad bidra ekonomiskt till kompetensutvecklingen. Sjuksköterskorna behöver erbjudas handledning. Sammantaget är höga krav och lågt inflytande på arbetet den mest kritiska kombinationen för hälsan. Det kan leda till sjukfrånvaro och personalomsättning. Därför bör tidspressen sänkas, våldet minimeras och inflytandet över beslut ökas. Vidare forskning behövs om sjuksköterskornas kompetensutveckling, familjeförhållanden, fritid, hälsa, deras 'ideala arbete' och konceptet allmän äldreomsorg.

Nyckelord: sjuksköterska, omvårdnad, äldreomsorg, äldreomsorg, kommunen, arbetssituation, krav, kontroll, inflytande, stöd, våld, utbildning, kompetens, kompetensutveckling, enkät.

PAPERS

This thesis is based on the following publications, which are referred to in the text by their Roman numerals:

- I **Josefsson, K.**, Sonde, L., Winblad, B., & Robins Wahlin, T-B. (in press). Work situation of registered nurses in municipal elderly care in Sweden: A questionnaire survey. *International Journal of Nursing Studies*. Available on line at www.sciencedirect.com
- II **Josefsson, K.**, Sonde, L., & Robins Wahlin, T-B. (in press). Violence in municipal elderly care in Sweden as perceived by registered nurses. *Journal of Clinical Nursing* 15, 1-11.
- III **Josefsson, K.**, Sonde, L., & Robins Wahlin, T-B. (in press). Registered nurses' education and their views on competence development in municipal elderly care in Sweden: A questionnaire survey. *International Journal of Nursing Studies*. Available on line at www.sciencedirect.com
- IV **Josefsson, K.**, Sonde, L., & Robins Wahlin, T-B. (in press). Competence development of registered nurses in municipal elderly care in Sweden: A questionnaire survey. *International Journal of Nursing Studies*. Available on line at www.sciencedirect.com

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ABBREVIATIONS

| | |
|-----------|--|
| BPSD | Behavioural and Psychological Symptoms of Dementia |
| DC | Dementia Care |
| DCS model | Demand-Control-Support model |
| GC | General elder Care |
| HSL | Health and Medical Service Act |
| RNs | Registered Nurses |
| SoL | Social Service Act |

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INTRODUCTION

This thesis describes Registered Nurses (RNs) in municipal elderly care. The focus is on their characteristics, their work situation particularly with regard to demands, influence, support, violence, as well as on education, and competence. All RNs provided direct care in special housing – i.e. nursing homes, group housing, old people's homes, and service blocks. Taking into account the specific structure of elderly care, RNs working solely in Dementia Care (DC) were compared to those working in General elder Care (GC) where older people have diverse main diagnoses. The definition of an old person in this thesis was based on chronological age, 65 years and older. The RNs' work situation is influenced by several factors, all of which are important to consider when contemplating their education and competence. This introduction gives first a brief overview of demography and ageing, followed by age-related health problems such as dementia and multiple diagnosed. A description of elderly care in Sweden follows, which includes the responsibilities, costs and laws that influence municipal elderly care. Changes in elderly care, such as the Ädel reform, the development of DC, and special housing are described. These changes are important for RNs' work situation. After that, a description is given specifically of RNs in municipal elderly care, pertaining to their demographic background, work situation, encounters with violence, and qualifications required by their work. Thereafter, their education, competence, and competence development are discussed. Finally, the theoretical framework and rationale for this thesis are discussed.

Demography and ageing

The world's ageing population is an important global issue, particularly for the work of RNs (Baumann & Söderhamn, 2005). This will have a major impact across society and the economy (Commission of the European Communities, 2002). In Europe 37% of the citizens are expected to be older than 60 years in 2050. In 2005, just over 17% (1.5 million people) of Swedish population were age 65 and over (Statistics Sweden, 2006). This group is predicted to increase by 23% during the next decade. Thus, in 2050, 2.5 million Swedish people will be 65 or older, and of them, 37% will be 80 years and older (Statistics Sweden, 2006).

There is a relationship between increasing age and health problems that become more prevalent around the age of 80 (Dehlin, Hagberg, Rundgren, Samuelsson, & Sjöbeck, 2000; SBU, 2003). Care and service needs usually arise in the 80s and increase as people grow older (SALAR, 2005; National Board of Health and Welfare, 2006b). Söderhamn, Lindencrona, and Ek (2000) showed decreased self-care ability and self-care agency among people aged 75 and older. Older

peoples' dependence on care and nursing increases the closer they come to the death (National Board of Health and Welfare, 2004a). Consequently, they comprise the majority of the recipients of care in municipal elderly care (Thorslund & Larsson, 2002). Common health problems are dementia, heart failure, cancer, post-stroke conditions, malnutrition, and fractures (Akner, 2004). About 5% of those 75 years and older also have multiple diagnoses (Akner, 2004). A person is defined as having multiple diagnoses when that person is older than 75 and has received hospital care three times or more, with three or more diagnoses (Gurner & Thorslund, 2001). Taking into account the increasing numbers of elderly it is reasonable to expect an increasing need for elderly care (Thorslund & Larsson, 2002; Akner, 2004; National Board of Health and Welfare, 2004b).

It is important to note that the majority of older people have the functional abilities to live in their own housing (Akner, 2004; SALAR, 2005). According to Thorslund's and Parker's (2005) review of international and Swedish health trends in elderly populations, there was a generally increasing trend of poor health during the late nineties. The trend was primarily seen in disease and functional limitations rather than disability. Thus, the future may bring fewer older people with disabilities than the current calculations. On the other hand, the demands for medical care may increase, due to chronic illnesses that are managed but not cured (Thorslund & Parker, 2005).

Dementia

Dementia is one major cause of functional dependence in the elderly (Aguero-Torres et al., 1998) and mortality (Aguero-Torres, Fratiglioni, Guo, Viitanen, & Winblad, 1999) among older people. Dementia affects approximately 6% of people 65 years and older (Lobo et al., 2000). The prevalence doubles every fifth year between the ages of 65 and 85, reaching 45% by the age of 95 (Fratiglioni & Rocca, 2001). Today the number of people with dementia is around 140,000 in Sweden (SBU, 2006).

Dementia is a clinical syndrome composed of a memory deficit and impairment in at least one other cognitive domain. Together these impairments are severe enough to affect daily social life, professional life, or relationships with others. This impairment is not due to depression or delirium (American Psychiatric Association, 1994). The Behavioural and Psychological Symptoms of Dementia (BPSD) classifies dementia symptoms into a group of psychological symptoms and a group of behavioural symptoms (Erikson et al., 2000). The prevalence of BPSD has been described in various studies as affecting up to 92.5% of people with dementia at some point in the course of their illness (Robert et al., 2005).

Dementia causes tremendous distress for relatives and those affected (Erikson, et al., 2000; Beck-Friis, 2006; Kristiansen, Hellzén, & Asplund, in press). Dementia causes problems relating to

oneself, to others, and to the world. Impaired abilities to understand, interpret, and act in relation to oneself and others often lead to communication problems (Athlin & Norberg, 1987; Hallberg, Norberg, & Eriksson, 1990). One could say that the person with dementia is 'trapped in a broken brain' (Norberg, Zingmark, & Nilsson, 1994). This means that they have difficulties coping independently with daily living (Sandman & Wallblom, 1996). Among residents in special housing, those with dementia suffered greater impairment in all kinds of functions compared to those without dementia. People with dementia have become more numerous in special housing (Wimo, Rönnbäck, Nyberg, Granholm, & Thorslund, 1999). Care for persons with dementia is optimal in units adjusted to their special needs. Despite these needs, they are also often cared for in GC (Wimo & Sandman, 1999; Ministry of Health and Social Affairs, 2003).

Elderly care in Sweden

It is a policy in Sweden, as in the rest of Europe, to allow older people to remain in their own homes (ordinary housing) for as long as possible (Davies, 1995; SALAR, 2005). There is also an ongoing shift of responsibility from public institutions to families (National Board of Health and Welfare, 2006b). The municipalities provide support such as transportation service, personal safety alarms, meals on wheels, and home adaptations. If older people need additional support, they may receive home help and home medical services. Short-term care, short-term housing, and day activities may also be arranged. Terminal care in the home is also increasingly common. Those who need round-the-clock care may be granted special housing (SALAR, 2005).

Shortcomings in elderly care have been reported (Akner, 2004). Therefore the government has proposed measures including a national development plan for care and service to older persons (Government Proposal 2005/06:115). Six areas of development were prioritized: (1) dementia and multiple diagnoses; (2) security in the residential and social care; (3) national equivalence and local development; (5) prevention and (6) staff.

In 2004, the municipalities provided about 90% of the care and service for older persons, and individual providers accounted for the remainder. However, the municipalities always have the ultimate responsibility for the service and care activities (SALAR, 2005). In 2004, 237,000 older people received care and service in ordinary and special housing (National Board of Health and Welfare, 2006b) and this number represented 15% of those 65 and older.

Responsibility and costs

Responsibility for care of older people is divided among three authorities acting at different levels (Ministry of Health and Social Affairs, 2005a, 2005b). At the national level, Parliament and the

Government set out policy goals and directives by means of laws, legislation and financial control measures. At the regional level, the county councils (N=21) are responsible for providing health and medical care. They are charged under the Health and Medical Service Act (HSL) (SFS, 1982:763) to ensure quality standards of health for the population. County councils administer hospitals and health centres. At the local level, the municipalities (N=290) have been legislated the responsibility to provide care for older people (SFS, 1982:763) as well as their social services and housing needs (SFS, 2001:453).

The total cost of care for older people in municipalities and county councils in 2004 was SEK 158.4 billion (National Board of Health and Welfare, 2006b). That was 6.5% of the gross national product. The yearly cost of dementia care was SEK 40 billion, with municipalities incurring the greatest proportion of the cost (SBU, 2006). The total annual cost for care and services provided by the municipalities in 2004 amounted to SEK 79.6 billion. Of this amount, 66% pertained to special housing and 32% to ordinary housing (National Board of Health and Welfare, 2006b). The greatest proportion of care for older people is financed by taxes from citizens, although a fraction is subject to a charge from the care recipients (Ministry of Health and Social Affairs, 2005a, 2005b).

Laws influencing municipal elderly care

Municipal service and care for older people is regulated by two acts (National Board of Health and Welfare, 2006a). These are the Social Service Act (SoL) (SFS, 2001:453) and the HSL (SFS, 1982:763). According to the SoL, municipalities are responsible for ensuring services to older people. The municipalities are required to ensure that older people have the possibility to live independently in secure conditions, and with respect for their autonomy and privacy. Older people who are unable to provide for their own needs are entitled to assistance for their livelihood and living. The SoL also regulates the obligations of municipalities to provide special housing for those who require round-the-clock care.

The HSL regulates health care to all citizens on equal terms. Health and medical care for older people in special housing, short-term care, and day activities are part of the regulated responsibilities of municipalities (Beck-Friis, 2003; Ministry of Health and Social Affairs, 2005a, 2005b; SALAR, 2005). Health care is to be delivered in accordance with agreed standards of science and proven experience. Municipalities are not permitted to employ physicians (SFS, 1982:763; Akner, 2004). Consequently, the county councils are responsible for physician-provided health and medical care in both ordinary and special housing (Beck-Friis, 2003; Ministry of Health and Social Affairs, 2005a, 2005b). The responsibility of municipalities for medical care extends to

and includes the employment of RNs in special housing (Beck-Friis, 2003; Ministry of Health and Social Affairs, 2005a, 2005b; SALAR, 2005).

The Ädel reform

Before 1992, the municipalities managed social services, and the county councils managed medical care for older people (National Board of Health and Welfare, 1996). In 1992, the care of older people was reorganised through the Ädel reform (Carlström, 2005). The municipalities became responsible for medical care, rehabilitation, and social services in special housing (National Board of Health and Welfare, 1996). Furthermore, all municipalities were given the opportunity to take responsibility for the delivery of medical care for older people in ordinary housing, through a contract with the county councils (SALAR, 2005). About half of the municipalities had done so in 2004. A payment incentive was introduced such that municipalities must pay for the patient's hospital care if a patient is classified as a 'bed-blocker' (National Board of Health and Welfare, 1996).

The Ädel reform aimed to increase the possibilities for older people to remain in their ordinary housing, receiving care and services when needed. The pre-Ädel medical perspective focussing on long-stay care was replaced by a social perspective with emphasis on health. Despite serious medical conditions, former patients were now to be formally seen as guests or residents. Special housing was introduced as an alternative to ordinary housing. RNs were employed in municipalities to provide health and medical care in special housing, short-term care, and day activities (National Board of Health and Welfare, 1996; SALAR, 2005). A medical responsible nurse was to be employed by every municipality (SOSFS 1997:10). They are responsible for medical care at the nursing level and for supervising in special housing. Furthermore, the managers of special housing are not required to have formal nursing or medical training. Thus, RNs and social workers with different perspectives were integrated into a common organisation (Åberg, Öhman, & Lundin-Olsson, 2004; Carlström, 2005).

Development of dementia care

Traditional institutional care can contribute to behavioural disturbances, such as confusion and difficulty adapting to surroundings, especially for people with dementia. Because of that, group housing is suitable for people with dementia (Annerstedt, 1995). The development of group housing for older people with dementia has been developed in Sweden since the early 1980s as an alternative to traditional institutions (Asplund, Adolfsson, Lundgren, Rönnbäck, & Sandman, 1988;

Annerstedt, 1995; Beck-Friis, 2003; Ministry of Health and Social Affairs, 2003; Melin Emilsson, 2004). The idea behind these group housing is to have a specially educated staff, a committed care philosophy, and a distinctive form of care adapted to the dementia syndrome, all conducted in small and homelike units. A fundamental premise is to promote an experience of “at-homeness” (Zingmark, Norberg, & Sandman, 1993) and social community (Kitwood, 1997). However, to varying degrees, dementia care was provided in all types of special housing (Wimo & Sandman, 1999; National Board of Health and Welfare, 2000; Thorslund & Larsson, 2002). The term ‘group housing’ is losing its distinctive features (Melin Emilsson, 2004) and according to Melin Emilsson (2004), group housing as a form of care may be disappearing in Sweden, and the term ‘group housing’ may vanish. Furthermore, GC is often discussed from the perspective of people with dementia (SBU, 2006). Additionally, Oh (2006) reported that little research explores the experience of lucid residents while sharing rooms with resident with dementia. Furthermore, Oh (2006) concluded that negative effects of integration of lucid and demented residents were apparent for all residents.

