LICENCIATE DISSERTATION



The Impact of Care Process on Satisfaction with Elderly Care

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ABSTRACT

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This licentiate thesis is based on the growing interest in Swedish elderly care. The aim of this thesis is to investigate what generates satisfaction with elderly care among older persons. The dominant ideology in both privately and publically run elderly care is individualized care, also called person-centered care, which holds the older person's satisfaction as one of the main quality indicators. The proportion of older people is increasing and to maintain high levels of satisfaction with elderly care will require more knowledge. Data from the National Board of Health and Welfare's (2012) nationwide survey on seniors' experiences with elderly care was collected. Statistical analyses of this sample formed the basis for the results of the thesis and were reported in two papers. Study I used Donabedian's (1988) model of quality of care in terms of structure, process, and outcome, and all municipal units in Sweden were included (N = 324). The results showed that structural variables (i.e. budget, staff, and training level) have minimal or no relationships with older persons' satisfaction with care, while process variables (i.e. experiences of respect, information, and influence) have strong relationships with satisfaction with care. Study II made use of the long-standing person versus situationmodel in social psychology, and was analyzed on an individual level (N = 95,000). The results showed that care process factors (i.e. experiences of treatment, safeness, staff- and time-availability) had a stronger relationship, than individual factors (i.e. health, anxiety, and loneliness) with satisfaction with care. The results also showed that older persons with home care generally felt better treated than older persons in nursing homes, but also felt less safe. Mediational analyses, based on this comprehensive elderly data, suggest that the individual aging condition of loneliness can be countered by providing safeness and treatment, resulting in high satisfaction with care. In conclusion, satisfaction with elderly care in Sweden today can largely be explained from a psychological perspective by the older persons' perception of the care process, not by the amount of structural resources or the conditions of the aging persons. These findings could help facilitate the future quality development in municipalities and care organizations.

Keywords: elderly care, quality, satisfaction, individualized care

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Sammanfattning på svenska

Denna licentiatavhandling bygger på det växande samhällsintresset ifrån både medborgare och styrande kring den svenska äldreomsorgen. Det rådande arbetssättet inom både privat och kommunal omsorg är en individanpassad omsorg (även kallad person-centrerad omsorg), och använder sig alltmer av de äldres nöjdhet som kvalitetsindikator. Andelen äldre förutspås fortsätta att öka och förväntas att sluka alltmer resurser inom de närmaste decennierna, vilket gör det till en utmaning för kommunerna att behålla de höga nöjdhetsnivåerna bland äldre. Den övergripande frågan som ställdes i detta forskningsprojekt är vad det är som genererar nöjdhet hos äldre inom hemtjänst och äldreboenden. För att besvara detta användes Socialstyrelsens rikstäckande undersökning om de äldres syn på omsorgen (2012). Statistiska analyser utgjorde grunden för resultaten i avhandlingen och rapporteras i två studier. Studie I använde sig av Donabedians (1988) kvalitetsmodell för vård och omsorg i termer av struktur, process, och utfall, samt analyserade data för alla kommun- och stadsdelar (N = 324). Resultatet visar att strukturvariabler (budget, personaltäthet, och utbildningsnivå) har ett minimalt eller inget samband med äldres nöjdhet med omsorgen, medan process-variabler (upplevelsen av respekt, information och påverkan) har ett starkt samband med äldres nöjdhet med omsorgen. Studie II baserades på den klassiska person-eller-situation debatten inom socialpsykologin, och analyserades på individnivå (N = 95,000). Resultaten påvisar att individ-variabler (självupplevd hälsa, oro, och ensamhet) förklarar mindre av nöjdhet med äldreomsorg än process-variabler (hur bemötande sker, upplevd trygghet, och tillgänglighet av personal). Däremot hittades vissa individ-skillnader, som exempelvis att äldre som har hemtjänst generellt känner sig bättre bemötta än äldre på särskilda boenden, men också att de känner sig mindre trygga. Medieringsanalyser påvisar evidens för att åldrandets utsatthet i form av oro och ensamhet kan bemötas genom ett tryggt och bra bemötande, vilket resulterar i ökad nöjdhet. Denna avhandling fastställer utifrån ett stort nationellt urval att äldres nöjdhet i Sverige idag till stor del kan förklaras utifrån ett psykologiskt perspektiv. Det är inte storleken på tilldelade resurser som påverkar nöjdhet eller hur de äldre mår, utan istället hur de äldre upplever sig bli bemötta i omsorgen och hur trygga de känner sig. Dessa resultat kan underlätta för framtida beslutsfattare i kommuner och organisationer inom äldreomsorgen.

Personal acknowledgements

The essential task for applied psychology in the 21th century is to keep demonstrating the excellence of its hundred-year-old rigor in methodology and its ability to explain behavior in all domains of the human enterprise. With this research tradition in mind, I would like to thank my supervisor and collaborator Associate Professor Ali Kazemi for all the hard work of initializing the project and for maintaining enthusiasm for impactful and for society relevant research. I also want to direct my gratitude towards mentors and role models of stature such as Professors Boo Johansson and Leif Strömwall at the Department of Psychology, Gothenburg, Sweden. Also, thanks to Skovde University College and the School of Health and Education for providing the accessibility of a second office.

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Petri Kajonius, Gothenburg, Sweden. November, 2014.

Preface

This thesis is written within the scientific field of psychology and is based on the following two papers, which are referred to in the text by their Roman numerals:

Study I. Kajonius, P. J., & Kazemi, A. (2014). Structure and process quality and satisfaction with care. Manuscript revised and resubmitted. *Health & Social Care*.

Study II. Kajonius, P. J., & Kazemi, A. (in press). Safeness and treatment mitigate the effect of loneliness on satisfaction with elderly care. *The Gerontologist*.

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Appendix National Survey

Glossary

Home care (hemtjänst) - also called assisted care at home; home help; assisted living.

Nursing home (äldreboende) - also called institutionalized care; special housing; long-term facility; full service living; accommodated living; residential care home.

Older persons (äldre) - also called elderly persons; older generation; older adults.

Individualized care (individanpassad omsorg) - also called person-centered care; client-centered care; person-oriented care.

1. Background

The number of older people is growing, and most societies in Europe and the developed world are preparing for this. In year 2050, an estimated 25% will be 65 years or older, compared to 14 % today, and 8 % back in 1950. The number of centenarians (100 years or older) is currently increasing twentyfold, as estimated in the start of the 21st century (United Nations, 2001). This thesis does not subscribe to the alarmist proposition that we might run out of resources due to this development, however, seeing the future demographic developments (Malmberg, 2011; Thorslund, 2010), the importance of understanding how to maintain and improve satisfaction with elderly care has never been more crucial than today (Szebehely & Trydegård, 2012).

Sweden is especially interesting to study since it might one of the best places to grow old in Europe, as measured by reported levels of satisfaction, good health, and high quality elderly care (Genet et al., 2011; National Board of Health & Welfare, 2012). Sweden is renowned for its generous publically financed welfare system, nationwide equality (Olsen, 2013), and spends the biggest proportion of GNP of all countries in Europe on elderly care (Theobald, 2003). One explanation for the high spending is the proportionally high number of citizens eighty years and older, the age when it is the most common to make use of assisted care through home help and institutionalized care (National Board of Health & Welfare, 2012). The continued success in providing the best possible elderly care for the older generation rests partly upon society knowing the determinants of satisfaction with elderly care.

1.1. Satisfaction with Elderly Care

What is a working definition of quality in elderly care? The National Board of Health and Welfare has the mandate to oversee quality in Swedish municipalities, and promotes the view that the older person is a unique individual, not just anyone in the collective care of the society. The consensus of modern elderly care when entering the 21st century is to be personcentered and not system-centered (Kitwood, 1997); a policy which most care organizations today have adopted. This view on quality regards the satisfaction of the older person to constitute an important part of quality in elderly care (Stewart, 2001). A most recent study admonishes quality-ratings in elderly care to always include the older persons' satisfaction (Williams, Straker, & Applebaum, 2014). Asking the older person about his or her satisfaction with care has become one of the most important measurement of quality. Older persons in Sweden receiving care at home and in institutions have for the past five years been asked how satisfied they are with the care they receive. Research shows that older persons tend to prefer this type of care approach and like to be asked about their satisfaction (Little et al., 2001). Asking older persons about their satisfaction is in accordance with the trends of cultural individualism (Hofstede, 2003) and the new public management policy, which views the older citizen as a customer wanting satisfaction (Bergman, Lundberg, & Spagnolo, 2012).

Using only a few short personal questions in surveys about satisfaction has been criticized and caution should be raised when interpreting results (Meinow, Parker, & Thorslund, 2011). On the other hand, satisfaction research has also demonstrated reliability and validity with self-rated reports (Lyubomirsky, King, & Diener, 2005), and evaluations of subjective experiences is here to stay (National Board of Health & Welfare, 2012.

Measuring Quality. Commonly there are two ways of measuring care quality; one is to ask the older persons themselves about their experiences, and another is to have the care organization self-report on indicators of quality (National Board of Health & Welfare, 2012). These surveys look a little bit different across Europe. For instance, the Danish system has a focus on organization and learning, while the Netherlands and England have a focus on results (Lindström, 2012). Norway is regarded as one of the most developed European countries when it comes to elderly care statistics; for example, they have indicators of older persons' level of need, which Sweden has not yet implemented. Another example is the US where there are demarcations for high or low quality, such as the star-rating system (Williams et al., 2014).

There are a growing number of empirical studies and research reports on quality, attesting to the importance of a continuous collection of data (Fung, Lim, Mattke, Damberg, & Shekelle, 2008). National authorities are continually looking for good scientific information to ground their political decisions. In the UK, the Care Quality Commission (CQC) is responsible for quality control and the publishing of survey results. In neighboring Norway, the Kommune-Stat-Rapportering (KOSTRA) gathers information from all municipalities, providing data for comparison and development. In Sweden, Socialstyrelsen (the National Board of Health & Welfare) is in charge of overseeing the collection of performance data in elderly care. Quality measurement and comparison of big data, in particular on satisfaction with care, has become a big enterprise.

International comparisons of elderly care quality reveal that no single standardized measurement is available which enables comparisons of the experiences of care for older

persons (Lindgren, 2012). Also, there are no validations of indicators that would well represent *overall* elderly care quality. Instead, through various indicators and proxies, selected parts of the care process is evaluated. This implies that comparisons on satisfaction between countries might be meaningless. However, indicators of quality function as goal-setting incentives (Nakrem, Vinsnes, Harkless, Paulsen, & Seim, 2009). In conclusion, measuring overall elderly care quality through measuring the older persons' evaluations is generally regarded to be problematic, which warrants caution when applying results from national surveys.

1.2. The Context of Swedish Elderly Care

Sweden has a regionally based, publicly operated and financed, universal elderly care system. Implementation of policy and provision of elderly care was previously the responsibility of the regional councils, but in 1992, the major responsibility for elderly care was transferred to the municipalities. The intention was to place decision-making closer to the citizens. The start of this reform was accentuated by an economic recession, in combination with innovations in care technology, which resulted in a rapid decentralization of elderly care services (Johansson, 1997). A few years after these reforms, a couple of trends could be seen, such as increasing inequality in the accessibility, costs, and quality of care, as well as a general lack of public discussion (Thorslund, Bergmark, & Parker, 1997). Today, the situation is different and both the public and researchers are engaged in a more informed debate (Meagher & Szebehely, 2013). In addition, the introduction of privately-run care organizations has sparked a renewed interest in what quality is and how satisfaction with care is achieved (Bergman et al., 2012). The common depiction of Swedish elderly care as a generous role model for publically provided care has been criticized, since family-based care also makes up a substantial part of elderly care (Sundström, Malmberg, & Johansson, 2006).

The Organization of Elderly Care. Sweden has 290 municipalities plus an additional 34 municipality units (National Board of Health & Welfare, 2012). These are all represented in the analyses. There are two main sectors in elderly care, which are considered in this thesis: Assistance at home (cf. Glossary, in the studies called home care) and institutionalized care (cf. Glossary, in the studies called nursing homes). As of 2012, approximately 160,000 older people in Sweden were assisted in their homes by home care services. Another 92,900 were serviced in institutionalized care in various types of nursing homes – the various types of residences for older persons include special dementia units (29,900), full service living

(9,900), and short-term residence (3,800), in addition to regular nursing homes (National Board of Health & Welfare, 2012). An estimated 50% of home care users eventually make the move to institutionalized care from home-assisted care (Bravell, Berg, Malmberg, & Sundström, 2009).

The elderly care that municipalities organize is regulated by national laws; however, there is liberal room for developing the care enterprise in accordance with regional preconditions, often taking after complex societal trends (Trydegård & Thorslund, 2010). Private-run care organizations are today free to establish care services in a majority of the Swedish municipalities. Municipal autonomy has together with privatization among other factors led to an intensification of documentation requirements and control on quality in elderly care (Öhlén, Forsberg, & Broberger, 2013). Due to the market competition and renewed interest in elderly care quality, satisfaction with elderly care has increasingly become a most relevant research subject (Kajonius & Kazemi, 2014).

2. Theory and Research

2.1. Individualized Care

The perspective of individualized care is one of the pervasive and dominant views in contemporary elderly care. Quality is regarded as focusing on the older person and his or her wants and needs. This traces back in history to the humanistic perspective (Rogers, 1961), as well as the the beginning of the modern care approach of 'knowing the person/knowing the patient' (Kitwood, 1997). The key in individualized care is to interact with the older person's needs, desires, and preferences, as well as background, life history, and relationships (McCormack, 2004). This view of care was complemented by Titchen (2004), who added the framework of a critical and skilled companionship by the care worker. In other words, individualized care should also provide regulatory guidelines, as well as facilitating for the highest satisfaction.

Measuring Indvidualized Care. Most measures on individualized care make use of the older person's perspective, trying to capture the experiences from the point of view of the receiver of the care (Edvardsson & Innes, 2010). For instance, Coyle and Williams (2001) captured the dimensions of personalization, approachability, and respectfulness. A more current instrument for measuring individualized care is the PDC scale (Person-Directed Care),

consisting of 64 items (White, Newton-Curtis, & Lyons, 2008). Factor analysis of the PDC Scale demonstrated five latent dimensions of individualized care: knowing the person, comfort care, autonomy, personhood, and support relations. Studies show that this personcentered care is conducive for a variety of behaviors, including the satisfaction of both older persons and staff (Edvardsson, Fetherstonhaugh, McAuliffe, Nay, & Chenco, 2011). Another way to capture and describe individualized care is through the ASCOT scale (Malley, Towers, Netten, Brazier, Forder, & Flynn, 2012), which measures several similar dimensions that the National Board of Health and Welfare includes in the elderly surveys (e.g. influence, comfort, meal time, safeness, social participation, activities, and respect).

Being in Relationships. A particular aspect of individualized care is being at ease or feeling at home (Edvardsson et al., 2005). Home is considered to be the base of everyday life, and at home, satisfaction should be maximized. Successful care should attempt to replicate the home environment; for instance when it comes to the concept of autonomy of the older persons (Welford, Murphy, Wallace, & Casey, 2010). Relieving loneliness and having an encouraging relationship with the caregiver in the context of a home-like and safe environment is a recurring theme in the literature (Edvardsson, Sandman, & Rasmussen, 2005). Most people have not spent their lives by themselves; instead they have been surrounded by family, friends, and peers. Making elderly care feel like home is the goal when attempting to increase satisfaction with older persons (Falk, Wijk, Persson, & Falk, 2013). In other words, part of the satisfaction in elderly care is to maintain meaningful relationships to the fullest extent possible. This view of individualized care being interactive and dyadic has been criticized for being overly naïve and not admitting how the institution and the care workers actively shape the social situation, often on the expense of the older persons' autonomy (Fjær, & Vabø, 2013). Individualized care is ultimately the product of both the structure of an institution as well as the interactive care process with the older person in focus.

2.2. Structure and Process

In particular, one of the most influential theoretical models from care sciences is Donabedian's model (1988), categorizing care quality in terms of structure, process and outcome. Structural aspects of care involve financing, buildings, instruments, medical supplies, documentation, and personnel, while process aspects involve the way care is carried out; for instance, in terms of respect, information, influence, treatment, and safeness. Donabedian (1988) considered process factors to be the very heart of care qualit, but also that both structure and process are two sides of the same coin in care quality. Donabedian's model has been especially popular within hospital research, and has not frequently been used within the modern elderly care context (Hearld, Alexander, Fraser, & Jiang, 2008). Kunkel, Rosenqvist and Westerling (2007) conducted a Swedish study using Donabedian's model, analyzing structure (resources and administration), process (culture and professional co-operation), and outcome (goal achievement), in a structural equation model where structure correlated highly with process. Analyzing care quality in terms of structure and process has been successful in qualitative research as well (Forbes-Thompson & Gessert, 2005). To the best of knowledge, no study have applied Donabedian's model on older persons' satisfaction with elderly care. Knowing the relative contributions of these categories would facilitate understanding and development of future elderly care.