Special housing

RNs in the sample of this thesis worked in special housing. The municipalities provide special housing to older people with extensive needs for medical care and social services, with 24-hour support where necessary. Assessment of need is carried out by the authorities (SFS, 2001:453). The majority of residents in special housing occupy their own units with a rental contract (SALAR, 2005). The municipalities provide medical care up to and including the level of RN. The county councils are responsible for providing physicians. When needed, a physician from primary healthcare services, usually a general practitioner is summoned. After the Ädel reform, a growing number of RNs, occupational therapists, and physiotherapists have been employed in special housing (Tunedal & Fagerberg, 2001; Åberg et al., 2004). They have an education in health care and work together with nursing assistants and enrolled nurses (SALAR, 2005; Weman, 2005, p. 14). While the managers of special housing often have an educational background and long experience of social care (Åberg et al., 2004).

The primary reason for moving to special housing is cognitive decline, such as severe dementia and also multiple diagnoses (Wimo & Sandman, 1999; National Board of Health and Welfare, 2000; Thorslund & Larsson 2002; FOKUS, 2004). Another reason is for conditions that are not possible to plan for or timetable in advance. In 2004, 7% or 104,800 people 65 and over lived permanently in special housing (National Board of Health and Welfare, 2006d). Of these, 17% or 83,300 were 80 years and over. The same year, 23,500 people with dementia lived in special housing (Ministry of Health and Social Affairs, 2003). Most of them lived in special housing which

was not dementia-specific. Since the Ädel reform, medical care for seriously ill and dying older people has increasingly shifted from hospitals to special housing (National Board of Health and Welfare, 2005c). At the same time, there has been a rapid reduction in the number of available places in special housing (Gurner & Thorslund, 2003; National Board of Health and Welfare, 2006b). There are not enough residences to match the increasing numbers of very old people (Thorslund & Larsson, 2002; National Board of Health and Welfare, 2006b). Therefore, those with the greatest needs, such as people with dementia have priority for a place in special housing (Gurner & Thorslund, 2003; National Board of Health and Welfare, 2006b). This implies a greater need for well-educated and competent staff (Thorslund, Bergmark, & Parker, 2001; National Board of Health and Welfare, 2004b).

The definition of 'special' features in special housing is complex (National Board of Health and Welfare, 2000; National Board of Health and Welfare 2001; Thorslund & Larsson, 2002). The physical standard is similar to ordinary housing, as this was the intention of the Ädel reform. However, special housing is dissimilar to ordinary housing in that there are an increased number of residents with more substantial care needs. Many residents are also confined to bed. Nowadays, special housing units are more flexible structures than traditional housing. According to a survey conducted by the National Board of Health and Welfare (2001), half the resident units surveyed used the definition "special housing". The other half could not be so categorized. Several different subunits existed in the same unit. The special dementia units were not always suitable for dementia care (Ministry of Health and Social Affairs, 2003). Thus, it might be best to classify what is 'special' with special housing based on care needs, and availability and competence of staff rather than physical structures (National Board of Health and Welfare, 2001). Cheah and Moon (1993) suggested that specialist status revolves around the assumption that older people have unique and special needs. These needs are what makes elderly care a specialisation (Cheah & Moon, 1993).

Registered nurses in municipal elderly care

Demography

The number of RNs has increased in the municipalities during the 1990s (SALAR, 2004). Thereafter, recruiting has gradually decreased. A total of 37,511 RNs worked in the municipal sector in 2004 (SALAR, 2005), out of a total of 101,114 RNs, including midwives, working in Sweden (Statistics Sweden, 1996). In municipal care for older and disabled people, a total of 12,200 RNs were employed on a monthly contract (SALAR, 2005). The majority of RNs were working in special housing (Westlund & Larsson, 2002; SALAR, 2005) and were middle-aged to older women

(SALAR, 2005). Of RNs who were monthly employees, 35% were age 45–54 and 30% were older. Thus, a considerable increase in retirements of RNs is predicted around 2020. The percentage of full-time employees, including RNs, has increased to 44%. The average activity level for all part time workers was 73% of full-time hours. For RNs employed on hourly basis the corresponding figure was about 40% of full-time hours (SALAR, 2005).

The mobility of RNs in all ages decreased markedly for the first time in 1996. The number of those who left their jobs decreased in all age groups. Seven percent of permanently employed RNs resigned from their municipal employment in 2004. Of the monthly employees in 2004, 13% of RNs were off-duty, on long-term sick leave, or employed on an hourly basis in the municipalities. The number of people on newly sick leave has decreased, while the number of those on long-term sick leave has continued to increase (SALAR, 2005). Forty percent of those on long-term sick leave attribute it to poor mental health (AFA Insurances, 2006). This is a higher percentage than the national average for employees in general. The most commonly reported work-related illnesses in Sweden are due to ergonomic factors, such as unusual work postures (Swedish Work Environment Authority, 2006). However, RNs in municipal elderly care were an exception. They reported organisational or social factors as the primary reasons for work-related illness.

The work situation

The changes in elderly care in recent decades have altered the RNs' work situation. Changes in the work environment can be a starting point for improvement. However, the changes may also be a source of frustration and difficulties for those carrying out the practical work (Arnetz, 2001; Akner, 2004).

The Ädel reform led to more highly qualified health care twenty-four hours a day (National Board of Health and Welfare, 1996). RNs were however employed by authorities lacking prior experience in working with RNs (Lundström & Ehnfors, 2001; Tunedal & Fagerberg, 2001). Cultural differences were observed between medically trained nursing staff and socially trained social-service staff (Board for Occupational Safety and Health, 2000; Tunedal & Fagerberg, 2001; Svensson 2002; Carlström, 2005). RNs have to function in a great network of contacts (Åberg et al., 2004; SALAR, 2005; Weman, 2005, p. 14), spite of a lack of clear performance indicators for their work performance (Board for Occupational Safety and Health, 2000; Swedish Work Environment Authority, 2004) and Lyxell (personal communication, July 24, 2006).

Before the Ädel reform, RNs worked closely with physicians, often in a team (Beck-Friis, 2003; Akner, 2004). Nowadays, RNs lack access to physicians (Swedish Institute of Family Medicine, 2003). RNs are often solely responsible with no colleagues or superiors for discussion or

consultation (Kapborg & Svensson, 1999; Fagerberg, Winblad, & Ekman, 2000; Tunedal & Fagerberg, 2001). There is also a trend towards decreasing numbers of RNs (SSF, 2006a) which has led to RNs working as consultants at a distance from the care recipients (Westlund & Larsson, 2002; Heikkilä, 2006; SSF, 2006a). However, RNs are necessary in the workplace rather than as consultants at a distance (Josefsson, 1997; Tunedal, 2005; SSF, 2006a). Not least due to the fact that 40% of nursing assistants in the workplace lack any formal vocational education (National Board of Health and Welfare, 2004b).

RNs have to deal with challenging ethical issues (Svensson, 2002; Berggren, 2005; Swedish Associations of Health Professionals, 2005; ICN, 2006). This requires balancing and navigating the different needs of care recipients, relatives, and staff (Edberg & Bird, 2003). Thus, RNs need a supportive context, especially if they feel that they or the staff cannot provide optimal quality care (Fagerberg & Kihlgren, 2001). However, RNs in municipal elderly care are often left to their own resources (Kapborg & Svensson, 1999; Fagerberg, Winblad, & Ekman, 2000; Board for Occupational Safety and Health, 2000; Tunedal and Fagerberg, 2001). In addition, nursing students found that RNs in elderly care were often isolated without any obvious support system (Fagerberg et al., 2000). This is despite the fact that RNs need support from the commencement of their nursing education and continuously throughout their profession (Hallin & Danielsson, in press). Furthermore, Lundström and Ehnfors (2001) demonstrated the lack of influence of RNs in care issues at the managerial level in municipal elderly care. At the international level the World Health Assembly (2006) has noted that the influence of RNs needs to be strengthened at all appropriate governmental levels.

Furthermore, RNs bear responsibility for an increasing number of care recipients without a corresponding increase in resources, especially during evenings and weekends (Kapborg & Svensson, 1999; Westlund & Larsson, 2002; Swedish Institute of Family Medicine, 2003). Fewer numbers of RNs are providing care (Fagerberg et al., 2000; Board for Occupational Safety and Health, 2000) under increasing time pressures (Hagström, Johansson, & Westerholm, 2000; Tunedal & Fagerberg, 2001; Swedish Institute of Family Medicine, 2003; Weman, Kihlgren, & Fagerberg, 2004; Åberg, et al., 2004). In the most recent years, the work load has increased considerably in special housing (Thorslund & Larsson, 2002; Swedish Associations of Health Professionals, 2004). The National Board of Health and Welfare (2006d) has measured nursing workloads over time at special housing in one geographical area. Between 1978 and 1999, the peak year, the nursing load increased. Interestingly, measurement in 2002 and 2005 showed a decrease in nursing load compared to 1999. Despite this trend, the nursing load is still high in special housing (National Board of Health and Welfare, 2006d)

Violence

Increasing attention is drawn to violence towards care recipients in elderly care, (Arnetz, Arnetz, & Pettersson, 1996; Saveman, Åström, Bucht, & Norberg, 1999; Sandvide, 2006) and towards nursing staff (Arnetz et al., 1996; Menckel 2000; Menckel & Viitasara 2002; Åström, Bucht, Eisemann, Norberg, & Saveman, 2002; Viitasara, 2004; Sandvide, 2006).

There are a great variety of definitions of violence (Arnetz, 1998; Menckel, 2000; Arnetz, 2001; Viitasara, 2004). Threats and violence are variously defined and are not always kept separated (Occupational and Environmental Medicine, 2003). In this thesis, violence is broadly defined as involving both non-physical and physical violence. The definition chosen is: *“...encompassing threatening behaviour and verbal aggression as well as acts of physical assault. Threatening behaviour can be verbal only, or it can entail implied physical harm, such as raising clenched fists without actually striking”* (Arnetz, 1998, p. 7). It is important not to overlook the fact that even if a person is not directly exposed to violence, the effect of indirect violence appears to extend to bystanders, where a ‘climate of fear’ produces similar reactions in onlookers (Hoel, Sparks, & Cooper, 2002).

Violence is a major problem for RNs (Arnetz et al., 1996; Jackson, Clare, & Mannix, 2002; Åström, Bucht, Eisemann, Norberg & Saveman, 2002). Violence occurs frequently in elderly care and psychiatric units (Arnetz et al., 1996, Jackson, Clare, & Mannix, 2002; Omérov, Edman, & Wistedt, 2004), as well as in accident and emergency departments (Jackson et al., 2002). Arnetz et al. (1996) disclosed in a national study that 30% of over 2,600 RNs including midwives had experienced work-related violence. In addition, 35% had been threatened, 30% had witnessed violent acts, and as many as 27% considered violence to be an occupational problem. The risk for violence and threats is increased in psychiatric and geriatric settings. Åström et al. (2002) reported that 42% of RNs were exposed to violence in elderly care. Specifically, RNs working in special housing reported a higher occurrence of violence compared to ordinary housing.

Menckel and Viitasara (2002) showed that 51% of 170,000 municipal staff had been exposed to threats and violence in a one-year period. Of these, 75% worked in elderly care and well over half in special housing. Most of them were exposed daily, verbally (79%) and physically (66%). Åström et al. (2002) showed that 40% of staff members ($n=506$) were exposed to violence. Eighteen percent of this group was exposed daily throughout a one-year period. Furthermore, Saveman & Sandvide (2001) reported that 25% of general practitioners were aware that elderly patients were either at risk, or actually suffering from elder abuse. Eleven percent of 499 staff

members in special housing knew of elder abuse and 2% admitted to committing abusive acts (Saveman et al., 1999). Sandvide, Åström, Norberg, & Saveman (2004) reported that 848 caregivers acknowledged 149 violent events during a one-year period, all directed towards care recipients in special housing.

Violence mostly occurred during personal care activities (Middleton, Stewart, & Richardson, 1999; Saveman et al., 1999). Care recipients who were least able to influence the outcome of their care were particularly affected by abuse (Meddaugh, 1993). Abused care recipients have often shown to be mentally or physically impaired (Saveman et al., 1999; Goergen, 2001). Middleton, Stewart, & Richardson (1999) and Åström, Karlsson, Sandvide, Bucht, Eisemann, Norberg, and Saveman (2004) reported a greater degree of violence in DC compared to other special housing care and traditional long-term care. However, the level of staff burnout and conflicts between the staff and care recipients were shown to be stronger predictors of violence than aggression on the part of care recipients (Pillemer & Moore, 1990). Sandström (2000) indicated that burnout and stress is associated with difficulties in feeling empathy. The author also noted that caring and human contact were often the first things to suffer during staff reductions. Furthermore, reorganisation in the workplace and high workload were predisposing factors of violence (Smith-Pittman & McKoy, 1999; Menckel & Viitasara, 2002). Thus, Pillemer & Moore (1990) suggested that staff were not villains but are most often the victims of difficult circumstances.

Qualifications required by the work

The changed work situation in municipal elderly care calls for appropriate educational preparation to enable RNs to effectively undertake the new responsibilities of the profession (Joy, Carter, & Smith, 2000). However, there is little known about the educational needs of RNs who have made the transition from working in a hospital to working in the municipality. Neither is there any clear national definition of the functions and tasks for RNs in municipal elderly care (Svensson, 2002). However, the importance of a multidisciplinary approach is needed to meet the care needs of older people and to facilitate teamwork (Joy, Carter, & Smith, 2000; Åberg et al., 2004; Weman, 2005, p. 14).

The Swedish ProCare Association, Bravå (2005), including the Pensioners' Association in Sweden, has highlighted essential domains of requirements for quality elderly care. These were: treatment with dignity; care recipient's participation; planning for care; activity and rehabilitation; dwelling, food, drink, and meal environment. Additional requirements were drug administration; mouth and dental care; sleep, harassment and anguish; pain; incontinence; decubitus; falls and fall injuries; hearing; dementia syndromes; palliative care; sexual health; leadership and organisation.

Tunedal and Fagerberg (2001) have described the views of RNs as to requirements for RNs working in municipal elderly care. These requirements are (1) medical competence, such as geriatric, gerontology, and medical-technical abilities; (2) nursing competence, such as geriatrics anchored in nursing science, clinical, and theoretical knowledge; (3) pedagogical competence, such as the ability to teach, supervise staff, and act as a mentor demonstrating knowledge in leadership, training, and communication; and (4) personality requirements, such as a genuine interest in older people, mental strength, confidence, and independence in the professional role. RNs also need experience from other care fields, since it leads to independence and security in the professional role. Further, the competence and abilities desired of RNs in municipal elderly care were theoretical knowledge, social ability and competence, as well as administrative and practical skills (Weman, 2005, p. 7).

The qualifications required for providing quality care to people with dementia, as well as to those with multiple diagnoses are well known (SBU, 2003, 2006; Akner, 2004). Tunedal (2005) showed that RNs' presence and participation was required in the patient care in DC. Moreover, RNs should have leadership and be part of the team. There was also a demand for RNs' supervision, such as medical knowledge. Josefsson (1997) reported similar results in GC. Older people have unique and special needs which require special competence (Cheah & Moon, 1993).

Education

RNs have an education (SFS, 1992:1434; SFS, 1993:100) in general and specific nursing (SOSFS, 1993:17). *General* nursing is independent of illness and medical treatment. *Specific* nursing requires knowledge not only in the normal functions of human beings, but also about diseases and their treatment. Nursing Science is the main subject for RNs, according to the Swedish Society of Nursing (SSF, 2006b). RNs are authorized to practise their profession (SFS, 1998:531). They have a personal obligation to pursue their profession competence (SOSFS, 1995:15) in agreement with accepted standards of science and proven experience (SFS, 1998:531). RNs' have in the first place responsibility for nursing (SOSFS, 1993:17). No other professional group can replace RNs' specific nursing competence (SFS, 1998:531; Tunedal, 2005). Thus, RNs have a key role in guaranteeing older peoples' needs for care and service, support to relatives, and staffs' need for supervision (Josefsson, 1997; Tunedal & Fagerberg, 2001; Häggström, Skovdahl, Fläckman, Kihlgren, & Kihlgren, 2005; Tunedal, 2005; Weman, 2005; SSF, 2006a).

Several changes have taken place in nursing education in Sweden (SOSFS, 1995:15; National Board of Health and Welfare, 1998). According to the Education Ordinance year 1952, the nursing education lasted 3 to 3.5 years including a specialist education. A probationary period preceded the

education. In 1966, continuing education was separated from nursing education. A reform of higher-level education (Kapborg, 1998; Furåker, 2001) was introduced in 1982 named Care 77 (SOU, 1978:50). Nursing education was separated from upper secondary school and became a two-year vocational education. A scientific foundation requiring the interaction of education, research, and development was introduced. Furthermore, Nursing Science became the main subject in nursing education.

Another reform of higher-level education was introduced in 1993, based on a law (SFS, 1992:1434) with a supplement (SFS, 1993:100). The examination requirements in nursing education were redefined. As a result, nursing science was introduced as an academic discipline (Pilhammar-Andersson, 1999). Nursing education changed from vocational training to an academic education. Nursing education was also adjusted to conform to the rules laid down by the European Union. This meant that from 1993 onwards, the education of RNs lasted three years. In accordance with the Higher Education Ordinance (SFS, 1993:100), the first RN was graduated in 1996 (SOSFS, 1995:15). RNs can also earn a Degree of Bachelor in Nursing after completing the nursing course requirements of 120 credit points (including 60 credit points in the subject nursing) (SFS, 1992:1434; Kapborg, 1998; Furåker, 2001). One week of successful full-time study is equivalent to one credit point (National Agency for Higher Education, 2006). Higher education is provided in the form of courses with a system of credit points. In Sweden the Government has determined which degrees may be awarded, and the degrees are divided into general degrees and professional degrees (SFS, 1993:100).

There are four postgraduate specialist nursing programmes relevant to the continuing education of RNs in elderly care (SFS, 1993:100). First and foremost it is Elderly Care Nursing, but also Primary Health Care Nursing (Public health nurse), Psychiatric Care Nursing, and General Health Care with an emphasis on surgical, medical or oncological nursing (SFS, 1993:100). The lengths of these programmes are 40 weeks of fulltime study, except for public health nursing, which authorizes the prescription of drugs within the educational programme and is 50 weeks. The qualification is called Graduate Diploma in Specialist Nursing. The title of Specialist Nurse (regulated profession) has been protected by law since 2001 (SFS, 1998:531; National Board of Health and Welfare, 1998). RNs may use the title only after passing the Graduate Diploma in Specialist Nursing according to the Higher Education Ordinance (SFS, 1993:100). Before the new legislation for examination in nursing education (SFS, 1993:100), RNs became specialists either within or after the nursing programme, such as in geriatric care (SOSFS 1995:15). The lengths of these continuing nursing educations varied from 20 to 40 credit points. Higher education is provided in the form of courses with a system of credit points (National Agency for

Higher Education, 2006). These courses may be combined to constitute degree programmes with varying levels of individual choice. Thus, in addition to specialist education, RNs can take courses, which are usually five credit points.

In 2007, a new structure will be introduced for educational programmes, courses, and degrees in higher education, including nursing education (Government Bill 2004/2005:162). This is a result of Sweden's cooperation with 44 other European countries (the Bologna process). The goal is an internationalisation of higher education. Three levels are introduced: basic, advanced, and research. A general degree is introduced at basic level in nursing education: Degree of Bachelor (three years). Graduate Diploma in Specialist Nursing is placed at advanced level, as well as the new Degree of Master (two years), and the old Degree of Master (In Swedish: Magister) (one year). All specialist educations for RNs are changed to aim directly towards the specialist area (Government Bill 2004/2005:162; SSF, 2006b). The system of credit points is to change; one academic year is to yield 60 credit points instead of 40.

The Swedish Associations of Health Professionals (2004) showed that 40% of 300 RNs in municipal elderly care had some kind of further nursing education. Fourteen percent were public health nurses, 4% psychiatric nurses, and 8% were RNs who had pursued continuing education in gerontology and geriatric care. Svensson and Thörnblom (2002) reported that 5% of 40 RNs in municipal elderly care were public health nurses and 7% psychiatric nurses. No RNs in this study were specialised in Elderly Care Nursing, confirmed by Westlund and Larsson (2002). There is a great need for RNs with a specialist education in municipal elderly care (Svensson & Thörnblom, 2002; Westlund & Larsson, 2002; Swedish Association of Health Professionals, 2004; Statistics Sweden, 2005). It is now easier than before to recruit RNs, especially newly qualified RNs. However, demographical changes are predicted to lead to a shortage of RNs both with and without specialisation (Statistics Sweden, 2005).

Competence

The concept of competence

Competence is an essential issue in this thesis. The concepts of competence and qualification have a variety of meanings (Ellström, 1992; Ellström 1997; Granberg, 2004; Cowan, Norman, & Coopamah, 2005). The variety of meanings is especially pronounced as usage of the terms moves from the common meanings to the specific. The concepts have their own specific meaning (Ellström, 1992; Granberg, 2004). However, they also have a common meaning which cannot be fully separated. Competence can be seen from two perspectives – as an individual attribute, or from

a task-based perspective (Ellström, 1992; Ellström 1997; Granberg, 2004). There seems to be disagreement as to whether competence involves performance or not. Another common distinction is to separate *formal* and *actual* competence (SOSFS, 1995:15; Ellström, 1997; SOSFS, 1997:14). Egidius (1994) described competence as formal and as an ability to perform a certain type of task or to handle a certain type of situation. The national overarching description of RNs' competence in Sweden (National Board of Health and Welfare, 2005a) defines competence as the ability and will to perform a task by applying knowledge and skills (Swedish Standards Institute, 2002). Knowledge is included in competence (SOSFS, 1995:15; Granberg, 2004) and serves as a tool for a person to competently solve a task. Knowledge is shown in different forms, such as fact (know that), understanding (know why), skill (know how), and intimate (know what) knowledge (Granberg, 2004). Taking into account the frame of this thesis there is no need to define knowledge any further.

This thesis refers to Ellström's (1997) model of occupational competence. Therefore, it is broad and elucidates the model's complexity of five meanings with three views (Figure 1).

Figure 1. Different meanings of occupational competence (Ellström, 1997, p. 268).
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staff brings to their jobs. There is a distinction between formal and actual competence. Formal competence is completed schooling or credentials received by an individual. Actual competence is the potential capacity of an individual to successfully handle a certain situation or to complete a certain task. Actual competence includes not only the outcomes of education, but also includes the learning outcomes on the job and a wide range of different informal, everyday activities. The *second* view on the right is the qualifications required by the job. This consists of the officially required competence and the competence actually required by the job. The *third* or central view is an interactive view: competence-in-use. This view highlights competence as not primarily neither an attribute of the individual or collective workers, nor primarily an attribute of the job itself. Rather, the focus is on the interaction between the individual and the job, and on the competence that is actually used by the worker in performing the job. Competence-in-use is influenced partly by the competence that the staff member brings into the job and partly by the characteristics of the job. This might be seen as mediating between the potential capacity of the individual and the requirements of the job.

Nursing competence in general

Nursing competence can be understood through the paradigm of nursing: person, environment, health, and nursing (Fawcett, 2000). Accordingly, in the domain of nursing, knowledge involves administration, teaching, practice, consultation, politics, research, and theories, as well as knowledge from related disciplines (Meleis, 2005). Another vital domain of nursing is the ability to search for and use evidence-based knowledge (National Board of Health and Welfare, 2005a). Nursing competence can also be seen in a holistic perspective, since it requires a complex combination of knowledge, performance, skills, and attitudes (Cowan et al., 2005).

Furthermore, nursing competence can be described in terms of seven competence domains (Benner, Tanner, and Chesla (1996). The authors emphasized that these domains do not cover the RNs' work. However, nursing are divided into a helping function, and into educating, advising, diagnostic, and supervising functions. An additional domain was that RNs should effectively manage rapidly changing situations. Other domains were that RNs should implement and check treatment; supervise and assure the quality of nursing; plan and organise the work of fellow-workers and the care activities (Benner et al., 1996). In Sweden, these domains have influenced the content of competence descriptions of the work of RNs (National Board of Health and Welfare, 2005a).

The International Council of Nurses code of ethics for RNs (ICN, 2006) described RNs responsibilities from an international perspective. The description included promoting health,

preventing illness, restoring health, and alleviating suffering. Ethical conduct should permeate the actions of RNs (ICN, 2006). In Sweden, RNs' responsibilities are to strengthen health; prevent diseases and illness; recover and preserve health based on the needs of the individual; reduce suffering; and offer the possibility of a dignified death (SOSFS, 1993:17). Moreover, the Swedish national overarching description of RNs' competence (National Board of Health and Welfare, 2005a) involved three areas irrespective of working site. These were: nursing theory and practice; research, development, and education; and leadership. These three areas of competence should be imbued with a holistic view and an ethical attitude. The aim of this description is to clarify the RNs' profession and thus contribute to a high-quality and safe health care system. This Swedish national overarching description can be used to create a curriculum together with the examination requirements for nursing education in Sweden (SFS, 1993:100).

Formal competence

The examination requirements delineate the formal competence of RNs (SFS, 1993:100). The requirements are: to acquire knowledge of general and specific care; about conditions in society that affect the health of women and men; healthcare finances and organisation that are of importance to health and medical services; and planning, leadership, and coordination of the care work. Further requirements include being able to work independently in general and medical care; initiating and participating in health-promoting and preventive activities; instructing patients and their relatives; and supervising nursing staff. Moreover, the RNs should also have developed their self-knowledge and ability to empathise while making observations with an ethical attitude and a holistic view of the human being. Furthermore, the RNs should develop an ability to establish good relations with patients and their relatives and have an ethical attitude and a holistic view of humankind. Finally, there is a demand for a professional function to prepare for teamwork and cooperation among various staff categories. RNs with specialist education should obtain the knowledge and skills required to work as an RN specialist in care (SFS, 1993:100).

Competence development

RNs' competence development is an ongoing activity that broadens and increases the competence or potential capacity of individuals and groups (Ellström, 1992; Swedish Standards Institute, 2002; National Board of Health and Welfare, 2005a) to act in relation to a certain task, situation or context (Ellström, 1992). Benner (1984) and Benner et al., (1996) described a model for RNs' competence

development in five steps: novice, advanced beginner, competent, proficient, and expert. This model has been established in Sweden (SBU, 1994; SOSFS, 1995:15).

The employer has obligations to ensure ongoing professional development of RNs' development (SOSFS, 1995:15; SOSFS 1997:10). RNs also have a personal responsibility for the performance of standard work tasks (SOSFS, 1995:15; ICN, 2006). They must stay informed of developments in their occupational areas by continually learning (SOSFS, 1996:24; ICN, 2002). It is critical that RNs have good opportunities for competence development since it increases their ability to control situations that arise at work (Karasek & Theorell, 1990; Theorell, 2003a, b).