2.3. Person and Process

A long-standing model within social psychology is the "person-versus-situation" (Funder, 2008). The debate around the model concerns whether the person or the situation has the most predictive validity on given affects, cognitions, and behaviors. The idea is that in some contexts, the individualities of a person, such as his or her personality traits, temperaments, family background, or personal values have the most effect, while in other contexts, the externalities of a situation such as colleagues, relationships, or work climate have the most effect. For a long time it was believed that the impact of the person could never reach significantly above r = .30, and that the person should not be focused on very much (Mischel, 2009). However, the major journals in the field (Personality and Social Psychology Review, Personality and Social Psychology Bulletin, Journal of Personality and Social Psychology, and Social Psychological and Personality Science) have in the last fifteen years reported a consensus that person influences situation more than previously thought. For instance, with the advent of behavioral genetics, study after study keep demonstrating the substantial and over time stable contributions from the person in all types of behavior (Plomin, DeFries, Knopik, & Neiderhiser, 2013).

Person and situation are, however, not easy to disentangle. The influence of the person is often active before a situation follows; for instance, through selecting the situation, or unconsciously evoking responses from the situation, or even consciously changing the situation. Longitudinal research has shown that both categories contribute significantly to behaviors, and also to satisfaction (See the meta-analysis by Heller, Watson, & Ilies, 2004).

To the best of knowledge, no study has quantified the effects of personal characteristics and care situation on satisfaction with elderly care. Knowing this would further our understanding on the role of the older person in generating satisfaction with care.

2.4. Satisfaction

Being satisfied is a complex psychological process. Both structure, process, and person can be regarded as determinants of satisfaction (Lyubomirsky, Sheldon, & Schkade, 2005). It is a well-established fact that person-conditions such as health and attitudes, as well as the social context affect cognitive and emotional evaluations (Fredrickson, 2005; Kahneman, 2011). A summary on a large number of evaluations impacted by the person-variable of positive attitude is available in the review by Donaldson and Ko (2010). Concerning the additional impact of process-factors, Fagerström et al. (2007) demonstrated that in cases where people experienced less satisfaction, the quality of especially social contacts, health, and general self-esteem explained much of the variance. Further important person-variables predicting satisfaction are shown to be loneliness and self-rated health (Borg, Hallberg, & Blomqvist, 2006). In general, the lesser the self-autonomy in daily activities, the lower the satisfaction, and the higher the social contacts, the higher the satisfaction (Hellström, Andersson, & Hallberg, 2004)

According to Donabedian (1988), quality of care (i.e. satisfaction with care) is captured in all aspects of care relationships; for instance, *how* one is carrying out the treatment, *how* the diagnosis is given, *how* the information is transferred, and *how* the interaction with the patient is conducted. Research supports such interpersonal skills as being more important than technical competence when estimating satisfaction with care (Schirm, Albanese, & Garland, 1999). When asking the older persons what makes them satisfied, being cared for with dignitity, often comes up (Harrefors, Sävenstedt, & Axelsson, 2009). Private run care organizations seem to have picked up on this customers' perspective, and studies show that they have slightly more satisfied older persons, even while using less resources (Stolt, Blomqvist, & Winblad, 2011).

The Psychology of Customer Satisfaction. The perspective taken by many municipalities and private-run elderly care organizations is that the older person is a customer in their organization. He or she has, through the law of consumer choice (2008:962), the right to choose between caregiving organizations in 88% of all Swedish municipalities; only 37 out of 324 municipality units have decided to decline this right (National Board of Health &

Welfare, 2012). Reviewing the literature on customer satisfaction, the consensus is that the antecedents for customer satisfaction primarily are expectations, disconfirmation of expectations, performance, equity, and level of affect. In a review on 50 studies on customer satisfaction, Szymanski and Henard (2001) found the strongest effects ($r \sim .50$) to be equity in the customer relationship (i.e. the proportions of perceived input and output) and disconfirmation of expectation (i.e. the degree of outperforming the initial expectations). In other words, satisfaction is dependent on the perception from the customer of receiving the same or more as invested into the relationship ($r \sim .30$) with satisfaction, followed by affect and expectation. When people evaluate quality of elderly services, they not only estimate care performance; they also estimate their own level of affect, their expectations, the fulfillment of expectations, as well as the equity level in the relationship with the caregiver (See the classic meta-analysis of Hall & Dornan, 1988).

However, the question whether the older person actually can be regarded as an autonomous customer of society has been raised. A Swedish study report that one third of older persons above 77 years of age are considered cognitively impaired and only 10% do not have any type of cognitive or sensory problems (Meinow et al., 2011). The premise is that in today's individual market the freedom to choose makes it more important than ever to understand and explore the determinants of satisfaction with care.

Another point is what degree of validation customers' self-reporting can provide. Answering how satisfied one is with the care received also implies a comparison point. Jylhä (2009) conceptualized self-ratings as first, the personal, subjective evaluation, and second, the comparison with other people of the same age, and third, what can be expected from society at large. Older Swedes in comparison to their European counterparts report good health and well-being. It may not be that Swedish municipalities offer the best care; it might be that we feel we have better care than other countries. Similarly, municipalities with higher proportions of older persons might compare themselves with other municipalities, and not primarily base their own evaluations on personal experiences. Testing the impacts of structure-, process-, and person-factors should be of interest not only for policy makers of elderly care, but also for anyone involved in providing elderly care or being interested in the psychology of satisfaction.

3. The Present Research

The overall question posed in this thesis is what constitutes satisfaction in elderly care. Attempting to answer and explore this, the research consists of two published studies: Study I compares, with municipality level data, the impact of the care process (*how care is performed, in terms of influence, information, respect*) to the size of structural resources (*what resources are available in terms of budget, number of staff, and training levels*), on older persons' satisfaction with care. Study II compares, with individual level data, the impact of the care process (*in terms of treatment, safeness, staff-, and time-availability*) to the influence of the older person's aging conditions (*in terms of health, anxiety, and loneliness*), on satisfaction with care. Figure 1 depicts a summary of the research in this thesis and the components tested in relations to the main outcome, satisfaction with care. The sizes of areas in the model indicate the theoretical starting points. The white areas indicate how structure, process, and person, have been operationalized. The overlaps indicate relationships, and the sizes of arrows represent the findings, in terms of the size of the impact on satisfaction with care.

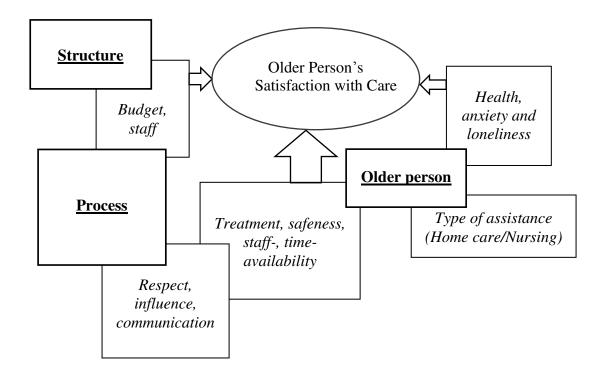


Figure 1. Flow-chart of the tested predictors of satisfaction with elderly care in this thesis. The bold labels represent the theoretical models used in the research design, and the labels in italic represent the variables measured.

The research question, originating in work- and organizational psychology, explores what are the predictors of satisfaction, in the particular context of elderly care. The two main perspectives employed to this research are, first, Donabedian's (1988) well-cited structure-process model from care sciences, and second, the influential person-versus-situation model from personality- and social psychology (Funder, 2008). Satisfaction is the main outcome variable throughout the thesis and this measurement is discussed further in the methodological challenges chapter.

The Data Source. In Sweden, the council responsible for quality control and the gathering of information on municipalities' performance is the National Board of Health and Welfare. Yearly, since 2007, a report called Open Comparisons has been published with publically available data on how elderly care is performing. Open Comparisons has been widely acknowledged and written about (Lindgren, 2012). In the latest publication (2012), a number of indicators of quality were reported, drawing from various databases, including a nation-wide survey where the older persons were asked about their perceptions and experiences of home services and institutionalized care. Structural data (budget, staffing, and training) were available through supplementary material in Open Comparison (2012) and process- and person- variables were collected through the nationwide elderly questionnaire. This questionnaire was the result of collaboration between the National Board of Health and Welfare and the Swedish Association of Local Authorities and Regions. Statistics Sweden had the responsibility of mailing out the questionnaires and collecting the data in an ethically approved way. The national survey data, together with structural data, is publically available only on an aggregated municipality mean level, and the anonymized individual data had to be applied for. Both these comprehensive data-sets make the foundation of the empirical analyses in this thesis.

Participants. The sample (N = 95,000) represented all municipality units in Sweden (N = 324). 61,600 people with home care responded (out of 89,400) and 33,400 living in nursing homes responded (out of 61,500). The demographics for home care was n = 39,699 women, and n = 17,988 men, aged 65-74 (n = 7160), 75-79 (n = 7217), and 80- (n = 43,310); the number of Swedish born (n = 51,550), and foreign born (n = 5,946). The demographics for nursing homes was n = 21,893 women, and n = 9,180 men, aged 65-74 (n = 2,144), 75-79 (n = 2,697), and 80- (n = 26,232); the number of Swedish born (n = 28,392), and foreign born (n = 2,546).

Instruments. The questionnaire on which the process- and person-variables are based is provided in the Appendix in its original size and form. An overview of the variables used from the questionnaires can be seen in Figure 1. For process- and person-variables, only items that were considered to tap into overall evaluations were used, such as "How safe or unsafe do feel at your elderly care home?" (question 20) or "Do the staff treat you well?" (question 17). Specific practicalities such as "Do you get help going to the bathroom to the extent you need?" (question 15) were not included. The main dependent variable was satisfaction with care (question 28), which was posed as: "How satisfied or not satisfied are you with the overall elderly care?" Most items were answered on 5-point Likert scales, ranging from "Very satisfied" (1) to "Very dissatisfied" (5), also with the option, "No opinion/I don't know". The variables used are presented and argued for in more detail in the attached publications, Study I and Study II; the structural variables: budget, number of staff, and training levels; the process variables: respect, influence, information, treatment, safeness, and staff- and time availability; and the person variables: health, anxiety and loneliness). The problem of using one-item questions for process-variables as well as the outcome variable is discussed in the methodological challenges chapter.

In summary, this present research set out to analyze the data from the National Board of Health and Welfare to find out what constitutes satisfaction with care in aging adults. The hypothesis to be tested with the data was that the care process (how care is performed, for instance, the level of respect and experience of treatment) has stronger associations with satisfaction with care than the allocation of resources (for instance, the budget size or number of staff), as well as personal factors (for instance, health, and loneliness). This has never been reported with a nationwide sample in elderly care and should also be fruitful for furthering the understanding of the psychological determinants of satisfaction.

3.1. Methodological Challenges

Participant Bias. In home care, the response rate was 69%, and in nursing homes, only 54%. The low response rate should be regarded as a problem for the representativeness of the results. There is some support from studies on non-responders in health care that little or no differences is characteristic of these compared to responders (Lasek, Barkley, Harper, & Rosenthal, 1997). Another issue with the data set is if the opinions of the older persons themselves truly are being expressed. In home-based care, 24% said they had help filling out the questions. In nursing homes, the number who had help was as high as 61%. Also, when

using help, close relatives (in 85% of the cases) filled out the questionnaires, and it is not yet precisely known how this affects the reliability of the answers. Together with a low response rate, this could skew the representativeness of the results, even with a sample of this size. An analysis reported a small effect (d = 0.14), showing that older persons' overall satisfaction with care was slightly lower if having had help filling out the questionnaire. This effect could represent a negativity bias from close relatives wanting to keep pressure on improving the situation for their loved one, or it could represent worse health with the older person influencing the evaluation of care (cf. Study II).

Self-rating Issues. A problem is to base research on only the older persons' selfreporting on satisfaction, both from a reliability and a validity standpoint. Respondents might simply not be truthful. They might be exaggerating the positive to protect their caregivers or loved ones, or they might be exaggerating the negative to provoke change. Strong support for using self-rating scales come from a review of 125 meta-studies and 800 samples on a wide range of psychological questionnaires and shows the validity of self-reporting to be compelling, and directly comparable to validity sizes found within medicine (Meyer et al., 2001). Also, regardless of the self-rating nature of the data, this is the most comprehensive information that is available on older persons satisfaction with care today.

Another problem is that the elderly surveys utilize only one-item indices when assessing overall satisfaction in their national surveys. No accumulated scales with reliability coefficients such as Cronbach's alphas are used, and the test-retest reliability on the single items from the national survey has not been researched. A single item could be systematically misunderstood by individuals or groups of individuals, and validity could therefore be found lacking. In defense, research on single items, from neighboring research such as personality psychology, has shown promising results both regarding reliability and validity (Yarkoni, 2010). One recent study, as an example, showed that asking people about their level of narcissism with one question yielded similar predictive validity as the original 40-item narcissism-questionnaire (Konrath, Meier, & Bushman, 2014). Questions attempting to tap into personality-related issues such as well-being, health and attitudes are often shown to be as effective with only a fraction of the question compared to the original scale (Thalmayer, Saucier, & Eigenhuis, 2011). Even if the measurement used in these national surveys on satisfaction is found to be psychometrically lacking, most countries have introduced or are in the process of introducing the perspective of the older persons when assessing quality with care.

Self-rating Health. Self-ratings are also used for health and anxiety as quality indicators. When self-rated health, accentuated by anxiety, converts into everyday loneliness, this is usually the starting point for using elderly care services (Aartsen & Jylhä, 2011). One of the steps for being eligible for elderly care services is low self-rated health and/or high self-rated anxiety, which is a part of an evaluation process handled by a municipal case officer with the aim to establish the scope of assistance rights. Physical and mental hindrances are confirmed to be the main predictors for receiving home help, according to the known SNAC-studies (Meinow, Kåreholt, & Lagergren, 2005). Rating one's own health carry issues with reliability, but has become one of the easiest and most popular ways of assessing older persons' health, and has demonstrated conceptual and predictive validity (Jylhä, 2009). Self-rated health, despite its problems, has also shown robustness against cross-cultural differences and has demonstrated structural invariance across nations (Jylhä, Guralnik, Ferrucci, Jokela, & Heikkinen, 1998).

Operationalization. Process is operationalized differently in Study I and II. In the first study, the variables respect, information and influence make up process; while in the second study, the variables safeness and treatment make up process. The implication from this is that the relative impact from process on satisfaction with care cannot be compared across studies. The reason for the second study having a different set of variables for process was the purpose of exploring the interplay of the countering effects of a few key remedies (interpersonal treatment and feelings of safeness) with older persons' individual aging conditions.

Another difference in the operationalization is the main outcome, satisfaction with care. In Study I, the measurement consisted of aggregated municipal level data (percentages of very satisfied and satisfied older persons), while in Study II, it consisted of individual level data (means of scoring from a Likert-scale). This was done since the first study aimed at quantifying the general impact of structure- and process-factors on a municipal-level (N = 324), with the structure-process model; while the second study aimed at quantifying the specific individual-level of aging (N = 95,000), with the person-situation paradigm. This implies that the studies cannot be conveniently compared; instead, these approaches are to be regarded as complements to each other and to provide a more representative picture of the state of satisfaction with elderly care. However, the correlation between the ways of measuring satisfaction in the two studies was very high ($r \sim .90$).

A Note on Statistics. Effect sizes labeled small, medium, and strong are subject to different interpretations. In the analyses for this research, they were based on the largest meta-

analysis in social psychology (Richard, Bond, & Stokes-Zoota, 2003), where the average effect over a hundred years of research, among 25,000 studies, was found to be r = .21. This was also affirmed in Hemphill (2003) who reported that one third of all reported effects in psychology are between r = .20 and r = .30. Statistically speaking, this can be interpreted to mean that 20-30% of the variance in a latent third variable can be predicted (D'Andrade & Dart, 1990; Ozer, 1985). Furthermore, a rule of thumb when transforming between the effect sizes of the two most common measurements of effect size, Pearson's r and Cohen's d, is that a value of r = .30 is equal to d = .70 and that r = .50 is equal to d = 1.2 (Cohen, 1992).

Furthermore, the results in the two studies are sometimes formulated as effects or impacts. This is due to representing theoretical directions in the relationships, however, no causality is implied with this. Also, confidence intervals were intentionally omitted from reporting since due to the large sample sizes, the standard errors deviate less than .01 from the estimates. The outcome variable, satisfaction with care, was slightly skewed, however within recommended limits (Skewness < 2.0), and it is also known that a strict normality assumption for t-tests and regressions is not a requirement when using large samples approaching the thousands (Lumley, Diehr, Emerson, & Chen, 2002).