Theoretical framework

The Demand-Control-Support (DCS) model (Karasek, 1979; Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 2003a) measures perceptions held by individuals of psychosocial aspects of their working environment. This model was therefore used in this thesis as the model has been widely applied in studies of work environments (Ahlberg-Hultén, 1999; Kristensen, 1995; Fahlström, 1999). It has contributed to a comprehensive understanding of work organisation, as well as stress and health. Measures of psychosocial working conditions often have their starting point in a theoretical framework influenced by the qualification level of the work and work stress theory (Michélsen, Härenstam, Nordemar, & Theorell, 1993). The underlying assumption in stress theory is that the work situation is perceived individually and may lead to stress reactions.

The DCS model is a three-dimensional model that focuses on three work characteristics; (1) psychological demands; (2) decision latitude (authority of decisions and skill discretion); and (3) social support from fellow workers and supervisor (Figure 2). The demands dimension pertains to job demands, conflicting demands, time pressure, intensity, and the skills required in order to be able to carry out work tasks. The DCS model proposes that psychological strain results from the joint effects of demands at work. Demands in human services can be interpreted as quantitative or emotional (Söderfeldt, Muntaner, O'Campo, Warg, & Ohlson, 1996). Thus, this research includes emotional demands in the concept 'demands'. The control dimension in the form of decision latitude includes two components: (1) authority over decisions, in terms of task control and participation in decision-making, and (2) skill discretion, i.e. the space to use and develop competence. Control deals with freedom and the responsibility to decide what to do and when to do it. A range of possible decisions gives the worker freedom in meeting demands. Control concerns one's own activities, not control of others. It is the combination of high demands and low control that may cause adverse stress. The third dimension, social support has a buffering effect in relation

to the occurrence of work-related stress, such as a supervisor showing care, giving attention, and creating team spirit. Social support also includes fellow workers expressing positive feedback, helping and showing personal interest, and supporting the self-perception of the RN as a competent person.

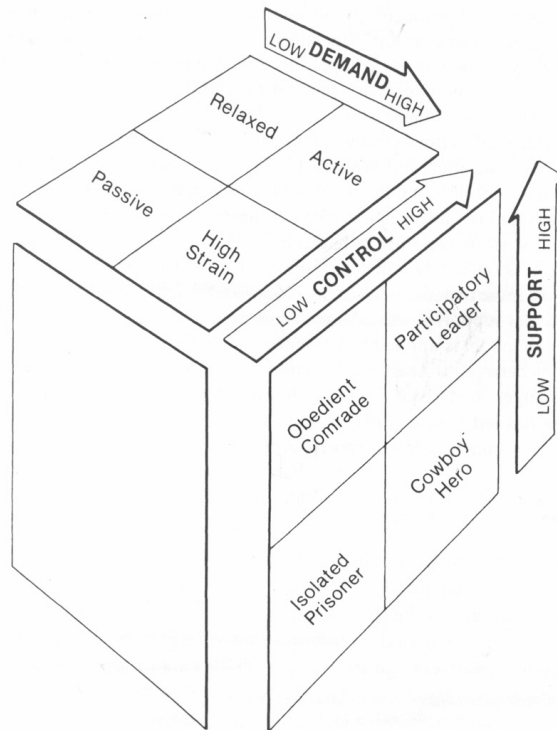


Figure 2. A 3-dimensional model of the psychosocial work environment (Karasek & Theorell, 1990, p. 70). *Used with permission from Robert Karasek, owner of the copyright.*

The three-dimensional DCS model generates four categories with various combinations of work situations and the different effects on health and well-being (Figure 2):

(1.) *High strain*, refers to the combination of high demands and low control (see the lower right-hand cell on the upper surface in Figure 2). Here arousal energy is transformed into damaging, unused residual strain due to an environmentally based constraint on the workers' optimal response. In this work situation, learning may decrease. This is the most critical combination for predicting poor health outcomes, by producing psychological strain and adverse reactions like fatigue,

depression, anxiety, and eventually physical illness. This might lead to sick-absenteeism and staff turnover (if other employment is available).

(2.) *Active*, the combination of high demands and high control. This results in challenging but stimulating work situations with no particular risk for psychological strain and illness. This is in many respects the best situation, due to the fact that workers are performing activities over which they feel a large measure of control with the freedom to use all available skills. Employees may gradually increase their own abilities to manage unexpected situations, in combination with the abilities to control them. In this work situation learning is improved.

(3.) *Relaxed (low strain)*, the combination of no excessive demands (low) and high control. Here is the risk for strain and illness lower than the average, however, empirically, few jobs are found in this category.

(4.) *Passive*, the combination of low demands and low control may imply risk of backward movement. The employee is not given opportunities to use their skills. Furthermore, lack of job challenges and environmentally rigid restrictions prevents employee from testing their own ideas for improving the work process. This suggests an unmotivated work environment and a gradual atrophying of learned skills and abilities. There is an average risk of psychological strain and illness. The passive job setting is therefore the second major psychosocial work problem (Karasek, 1979; Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 1993; Granberg, 2004; SOU, 2002:5; Theorell, 2003a; Theorell, 2003b).

Here follows some examples to illustrate how RNs can fit in these various combinations of work situations.

(1.) *RN one (High strain)* is newly qualified, in sole charge, and who works as a consultant without access to organised supervision. No possibilities are given to her to influence in decisions at work. Fellow workers are assistant nurses and several of them lack adequate vocational education. Many care recipients have extensive needs of nursing. While trying to manage all work tasks during a given time, two care receivers need immediate pain relief. At the same time two different relatives need to talk with the RN about their family member. This work situation can be perceived to have high demand and low control.

(2.) *RN two (Active)* has specialist education in Elderly Care Nursing and a long experience of working in care for older persons. The RN works as a consultant together with some other RNs. There is a defined supervision system and the RNs can consult each other when necessary. Several difficult work tasks need to be done during a limited time. Nevertheless, the work tasks are performed with a feeling of a high control and freedom to use all available skills. This work situation can be perceived to contain high demand and high control.

(3.) *RN three (Relaxed or low-strain)* has a specialist education in Elderly Care Nursing. The increasing number of care recipients has led to an increase of resources. Many of the fellow workers are RNs and also assistant nurses with adequate vocational education. RNs has access to physicians and to a supervision system with mentors. Possibilities are available to influence at all levels at work. The RN can respond to each challenge optimally, because there are relatively few challenges. This work situation can be perceived to include low demand and high control.

(4.) *RN four (Passive)* is an RN always doing work tasks by routine without any challenges. There are no expectations of skill usage or influence at any level at her work. Thus, the RN can not use the competence, becomes unmotivated, and continues doing routine work one day after another. The manager and fellow workers show little attention to the RN. Therefore, this work situation can be perceived as to have low demand and low control.

RATIONALE FOR THE THESIS

The health-care sector is influenced by demographic changes and economic constraints. Demographic trends predict an increasing number of older people. High age is related to health problems, such as dementia and multiple diagnoses. This implies increasing demand for care and service for older people. Elderly care currently has difficulties recruiting staff with adequate professional competence, such as RNs, and expects that these difficulties will increase. The average age and impending retirement of RNs working in elderly care are predicted to exacerbate the nursing shortage. At the same time, a significant proportion of RNs are off work. Consequently, there are heightened demands for their education and competence, as well as recruiting of new staff and to provide attractive working conditions. Appropriate working conditions should be offered to staff, so that they may practise high quality and effective elderly care, with equity of care provision for all older people.

Organisational changes, such as the Ädel reform, have been implemented in elderly care and have impacted RNs' work situation. Municipalities are, via RNs, responsible for providing nursing care in special housing. This implies demanding daily workloads for RNs. The development of dementia units has split elderly care into two groups, DC and GC. Older people have unique and special needs. These needs are what make care of older people a specialisation. Thus, RNs' work situation and requirements for competence might differ between DC and GC. There are few studies on RNs working at special housing in municipal elderly care after the Ädel reform. RNs are key figures in both the current and planned municipal elderly care. It is a challenge for the future to create opportunities for the RNs to provide quality care and services for older people and their relatives. In summary, this situation therefore justifies a comprehensive description of differences and similarities between RNs' perceptions in DC and GC, regarding their characteristics, work situation, violence at work, education, and competence.

AIMS

The overall aim was to provide increased insights of RNs' characteristics, their work situation, education, needs and possibilities for competence development in municipal elderly care. Taking into account the specific structures of elderly care an aim in all four studies was to compare RNs working solely in DC (which demands understanding and management of dementia syndromes) with RNs working in GC (which demands knowledge diverse main diagnoses). In order to achieve these aims, an extensive questionnaire was used for this thesis.

The other specific aims were to describe RNs':

- perceptions of working situation in municipal elderly care in terms of their characteristics, psychological demands, decision latitude, and social support (**Study I**).
- perceptions of violence and threats, directed at themselves, other staff, and care recipients in municipal elderly care. A further aim was to describe RNs' access to prevention measures and routines for handling violence and threats (**Study II**).
- education and their view of competence development in municipal elderly care (**Study III**).
- perceptions of competence development in municipal elderly care: with focus on the needs for knowledge, possibilities for competence development, managers' competence, supervision, organisation of RNs' competence development, financial support, and competence utilisation (**Study IV**).

METHOD

Design

The empirical studies included in this thesis had a descriptive and comparative design with a survey research approach (Polit & Beck, 2004). A descriptive design was used since it intends to describe the actual situation without the necessity of cause and effect analysis. A survey was used because it provides information about the prevalence, distribution, and interrelations of variables within a population (Polit & Beck, 2004).

Sample and sample selection

Information about the total number of working RNs and their names, and whether they worked in DC or GC was obtained from the residence managers. All RNs worked directly with care for older people. They worked at 60 special housing with subunits, including those offering daytime activities. Of these units 33 were in DC, 20 were in GC, and seven had both DC and GC. The target population formed a convenience sample including 342 RNs specified to a larger city in central Sweden. Taking into account the specific structure of elderly care, the RNs were divided into two groups, 143 in DC and 199 in GC. In total 213 RNs participated in this study, 95 (44.6%) in DC and 118 (55.4%) in GC. This comprised 62.3% of the target population. The number of participating RNs and their response rate is described in Figure 3.

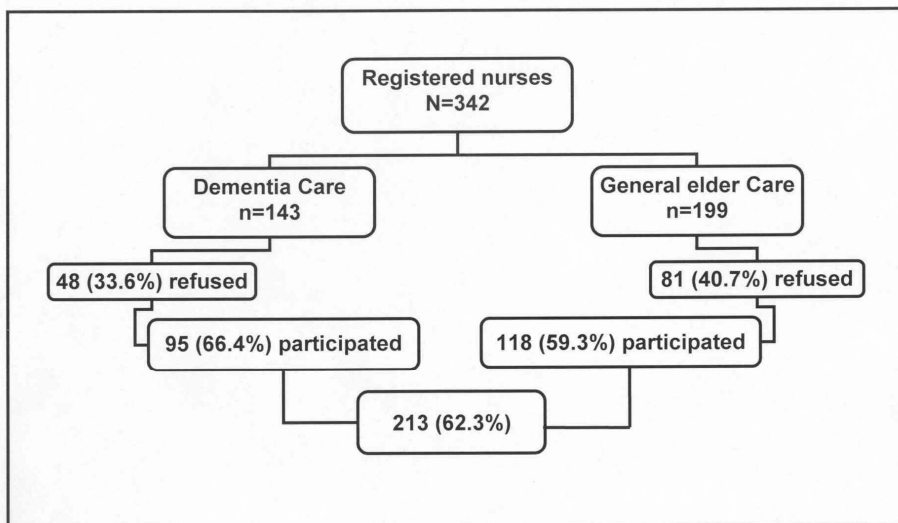


Figure 3. The number of participated registered nurses and their response rate.

The characteristics of the participating RNs are described in Table 1. Furthermore, the median working time among those permanently employed was full time in both groups (DC min-max, 46%–100%; GC min-max, 25%–100%). There was a significant difference between groups in terms of working hours among those permanently employed ($z=2.006$, $p<.05$). Ten (10.5%) RNs in DC and 15 (12.7%) in GC were employed on hourly basis. Four (4.2%) RNs in DC were employed full time by deputyship or project. RNs employed on an hourly basis had a median working time of 80 hours per month in the DC group (min-max, 30–148) and 120 hours per month in the GC group (min-max, 30–200).

Table 1
Subject characteristics across groups, Dementia Care (DC) and General elder Care (GC).

| Characteristics | | DC ($n = 95$) | GC ($n = 118$) | Total ($n = 213$) |
|-----------------------------|-------------------------------------|-------------------------------|-------------------------------|---------------------|
| Female | n (%) | 90 (95) | 109 (92) | 199 (93) |
| Age | Md (min-max) quartiles ^a | 52 (25-76)* 46-60 | 49 (23-68) 40-56 | 51 (23-76) 43-57 |
| Year of nursing examination | Md (min-max) | 1983 (1956-2001) ^c | 1981 (1956-2002) ^b | 1983 (1956-2002) |
| Employment | | | | |
| Permanent | n (%) | 81 (85) | 103 (87) | 184 (86) |
| Per hour | n (%) | 10 (11) | 15 (13) | 25 (12) |
| Deputyship or contract | n (%) | 4 (4) * | 0 | 4 (2) |
| Years worked | | | | |
| At current work place | Md (min-max) | 3 (0.08-40) ^{b **} | 1.58 (0.08-25) ^c | 2 (0.08-40) |
| As a RN | Md (min-max) | 17 (1-51) | 19 (0.75-43) | 18 (0.75-51) |
| As a RN in elderly care | Md (min-max) | 9 (0.25-30) ^{c *} | 6 (17-29) ^c | 8 (0.17-30) |

* $P < .05$, ** $P < .01$.