4. Summary of the Empirical Studies

The title of this thesis, i.e. the impact of the care process on satisfaction with care, refers to the implied power of elderly care, in order to counter the negative effects of aging, such as health, anxiety, and loneliness. Two studies form the core for this thesis and were conducted to attempt to answer the overall question: What predicts satisfaction with care in older persons? The questions implicit in the studies concern the impact of the categories structure, process, and person, and can be formulated as: Is the amount of resources directed to home care and nursing homes in a municipality related to satisfaction with care? Is the level of experienced physical or mental well-being with the older persons related to satisfaction with care? The full studies with detailed method and results are included in this thesis as Study I and Study II, as published.

4.1. Results of Study I

In Study I, the aim was to compare how structure (measurements of care resources) and process (evaluations of the way care is performed) relate to satisfaction with care (amount of older persons satisfied with care), with the use of data from the national elderly survey 2012 and analyzed on an aggregated municipal level (N = 324). Donabedian's classic model (1988) suggests that outcome in terms of quality of care (in this case older persons' satisfaction) can be understood and even predicted by separating structural factors from process factors. For instance, if a municipality prioritizes staffing and spends big budgets per person, while providing less room for influence from the older persons in nursing homes – is this more impacting in the elderly polls resulting in a higher percentage of satisfied older persons, than a thrifty municipality, providing much room for letting the older persons influence their activities?

The results showed that process variables explained variance in satisfaction with care better than structural variables. Figure 2 depicts Donabedian's model and summarizes the amount of variance in satisfaction with care explained by the categories process and structure, within nursing homes. Study I reports that perceptions of respect, information, and influence all had a strong relationship with satisfaction with care, while budget per capita, budget per elderly person, and care workers' level of training had no significant relationships with satisfaction with care, when controlling for within taxonomy variance with regressions. The only structural variable that had a significant relationship with satisfaction with care was the amount of staffing in nursing homes. In other words, the more staff a municipality has in their nursing homes, the more satisfied the older persons are. Analyzing this structural impact by conducting a hierarchical two step regression-analysis (first, structural variables, and second, process variables), furthermore, demonstrated that this impact from staffing was mostly mediated by process-variables.

The findings from Study I show that the two quality categories, structure and process, together explained over half of the variance in satisfaction both in home care and in nursing homes, and that process-variables contributed to the greatest part (Figure 2). In other words, the more the older persons felt respected, informed, and able to influence their life situation, the more they were content with care. Also, Study I contributed theoretically by demonstrating the usefulness of Donabedian's model in a modern individualized elderly care context.

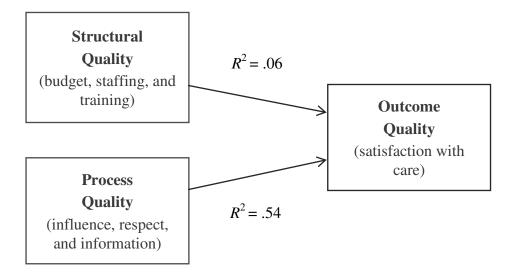


Figure 2. The research model behind Study I, showing the amount of explained variance from structure (step 1) and process (step 2) in satisfaction with nursing home care, based on Donabedian (1988). N = 324 municipality units.

To further illustrate the differences in impacts of structure and process, the diagram in figure 3 illustrates how the municipal structure in terms of budget per older person in nursing homes (ranging from 300,000 SEK to 900,000 SEK per year) had no relationship with the percentage of older persons in the municipality saying the are satisfied with the care they receive (ranging from 50% - 100%). All Swedish municipalities were taken into account (represented by dots in the diagram, N = 324). In contrast, figure 4 shows how the municipal process in terms of percentage of older persons feeling respected (represented by circles, N = 324) and feeling they could influence their daily activities (filled triangles, N = 324) had strong relationships with the percentage of older persons being satisfied with care in that municipality (ranging from 50% - 100%). The percentage of older persons feeling respected (60% - 95%) were higher than the proportion saying the feel treated well overall (30% - 75%).

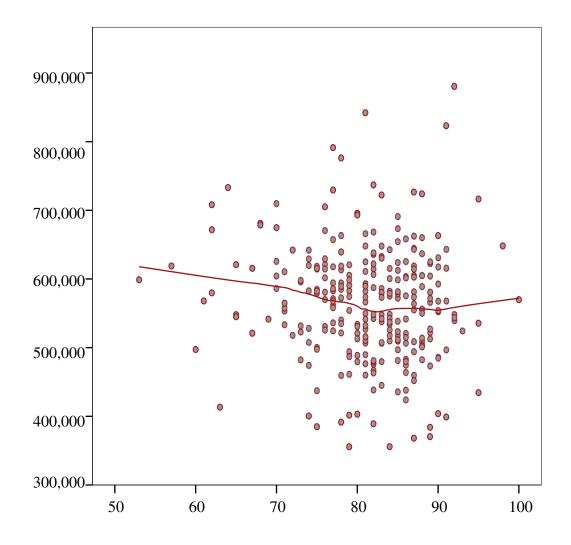


Figure 3. No existing relationship between the amount of money (SEK) spent per person in nursing homes in a municipality (Y-axis) and the percentage of older person satisfied with elderly care in that municipality (X-axis). All Sweden's municipality-units are represented as dots (N = 324). A Loess-fit line is drawn to illustrate that if anything, there is a small negative relationship when outliers are removed.

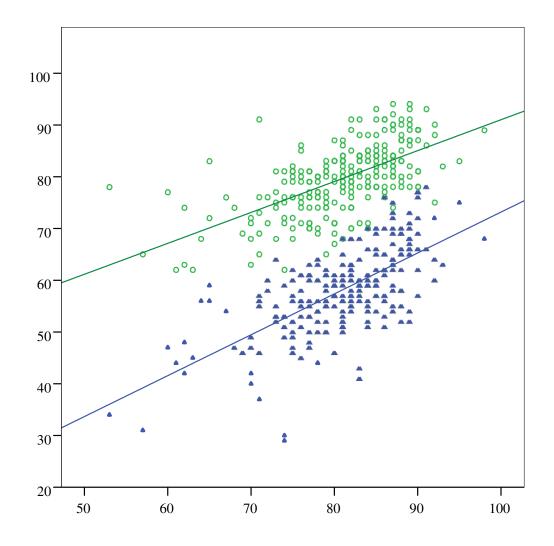


Figure 4. The relationship between the percentage of older persons' ratings of being met with respect (circles) and overall treatment (triangles) in a municipality, on the Y-axis, and the percentage satisfied with elderly care in that municipality on the X-axis, representing all Swedish municipalities (N = 324). Regression-lines illustrate the strong positive linear associations ($R^2 = .44$, $R^2 = .37$, respectively).

4.2. Results of Study II

In Study II, the aim was to explore whether the conditions of the aging person or the caregiving process has the most impact on satisfaction with care; this time not using data on a municipal level, but on an individual level (N = 95,000), using the person versus situation categorization from social psychology (Funder, 2008; Mischel, 2009). Many implementations in municipal elderly care today suggests that documentation and following protocols are the way forward in quality improvements. This can take away time and staff from the interaction with the older persons. Planners and policy makers benefit to know more in detail, for instance, how the roles of the older person's health and the availability of staff interplay in generating satisfaction with care.

The first result was that individual factors have a smaller part than process factors in explaining variance in satisfaction with care. The individual factors of ill health and anxiety were also found to be worse for older persons in institutionalized care (nursing homes), than for older persons with home help. Older persons at home also tended to feel treated better and were more satisfied with care than older persons in nursing homes. Concerning the feeling of safeness, the opposite was found and older persons in nursing homes tended to feel safer, than older persons at home.

The second result was that process factors, especially treatment and safeness, play an important role in mediating satisfaction with care. These can act as counter-balances to the older persons' predicament of loneliness. As seen in Figure 5, the variables treatment and safeness are mediating the effects of loneliness on overall satisfaction to a high degree in older persons in nursing homes. The mediating ratios provided by treatment was 35%, and by safeness 56%. In other words, how the older person perceives his or her health, anxiety, and loneliness, play an important role for satisfaction with care, but not as much as the evaluation of how one feels treated and how safe one feels.

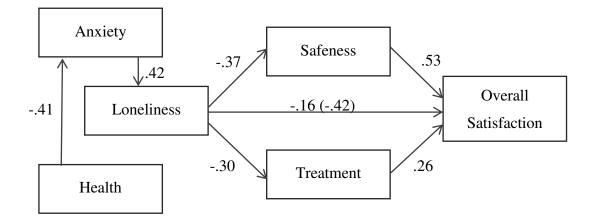


Figure 5. The integrated person-process path-model in Study II on older persons in Swedish institutionalized elderly care (N = 19,097). All regressions are significant, $p < .01^{-6}$, and confidence intervals are within .01 of the values.

4.3. General Discussion

Based on the present research overview (Figure 1), using data representing the older persons who responded to the elderly survey in the country, the results of the analyses in Study I show that *how* care is performed (process) accounted for more variance in satisfaction with care, compared to *what* care consists of (structure). Similarly, in Study II, *how* care is performed (process) accounted for more variance in satisfaction with care, compared to the aging condition of *who* receives the care (person). This is as far as is known the first time the impacts of institutionalized elderly care on satisfaction with elderly care, based on a national sample, have been demonstrated (cf. Figure 5).

The implicit questions for the studies have received some answers, which should, however, be taken with caution: Is the amount of resources directed to home care and nursing homes in a municipality related to satisfaction with care? The short answer would be "No"; however, see the complete Study I for a more nuanced discussion of this result. Is the level of experienced physical or mental well-being with the older persons related to satisfaction with care and is the care process provided by care workers related to satisfaction with care? The answer seems to be that the care process through safeness and treatment can outperform the aging condition in explaining satisfaction with care. Support for this interpretation comes from studies reporting that loneliness is lower in Nordic countries than in Mediterranen countries (Sundström, Fransson, Malmberg, & Davey, 2009). See Study II for a detailed discussion on how process factors mediate the aging condition. In summary, the results imply that satisfaction with care to a degree lies in the hands of the caregivers and the caregiving organization, not so much in the hands of funding politicians or even the older persons themselves.

From the results of Study I it might look like elderly care does not need more resources or money – it needs more interpersonal skills. Note that no attempts were made to control for variables such as demographic data, unemployment rates, or incomes in the municipalities (Savla, Davey, Sundström, Zarit, & Malmberg, 2008). Also, defining the boundaries between structure and process is not part of this research; however, another note should be made on the complexity of interaction between these. It is likely that structural variables provide the necessary resources for process variables to be effective and that structural variables are important. Support for this notion is found in a recent study on nursing homes' quality by Castle and Ferguson (2010). Whether explaining satisfaction or not, structural resources to a degree enable the care personnel to enact the important process-variables (Wagner, Cummings, Smith, Olson, Anderson, & Warren, 2010). Seeing the high levels of structural resources among Swedish municipalities (as compared with other European nations), this could imply that structural effects have reached a ceiling-effect and that process factors have now become more important than ever for distinguishing satisfaction. This interpretation can be supported by a study that showed very little variance in structural accessability after controlling for need conditions across municipalities (Davey, Johansson, Malmberg, & Sundström, 2006). In other words, structural variables might have taken satisfaction as far as it can.

Similarly, the individual aging condition (health, anxiety, and loneliness) also carries implications, even though these factors were not strong predictors of satisfaction with care. The individual condition is theorized and modelled to be the outset of the entire care process leading up to satisfaction with care (cf. Figure 5) and it is also what characterizes satisfaction towards the end of life (Bravell, Malmberg, & Berg 2010). The individual differences in perception of care are what make the everyday care experience unique. Elderly care can not take away the importance of the individual; only relieve the impact of the aging condition.

Implications. Most municipalities today work with restrained budgets but still seem to be able to provide a care that most people are satisfied with; even to the point of being the

best in Europe (if national polls are to be compared). However, public opinion, together with the municipalities themselves, are pressuring home care units and nursing homes to further improve satisfaction with care. The way forward is said to be even more individualized care, with more tailor-made activities for the older person, with more obligations of documentation and other time-consuming chores, potentially taking away staff from interacting with the older persons. Interpreting the results of this thesis, seeing the impact of the variables, staff- and time- availability, would advice against this trend.

Even though the respondent data is incomplete and the results open for interpretation, these studies show relevance for overall directions of future quality developments. For instance, policy makers often want to show that they are spending sufficient resources in the public interest. There are many reasons for increasing the resources for elderly care, however the results of this study shows that quality (satisfaction with care) cannot be bought with money; at least not in the current condition of Swedish municipal care. If anything concerning structural resources should be prioritized, staffing showed some effect on satisfaction with care and was further mediated by process variables, in Study I. This was confirmed in Study II by the effects of time- and staff-availability on satisfaction with care. The results of the studies encourage a renewed focus on the importance of staffing for satisfaction with care.

Policy makers, municipalities, and private-run companies which already are investing in the numbers of care workers, could by these results be empowered to focus on the skills of the staff and enable them to be skillful, present, and available for the older persons. This is one of the first studies with a nationwide sample, however incomplete due to the large number of non-respondents, that provide empirical and statistical support for policy makers that their efforts for maintaining a numerically high and competent presence of care workers make a difference.

Future Research. Employing care staff is costly and policy makers would desire to know whether the future strategy for decreasing loneliness and increasing satisfaction primarily should be to hire additional staff, increase skills, or free up existing staff from existing duties (i.e. requirements of documentation). For instance, it might be that a certain set of personality traits with staff is needed for a heightened perceived safeness and treatment by the older persons, and that these employees should be prioritized. The individualized approach in modern elderly care has the potential to be refined and implemented more efficiently, by this kind of research.

Furthermore, cross-sectional correlations within the municipalities were found between home care and nursing homes in the analyses (cf. Study II). This indicates a common source of variance, which could be a sort of "municipality-effect". This would be of interest for care organizations and calls for continued research in how care differs between municipalities and what interventions can be done to increase the impact of the care process on older persons' satisfaction across a muncipality. In other words, the next step forward would be to explore *why* process variables differ between municipalities and care organizations.

Also, a further step would be to develop new measurements which, if possible, would deliver more variation in the somewhat weak measurement of satisfaction with care. One-item measurements are not optimal as a foundation for future long-term development of a nation's elderly care. Sweden still lacks standards for indicating high and low quality within elderly care (Nakrem et al., 2009) – This can partly be explained by the lack of quality measurements.

Concluding Summary. The main finding of this thesis is the relationship between the care process and satisfaction with care. The impact of the care process was found both on a municipality and individual level, and the care process accounted for variance in satisfaction with care more than structural or personal variables. If the sample is to be regarded as representative of older persons in Sweden, this would advocate that we should continue to research and focus even more on what is the heart of individualized care – the caring relationship where the caregiver warmly invests time and engagement in the older person.

References

- Aartsen, M., & Jylhä, M. (2011). Onset of loneliness in older adults: Results of a 28 year prospective study. *European Journal of Ageing*, 8(1), 31-38.
- Bergman, M. A., Lundberg, S., & Spagnolo, G. (2012). Public Procurement and Noncontractible Quality: Evidence from Elderly Care. *Umeå Economic Studies*, *No. 846*. Umeå University, Department of Economics.
- Borg, C., Hallberg, I. R., & Blomqvist, K. (2006). Life satisfaction among older people (65+) with reduced self-care capacity: The relationship to social, health and financial aspects. *Journal of Clinical Nursing*, 15(5), 607-618.
- Bravell, M. E., Malmberg, B., & Berg, S. (2010). End-of-life care in the oldest old. *Palliative and Supportive Care*, 8(3), 335-344.
- Castle, N. G., & Ferguson, J. C. (2010). What is nursing home quality and how is it measured? *The Gerontologist*, *50*(4), 426-442.
- Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155-159.
- Coyle, J., & Williams, B. (2001). Valuing people as individuals: Development of an instrument through a survey of person-centredness in secondary care. *Journal of Advanced Nursing*, 36(3), 450-459.
- D'Andrade, R., & Dart, J. (1990). The interpretation of r versus r2 or why percent of variance accounted for is a poor measure of size of effect. *Journal of Quantitative Anthropology*, 2, 47-59.
- Davey, A., Johansson, L., Malmberg, B., & Sundström, G. (2006). Unequal but equitable: An analysis of variations in old-age care in Sweden. *European Journal of Ageing*, 3(1), 34-40.
- Donaldson, S. I., & Ko, I. (2010). Positive Organizational Psychology, behavior and scholarship: A review of the emerging literature and evidence base. *Journal of Positive Psychology*, 5, 177-91.
- Edvardsson, D., Fetherstonhaugh, D., McAuliffe, L., Nay, R., & Chenco, C. (2011). Job satisfaction amongst aged care staff: Exploring the influence of person-centered care provision. *International Psychogeriatrics*, 23(8), 1205-1212.

- Edvardsson, D., & Innes, A. (2010). Measuring person-centered care: A critical comparative review of published tools. *The Gerontologist*, *50*(6), 834-846.
- Edvardsson, D., Sandman, P. O., & Rasmussen, B. H. (2005). Sensing an atmosphere of ease: A tentative theory of supportive care settings. *Scandinavian Journal of Caring Sciences*, 19(4), 344-353.
- Fagerström, C., Borg, C., Balducci, C., Burholt, V., Wenger, C. G., Ferring, D., . . . Hallberg,I. R. (2007). Life satisfaction and associated factors among people aged 60 years andabove in six European countries. *Applied Research in Quality of life*, 2(1), 33-50.
- Falk, H., Wijk, H., Persson, L. O., & Falk, K. (2013). A sense of home in residential care. Scandinavian Journal of Caring Sciences, 27(4), 999-1009.
- Fjær, E. G., & Vabø, M. (2013). Shaping social situations: A hidden aspect of care work in nursing homes. *Journal of Aging Studies*, 27(4), 419-427.
- Forbes-Thompson, S., & Gessert, C. E. (2005). End of life in nursing homes: Connections between structure, process, and outcomes. *Journal of Palliative Medicine*, 8(3), 545-555.
- Fredrickson B. L. (2005). The broaden-and-build theory of positive emotions. In F.A. Huppert N. Baylis, & B. Keverne (Eds.), *The Science of Well-Being*, (pp. 217-238). New York: Oxford University Press.
- Funder, D. C. (2008). Persons, situations and person-situation interactions. In O.P. John, R. Robins & L. Pervin (Eds.), *Handbook of Personality, 3rd ed.*, pp. 568-580. New York: Guilford.
- Fung, C. H., Lim, Y. W., Mattke, S., Damberg, C., & Shekelle, P. G. (2008). Systematic review: the evidence that publishing patient care performance data improves quality of care. *Annals of Internal Medicine*, 148(2), 111-123.
- Genet, N., Boerma, W. G., Kringos, D. S., Bouman, A., Francke, A. L., Fagerström, C., ... & Devillé, W. (2011). Home care in Europe: A systematic literature review. *BMC Health Services Research*, 11(1), 207.
- Hall, J. A., & Dornan, M. C. (1988). What patients like about their medical care and how often they are asked: A meta-analysis of the satisfaction literature. *Social Science* &

Medicine, 27(9), 935-939.

- Harrefors, C., S\u00e4venstedt, S., & Axelsson, K. (2009). Elderly people's perceptions of how they want to be cared for: An interview study with healthy elderly couples in Northern Sweden. Scandinavian Journal of Caring Sciences, 23(2), 353-360.
- Hearld, L. R., Alexander, J. A., Fraser, I., & Jiang, H. J. (2008). Review: How do hospital organizational structure and processes affect quality of care? A critical review of research methods. *Medical Care Research and Review*, 65(3), 259-299.
- Heller, D., Watson, D., & Ilies, R. (2004). The role of person versus situation in life satisfaction: A critical examination. *Psychological Bulletin*, 130(4), 574-600.
- Hellström, Y., Andersson, M., & Hallberg, I. R. (2004). Quality of life among older people in Sweden receiving help from informal and/or formal helpers at home or in special accommodation. *Health & Social Care in the Community*, 12(6), 504-516.
- Hemphill, J. F. (2003). Interpreting the magnitudes of correlation coefficients. *American Psychologist*, *58*(1), 78-80.
- Hofstede, G. (2003). Culture's Consequences. Thousand Oakes: Sage Publishing.
- Johansson, L. (1997). Decentralisation from acute to home care settings in Sweden. *Health Policy*, *41*, 131-143.
- Jylhä, M. (2009). What is self-rated health and why does it predict mortality? Towards a unified conceptual model. *Social Science & Medicine*, 69(3), 307-316.
- Jylhä, M., Guralnik, J. M., Ferrucci, L., Jokela, J., & Heikkinen, E. (1998). Is self-rated health comparable across cultures and genders? *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 53(3), 144-152.

Kahneman, D. (2011). Thinking, fast and slow. New York: Macmillan Press.

- Kajonius, P. J., & Kazemi, A. (2014). Rankning av Sveriges kommuners äldreomsorg i Öppna jämförelser. *Socialmedicinsk tidskrift*, *91*(4), 323-331.
- Kitwood, T. (1997). Dementia reconsidered: The person comes first. Oxford: Oxford Press.
- Konrath S., Meier B. P., & Bushman B. J. (2014) Development and validation of the single item narcissism scale (SINS). *PLoS ONE* 9(8): e103469.
- Kunkel, S., Rosenqvist, U., & Westerling, R. (2007). The structure of quality systems is

important to the process and outcome, an empirical study of 386 hospital departments in Sweden. *BMC: Health Services Research*, 7(1), 104.

- Lasek, R. J., Barkley, W., Harper, D. L., & Rosenthal, G. E. (1997). An evaluation of the impact of nonresponse bias on patient satisfaction surveys. *Medical Care*, 35(6), 646-652.
- Lindgren, L. (2012). Öppna Jämförelser ett styrmedel i tiden eller "Hur kunde det bli såhär?". *FoU i Väst. Rapport* 2:2012.
- Little, P., Everitt, H., Williamson, I., Warner, G., Moore, M., Gould, C.,.. & Payne, S. (2001). Observational study of effect of patient centredness and positive approach on outcomes of general practice consultations. *BMJ: British Medical Journal*, 323(7318), 908-911.
- Lumley, T., Diehr, P., Emerson, S., & Chen, L. (2002). The importance of the normality assumption in large public health data sets. *Annual Review of Public Health*, 23, 151-169.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803-855.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9(2), 111.
- Malley, J. N., Towers, A. M., Netten, A. P., Brazier, J. E., Forder, J. E., & Flynn, T. (2012).An assessment of the construct validity of the ASCOT measure of social care-related quality of life with older people. *Health and Quality of Life Outcomes*, *10*(21), 1-14.
- Malmberg, B. (2011). *Global population ageing and migration in europe (Routledge Studies in the European economy)*. London: Routledge.
- McCormack, B. (2004). Person-centredness in gerontological nursing: an overview of the literature. *Journal of Clinical Nursing*, *13*(1), 31-38.
- Meagher, G. & Szebehely, M. (2013). Long-term care in Sweden: Trends, actors and consequences. In C. Ranci, & E. Pavolini (Eds.), *Reforms in long term care policies in Europe: Investigating institutional change and social impacts*. New York: Springer.

Meinow, B., Kåreholt, I., & Lagergren, M. (2005). According to need? Predicting the amount

of municipal home help allocated to elderly recipients in an urban area of Sweden. *Health & Social Care in the Community*, *13*(4), 366-377.

- Meinow, B., Parker, M. G., & Thorslund, M. (2011). Consumers of eldercare in Sweden: The semblance of choice. *Social science & medicine*, 73(9), 1285-1289.
- Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., Dies, R. R., ... & Reed, G.
 M. (2001). Psychological testing and psychological assessment: A review of evidence and issues. *American Psychologist*, 56(2), 128-165.
- Mischel, W. (2009). From personality and assessment, 1968 to personality science, 2009. Journal of Research in Personality, 43(2), 282-290.
- Nakrem, S., Vinsnes, A. G., Harkless, G. E., Paulsen, B., & Seim, A. (2009). Nursing sensitive quality indicators for nursing home care: international review of literature, policy and practice. *International Journal of Nursing Studies*, 46(6), 848-857.
- National Board of Health and Welfare. (2012). *Open Comparisons: Vård och Omsorg om Äldre 2012*. Stockholm: Socialstyrelsen.
- Ozer, D. J. (1985). Correlation and the coefficient of determination. *Psychological Bulletin*, *97*(2), 307-315.
- Olsen, G. M. (2013). What's 'Left' in the 'Garden of Sweden'? *International Journal of Health Services*, 43(1), 7-30.
- Plomin, R., DeFries, J. C., Knopik, V. S., & Neiderhiser, J. M. (2013). *Behavioral genetics*.
 6th ed. New York: Worth Publishing.
- Richard, F. D., Bond, Jr. C., & Stokes-Zoota, J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, 7(4), 331-363.
- Rogers, C. R. (1961). *On becoming a person A psychotherapists view of psychotherapy*. London: Constable.
- Savla, J., Davey, A., Sundström, G., Zarit, S. H., & Malmberg, B. (2008). Home help services in Sweden: Responsiveness to changing demographics and needs. *European Journal of Ageing*, 5(1), 47-55.
- Schirm, V., Albanese, T., & Garland, N. T. (1999). Understanding nursing home quality of care: Incorporating caregivers' perceptions through structure, process, and outcome.

Quality Management in Healthcare, 8(1), 55-63.

- Stewart, M. (2001). Towards a global definition of patient centred care: The patient should be the judge of patient centred care. *BMJ: British Medical Journal, 322*(7284), 444-450.
- Stolt, R., Blomqvist, P., & Winblad, U. (2011). Privatization of social services: Quality differences in Swedish elderly care. *Social Science & Medicine*, 72(4), 560-567.
- Szebehely, M., & Trydegård, G. B. (2012). Home care for older people in Sweden: A universal model in transition. *Health & Social Care in the Community*, 20(3), 300-309.
- Szymanski, D. M., & Henard, D. H. (2001). Customer satisfaction: A meta-analysis of the empirical evidence. *Journal of the Academy of Marketing Science*, *29*(1), 16-35.
- Sundström, G., Fransson, E., Malmberg, B., & Davey, A. (2009). Loneliness among older Europeans. *European Journal of Ageing*, *6*(4), 267-275.
- Sundström, G., Malmberg, B., & Johansson, L. (2006). Balancing family and state care: Neither, either or both? The case of Sweden. *Ageing and society*, *26*(05), 767-782.
- Thalmayer, A. G., Saucier, G., & Eigenhuis, A. (2011). Comparative validity of brief to medium-length Big Five and Big Six Personality Questionnaires. *Psychological Assessment*, 23(4), 995-1009.
- Theobald, H. (2003). Care for the elderly: Welfare system, professionalisation and the question of inequality. *International Journal of Sociology and Social Policy*, 23(4/5), 159-185.
- Thorslund, M., Bergmark, Å., & Parker, M. G. (1997). Difficult decisions on care and services for elderly people: The dilemma of setting priorities in the welfare state. *International Journal of Social Welfare*, 6(3), 197-206.
- Thorslund, M. (2010). Äldreomsorgens utmaningar i dag och i framtiden. Underlagsrapport till Timbro/Arena Idé-kommissionen rörande välfärdens framtida finansiering. Aging Research Center: Karolinska Institutet/Stockholms Universitet.
- Titchen, A. (2004). Helping relationships for practice development: Critical companionship. *Practice Development in Nursing, 2004,* 148-174.
- Trydegård, G. B., & Thorslund, M. (2010). One uniform welfare state or a multitude of welfare municipalities? The evolution of local variation in Swedish elder care. *Social*

Policy & Administration, 44(4), 495-511.

- United Nations (2001). *Replacement migration: Is it a solution to declining and ageing populations?* New York: United Nations, Population Division.
- Wagner, J. I., Cummings, G., Smith, D. L., Olson, J., Anderson, L., & Warren, S. (2010). The relationship between structural empowerment and psychological empowerment for nurses: A systematic review. *Journal of Nursing Management*, 18(4), 448-462.
- Welford, C., Murphy, K., Wallace, M., & Casey, D. (2010). A concept analysis of autonomy for older people in residential care. *Journal of Clinical Nursing*, 19(9-10), 1226-1235.
- White, D. L., Newton-Curtis, L., & Lyons, K. S. (2008). Development and initial testing of a measure of person-directed care. *The Gerontologist*, *48*(1), 114-123.
- Williams, A., Straker, J. K., & Applebaum, R. (2014). The nursing home five star rating: How does it compare to resident and family views of care? *The Gerontologist*, gnu043.
- Yarkoni, T. (2010). The abbreviation of personality, or how to measure 200 personality scales with 200 items. *Journal of Research in Personality*, *44*(2), 180-198.

Appendix Study I

Structure and Process Quality and Satisfaction with Care

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What is known about this topic

• Quality of caring relationships predicts satisfaction with care.

What this paper adds

- Structural variables such as budget per elderly person and care personnel certification/training showed no relationships with the elderly's evaluation of the quality of care in terms of satisfaction in a large nationwide survey. Staffing and budget per capita were weakly associated with residents' satisfaction in nursing homes. Interestingly, process factors in terms of respect and access to information were more strongly associated with satisfaction.
- Donabedian's (1988) model on structure and process quality can be used for predicting the outcome of care in terms of client satisfaction.

Abstract

The structure versus process approach to quality of care presented in the works of Donabedian (1988) is one of the most cited ever. However, there has been a paucity of research on the empirical validity of this framework, specifically concerning the relative effects of structure and process on satisfaction with elderly care as perceived by the older persons themselves. The current research presents findings from a national survey, including a wide range of quality indicators for elderly care services, conducted in 2012 at the request of the Swedish National Board of Health and Welfare in which responses from 95,000 elderly were obtained. The results revealed that the only structural variable which significantly predicted quality of care was staffing, measured in terms of the number of caregivers per older resident. More interestingly, process variables (i.e., influence, respect, and access to information) explained 40% and 48% of the variance in satisfaction with care, over and above the structural variables, in home care and nursing homes respectively. The findings from this large nationwide sample examining Donabedian's model suggest that quality in elderly care is primarily determined by factors pertaining to process, that is, how caregivers behave toward the older persons. This encourages a continued quality improvement in elderly care with a particular focus on process variables.

Keywords: quality of care, elderly care, structure, process, satisfaction

Structure and Process Quality as Predictors of Satisfaction with Care

To our knowledge, no empirical studies to date have investigated the relative importance of structural and process variables for quality of care from the perspective of the older person. The theoretical point of departure for the present study is Donabedian's (1988) model of quality of care in terms of structure, process, and outcome. We empirically test the model by analyzing data from a Swedish nationwide survey on elderly care including all municipalities in Sweden.

Sweden is particularly interesting to study as it excels in many respects when it comes to elderly care in Europe. For instance, Sweden spends most in Europe on elderly care (i.e., 2.5% of GNP) (European Commission 2006) and is recognized for its generous state-run welfare system aiming at nationwide equality (Olsen 2013; Theobald 2003). Sweden has a municipality-based and publicly financed elderly care, serving more than 300,000 people over 65 years of age, residing in nursing homes and receiving home care. A comparison of home care services among European countries reveals that Sweden and the other Nordic countries are considered to maintain high quality in elderly care (Genet *et al.* 2011).

However, economic estimates reveal that the old age dependency ratio (the number of working people divided by the number being supported by these) will increase by about 50% to 2050. A major restructuring of the Swedish welfare system has been taking place since 1992, and the primary responsibility for elderly care has been transferred to municipalities. The subsequent introduction of private-run care organizations has sparked a debate on what quality is in elderly care and how it should be achieved (Bergman *et al.* 2012). Increasing privatization has also led to an intensification of documentation requirements and recurring quality controls (Öhlén *et al.* 2013). Given these changes and the current status in the context

of elderly care, deepening our knowledge about what really affects the perception of quality of care from the point of view of the elderly is crucial.

The Concept of Quality

A screening of the literature reveals that quality is an elusive concept. Part of this elusiveness is due to the context-dependent and multi-dimensional nature of quality. Reeves and Bednar (1994) noted early on that "no universal, parsimonious, or all-encompassing definition or model of quality exists" (p. 436). Garvin (1988) discusses five approaches to or definitions of quality: 1) transcendent – a universal view of quality in terms of "we know quality when we see quality" and become aware of its absence intuitively, 2) product-based – differences in quality pertains to differences in the quantity of some feature when two equivalent objects are being compared, 3) manufacturing-based – according to which quality is determined by the processes used in the production of some product or service, quality is "conformance to specifications", 4) value-based – according to which quality is measured in terms of costs and prices, that is, whether a service is provided at an acceptable price/cost, and 5) user-based – quality is "fitness for use". According to this last view, which we adopt in the present study, quality is the capacity to satisfy the needs and wants of the users of a service or product. In support of this, Stewart (2001) argues that it always should be the older person who ultimately judges the quality of care. Moreover, quality has increasingly come to be associated with individualized care with an emphasis on the interactive process between the caregivers and the older person. This has however been shown to be much more difficult to implement than is commonly acknowledged (Fjær & Vabø 2013).

A study from Ireland on home caregivers reported quality to be the degree of reproducing home-like environments for the elderly (Murphy 2007). The importance of creating a home-like environment for perception of quality in nursing homes seems to be a recurring theme. This is facilitated by nurses who like their job and are sincere and

affectionate in their relationships with the older persons. That is, skillful care staff has the technical and psychosocial skills to satisfy the needs and wants of the older persons which is conducive in giving the older persons a sense of ease and home-like feeling (Edvardsson *et al.* 2005; van der Elst *et al.* 2012). Moreover, in England, compassionate relationship centered care has received widespread attention and practice (Dewar & Christley 2013), which bears close resemblance to the Swedish emphasis on respectful treatment (see also user oriented care, National Board of Health & Welfare 2012). In sum, quality is evaluated in the eyes of the older person and the quality of the relationships between the caregiver and the older person is an important determinant of quality of care.