^a The 25th and 75th percentile; ^b One internal loss; ^c Two internal losses.

The questionnaire and development

The underlying assumption of the self-reported questionnaire was stress theory (Michélsen et al., 1993). Occupational stress is associated with specific situations, characteristics of the work environment, and individual perceptions and reactions in the context of the workplace. This may lead to stress reactions that influence health and well-being, described by (Karasek, 1979; Johnson & Hall, 1988; Karasek & Theorell, 1990).

The questionnaire in this study was derived from three questionnaires, developed by Aronsson, Lantz, and Westlander (1992), Fahlström (1999), and Hagström, Gamberale, and Sconfienza (1996). These questionnaires have previously been used to gain information about the perceptions of staff about their work situation and competence. The questionnaire by Aronsson et al. (1992) was designed for physicians in a variety of specialisations and organisational structures. The questionnaire by Fahlström (1999) used the DCS model and was designed for enrolled nurses and nursing assistants in municipal elderly care. The third questionnaire was designed to compare the work situation and competence of RNs to those of engineers (Hagström et al., 1996) in varying specialities and organisations.

The questions were carefully selected to suit the aims of the studies. Some questions were modified to apply more specifically to RNs as an occupational group in elderly care; for the same reason, some new variables were added. The questionnaire was comprehensive in order to gain information for these and further studies. Another purpose was to gather comprehensive base-line data about RNs and their characteristics, education, and perceptions of their work situation and competence. As Cohen, Manion, and Morrison (2005) recommended, the initial section of the questionnaire was simple in order to encourage participation. The middle section of the questionnaire contained more difficult and sensitive questions. The last questions aimed to be of high interest in order to encourage returning the completed questionnaire.

Areas investigated consisted of background characteristics, such as age, gender, level of education, employment status, and years of experience working as RNs. The working conditions of RNs were investigated with regard to demands, control, and social support (Study I); exposure to violence and access to measures for the prevention and management of violent behaviour (Study II); level of education and motivations for investment in professional development (Study III); and perceived areas of need for competence development, such as the requirements for specific knowledge, possibilities for competence development, managers' competence, supervision, organisation of RNs' competence development, financial support for competence development, and competence utilisation (Study IV). Data was also collected for possible future analysis on further areas of interest such as degree of contact between RNs and care recipients, and RNs' family conditions, leisure, health, and their 'ideal work'.

In order to map pre-requisite for competence of RNs working in municipal elderly care in study III, the following literature was used: (1) The examination requirements in Swedish nursing education (SFS, 1993:100); (2) the national overarching description of the competence of RNs in Sweden (National Board of Health and Welfare, 1995); and (3) the Swedish ProCare Association, Bravå (2003) which highlights domains required for quality elderly care. Additionally, Tunedal and

Fagerberg's (2001) results of competence requirements for RNs working in municipal elderly care were also taken into consideration. These requirements were medical, nursing, and pedagogical competence.

The majority of questions were designed with response categories in ordinal scales; for example, a Likert scale of 1–5 ranging from “not agree at all” to “agree totally”, occasionally with the alternatives “not relevant/do not know”. The questionnaire contained a limited number of nominal and ratio scales. The participants specified whether they worked in DC or GC in the questionnaire. Questions about education and courses were open-ended. The participants were given an opportunity to add their own alternatives to answers in some questions (e.g. domains where they lacked knowledge), and space was provided for comments at the end of the questionnaire.

Procedure

The logistics of the questionnaire and the relevance of the questions were trialled at a seminar of RNs, psychologists, physiotherapists, occupational therapists, lecturers, and researchers who were all employed directly or indirectly in municipal elderly care. The questionnaire was first tested to assess the logistics and relevance of the questions, the clarity of interpretation, and time needed to complete the questionnaire. It was tested on two occasions by 10 RNs, five of whom worked in DC and five in GC. These RNs worked in another geographic area than the RNs in the main investigation. The questionnaires were distributed personally by the principal investigator, who participated when the RNs tested and completed the questionnaire. After that, the RNs and the principal investigator discussed the questionnaire. Minor modifications were made primarily to clarify the questions.

Data was collected during a one-year period (2003–2004). Local municipal managers with supervisory responsibility for elderly care and the managers for each special housing gave their permission for the study. The target population was identified by the manager of each subunit. The managers provided the information on the total number of employed RNs and their names, and whether they worked in DC or GC. The postal questionnaires were distributed in sealed envelopes to the RNs at their work, either by their managers or by the principal investigator.

The envelope to the RNs included a cover letter explaining (1) the aim of the study; (2) a statement to convey the study's importance to participants; (3) a statement assuring them confidentiality; (4) information that data would be kept protected; and (5) a statement to encourage their replies (see Cohen, et al., 2005). It was made clear that participation was voluntary. A postage-

paid return envelope was also included. Up to three reminders were sent directly to the RNs when necessary.

A postal form was distributed to non-respondents ($n=129$). They were informed that their choice to not participate was respected. At the same time, they were asked to respond to one statement: "I have not answered the questionnaire because...."

Data analyses

The reasons given by non-respondents' ($n=129$) for not participating were analysed by their manifest content and were discussed with an outsider researcher. Their agreement was high. The motives of RNs are described in Study I. There was a number of reasons given by most of the RNs ($n=123$) since the question was open-ended. The primary reasons were lack of time, questionnaire was too extensive, and high workload. These reasons could have connections with each other. Thus, the RNs who had stated one of these primary reasons were counted, with the purpose of revealing whether they had stated more than one of these primary reasons: both lack of time and questionnaire was too extensive (DC $n=3$, GC $n=2$) both lack of time and high work load (DC $n=11$, GC $n=6$); lack of time, questionnaire was too extensive and high workload (DC $n=0$, GC $n=7$).

In study I the theoretical framework of the DCS model was used as a tool to describe RNs' work situation (Karasek, 1979; Johnson & Hall, 1988; Karasek & Theorell, 1990). Thus, the value of Chronbach's alfa coefficient (Polit & Beck, 2004) was used to measure the homogeneity of variables of psychological demands (.61), authority of decisions (.69), and social support (.89). Alfa should be .70 to .90 (Streiner & Norman, 2003).

The statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) for Windows version 11.5 -13.0 (SPSS Inc., Chicago, IL, USA). The internal loss of data was minimal and data were neither replaced nor imputed. The "not relevant" and "do not know" responses were treated as missing data in the analyses in Study I. P-values less than .05 were considered to be statistically significant. The majority of variables was not normally distributed or was measured on a nominal and ordinal scale. Therefore non-parametric tests were used for these types of data throughout.

The Chi-square test (χ^2) was used to examine the distribution of one variable in two independent groups (Altman, 1997). The Mann-Whitney U-test was used to examine differences between two independent groups. The Wilcoxon signed-rank test was used (Study I) to calculate differences between two paired observations with the purpose of revealing any differences in the degree of conflicting demands within groups. Spearman's analysis of rank correlation (ρ) was

used (Study I) to measure the associations between age and all variables. The associations (Study III) between RNs' desire to invest in their own competence development, and their age and year of nursing examination were measured. Associations were also measured (Study III) between year of nursing examination and perceived pressures to keep up with developing knowledge (Altman, 1997). After the data analyses, the principal investigator presented the results in seminars with staff working within municipal elderly care. Two additional presentations were carried out in seminars with the RNs who tested the questionnaire.

Ethical considerations

All studies in this thesis were conducted in accordance with the World Association Declaration of Helsinki (MRF, 2000). These principles are respect for autonomy, beneficence ("doing good"), non-maleficence ("doing no harm"), and justice.

The RNs stated their perceptions about their work situation, violence in work, managers and their competence, health, and family conditions. This personal and sensitive information had to be respected by the investigators, especially if RNs had negative perceptions about the work situation and employers. The investigators strived to prevent discomfort and violation of integrity. Thus, information about the study was given to participating RNs and to their managers. All potential participants were given an autonomous choice to participate or not. It was explained that the participation was voluntary. It was made clear that the investigators did not work at the request of any principal, such as their employer. Confidentiality was assured. There was no dependence relationship between investigators and participants which could influence the participants. Consent to take part in the studies was assumed through their answers and returned questionnaire. Each RN returned the completed questionnaire in a sealed envelope directly to the main investigator. Participants were informed that returned questionnaires only were seen by the investigators. The participants were carefully informed that their identity was protected, that collected data was brought together without connections between name and work unit. Collected data is kept in a secured site. Information about the possibility of being informed about the results was given. In case of questions from the participants, they were provided with telephone numbers, e-mail, and postal address to the main investigator.

All studies were approved by the Regional Research Ethics Committee of Karolinska Institutet, Stockholm, Sweden (D. No. 317/02).

RESULTS

Study I

The majority of RNs were female in both groups. RNs were on average age close to fifty and on average significantly older in DC. The median for nursing examination year was 1983 in DC and 1981 in GC. RNs in DC had worked as a RN an average of 17 years and 19 years in GC. RNs in DC, compared to those in GC, had worked longer at their current workplaces and as RNs in elderly care. The majority of RNs in both groups were permanently employed and their median working time was full time in both groups. Of those permanently employed, RNs in DC had significantly more working hours than those in GC. Ten percent in DC and 13% in GC were employed on an hourly contract directly by the organisation. RNs employed on an hourly basis had a median working time of 80 hours a month in DC and 120 hours a month in GC.

RNs in both groups perceived high levels of time demands. Demands concerning knowledge and emotional and conflicting demands were greater in DC. Furthermore, 51% of the RNs in GC and 41% in DC perceived increased workload during the past years. The majority of RNs in both groups perceived a greater opportunity to plan and perform daily work tasks than to influence their work situation in a wider context. RNs in DC perceived harder work tasks and had greater opportunities to postpone planned tasks. Support at work was perceived as generally high from management and fellow workers and higher in DC. RNs in both groups felt that working in elderly care could be psychologically stressful in the long term. The correlation analysis showed weak associations between age and all variables.

Study II

RNs in both DC and GC reported that they had been both subjected to violence themselves and had witnessed threats and violence towards other staff and care recipients. RNs had experienced a high degree of indirect threats (DC 45%, GC 51%), direct threats of violent acts (DC 35%, GC 44%), and violent acts (DC 41%, GC 43%). RNs had witnessed threats and violence towards staff (DC 49%, GC 38%). Care recipients (DC 20%, GC 19%) were also subjected to threats and violence. No statistical differences were found between groups. The most common source of threats and violence towards RNs were care recipients. Some RNs had felt physically or psychologically exhausted due to the fear of being exposed to violence, but only 2-3% had been absent from work as a result. RNs in DC were offered education in managing threats and violence and to a greater extent than RNs in

GC. Also, DC more often had a door with a lock to their working unit. RNs in DC reported more frequently than RNs in GC that there were routines in case they should witness violence.

Study III

RNs in both groups possessed a broad range of formal competence. The majority did not hold a Degree of Bachelor in Nursing. Few RNs had adequate specialisation education. On average, the RNs' had many years of work experience, which indicated a high actual competence. RNs in DC had a greater desire to invest more in their own competence development than in GC, whereas RNs in GC were more motivated to invest in competence development by seeking another position and by attaining a greater authority to make important decisions at work. There was no correlation between RNs' desire to invest in their competence development and age, nor with year of nursing examination. A weak correlation was found between RNs' nursing examination year and perceived pressures to keep up with developing knowledge in DC.

Study IV

RNs perceived on average that they were not lacking or were hardly lacking the knowledge required for their current positions in examined domains. However, RNs in GC reported to a higher degree than RNs in DC a lack of knowledge in the areas of dementia, falls, and fall injuries. RNs in DC perceived greater possibilities for competence development and to clearly see their further development at work. Most of the RNs perceived a high level of agreement with the local management pertaining to the areas that comprise the competence of RNs. At the same time, most of them they had no supervision. The utilisation of RNs' competence was high in both groups, but even then, their highest competence was used only half of the working hours. RNs desired more adequate organisation for their competence development in their workplace and this requirement was perceived as even greater in GC. The financial contribution by employers towards continuing education in both groups was poor.

DISCUSSION

In this section, the main results from the four studies will be discussed. First, some of the results pertaining to the characteristics of RNs will be discussed. Second, issues related to the work situation are addressed in light of the present results. Third, violence at work is addressed. This is followed by a discussion of the education of RNs. Thereafter, their competence and competence development are commented on. Finally, methodological issues that may have influenced the results are discussed.

Discussion of the results

Characteristics of registered nurses

Study I showed that a majority of RNs are females. In both groups, their average age was close to fifty, with those in DC being older. These results reflect a dominance of both females and the older ages of RNs working in municipal elderly care (Svensson & Thörnblom, 2002; Swedish Associations of Health Professionals, 2004; SALAR, 2005; Swedish Associations of Health Professionals, 2005). The correlation analysis showed weak associations between age and the variables measured in the RNs' work situation in Study I. Furthermore, RNs' on average high age confirms the projections for a considerable increase in retirements (SALAR, 2005; National Board of Health and Welfare, 2006b). Those born in the 1960s will begin to reach retirement age when the care needs of the "baby boomers" from the 1940s become significant – between 2020 and 2030 (SALAR, 2005). This implies that pension costs will increase at the same time that the percentage of working people decreases (SALAR, 2005). This will have a major impact across society and the economy (Commission of the European Communities, 2002). Thus, a presumed imbalance between supply and demand of service and care for older people will impact upon municipal elderly care.