Structure and Process according to Donabedian

The search for a theoretical frame to provide indicators of quality useful for national evaluations of elderly care services has been a focus for many researchers (e.g., Schneider & Lieberman 2001). One of the most well-known and well-cited conceptualizations in this regard was offered by Donabedian in 1988. According to Donabedian, quality of care is best described as a linear model consisting of structure, process, and outcome of results. Donabedian's (1988) structure and process dimensions have been used in previous research (e.g., Fahlström & Kamwendo 2003; Hearld *et al.* 2008). However, there is a paucity of research specifically investigating the relative magnitude of associations between structure, process and perecived quality of care in terms of client satisfaction.

Structure implies all factors affecting the conditions in caregiving, such as budget resources, staff training, reward systems, payment methods, facilities and equipment. Donabedian (1988) defines structure as the attributes in and with which care occurs. Process factors, on the other hand, imply all the acts of caregiving, such as diagnosis, treatment, and patient-interaction. Moreover, process variables are considered much more difficult to measure than structural variables, which are usually more straightforward and have

unequivocal meanings (Closs & Tierney 1993). Process quality has in previous research been operationalized in terms of interaction, communication and decision-making occurring between the caregivers and the older persons (Fleishman 1997; Forbes-Thompson & Gessert 2005). Process variables, such as enabling active participation among the elderly and the elderly's perception of having been respectfully treated, have been shown to affect compliance with taking medicine, diets, and being physically active. Maintaining autonomy in the care relationship is another important process factor. Mead and Bower (2000) reported that a high level of quality of care requires that the caregivers and the residents are involved in an active partnership, in which they share information and mutually influence each other. Finally, outcome or results include all the effects of care, such as health, behavior, knowledge, and satisfaction. In our study, outcome is operationalized in terms of the elderly's satisfaction with care.

Developing and Measuring Quality

Behn (2003) proposed that quality measurement is not an end in itself. Instead, national quality indicators should be considered part of an overall management strategy. Fung *et al.* (2008) argued that the use of rigorous evaluations of public reports are still lacking. With the trends of decentralization in Europe, cultural individualism, and increasing procurement of privately owned care organizations, a focus on individual experience and consumer satisfaction has gained status as a measurement of quality in elderly care. The way the elderly care is organized tends to be directed towards the aims of providing individually suited care in most measures of quality (Zinn *et al.* 1995).

Maintaining and developing quality within elderly care is a crucial challenge for the future. There are a growing number of empirical studies on quality and research reports attesting to the importance of continuous collection of performance indicators in order to improve the quality of care (Fung *et al.* 2008). Most modern nations are currently improving

and developing instruments for measuring quality of health and elderly care and Sweden is no exception.

The National Board of Health and Welfare collects data on objective indicators of performance (e.g., access to nurses, doctors, and response times) as well as older residents' subjective perceptions and experiences of elderly care. Investigations of elderly's satisfaction have been growing in importance, and the Swedish national survey of 2012 collected questionnaire data from over 95,000 older persons. The survey included 35 indicators in which elderly care units in all Swedish municipalities participated.

In the present research, we employ the data from the 2012 survey to investigate the relative importance of structural and process-related factors in accounting for the perceived quality of care among Swedish older persons using home-based and nursing home care services. Drawing on Donabedian's conceptualization of quality of care (1988), the present study operationalized structural variables as money spent per older person and per inhabitant in municipalities, staff training, and staffing. Process, on the other hand, was operationalized as the extent to which the older person felt respectfully treated (i.e., listened to) by their caregivers; the extent to which they perceived that they were provided with information pertaining to changes in their care (e.g., change of staff or planned activities); and the degree to which the older person felt that s(he) could influence her/his care. The data are found in the so called *Open Comparisons* report (National Board of Health & Welfare 2012).

Method

Sample and Procedure

Data were retrieved from the most recent Swedish annual national elderly survey (National Board of Health & Welfare 2012). Statistics Sweden (SCB) administered the survey on behalf of the National Board of Health and Welfare (in collaboration with Swedish Association of Local Authorities and Regions), and sent it out by mail to a sample of persons aged 65 years and older using elderly care services in Swedish municipalities and districts (N = 324).

The survey included 35 indicators covering a wide range of quality issues pertaining to elderly care services. Statistics Sweden added the structural data (e.g., budget per capita, budget per elderly) to the questionnaire data and compiled both in data files which are publically available on a municipality level.

A letter accompanying the survey explained to the respondents that partaking in the study was voluntary. This letter explained furthermore that if the older person was not able to fill out the questionnaire herself/himself, s(he) could ask for assistance from a trustee or an acquaintance. The letter stressed that assistance in filling out the questionnaire should not under any circumstances be provided by someone belonging to the care staff. The older persons/respondents were also informed that they could mail the filled-out questionnaire by using the prepaid envelope sent to them.

The response rate from the elderly in home care was 70 % (61,600), and the response rate from the elderly in nursing homes was 54 % (33,400). Furthermore, in home care 24% reported they had received assistance in filling out the questionnaire, predominantly close relatives. In nursing homes, the corresponding number was 61%.

In home care, 57,687 older persons had reported sex and age. 39,699 were female and 17,988 were male elderly divided into the following age categories: 65-74 (7160), 75-79 (7217), and 80- (43,310). Among these, 51,550 were natives and 5,946 were foreign born. In nursing homes, 31,073 older persons had reported sex and age. 21,893 were female and 9,180 were male divided into the following age categories: 65-74 (2,144), 75-79 (2,697), and 80- (26,232). Among these, 28,392 were natives and 2,546 were foreign born.

The survey was approved by the National Committee for Ethics. All the responses were read by machine, and participants were guaranteed confidentiality and anonymity by the National Board of Health and Welfare as the data were only made available on the municipality level.

Measuring Quality of Care

As previously mentioned, Open Comparisons reports on 35 different quality indicators of care. One important indicator is the elderly's overall or *global satisfaction* with their care, "Overall, how satisfied are you with your nursing home/home care?". This served as the dependent variable in the present study. Global satisfaction has been demonstrated to be a reliable measure and is increasingly encouraged to be included in quality measurements of elderly care (e.g., Williams *et al.* 2014).

Furthermore, drawing on previous research, *respect* (Otani *et al.* 2012), *information* (cf. caring conversations, Dewar & Nolan 2013), and *influence* (Edebalk *et al.* 1995; Mead & Bower 2000) were used as independent variables to represent the concept of process in Donabedian's model of quality of care (1988). The following items tapped these aspects in the national survey: "Do the staff respect your wishes and opinions about the care you receive?" (Respect), "Can you usually influence the time for receiving care?" (Influence), "Do the staff usually inform you beforehand about changes?" (Information). All questions were answered on 5-point Likert scales, ranging from "to a very small extent" (1) to "to a very large extent" (5).

The responses to these three items were by Statistics Sweden (SCB) converted into percentages (ranging from 0-100%) of older persons in each municipality. Specifically, and relevant to the purpose of our analyses, responses within the categories of the second highest (i.e., 4 on the Likert scale, that is, it is *most often* the case) and the highest scores (i.e., 5 on the Likert scale, that is, it is *always* the case) were combined to obtain a measure of high scorer older persons on the process variable items (i.e., respect, information, and influence). For instance, a municipality could have 82 on respect, meaning that 82% of the older persons

in that municipality had scored the highest (i.e., the staff *always* listens to what I have to say and respect that) or the second highest (i.e., the staff *most often* listens to what I have to say and respect that), representing a combination of the scores of 5 and 4 on the Likert scale. The overall satisfaction item was handled in the same way, that is, responses to the categories of very satisfied (5 on the Likert scale) and quite satisfied (4 on the Likert scale) were combined (for descriptive statistics see Table 1).

Financial resources in terms of budget per elderly person (Swedish Krona, SEK), per capita (at the municipality level), staffing, and number of trained staff were publically available by the National Board of Health and Welfare and were in our study employed to represent the structural aspects in Donabedian's model (1988). Data on staffing were only available for nursing homes and was measured in terms of a ratio of the number of staff to the number of older persons in the municipality. Number of trained staff was in the present study the percentage of the care staff having formal education to work with older people.

Results

Descriptive statistics (i.e., mean percentage of high scorers, standard deviations, minimum and maximum values) for the variables in the present study are presented in Table 1. Comparisons between older persons in home care and nursing home revealed some noteworthy differences. Older persons using home care felt more respectfully treated (M = 86.6, SD = 4.4) than older people living in nursing homes (M = 79.6, SD = 6.8), t(646) = 15.3, p < 0.001, d = 1.20. Also, older persons using home care experienced sharing of information to a greater extent (M = 69.5, SD = 8.5) than older persons in nursing homes (M = 47.4, SD = 9.2), t(646) = 30.0, p < 0.001, d = 2.36. Finally, perception of influence was only somewhat higher among older persons living at home (M = 58.1, SD = 8.8) than in nursing homes (M = 56.2, SD = 9.8), t(646) = 2.60, p = .009, d = 0.20.

Insert Table 1

Correlational analyses with structure and process variables revealed different patterns in home care and nursing home care, respectively. In general, structural aspects of care showed zero to weak correlations with overall satisfaction with care (see Table 2). There was a small statistically significant positive relationship between budget per capita and overall satisfaction with care in nursing homes. In contrast, moderate to strong associations between process variables (i.e., respect, information, and influence) and overall satisfaction with care were found (see Table 2).

Insert Table 2

Two hierarchical two-steps linear regression analyses were performed to investigate the relative importance of structural and process-related factors in determining satisfaction with care. In the first analysis, satisfaction of residents in nursing homes was analyzed. The structural variables (i.e., budget per capita, budget per elderly, staffing, and training) were entered as predictors in the first step of the analysis, and process-related factors (i.e., respect, information, and influence) in the second step. No multi-collinearity was found, with a *VIF*-range of 1.0 - 1.1 for the variables in the first step, and a *VIF*-range of 1.0 - 2.0 for the variables in the second step. The regression model for the first step was significant, *F*(4, 227) = 3.73, *p* = .006, adjusted R^2 = .06. The results showed that among the structural variables, the only significant predictor of overall satisfaction with care was staffing (β = .24, p < 0.001). The regression for the second step was also significant, *F*(7, 227) = 36.69, *p* < .001, adjusted R^2 = .54. All process variables (i.e., respect, information and influence) accounted for a

significant amount of variance in overall satisfaction with care over and above variance accounted for by the structural variables. Interestingly, the significant association between staffing and satisfaction disappeared in the second step. In sum, process-related factors predicted overall satisfaction with care more strongly than the structural variables. The results are depicted in Table 3.

Insert Table 3

In the second hierarchical two-step linear regression analysis, overall satisfaction of older persons using home care was analyzed. The structural variables (i.e., budget per capita in municipality and budget per elderly) were entered as the predictors in the first step, and process factors in the second step. No multi-collinearity was found, with a VIF of 1.6 in the first step and a VIF-range of 1.4 - 1.9 for the variables in the second step. The results revealed no statistically significant associations between structural variables and overall satisfaction with care. The regression model for the first step was not significant, F(2, 277) = 2.32, p =.101, adjusted $R^2 = .02$, while the regression in the second step with the process variables added to the model was significant, F(5, 277) = 38.27, p < .001, adjusted $R^2 = .42$. Respect and information, but not influence, accounted for a significant amount of variance in overall satisfaction with care. A tenable explanation for the non-significant association between influence and satisfaction is that most people experience a relatively high degree of autonomy and influence when living and receiving care in one's own home. Thus, influence may not be a focal factor when evaluating one's satisfaction in home-based care. Another interesting observation was that there were larger differences in beta weights for the process variables in the home care data than in the nursing home data. In sum, the findings revealed somewhat different patterns in the context of nursing home and home-based care. However, process

variables were stronger predictors of overall satisfaction with care than structural variables in both nursing home and home-based care. Table 4 depicts the results.

Insert Table 4

Discussion

The present study set out to investigate the relative importance of structural and process factors for older persons' perception of quality measured in terms of a global sense of satisfaction with their elderly care. The results showed process-related factors were more strongly associated with older persons' satisfaction in both home and nursing home care than structural factors.

Hearld *et al.* (2008) noted in their literature review that previous research has predominantly focused on structural aspects of quality of care. The results from our study provide support for the contention that satisfaction with care to a large extent is accounted for by process or the interpersonal aspects of care (operationalized in terms of respect, information, and influence). Structural variables such as budget per elderly person and care staff certification/formal training showed no relationships with satisfaction. Staffing (i.e., the number of caregivers per older person) and budget per capita were significantly but weakly associated with residents' satisfaction in nursing homes. These findings do not necessarily imply that structural aspects of elderly care are without merit, that elderly care budgets should be cut down, nor that it does not matter whether the care personnel is adequately trained or not. Structural variables provide the very basis for process variables to operate. For instance, with limited care personnel resources providing respectful treatment and information sharing are adversely affected (Closs & Tierney 1993).

Most likely, there is a threshold to the level of economic resources below which older persons' experience of quality of care is affected and this is not experienced by Swedish older persons. Therefore, our findings in this regard may be an example of restriction of range, that is, if the municipalities in Sweden were not under governmental supervision and if tax-rates and spending would have been significantly different, the analyses could have revealed correlations between the structural conditions of elderly care and satisfaction with care. The national survey indicates that the conditions for quality of care in terms of structural aspects are well met and that we can move on with what seems to further improve older persons' perception of care, that is, the process aspects.

The challenge of continuing improvement of elderly care while the population of older persons is increasing demands political decisiveness and evidence-based scientific efforts. Hanssen and Helgesen (2011) reported an increase of personnel relationship-training for nurses and care workers. Their findings showed that informational exchanges in care organizations are growing. This involves communication between all levels of personnel but also among the older persons, and our study confirmed the importance of information for the outcome of satisfaction with care. Towards the end of life people seem to interact less frequently (Bravell *et al.* 2010; Carstensen 1991), which makes the quality of social relationships even more important. The current study also confirmed the importance of influence, especially in the context of nursing home care which has become a widely used formula for enhancing quality of life (Cahill 1998; Welford *et al.* 2010). Our analyses of the Swedish elderly survey data have shown that relationship-based factors in terms of showing respect, sharing information, and allowing for autonomy (influence) are what older persons consider to be focal in evaluating user quality in terms of satisfaction with care.

In evaluating the relative effects of structure and process on various outcomes in elderly care, one should consider how structure and process variables have been operationalized, and

what outcome variables have been examined. One limitation of the present study lies in the usage of single items for process and outcome quality indicators in Open Comparisons. However, using single items has proven to be successful and is increasingly employed in psychological research to tap a wide variety of psychological dispositions (e.g., Gosling *et al.* 2003; Yarkoni 2010). Valid measurements help the care organizations in their quality improvement efforts and assist older people and their relatives in making more informed elderly care services choices. The need for continued improvement of the quality measures used to poll older persons' subjective experience of elderly care is therefore acknowledged.

Concluding Remarks

A great advantage of the present study was analyzing data from a large nationwide sample, as most previous studies have employed relatively small samples. Moreover, to our knowledge, the present study is the first one to empirically test Donabedians's model (1988) and systematically examine the associations between structure, process and satisfaction with care in the contexts of home-based and nursing home elderly care. An unequivocal support for the importance of process variables with an emphasis on respect and information sharing for having satisfied older persons was obtained. However, the older persons' influence did not explain satisfaction in home care, as influence is more or less taken for granted when the care services are provided in the older person's own home. Moreover, process variables were generally more impactful in the context of nursing home care. Explaining the somewhat different patterns in these two institutional contexts require further analyses and should await future research.

The basic tenet of the dominant ideology of care in Scandinavia in general and Sweden in particular is that knowing the client and meeting her needs with respect is the key to quality. This is often called a person-centered care approach (Edvardsson & Innes 2010). Despite the possible shortcomings of asking older persons about their satisfaction, we suggest

that the older person should be the main judge of quality and that the demonstrated impacts of values such as respect, influence, and information sharing are keys for providing not only satisfaction, but also a well-functioning care in a more general sense. An important implication of the current results is that every time a quality issue/problem arises, the solution is not always necessarily to inject additional financial resources into the system but consider how existing resources are being used at the operative level, e.g., the interaction between the caregivers and older persons. Considering and acknowledging *how* care is performed and not only *what* resources are provided should prove to be fruitful and of inspiration to future training programs and developmental efforts as enhancing the how aspects of quality is conducive to achieving positive outcomes in the context of elderly care.

References

- Behn, R. D. (2003). Why measure performance? Different purposes require different measures. *Public Administration Review*, 63(5), 586-606.
- Bergman, M. A., Lundberg, S., & Spagnolo, G. (2012). Public Procurement and Noncontractible Quality: Evidence from Elderly Care. Umeå: Umeå University, Department of Economics.
- Björnberg, A., Garrofé, B. C., & Lindblad, S. (2009). *Euro Health Consumer Index 2009*.Stockholm: Health Consumer Powerhouse AB.
- Bravell, M. E., Malmberg, B., & Berg, S. (2010). End-of-life care in the oldest old. *Palliative and Supportive Care*, 8(3), 335-344.
- Cahill, J. (1998). Patient participation—a review of the literature. *Journal of Clinical Nursing*, 7(2), 119-128.
- Carstensen, L. L. (1991). Selectivity theory: social activity in life-span context. In K. W.
 Schaie (Ed.), *Annual review of Gerontology and Geriatrics* (Vol. 11, pp. 195–217).
 New York: Springer.
- Closs, S. J., & Tierney, A. J. (1993). The complexities of using a structure, process and outcome framework: the case of an evaluation of discharge planning for elderly patients. *Journal of Advanced Nursing*, 18(8), 1279-1287.
- Coyle, J., & Williams, B. (2001). Valuing people as individuals: development of an instrument through a survey of person-centredness in secondary care. *Journal of Advanced Nursing*, 36(3), 450-459.
- Dewar, B., & Christley, Y. (2013). A critical analysis of compassion in practice. *Nursing Standard*, 28(10), 46-50.

- Dewar, B., & Nolan, M. (2013). Caring about caring: developing a model to implement compassionate relationship centred care in an older people care setting. *International Journal of Nursing Studies*, 50(9), 1247-1258.
- Donabedian, A. (1988). The quality of care: How can it be assessed. *Jama, 260*(12), 1743-1748.
- Edebalk, P. G., Samuelsson, G., & Ingvad, B. (1995). How elderly people rank-order the quality characteristics of home services. *Ageing and Society*, *15*(1), 83-102.
- Edvardsson, D., & Innes, A. (2010). Measuring Person-centered Care: A Critical Comparative Review of Published Tools. *Gerontologist*, *50*(6), 834-846.
- Edvardsson, D., Sandman, P. O., & Rasmussen, B. H. (2005). Sensing an atmosphere of ease: a tentative theory of supportive care settings. *Scandinavian Journal of Caring Sciences*, 19(4), 344-353.
- Edvardsson, D., Sandman, P. O., & Rasmussen, B. (2008). Swedish language person-centred climate questionnaire – patient version: construction and psychometric evaluation. *Journal of Advanced Nursing*, 63(3), 302-309.
- European Commission (2006). Directorate-General for Economic, & Economic Policy
 Committee of the European Communities. *The impact of ageing on public expenditure: projections for the EU-25 Member States on pensions, healthcare, long- term care, education and unemployment transfers (2004-50)*. Office for Official
 Publications of the European Communities.
- Fahlström, G., & Kamwendo, K. (2003). Increased physiotherapy in sheltered housing in Sweden: a study of structure and process in elderly care. *Health & Social Care in the Community*, 11(6), 470-476.
- Fjær, E. G., & Vabø, M. (2013). Shaping social situations: A hidden aspect of care work in nursing homes. *Journal of Aging Studies*, 27(4), 419-427.

- Fleishman, R. (1997). Non-medical predictors of quality of care of hypertension in elderly patients. *International Journal of Health Care Quality Assurance*, *10*(3), 107-116.
- Forbes-Thompson, S., & Gessert, C. E. (2005). End of life in nursing homes: Connections between structure, process, and outcomes. *Journal of Palliative Medicine*, 8(3), 545-555.
- Fung, C. H., Lim, Y.-W., Mattke, S., Damberg, C., & Shekelle, P. G. (2008). Systematic review: the evidence that publishing patient care performance data improves quality of care. *Annals of Internal Medicine*, 148(2), 111-123.
- Garvin, D. A. (1988). *Managing Quality: The Strategic and Competitive Edge*. New York: Simon and Schuster.
- Genet, N., Boerma, W. G., Kringos, D. S., Bouman, A., Francke, A. L., Fagerström, C., ... & Devillé, W. (2011). Home care in Europe: a systematic literature review. *BMC Health Services Research*, 11(1), 207.
- Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504-528.
- Hanssen, G. S., & Helgesen, M. K. (2011). Multi-level governance in Norway: universalism in elderly and mental health care services. *International Journal of Sociology and Social Policy*, 31(3/4), 160-172.
- Hearld, L. R., Alexander, J. A., Fraser, I., & Jiang, H. J. (2008). Review: How do hospital organizational structure and processes affect quality of care? A critical review of research methods. *Medical Care Research and Review*, 65(3), 259-299.
- Hofstede, G. (2003). Culture's Consequences. Thousand Oaks: Sage Publishing.
- Inglehart, R., & Welzel, C. (2005). *Modernization, cultural change, and democracy: The human development sequence*. Cambridge: Cambridge University Press.

- Kitwood, T. (1997). *Dementia reconsidered: The person comes first*. Oxford: Oxford University Press.
- Kunkel, S., Rosenqvist, U., & Westerling, R. (2007). The structure of quality systems is important to the process and outcome, an empirical study of 386 hospital departments in Sweden. *BMC Health Services Research*, 7(1), 104.
- Lasek, R. J., Barkley, W., Harper, D. L., & Rosenthal, G. E. (1997). An evaluation of the impact of nonresponse bias on patient satisfaction surveys. *Medical care*, 35(6), 646-652.
- Mead, N., & Bower, P. (2000). Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science & Medicine*, *51*(7), 1087-1110.
- Murphy, K. (2007). A Qualitative study explaining nurses' perceptions of quality care for older people in long-term care settings in Ireland. *Journal of Clinical Nursing*, 16(3), 477-485.
- National Board of Health and Welfare. (2012). *Open Comparisons (2012). Vård och omsorg om äldre 2012.* Socialstyrelsen: Stockholm.
- Olsen, G. M. (2013). What's 'Left'in the 'Garden of Sweden'?. International Journal of Health Services, 43(1), 7-30.
- Otani, K., Waterman, B., & Claiborne Dunagan, W. (2012). Patient satisfaction: How patient health conditions influence their satisfaction. *Journal of Healthcare Management*, *57*(4), 276.
- Reeves, C. A., & Bednar, D. A. (1994). Defining quality: alternatives and implications. Academy of Management Review, 19(3), 419-445.
- Schneider, E., & Lieberman, T. (2001). Publicly disclosed information about the quality of health care: response of the US public. *Quality in Health Care*, *10*(2), 96-103.

- Schoot, T., Proot, I., ter Meulen, R., & de Witte, L. (2005). Actual interaction and client centeredness in home care. *Clinical Nursing Research*, 14(4), 370-393.
- Senić, V., & Marinković, V. (2012). Patient care, satisfaction and service quality in health care. *International Journal of Consumer Studies*, 9(2), 155-168.
- Stewart, M. (2001). Towards a global definition of patient centred care: the patient should be the judge of patient centred care. *British Medical Journal*, *322*(7284), 444-445.
- Sower, V., Duffy, J., Kilbourne, W., Kohers, G., & Jones, P. (2001). The dimensions of service quality for hospitals: development and use of the KQCAH scale. *Health Care Management Review*, 26(2), 47-59.
- Theobald, H. (2003). Care for the elderly: Welfare system, professionalisation and the question of inequality. *International Journal of Sociology and Social Policy*, *23*(4/5), 159-185.
- Thorslund, M., Bergmark, Å., & Parker, M. G. (1997). Difficult decisions on care and services for elderly people: the dilemma of setting priorities in the welfare state. *International Journal of Social Welfare*, 6(3), 197-206.
- van der Elst, E., de Casterlé, B. D., & Gastmans, C. (2012). Elderly patients' and residents' perceptions of 'the good nurse': a literature review. *Journal of Medical Ethics*, *38*(2), 93-97.
- Welford, C., Murphy, K., Wallace, M., & Casey, D. (2010). A concept analysis of autonomy for older people in residential care. *Journal of Clinical Nursing*, 19(9-10), 1226-1235.
- Williams, A., Straker, J. K., & Applebaum, R. (2014). The nursing home five star rating:How does it compare to resident and family views of care?. *The Gerontologist*, doi:10.1093/geront/gnu043
- Yarkoni, T. (2010). The abbreviation of personality, or how to measure 200 personality scales with 200 items. *Journal of Research in Personality*, *44*(2), 180-198.

- Zinn, J. S., Brannon, D., & Mor, V. (1995). Organizing for nursing home quality. *Quality Management in Health Care*, *3*(4), 37-46.
- Öhlén, A., Forsberg, C., & Broberger, E. (2013). Documentation of nursing care in advanced home care. *Home Health Care Management & Practice*, 25(4), 169-175.

Table 1

Descriptive Statistics for Study Variables

Home Care					Nursing Home				
	М	SD	Max	Min		М	SD	Max	Min
Structure									
Budget/capita	15.9	4.3	29.0	6.5	Budget/capita	31.7	7.5	69.8	15.3
Budget/elderly	143.4	43.9	315.8	49.2	Budget/elderly	565.8	82.7	880.5	355.7
Training	N/A	N/A	N/A	N/A	Training	85.3	9.1	100.0	45.0
Staffing	N/A	N/A	N/A	N/A	Staffing	0.30	0.05	0.44	0.18
Process									
Respect	86.6	4.4	96.0	69.0	Respect	79.6	6.8	94.0	62.0
Information	69.5	8.5	93.0	46.0	Information	47.4	9.2	77.0	19.0
Influence	58.1	8.8	81.0	29.0	Influence	56.2	9.8	86.0	28.0
Overall Satisfaction	89.4	5.2	100	70	Overall Satisfaction	80.7	7.2	100.0	53.0

Note. N = 324. N/A = data not available. Budget in 1000s of Swedish krona (SEK) per year. 1 Euro = approx. 10 SEK. Training = Percentage certified care staff. Staffing = Number of staff/older person.

Table 2

Correlations between Structure, Process, and Global Satisfaction in Home Care and Nursing

Home

Home Care	Satisfaction with Care	Nursing Home	Satisfaction with Care
Structure			
Budget/capita	.11	Budget/capita	.14*
Budget/elderly	.01	Budget/elderly	.02
Training	N/A	Training	.00
Staffing	N/A	Staffing	.09
Process			
Respect	.58**	Respect	.61**
Information	.49**	Information	.60**
Influence	.31**	Influence	.61**

Note. N = 324. N/A = data not available. *p < .05 **p < .001 (two-tailed)

Table 3

Summary of Hierarchical Regression Analysis for Structural and Process Factors Predicting Overall Satisfaction with Care in Nursing Home

		Step1			Step2		
	$R^2_{\rm change}$	В	SE	β	В	SE	β
Step1 (Structure)	.06*						
Budget/capita		<0.01	<0.01	02	<0.01	<0.01	.00
Budget/elderly		<0.01	<0.01	09	<0.01	<0.01	03
Staffing		44.4**	12.3	.24**	15.0	9.04	.08
Training		.03	.05	.04	02	.04	03
Step2 (Process)	.54**						
Respect					.31**	.06	.29**
Information					.21**	.05	.27**
Influence					.13**	.05	.28**

Note. *p < .01, **p < .001 (two-tailed).

Table 4

Summary of Hierarchical Regression Analysis for Structural and Process Factors Predicting Overall Satisfaction with Care in Home Care

		Step1			Step2		
	$R^2_{\rm change}$	В	SE	β	В	SE	β
Step1 (Structure)	.02						
Budget/capita		<0.01	<0.01	.16	<0.01	<0.01	.16
Budget/elderly		<0.01	<0.01	08	<0.01	<0.01	04
Step2 (Process)	.42**						
Respect					.44**	.06	.45**
Information					.17**	.03	.34**
Influence					05	.03	.11

Note. *p < .01, **p < .001 (two-tailed).

STRUCTURE AND PROCESS QUALITY

Appendix Study II

Safeness and Treatment Mitigate the Effect of Loneliness

on Satisfaction with Elderly Care

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Abstract

Maximizing satisfaction among the older persons is the goal of modern individualized elderly care and how to best achieve this is of relevance for people involved in planning and providing elderly care services. **Purpose of the study:** What predicts satisfaction with care among older persons can be conceived as a function of process (how care is performed) and the older person. Inspired by the long-standing person versus situation debate, the present research investigated the interplay between person- and process-related factors in predicting satisfaction with elderly care. **Design and method:** A nationwide sample was analyzed, based on a questionnaire with 95,000 individuals using elderly care services. **Results:** The results showed that person-related factors (i.e., anxiety, health, and loneliness) were significant predictors of satisfaction with care, although less strongly than process-related factors (i.e., treatment, safeness, and perceived staff- and time availability). Among the person-related factors, loneliness was the strongest predictor of satisfaction among older persons in nursing homes. Interestingly, a path analysis revealed that safeness and treatment function as mediators in linking loneliness to satisfaction. Implications: The results based on a large national sample demonstrate that the individual aging condition to a significant degree can be countered by a well-functioning care process, resulting in higher satisfaction with care among older persons.

Keywords: person-centered care, elderly care, individualized care, person, situation, satisfaction, loneliness

Safeness and Treatment Mitigate the Effect of Loneliness on

Satisfaction with Elderly Care

Modern elderly care is characterized by a strong emphasis on the older individual, knowing and documenting his or her needs, preferences, and life-story. Individualized care, also called person-centered care, has for the last decade been the dominant ideology in elderly care (Swedish National Board of Health and Welfare, 2012). Keeping the older person satisfied in a supportive care relationship is the ultimate goal of the individualized careapproach. Thus, an important question that arises is whether there are some key predictors of satisfaction with care, especially in a market where the older person is free to choose among care services (Bergmark, Parker, & Thorslund, 2000). This knowledge would facilitate for policy makers and enable field practitioners to achieve and maintain a high level of satisfaction among older persons using home-based or nursing home care services.

Taking position in the long-standing debate of the person versus the situation (Funder, 2008; Mischel, 2009), we set out to investigate the interplay between personal (i.e. the aging condition) and situational (i.e., the care process) factors in explaining satisfaction with care from the standpoint of older persons. In a recent study, Kajonius and Kazemi (2014a) investigated the relative impact of structural and process variables on satisfaction with care and reported that the care process more strongly predicted older persons' satisfaction with care. To our knowledge, no previous studies have made use of a large, representative and nationwide sample to answer how person-related factors and the characteristics of the care process contribute to satisfaction with elderly care.

Modern Elderly Care

Sweden has a renowned high satisfaction in elderly care. Swedish elderly care is organized and provided in home care and nursing homes (Davey, Malmberg, & Sundström,

2013). In its efforts to promote individualized care nationwide, the Swedish government has during the last decade emphasized the importance of documentation concerning older persons' individual conditions and activities (Öhlén, Forsberg, & Broberger, 2013). The downside is that care workers have less time to interact with the older persons. The future prospects are that the old age dependency ratio (the number of people working divided by the number being supported) will further increase from 26% to 50% by 2050 (Swedish National Board of Health and Welfare, 2012). Governments, policy makers, and care workers will in the days ahead be even more pressured to take measures for maximizing satisfaction with elderly care.

Individualized care. The modern care ideology shares its emphasis on safeness and respectful treatment with humanistic psychology (Rogers, 1985). This has been further stressed by the increasing individualism in Western societies at large (Inglehart & Welzel, 2005). Individualism is defined as the tendency to focus on individual person's rights and opportunities (Hofstede, 2003). In elderly care, this manifests itself in the ideology of individualized care.

The older individual is viewed as a person, not just as an object in need of society's health apparatus. The starting point is to know the person; being person-centered and not system-centered, as initially formulated by Kitwood (1997) and subsequently supported and developed by McCormack (2004). Common to most current conceptualizations of elderly care is that the care organization exists to satisfy the needs of the older person, and not the other way around. The primary needs are to feel safe and to be treated respectfully as a person (Edebalk, Samuelsson, & Ingvad, 1995). The older person is seen as a customer of societal services and the care workers as the supportive helpers.

Most of the existing measures on quality in individualized care have the older person's satisfaction in focus (Edvardsson & Innes, 2010). The Client-Centered Care Questionnaire

(CCCQ; De Witte, Schoot, & Proot, 2006) includes items such as personal wishes, personal needs, autonomy, being listened to, and being treated with respect. One of the most frequently used measures is the 64-item PDC scale (Person-Directed Care), developed by White, Newton-Curtis, and Lyons (2008). This inventory consists of five dimensions, including both personal and care process factors, i.e., knowing the person, autonomy, personhood, comfort care, and support relations.

Stewart (2001) suggested that it must be the older person who should be the judge of quality. A recent study on the star-rating system of nursing homes seems to suggest that quality-ratings in elderly care should always include the older persons' satisfaction (Williams, Straker, & Applebaum, 2014), or the efficiency of individualized care will be misrepresented. Asking the older person about his or her global or overall satisfaction with care has become the most important measurement of quality and is used in nationwide surveys (Swedish National Board of Health and Welfare, 2012). Global feelings of satisfaction with elderly care have been demonstrated to be related to the feeling of being at ease or feeling safe at home as well as being treated well and not feeling alone (cf. Edvardsson, Sandman, & Rasmussen, 2008). Older persons tend to prefer person-centered care and like to be asked about their satisfaction (Little et al., 2001).