Study I indicated that the median year of RNs nursing examination was 1983 in DC and 1981 in GC. The results confirmed previous studies pertaining to the length of time since RNs' nursing examinations in municipal elderly care (Swedish Association of Health Professionals, 2000; Svensson & Thörnblom, 2002). Moreover, Study I demonstrated that RNs in DC had been working as RNs for an average of 17 years compared 19 years for RNs in GC. Svensson and Thörnblom (2002) and the Swedish Institute of Family Medicine (2005) observed the same tendency. Furthermore, the results indicated that RNs in DC, compared to those in GC, had been at their current workplaces longer and worked longer as RNs in elderly care. This might reflect a greater stability at the workplace in DC, despite the fact that the length of current employment in both

groups was relatively short. This on the other hand, might mirror RNs' high mobility as stated earlier, since permanently employed RNs were leaving their positions during the peak years 2000 (13%) and 2002 (12%). However, in the past few years, RNs' mobility has decreased dramatically for the first time since 1996 (SALAR, 2005). For instance, in 2004, during the time for data collection for this thesis, 7% of permanently employed RNs left their municipal employment (SALAR, 2005). In summary, RNs' employment market is sensitive to demographic changes.

The results in Study I showed that most RNs in both groups were permanently employed (DC 85%, GC 87%). Their median working time was full time in both groups. Of those permanently employed, RNs in DC had significantly more working hours than those in GC. This ought to promote stability at work. Swedish Associations of Health Professionals (2005) reported that fewer RNs (40 %) had full-time employment 1994 than in 2004 (60%). These results revealed that efforts to offer full-time employment at the end of 1990s have had a positive effect (Swedish Associations of Health Professionals, 2004). However, it is important not to overlook the fact that employment does not always mean that RNs are on duty. SALAR (2005) stated that 13% of the monthly employed RNs were not on duty, were on long-term sick leave, or were employed on an hourly contract in the municipalities in 2004.

Work situation of registered nurses

Demands at work

Study I revealed that RNs in both groups felt high time demands. This is consistent with several studies (Hagström et al., 2000; Tunedal & Fagerberg, 2001; Swedish Institute of Family Medicine, 2003; Weman et al., 2004; Åberg et al., 2004). Moreover, Study I showed that RNs in GC worked under time pressure half of their time, which was twice as much as those in DC. A substantial proportion of RNs in both groups were not able to finish their work tasks during working hours, despite the fact that their tasks were not too difficult. Furthermore, 51% of the RNs in GC and 41% in DC perceived increased workload during the past years. This is in line with Thorslund and Larsson (2002) and Swedish Associations of Health Professionals (2004). The high time demands and increased workload is most likely influenced by demographic changes and economic constraints in the health-care sector (Commission of the European Communities, 2002). Also, RNs' high demands may mirror the consequences of the Ädel reform, as described in the introduction of this thesis (National Board of Health and Welfare, 1996; Gurner & Thorslund, 2001; Tunedal & Fagerberg, 2001; Gurner & Thorslund, 2003; Akner, 2004; Åberg et al., 2004; Carlström, 2005;

SALAR, 2005). As Arnetz (2001) and Akner (2004) emphasised, changes in the work environment may lead to difficulties for those carrying out the practical work.

In Study I, greater knowledge and higher emotional demands, and harder work tasks were found in DC. However, RNs stated that these demands were either too low or too high. This can be understood in the light of the specific ethical considerations and communication problems of people with dementia (Athlin & Norberg, 1987; Hallberg et al., 1990; Norberg et al., 1994), as well as the difficulties people with dementia have in coping with independent daily living (Sandman & Wallblom, 1996). RNs are exposed to and have to navigate the different needs of care recipients, relatives, and other staff (Edberg & Bird, 2003) while simultaneously having high time demands. Furthermore, Study I showed conflicting demands in both groups, although these were greater in DC. RNs' desire to have close and personal contact was higher than the opportunity to do so. It can be argued that the meaning of close and personal contact is a matter of definition. However, an explanation may be due to the consequences of a trend to decrease the numbers of RNs (SSF, 2006a), which leads to RNs working as consultants (Westlund & Larsson, 2002; Heikkilä, 2006; SSF, 2006a). According to the DCS model there is a need to lower demands within both groups, specifically in DC, as high demands together with low influence can cause adverse psychological and physical health outcomes (Theorell, 1993; Karasek & Theorell, 1990). This is especially relevant, since RNs in both groups felt that working in elderly care could be psychologically stressful in the long term.

Control at work

The majority of RNs in Study I perceived a greater opportunity to plan and perform daily work tasks than to influence the work situation in a wider context, such as higher decision-making. This suggests that the RNs perceived a greater "control in" their work situation, rather than "control over" their work situation (cf. Theorell, 2003b). However, RNs in DC had a greater possibility to postpone planned tasks than in GC, for instance when they had too much to do. A similar result was shown by Hagström et al. (2000), but with RNs in different specialities. These authors indicated that it may be related to efficiency measures and substantial financial cutbacks in health care. Further, Lundström and Ehnfors (2001) demonstrated the lack of RNs' influence in care issues at a managerial level in municipal elderly care. Even the World Health Assembly (2006) has pointed out the need to strengthen RNs' influence in all appropriate governmental levels. Contrary to RNs' perceptions in Study I, the Swedish Associations of Health Professionals (2004) reported that most of 300 RNs (67%) in the municipality were satisfied with the degree of influence at work. However, it is unclear if these RNs assessed their influence in daily work tasks or over work in wider context.

Furthermore, to not use RNs' influence is a waste of competent resources. Especially since RNs are the only professional group with education (SFS, 1992:1434; SFS, 1993:100) in general and specific nursing (SOSFS, 1993:17; SOSFS, 1995:15). They also have an authorization for their profession (SFS, 1998:531). An additional issue to discuss is the connection between RNs' time demands and low influence over the work situation. This can be done by distributing power between staff at work (Theorell, 2003b). There should be a reasonable balance of power between employees, middle-management, and the executive management. If all power over the RNs' daily work is concentrated at a higher level, problems arise at all levels. The top management may get far too much to do. Employees at lower levels may become frustrated, since they need to keep asking about work tasks in their daily work. This entails waiting for answers, which might lead to a lack of time (Theorell, 2003b). In fact, the Swedish Work Environment Authority (2004) revealed that RNs sometimes choose, due to lack of time, not to participate in meetings for the systematic improvement of the working environment in municipal elderly care. This further emphasises the importance of increasing RNs' influence over the work. This is especially so since the DCS model specifies that low influence together with high demands can cause adverse psychological and physical health (Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003a; Theorell, 2003b).

Support at work

Furthermore, Study I indicated that support at work was generally high from management and fellow workers and, specifically higher in DC. High support from management is in line with Swedish Associations of Health Professionals (2005). A supportive context is essential for RNs in elderly care, especially if they feel that they or the staff cannot provide optimal quality care (Fagerberg & Kihlgren, 2001). A higher support in DC might indicate small-scale work units, as well as a less hierarchical staff structure. RNs in both groups preferred to discuss work difficulties with another RN rather than other nursing staff. This might mirror consequences of the Ädel reform such as RNs' lack of access to physicians (Swedish Institute of Family Medicine, 2003) and the fact that 40% of the assistant nurses lack adequate vocational education (National Board of Health and Welfare, 2004b). Study I reflected the importance of RNs to have access to other RNs and have opportunities to support each other, especially since RNs in municipal elderly care were employed by an authority lacking experience working with RNs as a professional group (Lundström & Ehnfors, 2001; Tunedal & Fagerberg, 2001), as well as experience of the changed demands at work (National Board of Health and Welfare, 1996; SALAR, 2005). In addition, the DCS model stipulates that social support from supervisors and fellow workers has a buffering effect in relation

to the occurrence of work-related stress (Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003a; Theorell, 2003b).

Finally, Study III demonstrated that most of the RNs had no organised supervision, such as an adviser, a supervisor, or a mentor. Accordingly, Fagerberg et al. (2000) reported that nursing students found RNs working in elderly care were often isolated with no obvious support system. Consequently, these results are also in agreement with previous studies reporting that RNs are often left to their own resources (Kapborg & Svensson, 1999; Fagerberg et al., 2000; Board for Occupational Safety and Health, 2000; Tunedal & Fagerberg, 2001). It can be argued that these results are distressing since RNs have to deal with everyday ethical issues (Svensson, 2002; Edberg & Bird, 2003; Swedish Associations of Health Professionals, 2005; Berggren, 2005; ICN, 2006). RNs' access to supervision is an urgent and undoubted requirement. First, RNs can be influenced to make better decisions, taking care recipients, colleagues, and themselves into account (Berggren, 2005). The discussion of ethical issues raised during supervision also leads to improved care. Thirdly, Bégat (2006) showed increased well being and work satisfaction among RNs under supervision. Finally, supervision can promote professional development (Gustafsson & Fagerberg, 2004; Hansebo & Kihlgren, 2004), as well as personal development (Hansebo & Kihlgren, 2004). Thus, the care quality can be improved. Furthermore, a support system is important for creating attractive work conditions for recruiting newly qualified RNs. Finally, keeping the DCS model in mind, social support is also essential for buffering the effect of work-related stress (Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003a; Theorell, 2003b).

Violence at work

Study II indicated that half the RNs' had experienced indirect threats of violent acts and just over 40% had experienced violent acts. Arnetz et al. (1996) also reported a prevalence of violence towards 40% of RNs in geriatric settings and Åström et al. (2002) indicated 42% in special housing. Furthermore, Jackson et al. (2002) and Hegney, Plank, and Parker (2003) also revealed that violence is a major problem for RNs. In any event, our results are in line with these distressing reports, and indicate an increasing trend of violence towards RNs. In addition, it is important to keep in mind that underreporting of violence is a major obstacle when measuring the prevalence of violence (Lipscomb & Love, 1992; Wierucka & Goodridge, 1996; Menckel, 2000; Arnetz, 2001).

Violent acts occur in the personal meeting with the care recipient (Sandvide et al., 2004). This might limit the RNs' possibilities to witness all acts of violence towards care recipients and other staff. Nonetheless, Study II suggests that RNs have witnessed care recipients and other staff experiencing threats and violence in municipal elderly care. The fact that violence is common in

nursing care is in line with previous studies directed at care recipients (Saveman & Sandvide, 2001; Sandvide et al., 2004) as for staff (Menckel & Viitasara, 2002; Åström et al., 2002). As noted earlier, the violence towards staff in DC (49%) was greater than the prevalence of 40% found by Åström et al. (2002). On the other hand this can be compared to results of Menckel and Viitasara (2002), who reported a higher prevalence of violence (51%) towards municipal staff, including staff working with care of older people and in special housing. Goergen (2001) reported similarly high figures where 59% of staff working in nursing homes stated that they had been exposed to violence by care recipients.

No statistical significant differences were found between DC and GC in Study II, regarding RNs' perceptions of the prevalence of violence towards care recipients, RNs or other staff. This was despite the fact that dementia causes cognitive and communicative impairment (Athlin & Norberg, 1987; Hallberg et al., 1990; American Psychiatric Association, 1994; Erikson et al., 2000) such as confusion and agitations which predispose to violence (Meddaugh, 1993). Moreover, the non-significant difference between DC and GC might be related to the fact that RNs in DC had greater access to education in managing violence and threats. In contrast to our results, Middleton, Stewart, and Richardson (1999) and Åström et al. (2004) reported a greater degree of violence in DC compared to other special housing and traditional long-term care. On the other hand, staff in DC may expect and accept violence as a natural consequence of working daily with people suffering from dementia due to the dementia symptoms (Middleton et al., 1999; Sandvide et al., 2004). Consequently, the levels of burnt-out staff and conflicts between staff and care recipients have shown to be stronger predictors of violence than care recipients' agitations (Pillemer & Moore, 1990). This underlines that violence is a process including not only a specific factor but also situational and structural factors (Viitasara & Menckel, 2002).

RNs in both groups stated that a greater degree of violence occurred towards staff than towards care recipients. This is in line with Menckel and Viitasara (2002) and Hegney, Plank, and Parker (2003). As it has been known, the most common source of threats and violence towards RNs were care recipients. However, it is important to underline that violence within a caring organisation is not in line with high-quality care and good and proper behaviour of the staff (Saveman et al., 1999). Thus, the topic can be taboo, and staff may have problems identifying violence (Saveman et al., 1999). There is a risk that violence is underreported, especially violence towards care recipients. Furthermore, as the result of Study II showed, RNs had felt physically or psychologically exhausted due to the fear of being exposed to violence, but only 2-3% had been absent from work as a result of it. To complicate matters further, Needham, Abderhalden, Halfens, Fischer, and Dassen (2005) showed that predominant, non-somatic effects of aggression by patients towards nursing staff were

anger, fear or anxiety, as well as post-traumatic stress disorder symptoms, guilt, self-blame, and shame.

Another important result in Study II was that RNs in DC were offered education in managing threats and violence to a greater extent than RNs in GC. A surprising result was that only 19.5% of RNs in total had access to education in managing violence and threats. This can be compared to the figures of experiencing indirect threats (DC 45%, GC 51%), direct threats of violent acts (DC 35%, GC 44%), and violent acts (DC 41%, GC 43%). A surprising result was the great number of RNs who did not know whether their employers offered education on how to manage violence and threats (DC 33%, GC, 47%). This is distressing, since staff must be properly prepared to identify and manage violent situations (Pillemer & Moore 1990; Lipscomb & Love, 1992; Saveman et al., 1999; Arnetz & Arnetz, 2001; Jackson et al., 2002; Manthorpe, 2002). Moreover, the employer is obliged to ensure that the staff is educated and informed in order to manage their work with safety (Swedish Work Environment Authority, 1993). Staff should also have support and supervision if there is a recurrent risk of violence and threats. Furthermore, Karasek and Theorell (1990) and Theorell (2003b) highlighted that competence improves staff's possibilities to control situations occurring at work. Not surprisingly, Study II also revealed that RNs in DC more often had a door with a lock to their working unit, compared to RNs in GC. One can speculate whether locked doors are beneficial or not for care recipients and staff due to the many ethical issues which are raised especially in association to home-units. In addition, security benefits for care recipients in DC should not be overlooked.