The Person and the Care Process

In predicting satisfaction with elderly care, the older person and the care process can be viewed and tested as two separate potential sources of influence. This view is based on the long-standing person versus situation-debate in social psychology (Mischel, 2009). This controversy pertains to whether personal attributes (i.e., traits, temperament, family background, or outlook on life) or situational contingencies are most influential in determining people's cognitions and reactions in various social encounters, and their relative importance and interplay in different contexts (Funder, 2008). However, these effects are not

easy to disentangle. Much longitudinal research has shown that both aspects contribute strongly to perceived life satisfaction (Heller, Watson, & Ilies, 2004). It is, however, not selfevident that previous results pertaining to prediction of life satisfaction is generalizable to domain-specific satisfaction such as elderly care. There is a paucity of research concerning the interplay between personal predispositions and conditions and situational characteristics in explaining satisfaction with elderly care. Thus, the present research aims at filling the knowledge gap in this area.

Person and satisfaction. Responses from older people concerning their views about the care they receive are affected by how they feel about themselves. For example, severity of health condition is reported to be negatively associated with the satisfaction of relationships with nurses and staff (Otani, Waterman, & Claiborne Dunagan, 2012). That is, the more ill the patients were, the more likely they were to dislike the care they received. Furthermore, studies on personal levels of self-esteem have been shown to affect various types of perceptions, including treatment (McMullin & Cairney, 2004; Twenge & Campbell, 2002). There is strong empirical support that up to 50% of global life satisfaction is dependent on person-related characteristics, specifically general anxiety (Sheldon & Lyubomirsky, 2007). General anxiety is a key personal trait explaining a wide range of perceptions such as experience of safeness, satisfaction with treatment, loneliness, and health status (Boomsma, Willemsen, Dolan, Hawkley, & Cacioppo, 2005; Larrabee, Engle & Tolley, 1995; Mann, Birks, Hall, Torgerson, & Watt, 2006; Patrick & Hayden, 1999). A conclusion from this body of research is that personal feelings, conditions, and predispositions affect perceptions and evaluations of care services.

Care process and satisfaction. Process is defined as all the acts and characteristics of caregiving, such as treatment and patient-caregiver interaction (Donabedian, 1988), but also as *how* care is peformed. Senić and Marinković (2012) reported that among all factors

measured to predict patient satisfaction at a clinic, the quality of the caring relationship between the professional and patient had the strongest impact. Fleishman (1997) demonstrated that the degree of older persons' compliance with treatment advice was influenced by the satisfaction of the care process – the more time and the more concern the caregiver invested, the higher the compliance and satisfaction among the older persons. Interpersonal competence is even more important than technical care competence, when it comes to evaluations of health care (Schirm, Albanese, & Garland, 1999). Furthermore, there are robust relationships between personal needs, process qualities, and various measures of satisfaction (e.g., Edvardsson & Innes, 2010). Drawing on these findings, the premise for the present study is that older persons' satisfaction with care is affected by both the person and the care process. The question under investigation is their relative importance, and how these two sources of influence are related.

The integration of person and process. This present study adheres to the approach of Mead and Bower (2000) who view individualized care as being formed by the interaction between the older person and the care process. In our view, the personal conditions of health and anxiety are the starting points for the individual's aging condition, characterized by vulnerability (i.e., being in need of aid). This progressive vulnerability among older persons has been shown to be equivalent to a feeling of loneliness and has been tapped by directly asking the older person whether and to what extent (s)he feels alone (Aartsen & Jylhä, 2011; Boomsma et al., 2005). Loneliness is directly related to levels of satisfaction – the more unprotected you feel, the less satisfied you are with your elderly care situation (Aartsen & Jylhä, 2011). Loneliness is also related to the key process variables in the context of elderly care, that is, the experience of being provided with safeness and dignified treatment (Mann et al., 2006, Routasalo & Pitkala, 2003), which in turn are considered to be main predictors of satisfaction with care (Kane & Kane, 2001).

The Present Study

Previous studies have shown that structural factors (i.e., available resources, such as budget and staffing) predict satisfaction with care only marginally, whereas process factors (i.e., how care is performed in terms of respect, influence, and information) predict satisfaction with care to a greater extent (Bergman, Lundberg, & Spagnolo, 2012; Kajonius & Kazemi, 2014). The question posed in the present study is whether *personal attributes and conditions* or *process-related* factors account for the most variance in satisfaction with care. More specifically, does satisfaction mostly and primarily reside within the older persons themselves – as a function of individual factors such as self-rated health and loneliness, or does satisfaction mainly emanate from external factors that can be provided by caregivers – i.e., the care process? Furthermore, the present study also aims at demonstrating how personal factors interplay with process-related factors in determining overall satisfaction with elderly care.

Method

Materials and Participants

The source of data was the Swedish National Board of Health and Welfare's annual reports called Open Comparisons (2012). This was based on a 28-item questionnaire directed to a representative sample of older persons over 65 years using elderly care services. The latest available survey was conducted in 2012 and was sent out to 150,957 older persons in home care and nursing homes. The overall response rate from home care was 70% (n = 61,600), and the overall response rate from nursing homes was 54% (n = 33,400). Within home care 76% of the older persons stated that they filled out the questionnaire themselves, while the corresponding percentage in nursing homes was only 39%, mainly due to worse health conditions. This could along with the generally low response rate potentially bias the

representativeness of the results. However, previous studies on non-responders in care settings show little or no differences in characteristics compared to responders (Lasek, Barkley, Harper, & Rosenthal, 1997). Also, an exploratory analysis showed only a very small negative effect on the older persons' overall satisfaction with care from having had help to fill out the questionnaire (d = 0.14, p < 0.001). In sum, elderly care units in all Swedish municipalities were represented in the 2012 Open Comparisons, making the sample nationally representative.

Measurements

The single indicator in Open Comparisons that most directly tapped older persons' global satisfaction with care was "*How satisfied are you with the overall home care*?", or "*How satisfied are you with the overall nursing home care*?" These items were answered on 5-point Likert scales, ranging from "a very large extent" (5) "to a very small extent" (1). This measure was used as the dependent variable in this study. Using single items has proven to be successful and is increasingly used in psychological inquiries (Konrath, Meier, & Bushman, 2014; Lyubomirsky, King, & Diener, 2005; Nichols & Webster, 2013; Thalmayer, Saucier, & Eigenhuis, 2011).

Personal factors/characteristics were operationalized by using three items. Anxiety was tapped by "*Are you affected by anxiety or fear*?" and responses were obtained using a 3-point scale, (3) "yes, severely", (2) "yes, lightly", (1) "no". Physical health was tapped by "*How do you perceive your general health*?" and responses were obtained using a 5-point Likert scale, ranging from (5) "very good" to (1) "very bad". Self-rated health is one of the most used single item measures in elderly care, and has demonstrated conceptual as well as predictive validity, for instance, in predicting mortality (Jylhä, 2009). Self-reports of health and anxiety are of particular importance in understanding the relationship between the person and satisfaction with care, as they are used in evaluating older persons' eligibility for elderly care,

consequently entitling them to home-based care or arranging transition to a nursing home. The third item loneliness was tapped by "*Are you often afflicted by loneliness*?" using a 3point scale, (3) "yes often", (2) "yes sometimes", and (1) "no". This item has been shown to encompass correlates of vulnerability in aging, implying a lack of impactful relationships, as well as low mood, reduced social activity, increased disability, and feelings of uselessness (Aartsen & Jylhä, 2011).

The characteristics of the care process were operationalized using four items in the national survey: "*How safe do you feel at your nursing home/with your home care*?" (Safeness); "*Do the staff treat you in a good way*?" (Treatment) (both of which were answered on 5-point Likert scales, ranging from (5) "a very large extent" to (1) "a very small extent"); "*How easy is it to get in touch with the care staff when you need them*?" (Staff availability); and "*Do the staff usually have enough time for you*?" (Time availability), ranging from (5) "a very large extent" to (1) "a very small extent". These latter two items were considered as prerequisites for safeness and treatment. Moreover, staff and time availability cannot be regarded as structural variables. That is, a nursing home could have plenty of staff, but the staff might after all be perceived as being unavailable by the older persons. This can happen, for instance, due to tasks of administration such as documentation, or when washing the dishes the staff could be talking to each other instead of interacting with the older persons.

A Note on Method

Collecting self-report data served the aim of tapping the older persons' psychological and subjective evaluations (i.e., how the care process was subjectively experienced by the older persons instead of collecting various objective data) in the present study. A potential limitation in research on satisfaction, pertaining to the issues of reliability and validity, is the use of self-reported questionnaires according to some critics (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, it has been demonstrated that even very short scales

(down to one-item questions) still perform reasonably well and should be encouraged for gathering self-reported data (Konrath et al., 2014). Yarkoni (2010) demonstrated by a recomputation of all items from 203 personality scales, reduced into 181 items, that a reasonable validity still could be maintained. This does not mean that short scales are superior to longer scales with multiple indicators, but it grants credibility to national surveys which most often rely on single items for measuring theoretical constructs as the length of a questionnaire has been shown to be inversely related to response rate, and that the shorter scales are more cost-effective.

Path analysis was conducted using IBM SPSS AMOS v.22. Confidence intervals were intentionally omitted due to the large sample sizes, since the standard of errors deviated \leq .01 from the estimates. The outcome variable, overall satisfaction, was slightly skewed, however within recommended limits (< 2.0). Moreover, it is also known that a strict normality assumption for t-tests and regressions is not a requirement when using large samples (i.e., > 1000) (Lumley, Diehr, Emerson, & Chen, 2002).

Results

The descriptive statistics (means, standard deviations, and intercorrelations) are reported separately for home care (Table 1) and nursing homes (Table 2). Older persons in home care were more satisfied than in nursing homes, differing with approximately one third of a standard deviation, t(38552) = 32.0, d = 0.33, indicating that nearly 63% of older persons in home care are above the average (in terms of perceived satisfaction) for older persons living in nursing homes. All tests were significant, $p < 10^{-6}$. Anxiety and loneliness were found to be higher (d = 0.28; d = 0.20), whereas health was found to be lower (d = -0.24) among older persons residing in nursing homes as compared to older persons in home care. Furthermore, the staff in nursing homes were perceived by the older persons to have less time than the staff

in home care (d = -0.33). The quality of interpersonal treatment was considered as being lower in nursing homes than in home care (d = -0.37), while in contrast, safeness and staff availability were found to be higher (d = .10; d = 0.20). The purpose of this study was not to compare the variables across home care and nursing home settings, but these results illustrate interesting differences in these two contexts.

Personal factors. Physical health and anxiety are two fundamental individual condition characteristics as they form the basis for the type of assistance an older person is entitled to, that is, home-based care or nursing home. Overall, anxiety, health, and loneliness correlated moderately with satisfaction with care, as well as with all care process factors, as summarized in Table 1 and Table 2. Noteworthy, anxiety and loneliness in particular were highly correlated, in both home care and nursing homes, implying the vulnerability of the aging condition. Furthermore, loneliness had a higher correlation with overall satisfaction in nursing homes as compared to home care.

Care process. All process factors (i.e., the perceptions of interpersonal treatment, the sense of safeness provided by the caregivers, and the perceived availability of the staff and their time) were highly correlated with satisfaction with care. As depicted in Table 1 and Table 2, safeness and loneliness were more strongly correlated with overall satisfaction in nursing homes than in home care. Similarly, in general, higher correlations with staff availability were found in nursing homes. Nursing homes are expected to provide availability of caregivers around the clock to enable provision of safeness, dignified treatment, and dispersing loneliness.

Insert Table 1 here

Insert Table 2 here

The Interplay between Person and Process

A hierarchical regression analysis on satisfaction in home care was performed in two steps. In the first step, the person-related variables (i.e., self-rated anxiety, health, and loneliness), and in the second step, the care process variables (i.e., perceived treatment, safeness, staff- and time availability) were entered. Person-related variables accounted jointly for a significant amount of variance in satisfaction (i.e., 9%). Process variables accounted for an additional 45% of variance (Table 3). Similarly, a hierarchical regression analysis on satisfaction in nursing homes, presented in Table 4, revealed the same pattern, although more variance were explained in the first step by the person-related factors (i.e., 21%), and processrelated variables accounted for an additional 39%. Thus, more total variance in satisfaction was explained in nursing homes as compared to home care. However, screenings of independent beta-weights of single predictors in both analyses revealed some interesting patterns and differences. Treatment had a larger impact on satisfaction in home care, whereas loneliness and safeness had a larger impact in nursing homes. Overall, with the exception for loneliness in nursing homes, the magnitudes of beta-weights were significantly reduced when controlling for the care process variables in the second step of both regression analyses.

Data were further analyzed with the principal aim of detecting how satisfaction with care was related to person- and process-related factors using an integrated path model (Figure 1). To maintain parsimony in the empirical model, staff and time availability were considered as prerequisites for safeness and treatment, and were thus not included in the model. The path describes how the aging condition starts with anxiety increasing with deteriorating health. These are related to loneliness which in turn is assumed to have a direct relationship with overall satisfaction with care. The mediators in this model were safeness and treatment linking the person-related factors (left side of the diagram) with satisfaction with care (right side of the diagram). The nursing home data were chosen for the path analysis.

When analyzed separately with the Sobel test, there was an indirect effect of loneliness on overall satisfaction via safeness, $\beta = -.23$, $p < .01^{-6}$, which represents a large effect, $K^2 =$.25. The mediating ratio was 56% (the non-standardized indirect effect divided by the total effect). There was also a smaller indirect effect of loneliness on overall satisfaction linked by treatment, $\beta = -.14$, $p < .01^{-6}$, which represents a medium effect, $K^2 = .15$. The mediating ratio was 35%. Analyzing the mediators jointly in the path analysis, the direct effect dropped from $\beta = -.42$ to $\beta = -.16$, indicating a strong partial mediation. This mediation illustrates that a well-functioning care characterized by the older persons feeling safe and well treated can be an effective counter-measure to predicament of aging in terms of loneliness. In sum, the model summarizes how the conditions of aging relate to satisfaction with care, and the results show that process factors effectively can counter the negative effects of aging.

Insert Figure 1 here

Discussion

The present investigation, to our knowledge, is one of the first to quantify and report on the relative impact of personal conditions of older persons and care process-related factors on satisfaction with elderly care using a nationwide and representative sample. The results of this study provide compelling evidence in favor of care process factors (i.e., feeling safe and being treated well by staff that are perceived to be available) as strong predictors of satisfaction with care over and above person-related factors (i.e., anxiety, health, and loneliness). Using other indicators of the care process, present findings support previous results reported by Kajonius and Kazemi (2014a) who showed that care process factors in terms of influence, respect, and information outperform structural factors (e.g., budget and staffing) in predicting satisfaction with care.

Even though the care process factors explain a significant amount of satisfaction with care, individual differences cannot completely be omitted from the equation. The older person with his or her characteristics will always be an influential part in forming the caring relationship with the caregiver. This person-to-person dynamic is something skillful caregivers must take into account when providing daily care to the older persons.

Another intriguing and novel aspect of the present study is the demonstration of the interplay between person- and care process-related factors in determining satisfaction using path analysis. These findings indicate that providing a safe caring environment and treating respectfully mitigate the effect of loneliness on satisfaction. Put differently, the lonelier the older person feels, the less satisfied (s)he tends to be with the care (s)he is receiving. However, this association is significantly weakened to the extent that the older person's needs for safeness and respectful treatment are met. Availability of staff and time are the fundamentals for providing individualized care. Also, as the energy and strength of the older

persons needed for interaction with others diminishes the responsibility and demands on the availability of caregivers increase. The present data suggest that in providing a safe and satisfying care process, available staff with sufficient time is a prerequisite. Absenteeism of care workers has been shown to have adverse effects on a number of quality indicators (Castle & Ferguson-Rome, 2014), and the results of our study imply that satisfaction with care can be added to that list. Relevant to the person-situation debate, another interesting finding is the observed differences in overall satisfaction between home care and nursing homes, suggesting two different types of personal needs in these contexts. Older people in nursing homes have weaker health and feel satisfied with the care when they feel safe and not lonely. In contrast, in home care satisfaction is anchored in the way they are treated, and loneliness is not considered as important. Older persons, while still living at home and still being somewhat healthy, have more control over their lives and the care they receive, which results in higher satisfaction with care. In other words, the older *person* in home care is in control of his aging situation. However, as the process of aging goes further, the power of the care situation increases and the older person has increasingly less influence, eventually moving to a nursing home. Our data support this shift in focus from person towards situation in that the impact of safeness and treatment was shown to be higher in nursing homes than in home care. This view of increased situational impact is confirmed by earlier findings in behavioral genetics reporting an increased effect of environment on locus of control in late life (Johansson, Grant, Plomin, Pedersen, Ahern, Berg, & McClearn, 2001). However, it should be emphasized that this issue requires further analyses and awaits future investigations. The person-situation debate in the context of elderly care in the light of the present results (person-process integration) offers suggestions for several directions of research into this new territory.