RNs in GC had fewer routines in the event of witnessing violence than RNs in DC (Study II). This is not acceptable since violence and threats in municipal care of older people should be reported, documented, and resolved (Swedish Work Environment Authority, 1993; SFS, 2001:453; National Board of Health and Welfare, 2005). Moreover, the municipalities have a duty to inform staff about their obligations to report violence and threats in care of older people. Furthermore, Study II revealed that 15% of the RNs in DC and 24-27% in GC did not have routines if they should witness violence. This demonstrates the importance of offering routines to staff on how to report and register violent events (Smith-Pittman & McKoy, 1999; Manthorpe, 2002).

The importance of offering education and routines to reduce violence towards staff cannot be underestimated. First, violence towards care staff is related to lower patient ratings for the quality of care (Arnetz & Arnetz, 2001). Secondly, violence towards staff can lead to antipathy of staff against care recipients (Åström et al., 2004) and less enjoyment in working with them (Arnetz & Arnetz, 2001; Hoel et al., 2002). Third, violence might lead to impairment of physical and mental health (Hoel et al., 2002; Menckel & Viitasara, 2002), as well as long-term trauma (Hoel et al., 2002). The

effects of violence also appear to extend to bystanders, where a 'climate of fear' produces similar reactions (Hoel et al., 2002). Moreover, violence can affect job turnover, resulting in reduced productivity (Pillemer & Moore, 1990; Hoel et al., 2002). Hence, violence is an important factor in recruitment and retention of staff (Jackson et al., 2002). The loss of public goodwill towards the organisation might be another more intangible cost (Hoel et al., 2002). Finally, it is essential to offer education since the DCS model stipulates that competence development improves RNs' abilities to control situations occurring at work (Karasek & Theorell, 1979; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003b). Additionally, Arnetz and Hasson (in press) showed that a standardized educational toolbox, adapted to local needs, improved nursing staff competence in different areas including threats and violence in municipal elderly care.

Education of registered nurses

RNs in both groups possessed a broad range of formal competence, but few had adequate specialist education (Study III). As noted earlier, the median nursing examination year was 1983 in DC and 1981 in GC. It is of interest since nursing education became a higher-level vocational education with a scientific foundation, and nursing science became a major subject in 1982 (SOU, 1978:50; Kapborg, 1998; Furåker, 2001). Furthermore, the first RNs in Sweden took their examination under the Higher Education Ordinance in 1996 (SFS, 1993:100). The implications of this ordinance include the re-defining of Nursing Science as an academic discipline, when it also became possible to earn a Degree of Bachelor in Nursing. Thus, this implies a dominance of RNs lacking scientific education in nursing, results which confirms the Swedish Association of Health Professionals (2000) and Svensson and Thörnblom (2002) in earlier results. Furthermore, Study III revealed that a minimal number in both groups had a Degree of Master (In Swedish: Magister) in Nursing. This is problematic since RNs' personal obligation is to pursue their profession (SOSFS, 1995:15) in agreement with accepted standards of science and proven experience (SFS, 1998:531). The evidence just described raises questions about RNs as research consumers, specifically, in terms of searching for and using evidence-based knowledge.

An interesting result from Study III was that less than half of the RNs (DC 36%, GC 41%) had specialisations in different areas in nursing. Bergman (1994) showed that no matter where RNs worked, 49% of those who took nursing examinations between 1963–1969 had specialist education in nursing. In contrast, the Swedish Institute of Family Medicine (2003) showed that 75% of RNs in municipal elderly care had some kind of specialist education. It could be possible that RNs have given priority to home, children, and family, as Bergman (1994) showed in her study of mostly

female RNs. Furthermore, having experiences from other care fields is positive, since it might lead to independence and security in the professional role (Tunedal & Fagerberg, 2001). However, there is ample evidence indicating a great need for RNs with specialist education in municipal elderly care (Svensson & Thörnblom, 2002; Westlund & Larsson, 2002; Swedish Association of Health Professionals, 2004; Statistics Sweden, 2005). This is problematic, since RNs' changed work situation in municipal elderly care, as described in the introduction, calls for appropriate educational preparation to enable RNs to effectively undertake the new qualifications required by the job (Johnson, 1998; Joy et al., 2000).

Not surprisingly, substantially few RNs had adequate specialist education that applied to elderly care. Only one RN in each group had a specialisation in Elderly Care Nursing. This is a finding of great concern, since the DCS model is explicit that competence development is essential (Karasek & Theorell, 1979; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003b) due to the fact that it increases RNs' control at work in the form of freedom in meeting demands. Our results were in line with Svensson and Thörnblom (2002) and Westlund and Larsson (2002) reporting of no RNs specialising in Elderly Care Nursing. Furthermore, a national description (National Board of Health and Welfare, 2006c) also reported that RNs were specialising in Elderly Care Nursing to a lesser degree than in other nursing areas. This information is supported by student vacancies and the cancelling of specialist nursing programmes in Elderly Care Nursing (Domfors, 2005; Swedish Institute of Family Medicine, 2005). Moreover, it conflicts with the goal to provide adequate nursing and care on equal terms (SFS, 1982:763; SOSFS, 1993:17). Yet it is clear that quality systems should consist of routines to ensure that the staff maintains adequate education, experience, and competence levels required to meet professional tasks (SOSFS, 1996:24; SOSFS, 1997:10). Indeed, this may reflect a low status of elderly care (Söderhamn et al., 2000).

As noted earlier, Study III showed that approximately half of RNs in GC and even more in DC had completed supplementary nursing courses (5-20 weeks) in different areas. In contrast, the Swedish Association of Health Professionals (2004) showed that 14% of RNs in municipal elderly care had completed supplementary nursing courses. Moreover, roughly half of RNs in both groups had participated in staff training courses at work. This concurred with Statistics Sweden (2003) which stated that the rate of participation in staff training for the second half of 2003 was 49% of all women and 43% of all men who were gainfully employed, and between the ages of 16-64. Furthermore, almost half of RNs in both groups had completed several vocational qualifications distinct from nursing education, most of them with specific applications in elderly care. However, these staff training courses and vocational qualifications do not usually give any credit points. On

the other hand, this reflects the multifaceted nature of RNs' working life and is without doubt a positive result.

Competence of registered nurses

The majority of RNs had on average no lack or hardly any lack of knowledge in their current positions with regard to examined working domains in Study IV. RNs in GC had a greater need to increase their knowledge of falls and fall injuries than those in DC. RNs had surprisingly low needs for more competence, since relatively few RNs in this sample had adequate specialist education (Study III). This might reflect their long-term life experience and professionalism leading to a personal maturity and a greater capacity to cope with work. This would support Tunedal and Fagerberg's (2001) description of mental strength, confidence, and independence combined as one fundamental aspect of the RN's professional role in municipal elderly care.

It must be noted that RNs' perception of sufficient knowledge in examined domains in Study IV, combined with their formal competence (Study III), does not mean that RNs do not know how nursing should and ought to be achieved. Indeed, RNs' competence is above standards of science founded on proven experiences (SFS, 1982:763; Swedish Association of Health Professionals, 2000). RNs' learning outcomes of the job and a wide range of different informal, everyday activities also generates actual competence (SOSFS, 1995:15; Ellström, 1997; SOSFS, 1997:14). This constitutes a vital source of RNs' competence, which is a prerequisite for developing RNs' clinical competence (Benner et al., 1996). Thus, the fact that RNs felt no lack of knowledge (Study IV), in addition to their extensive experience might reflect a high number of 'experts'. This raises the question "What is expertise in elderly care?" Benner et al., (1996) defined experts as having experience of working for at least five years in the same area, as RNs in average had in our sample. Expertise is developed during the working hours when theory and practice are woven together in a mutually supportive and strengthening process. Expertise includes a holistic view, a high ability to prioritize and act, as well as not being dependent on rules. Furthermore, expertise includes the ability to use earlier concrete situations as a frame of reference (Benner et al., 1996).

Moreover, RNs in DC had a greater desire to invest in their competence development. Surprisingly, RNs in GC were more motivated to invest in competence development by desiring a greater authority to make important decisions, as well as to some extent seeking other employment. As noted previously, Study I brought attention to the need to increase RNs' influence on decisions at work. Most municipalities in Sweden reported continuing problems with recruitment, which was why the Swedish Central Authorities (National Board of Health and Welfare, 2004b), among others,

proposed increasing the opportunities for RNs to develop their competence. Paradoxically, if RNs in GC in our sample were given opportunities to develop their competence, some of them might leave their employment. Additionally, RNs in GC wanted to invest in education in another professional health-care field to a greater degree. As noted earlier, this demonstrates the importance of paying attention to the trend of RNs' leaving GC, especially, since GC units seem to be increasing in municipal elderly care (Wimo & Sandman, 1999; Ministry of Health and Social Affairs, 2003).

RNs perceived that their competence was well used as reported in Study IV and by the Swedish Association of Health Professionals (2004). However, RNs used their highest competence about half of their working hours. A likely explanation is that they may feel comfortable with their tasks, since they have worked an average of 18 years as RNs. On the other hand, since they used their highest competence half of the working hours, the other half was not used. According to the DCS model, work with wasted skills combined with low decision latitude can be discouraging and unproductive (Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003b). It is noteworthy, as stated earlier in Study I, that RNs felt a low influence on decisions in a wider context at work.

Competence development of registered nurses

Competence-in-use is influenced partly by the competence that the RNs bring into the work and partly by the characteristics of the work (Ellström, 1997). Work characteristics discussed in this section are possibilities for competence development, managers' competence, supervision, employers' financial contribution, and organisation of competence development.

RNs in DC, compared to GC, perceived greater possibilities for sufficient competence development at work in 13 of 23 examined domains in Study IV. In addition, more RNs in GC stated that their employers had not offered any competence development. These disturbing results underline the relevance of comparing RNs working in DC and GC. The advantage in DC might depend on consequences of research, development projects, and the recent decades' education in dementia care. It has been known for a long time that workers with good opportunities for competence development have greater possibilities to control most situations that occur at work, and to influence their own work (Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003b). Approximately half of those RNs who reported that the employer had offered competence development stated that their own perceived area of need for competence development was represented only sometimes. It could be argued that these results are inconsistent, since most RNs

were not lacking or were hardly lacking knowledge in examined domains. Consequently, the problem is worth examining for its own sake.

Furthermore, most RNs perceived that the local management shared their view on what constitutes RNs' competence (Study IV). This should be interpreted with the understanding that half of the RNs stated that the local management had full competence in the RNs' subject field. This is relevant taking into account that managers in municipal elderly care can have long experience and education in social care, rather than in nursing (Åberg et al., 2004). Swedish Associations of Health Professionals (2004) reported that 59% of RNs in municipal elderly care had a manager who had an education in health care and 21% in social care. This might lead to ignorance of the needs of RNs for professional development. One can only speculate whether managers with a background in social care are proficient or not in municipal elderly care. The core task in special housing is to provide care and service for older persons, often with dementia and multiple diagnoses (Wimo & Sandman, 1999; National Board of Health and Welfare, 2000; Thorslund & Larsson 2002; FOKUS, 2004). Thus, it can be assumed that it would be an advantage to have managers with knowledge in health care. In addition, Lindholm (2000) showed that nurse managers who had a master's degree in nursing increased their management focus to include research and nursing development

As noted previously, most of the RNs had no organised supervision (Study IV). This is in agreement with SBU (2006) which reported that only 10% of all of the municipalities offer staff supervision in dementia care. This is a distressing result, partly because newly qualified RNs need supervision (SOSFS, 1995:15). Furthermore, supervision can promote professional development (Hansebo & Kihlgren, 2004). RNs' wellbeing and work satisfaction may also increase, and may give a positive effect on their sense of being in control of the situations at work (Bégat, 2006). Moreover, supervision offers opportunities for RNs who have undertaken continuing education to reflect on how well they develop both personally and professionally as a result of their studies (Wood, 1998).

Study IV revealed the poor financial contribution by employers to RNs' continuing education. Bergman (1994) reported that regardless of where RNs worked, financial insecurity was an obstacle for RNs' competence development. This may affect RNs' competence development negatively. An appropriate financial infrastructure for study leave is essential, since it may generate improved motivation and participation in education. For instance, it can hardly be a coincidence that several specialist programmes in Elderly Care have been terminated in the recent years (Domfors, 2005).

Furthermore, a substantial proportion of RNs were unaware of how competence development for RNs was organised at their current work. Most RNs required a better organisation for competence development and this requirement was even greater in GC. This is consistent with

Tunedal and Fagerberg (2001) who argued that established strategies for the development of RNs in municipal elderly care are presumably lacking. RNs in DC had greater possibilities than in GC to clearly see their advanced development at work. There should be plans for competence development of RNs with regard to the changing demands in the field (SOSFS, 1993:17; SOSFS, 1995:15). Thus, organisation of competence development for RNs needs to be better and more distinct, specifically in GC. Finally, it is important to adapt the competence development of RNs in the future with regard to questions about what, how, and why, when considering the many meanings of occupational competence.

Theoretical framework

In this section, the main results of the four studies will be discussed, according to the DCS model (Karasek, 1979; Johnson & Hall, 1988; Karasek & Theorell, 1990; Theorell, 1993; Granberg, 2004; SOU, 2002:5; Theorell, 2003a; Theorell, 2003b). As previously described, the DCS model focuses on three work characteristics; (1) psychological demands; (2) decision latitude (authority of decisions and skill discretion); and (3) social support from fellow workers and supervisors (see Figure 2). In brief, the DCS model deals with demands, control, and support.

RNs with fellow workers have to manage, with shared competence, work tasks during a given time in municipal elderly care. If they do not manage their work tasks the demands become unreasonably high. Results indicated that RNs in both groups felt high time demands. Greater knowledge, higher emotional demands, and harder work tasks were found in DC. Conflicting demands were found in both groups, although these were greater in DC. RNs also had to deal with demands in form of frequent threats and violence. According to the DCS model, the psychological demands need to be reasonable and psychological strain results from the compounded effects of demands in a work situation.

Control deals with freedom and the responsibility to decide what to do and when to do it. A range of possible decisions gives the RNs freedom in meeting demands. To have control includes task control and participation in decision-making, as well as space to utilise and develop competence. Results suggested that most of RNs perceived a greater control in daily work tasks, than to influence the work situation in a wider context, such as in decision-making. Results in Study III confirmed that, by desiring greater authority to make important decisions, RNs in CC were motivated to invest in competence development.

Furthermore, RNs' control regarding the freedom to use and develop competence needs to be addressed. RNs in both groups possessed a broad range of formal competence, but few had

adequate specialist education. It would be reasonable to assume that RNs possessed actual competence, since they had worked an average of 18 years as RNs and an average of eight of those years in elderly care. Additionally, RNs in DC had worked more years in care of older persons than those in GC. The DCS model stipulates that it is essential to have competence since it improves the possibilities of employees to control situations occurring at work. Thus, it would be reasonable to suggest that RNs would find it advantageous to have an adequate specialist education, since competence development can increase RNs' abilities to manage their work tasks. Similarly, advantages could be assumed in offering more RNs, particularly in GC, education in managing threats and violence, as well as routines in the event of witnessing violence. Furthermore, RNs in GC reported fewer possibilities for sufficient competence development at work in 13 of 23 examined domains. Clearly, the possibilities of RNs to manage work tasks and have control would increase with increased opportunities for sufficient competence development at work.

Moreover, the competence of RNs was well utilised and their highest competence was used about half of their working hours. One can speculate whether this is beneficial or not. Notably, as mentioned previously, many RNs had not possessed adequate specialist competence. So in fact, there would presumably be greater possibilities to use the competence of RNs more effectively. It is important to note that the DCS model stipulates that working with unused competence with low decision latitude can be discouraging and unproductive. In fact, as stated earlier, RNs perceived a low influence on decisions in a wider context at work.

Furthermore, results indicated that support at work was generally high from management and fellow workers, and specifically higher in DC. This is a positive result, since the DCS model specifies that social support from supervisors and fellow workers has a buffering effect in relation to the occurrence of work-related stress. On the other hand, the majority of the RNs lacked organised supervision. This is more negative result as supervision can also have a buffering effect on work-related stress.

To sum up, according to the DCS model, it is the combination of high demands and low control in the work situation that may cause adverse stress. This is the most critical combination for health and this situation may produce psychological strain and adverse reactions like fatigue, depression, anxiety, and eventually physical illness. This might lead to sick-absenteeism and high staff turnover (if other employment is available). Learning can also be decreased. Therefore, there is a need to lower the demands on RNs and increase their possibilities for control at work. Moreover, it is essential to offer education since competence development improves the possibilities of RNs to control situations occurring in their work (Karasek & Theorell, 1979; Karasek & Theorell, 1990; Theorell, 1993; Theorell, 2003b).

Methodological aspects

During the progress of the research, a number of issues arose that might have influenced the results and conclusions. Accordingly, they merit discussion. When considering the quality of the research, reliability and validity must be addressed (Cook & Campbell, 1979; Kazdin, 2003). *Reliability* refers to the accuracy and consistency with which an instrument measures the target attribute. The key aspects in reliability are stability, internal consistency, and equivalence. *Validity* refers to the content and the degree to which an instrument measures what it is intended to measure. There are several aspects of validity, e.g. internal, external, construct, and statistical conclusion validity. Internal validity refers to whether an investigation rules out or makes implausible alternative explanations of the results. Internal validity refers to whether factors or influences other than the independent variable could explain the results or group differences. External validity concerns to what extent the results can be generalised or extended to others than those in this thesis. Construct validity refers to the degree to which the questionnaire's variables capture the traits or phenomena they were designed to measure. Statistical conclusion validity refers to the extent to which a statistical relation can be detected, as well as the extent to which influences affecting the evaluation could lead to a misleading or false conclusion (Kazdin, 2003).

Survey, as in this thesis, does not often have a strong internal validity due to the lack of control of the independent variable. Instead, a survey captures natural phenomena without any experiment. A survey provides information about the prevalence, distribution, and interrelations of variables within a population. This information can be confirmed and serve as a starting point for hypothesis generation (Polit & Beck, 2004).

Historical events can be a threat to the internal validity (Kazdin, 2003). Events, other than the independent variable, occurring over time in the lives of participating RNs, may have affected the data collection. These historical events refer to events occurring at home or work, such as staff education and reorganisation. Thus, the results should be interpreted with these changes in mind.

The maturation processes might also influence the internal validity. This aspect is difficult to separate from historical events. Maturation here refers to factors such as growing older, being more tired, and possibly perceiving less or more anxiety of time pressure at work. Data collection for these studies was done with three reminders. Changes may have occurred during the data collection time, which could have influenced the responses to the questionnaire, as well as the ability and the will to participate.

Selection biases refer to systematic differences between groups, as well as selection of intact groups. A common way to select groups for research in municipal elderly care has been to select staff groups from different types of special housing. However, nowadays the distinctions are

blurring between different types of units. For instance, the term “group housing” might lose its distinctive meaning (National Board of Health and Welfare, 2001; Melin Emilsson, 2004). In addition, RNs’ areas of responsibility often extend to several kinds of special housing. However, this problem was addressed in these studies since RNs were asked to specify whether they worked solely in DC or GC.

Attrition or loss of participants might serve as a threat to internal validity, if the loss of participants is systematic (Kazdin, 2003). A response rate of 65% and above is regarded as sufficient for most purposes in studies, but lower response rates are common (Polit & Beck, 2004). In this thesis the overall response rate was 62%. In the respective groups the response rate were 66% in DC and 59% in GC. In total 18 reasons for not participating were captured among 95% of the non-respondents (see Table 1 in Study I). Two of the most prominent reasons were lack of time (DC 37%, GC 36%) and high workload (DC 29%, GC 23%). To a greater extent, RNs in DC stated both lack of time and high workload as reasons for not participating compared to RNs in GC (DC 23%, GC 5%). Furthermore, private reasons (other than the sick leave) for not participating were stated to a higher degree in DC. Some of these were “not feeling well”, “home situation”, and “lack of initiative” (DC 25%, GC 12%). Another reason to consider is that “too extensive questionnaire” was stated by 21% of RNs in DC and to a higher degree, 35%, in GC. Among those RNs, at least one more reason was declared. The analysis revealed that only four and seven RNs, from DC and GC respectively, had solely stated “too extensive questionnaire” (DC 8%, GC 9%). No further analyses of common patterns were conducted of the non-respondents. Moreover, the total number of working RNs and their names was obtained from the residence managers. This could have influenced the loss of participants, as well as the results. Hence, the results must be interpreted with this in mind, which may in turn limit external validity.

A threat to construct validity concerns the degree to which the instrument measures the phenomena it was intended to measure. Some possible weakness may have arisen from construction of variables. It is possible that some of the questions might not have been formulated clearly, which may have led to misunderstandings. This in turn may have led to divergent interpretations and even under-reporting, for instance of violence. However, the interpretations may vary from individual to individual, but it is unlikely to do so systematically between DC and GC groups. Another limitation might be that there were few opportunities for participants to provide background explanations or free-text descriptions. Personal explanations form a key element in a deeper understanding. However, this thesis had a descriptive design focusing on the breadth and magnitude. Content and face validity was considered before data collection, as described in the methods section. The content of the questions was established in prior empirical research and previously investigated in similar

areas to this thesis (Aronsson et al., 1992; Fahlström, 1996; Hagström et al., 2000). Domains of requirements for RNs working in municipal elderly care were established by empirical and national overarching descriptions. The questionnaire was checked before and after data collection at seminars of RNs, psychologists, physiotherapists, lecturers, and researchers. Moreover, the questionnaire was tested on two occasions by RNs working in both DC and GC. This demonstrates that content and face validity can be regarded as satisfactory, as well as construct validity.

Statistical conclusion validity refers to those aspects of the quantitative evaluation that influence the conclusions of the study, which could lead to a misleading or false conclusion (Kazdin, 2003). Two possible errors can be made when using the p-value (Altman, 1997). Type I (alpha) error gives a false significant difference between groups, when in fact there is none. Type II (beta) error gives a false non-significance, when in fact there is a difference between groups. Type I risk is given by the p-value and is often set to 5%. The risk for Type II increases when sample sizes are small and the value of alpha is set low. The sample size in this thesis can be regarded as satisfactory and alpha was set as usual on 5% (Altman, 1997). Further aspects to consider are statistical and clinical significance (Altman, 1997). A difference can be statistically significant, but of no clinical importance. Similarly it is not reasonable to interpret a non-significant result between groups as indicating no clinical significance. In summary, since a number of actions have been taken to improve internal validity, the threats to internal validity in this thesis may be seen as reasonable.

The value of Chronbach's alfa coefficient (Polit & Beck, 2004) was used to measures the homogeneity of variables of psychological demands, authority of decisions, and social support in Study I. Alfa should be .70 to .90 (Streiner & Norman, 2003). A higher alfa value reflects a higher internal consistency. An alpha that is too high (above .90) may indicate that some variables are unnecessary (Streiner & Norman, 2003). The coefficient was high (.89) within the variables of social support, indicating high internal consistency. The coefficients were .61 within psychological demands and .69 within authority of decisions, indicating that the variables measured different aspects. Thus, the variables might better be considered separately. No further analyses were conducted of the specific questions, however this is recommended if the questions are to be used again.

Regarding the external validity, a convenience sample was used in these studies. Therefore, the results can only be generalised with caution. However, the participants' characteristics were described so that their representativeness can be judged (Altman, 1997). The distribution of gender, age, and nursing education reflects the general population of RNs in municipal elderly care. Therefore, the results might also reflect the perceptions of RNs working in similar conditions.

The theoretical framework needs to be discussed. The DCS model has been widely used to measure psychosocial work situations. The model has generated a comprehensive understanding of work situation, stress, and health. Nevertheless, the model has also been criticised. A criticism has been made that the model is not fully appropriate for staff in human service occupations, particularly the dimensions of control (Söderfeldt et al., 1996). Söderfeldt et al. (1996) argued that the model does not consider emotional demands. The concept 'demands' was expanded to include emotional demands in Study I. Moreover, Söderfeldt et al. (1996) argued that the control-dimension could be problematic to interpret since the construct combined decision authority and skill usage. One could say that the criticism towards the DCS model is related to the fact that the appurtenant instrument is unspecific (cf. Dellve, 2003). However, the model was used as a theoretical framework without the appurtenant instrument. Consequently, the results may guide efforts to reduce RNs' demands, as well as increase their influence and competence development at work.

CONCLUSIONS AND IMPLICATIONS

The four studies presented in this thesis have highlighted the RNs' characteristics, work situation, violence at work, education, and competence. In addition, several related issues were addressed. The following conclusions and implications can be drawn from the results:

- RNs were in high ages and had worked an average of 18 years, which implies long-term working life experience. RNs in DC reported not only greater knowledge but also greater emotional and conflicting demands. The majority perceived that there were greater opportunities to plan and perform daily work tasks than to influence the work situation in a wider context. Thus, it is important to decrease RNs' time pressure and to increase their influence on decisions made at work in DC and GC. Support at work was perceived as generally high from management and fellow workers, and higher in DC.
- Violence occurred equally frequently in municipal care of older people without any difference between DC and GC. RNs in DC were more often offered education on how to manage violence and had routines for violence when it occurred. It is an urgent matter to introduce violence prevention routines and education, especially in GC.
- An important future priority is to develop RNs' formal competence and increase the utilisation of their competence. It is necessary to pay attention to RNs' motivations in GC to invest in competence development which would motivate RNs to stay in elderly care. In order to ensure high quality and safety in elderly care, it is also essential to increase the number of RNs with specialist competence.
- A better organisation and greater possibilities for RNs' competence development is needed. RNs' highest competence was utilized during half of working hours, which leaves a challenge for future development. Attention needs to be drawn to RNs' fewer possibilities for competence development in GC. The employers need to make a greater financial contribution to RNs' continuing education. It is essential to provide RNs with supervision.

FUTURE DIRECTIONS

As the ageing population increases in number and age, the care and service of older people increases. New dimensions are constantly opening in the area of elderly care, and the care requires flexibility as the population gets older. The exploration of RNs' demands and future possibilities is a growing and changing field, which poses challenges for all the RNs working in elderly care. Hence, research is quite welcome in most of fields in which caregivers and care recipients co-operate. However, given my interest in municipal elderly care with implications for RNs' work situation, education, and competence, I would like to specify just a few research interests. Thus, the most obvious extension of the present research is presented here.

The concept of GC requires further exploration from the perspectives of both people with dementia, and cognitively intact people, particularly from the perspective of care recipients and relatives. Further research is warranted to explore how to increase RNs' control at work. Clearly, also the problem of RNs' lack of organised supervision merits further research. Furthermore, investigations are necessary concerning the perceptions of violence held by municipal staff and especially by employers in care of older people. Investigation requires if and how managers' educational backgrounds and work experiences influences RNs' work situation. An important research aspect is to answer how to create the necessary conditions for RNs to retain and develop their competence. Additionally, it is important to explore RNs' competence development for future aspects with regard to questions about what, how, and why, when considering the many meanings of occupational competence. RNs' competence development ought to be achieved by means of tight collaboration between the educational centres and managers in municipal elderly care. Finally, RNs' family conditions, leisure, and health merits further investigation, as well as their 'ideal work'. Such data would provide complementary information about RNs' health related factors, all of which are important in a holistic view of RNs' work conditions in elderly care. Hopefully, these further investigations will be useful in RNs' future competence development and to recruit and retain RNs, who are an irreplaceable staff resource in care and service of older persons and essential to meeting present day and future demands in elderly care.

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