We cannot establish any causal effects in the present research, and mediation analyses based on non-experimental data has been discussed to be biased (e.g., Bullock, Green, & Ha,

2010). Thus, we suggest that future research by using an experimental approach devise field experiments (e.g., intervention studies) and more rigorously test the causal and mediating effects of care process factors on loneliness and satisfaction. Employing an experimental approach would strengthen the internal validity of the findings.

Another suggestion for future research is to target the issue of loneliness among older persons in nursing homes as they somewhat counter-intuitively report higher levels of loneliness than their peers in home care. Specifically, future research should identify empowerment strategies for dispersing loneliness among this category of older persons. The issue of empowerment is related to the notion of user-orientation (i.e., individualized assisting behaviors building on active partnership in planning and implementation of care) in the context of elderly care which until now has only been discussed in a few studies (Kajonius & Kazemi, 2014b; Swedish National Board of Health and Welfare, 2012).

Implications

Some important implications of the present findings for policy in the context of elderly care are noteworthy. Data clearly indicated that older persons in home care were more satisfied with the care they received than their peers in nursing homes. Any policy making efforts aiming at increasing the level of satisfaction with care among nursing home residents may prove to be fruitless as the higher level of satisfaction among older persons in home care is related to better health and a higher degree of autonomy, and thus not be amenable to substantial improvements.

A common conception is that older persons in nursing homes feel less lonely than their peers in home care. However, the present data revealed the opposite to this conception. Feelings of loneliness among residents in nursing homes were much more frequent than among older persons in home care. Thus, it is useful knowledge for policy makers that transitions to nursing homes may result in positive outcomes for the older persons, such as

safeness, but that this transition will most probably have adverse effects on feelings of loneliness.

The issue of safeness was showed in the present study to be of paramount concern for alleviating adverse effects of loneliness. If an older person is moved to a nursing home for the sake of safeness, what is important for the older person's perception of safeness? Number of staff, their perceived availability (i.e., how easy it is to get in touch with the staff), and whether they are perceived to have and invest enough time with the older persons are some key factors. However, in times of economic turmoil, employment of care staff may decrease. Thus, in order to maintain an acceptable level of safety for nursing home residents, policy efforts (e.g., training programs for care staff) should be directed towards identifying strategies to increase staff availability and investment of time in meeting the needs of the older persons within the existing financial resources.

This study started out by describing the individualistic focus in modern elderly care. Satisfying the older person, as well as knowing and recording all the details and activities of the person, has become the standard working method in person-centered or individualized care. This has gained support and has arguably improved quality of care. However, these well-intended rules and regulations aimed at increasing quality are also burdening caregivers. For instance, the documentation requirements take time and potentially reduce staff availability to the older persons. Based on our findings pertaining to the effects of time and staff availability on satisfaction with care, this development may be seen as misdirected in some sense, and may also even at times be counterproductive to the conditions of the older persons and the aging process. At the heart of individualized care is the caring relationship where the caregiver invests time and engagement in the older person. Regulations are best conceived as means to realize the ultimate aim of proving the care the older person needs and desires. Aging, in our view, should be conceived as a condition slowly overpowering the older

person. However, as clearly demonstrated in this study, this process of degeneration characterized by ill-health, feelings of anxiety and loneliness can effectively be mitigated within a well-functioning care process which provides the essentials of elderly care, that is, safeness and dignified treatment, which stresses the importance of adopting a person-process integrated approach in elderly care.

References

- Aartsen, M., & Jylhä, M. (2011). Onset of loneliness in older adults: Results of a 28 year prospective study. *European Journal of Ageing*, 8, 31-38.
- Bergman, M. A., Lundberg, S., & Spagnolo, G. (2012). Public Procurement and Noncontractible Quality: Evidence from Elderly Care. *Umeå Economic Studies*, *No. 846*.
 Umeå University, Department of Economics.
- Bergmark, Å., Parker, M.G., & Thorslund, M. (2000). Priorities in care and services for elderly people: A path without guidelines? *Journal of Medical Ethics*, 26(5), 312-318.
- Boomsma, D.I., Willemsen, G., Dolan, C.V., Hawkley, L.C., & Cacioppo, J.T. (2005).Genetic and environmental contributions to loneliness in adults: The NetherlandsTwin Register Study. *Behavior Genetics*, 35(6), 745-752.
- Bullock, John G., Donald P. Green, and Shang E. Ha. 2010. Yes, but what's the mechanism?
 (Don't expect an easy answer). *Journal of Personality and Social Psychology*, 98(4), 550-58.
- Castle, N. G., & Ferguson-Rome, J. C. (2014). Influence of nurse aide absenteeism on nursing home quality. *The Gerontologist*, doi:10.1093/geront/gnt167.
- Davey, A., Malmberg, B., & Sundström, G. (2013). Aging in Sweden: Local variation, local control. *The Gerontologist*, 54(4), 525-532.
- De Witte, L., Schoot, T., & Proot, I. (2006). Development of the Client-Centred Care Questionnaire. *Journal of Advanced Nursing*, *56*(1), 62-68.
- Donabedian, A. (1988). The quality of care: How can it be assessed. *Jama*, 260(12), 1743-1748.
- Edebalk, P.G., Samuelsson, G., & Ingvad, B. (1995). How elderly people rank-order the quality characteristics of home services. *Ageing and Society*, *15*(1), 83-102.

- Edvardsson, D., & Innes, A. (2010). Measuring person-centered care: A critical comparative review of published tools. *The Gerontologist, 50*(6), 834-846.
- Edvardsson, D., Sandman, P. O., & Rasmussen, B. (2008). Swedish language Person-centred Climate Questionnaire–patient version: construction and psychometric evaluation. *Journal of Advanced Nursing*, 63(3), 302-309.
- Fleishman, R. (1997). Non-medical predictors of quality of care of hypertension in elderly patients. *International Journal of Health Care Quality Assurance, 10*(3), 107-116.
- Funder, D.C. (2008). Persons, situations and person-situation interactions. In O.P. John, R.Robins & L. Pervin (Eds.), *Handbook of Personality (3rd ed.)*, pp. 568-580. New York: Guilford.
- Heller, D., Watson, D., & Ilies, R. (2004). The role of person versus situation in life satisfaction: a critical examination. *Psychological Bulletin*, *130*(4), 574-600.
- Hofstede, G. (2003). Culture's Consequences. Thousand Oakes: Sage Publishing.
- Inglehart, R., & Welzel, C. (2005). *Modernization, cultural change, and democracy: The human development sequence*. Cambridge: Cambridge University Press.
- Johansson, B., Grant, J.D., Plomin, R., Pedersen, N.L., Ahern, F., Berg, S., & McClearn, G.
 E. (2001). Health locus of control in late life: A study of genetic and environmental influences in twins aged 80 years and older. *Health Psychology*, 20(1), 33-40.
- Jylhä, M. (2009). What is self-rated health and why does it predict mortality? Towards a unified conceptual model. *Social Science & Medicine*, *69*(3), 307-316.
- Kajonius, P., & Kazemi, A. (2014a). Structure and process quality and satisfaction with care.Manuscript submitted for publication.
- Kajonius, P., & Kazemi, A. (2014b). *Differences in user-oriented behavior among home care and nursing home personnel*. Manuscript submitted for publication.

- Kane, R.L., & Kane, R.A. (2001). What older people want from long-term care, and how they can get it. *Health Affairs*, 20(6), 114-127.
- Kitwood, T. (1997). Dementia reconsidered: The person comes first: Oxford: Oxford Press.
- Konrath S., Meier B. P., & Bushman, B. J. (2014). Development and Validation of the Single Item Narcissism Scale (SINS). *PLoS ONE 9*(8): e103469.
- Larrabee, J.H., Engle, V.F., & Tolley, E.A. (1995). Predictors of Patient-Perceived Quality. *Scandinavian Journal of Caring Sciences*, 9(3), 153-164.
- Lasek, R.J., Barkley, W., Harper, D.L., & Rosenthal, G.E. (1997). An evaluation of the impact of nonresponse bias on patient satisfaction surveys. *Medical care*, 35(6), 646-652.
- Little, P., Everitt, H., Williamson, I., Warner, G., Moore, M., Gould, C.,.. & Payne, S.
 (2001). Observational study of effect of patient centredness and positive approach on outcomes of general practice consultations. *British Medical Journal*, 323(7318), 908-911.
- Lumley, T., Diehr, P., Emerson, S., & Chen, L. (2002). The importance of the normality assumption in large public health data sets. *Annual Review of Public Health*, *23*, 151-169.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803-855.
- Mann, R., Birks, Y., Hall, J., Torgerson, D., & Watt, I. (2006). Exploring the relationship between fear of falling and neuroticism: a cross-sectional study in communitydwelling women over 70. Age and Ageing, 35(2), 143-147.
- McCormack, B. (2004). Person-centredness in gerontological nursing: an overview of the literature. *Journal of Clinical Nursing*, *13*(1), 31-38.

- McMullin, J.A., & Cairney, J. (2004). Self-esteem and the intersection of age, class, and gender. *Journal of Aging Studies*, *18*(1), 75-90.
- Mead, N., & Bower, P. (2000). Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science & Medicine*, *51*(7), 1087-1110.
- Mischel, W. (2009). From Personality and Assessment 1968) to Personality Science, 2009. Journal of Research in Personality, 43(2), 282-290.
- Nichols, A.L., & Webster, G.D. (2013). The single-item need to belong scale. *Personality* and Individual Differences, 55(2), 189-192.
- Otani, K., Waterman, B., & Claiborne Dunagan, W. (2012). Patient satisfaction: How patient health conditions influence their satisfaction. *Journal of Healthcare Management*, *57*(4), 276-292.
- Öhlén, A., Forsberg, C., & Broberger, E. (2013). Documentation of Nursing Care in Advanced Home Care. *Home Health Care Management & Practice*, 25(4), 169-175.
- Patrick, J.H., & Hayden, J.M. (1999). Neuroticism, coping strategies, and negative well-being among caregivers. *Psychology and Aging*, *14*(2), 273-283.
- Podsakoff, P.M., MacKenzie, S. B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Rogers, C.R. (1985). Toward a more human science of the person. *Journal of Humanistic Psychology*, 25(4), 7-24.
- Routasalo, P., & Pitkala, K.H. (2003). Loneliness among older people. *Reviews in Clinical Gerontology*, *13*(4), 303-311.

- Schirm, V., Albanese, T., & Garland, N.T. (1999). Understanding nursing home quality of care: incorporating caregivers' perceptions through structure, process, and outcome. *Quality Management in Healthcare*, 8(1), 55-63.
- Senić, V., & Marinković, V. (2012). Patient care, satisfaction and service quality in health care. *International Journal of Consumer Studies*, 9(2), 155-168.
- Sheldon, K.M., & Lyubomirsky, S. (2007). Is it possible to become happier?(And if so, how?). *Social and Personality Psychology Compass*, *1*(1), 129-145.
- Stewart, M. (2001). Towards a global definition of patient centred care: the patient should be the judge of patient centred care. *BMJ: British Medical Journal*, *322*(7284), 444-445.
- Swedish National Board of Health and Welfare. (2012). Open Comparisons 2012. Vård och omsorg om äldre 2012. Socialstyrelsen. LTAB.
- Thalmayer, A.G., Saucier, G., & Eigenhuis, A. (2011). Comparative validity of brief to medium-length Big Five and Big Six Personality Questionnaires. *Psychological Assessment*, 23(4), 995-1009.
- Twenge, J.M., & Campbell, W.K. (2002). Self-esteem and socioeconomic status: A metaanalytic review. *Personality and Social Psychology Review*, 6(1), 59-71.
- White, D.L., Newton-Curtis, L., & Lyons, K.S. (2008). Development and initial testing of a measure of person-directed care. *The Gerontologist*, *48*(suppl 1), 114-123.
- Williams, A., Straker, J. K., & Applebaum, R. (2014). The nursing home five star rating: How does it compare to resident and family views of care?. *The Gerontologist*, doi:10.1093/geront/gnu043.
- Yarkoni, T. (2010). The abbreviation of personality, or how to measure 200 personality scales with 200 items. *Journal of Research in Personality*, *44*(2), 180-198.

	М	SD	1	2	3	4	5	6	7
1 Anxiety	1.55	0.62							
2 Health	3.07	0.88	38						
3 Loneliness	1.71	0.71	42	23					
4 Treatment	4.71	0.55	19	.18	18				
5 Safeness	4.24	0.82	28	.30	31	.43			
6 Staff availability	4.03	0.94	15	.16	17	.49	.44		
7 Time availability	4.10	0.99	21	.24	24	.50	.44	.42	
8 Overall Satisfaction	4.31	0.79	20	.24	20	.56	.58	.53	.56

Table 1. Correlations between Study Variables for Home Care

Note: N = 52,890. All correlations are significant at $p \le .001$ (two-sided).

	М	SD	1	2	3	4	5	6	7
1 Anxiety	1.73	0.67							
2 Health	2.85	0.97	41						
3 Loneliness	1.85	0.72	.42	28					
4 Treatment	4.49	0.64	23	.21	30				
5 Safeness	4.31	0.83	29	.25	36	.54			
6 Staff availability	4.21	0.86	20	.20	31	.52	.53		
7 Time availability	3.79	0.97	24	.26	35	.53	.52	.53	
8 Overall Satisfaction	4.09	0.89	29	.27	41	.56	.69	.58	.58

Table 2. Correlations between Study Variables for Nursing Homes

Note: N = 22,448. All correlations are significant at $p \le .001$ (two-sided)

		Step1	Step2
	R^2	β	β
Step1 (Person)	.09		
Anxiety		08	.01
Health		.18	.03
Loneliness		13	02
Step2 (Process)	.54		
Treatment			.25
Safeness			.28
Staff availability			.21
Time availability			.22

Table 3. Hierarchical Regression Analysis in Home Care

Note. $F_{change} = 10171.2, p < .001$. All coefficients > .01 are significant at p < .001.

		Step1	Step2
	R^2	β	β
Step1 (Person)	.21		
Anxiety		10	02
Health		.16	.04
Loneliness		33	10
Step2 (Process)	.60		
Treatment			.14
Safeness			.39
Staff availability			.17
Time availability			.17

Table 4. Hierarchical Regression Analysis in Nursing Homes

Note. $F_{change} = 4239.3, p < .001$. All coefficients are significant at p < .001.

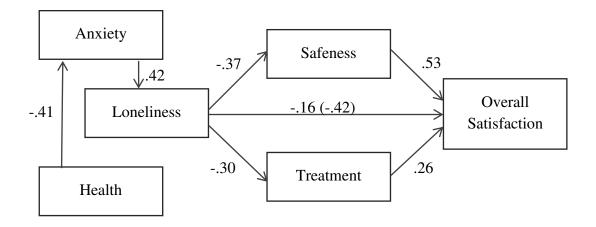


Figure 1. The integrated person-process path-model. N = 19,097. All regressions in the model are significant, $p < .01^{-6}$, and confidence intervals are within .01 of the estimates.

Appendix National Survey

The appendix includes the elderly questionnaire which provided the data for this thesis. The original look with its enlarged letters has been kept. The original letter is translated and supplied in the appendix, while the questionnaire used for the analyses is described and translated on item-level in the reported studies.





Uenr Hösten 2012

Vad tycker du om din hemtjänst?

Alla äldre har rätt till en hemtjänst med god kvalitet. För att kunna förbättra och utveckla hemtjänsten genomför Statistiska centralbyrån (SCB) denna undersökning på uppdrag av Socialstyrelsen.

Alla svar är viktiga

Du är en av cirka 90 000 personer i åldern 65 år och äldre som blivit utvald att delta i denna undersökning. Vi skulle vilja veta hur hemtjänsten fungerar i din kommun och ber dig därför besvara frågeformuläret. Du väljer själv om du vill delta i undersökningen, men för oss är dina synpunkter mycket viktiga. Möjligheten att få ett rättvisande och användbart resultat är större ju fler som svarar.

Undersökningen pågår till och med vecka 39 men vi vill gärna få dina svar så snart som möjligt. Om du inte själv kan fylla i dina svar på frågorna ber vi att en närstående, god man eller bekant fyller i dina svar åt dig. Den som hjälper dig bör inte tillhöra hemtjänstpersonalen.

När du har svarat

När du har svarat på frågorna lägger du enkäten i det bifogade svarskuvert. Frimärke behövs inte.

TACK FÖR DIN MEDVERKAN!

Med vänliga hälsningar

eng

Mona Heurgren Enhetschef Socialstyrelsen

hore

Jessica Forsman Undersökningsledare Statistiska centralbyrån

Hjälp oss gärna att underlätta bearbetningen av dina svar

Enkäten kommer att läsas maskinellt. Det är därför bra att tänka på följande när du besvarar frågorna.

Bästa sätt att markera

-	Använd helst kulspetspenna, svart eller blå.		
-	Markera helst innanför rutorna	- så här	\boxtimes
-	Om du ångrar dig och behöver ta bort ditt kryss, kan du täcka hela rutan	- så här	•





UEnr Autumn 2012

What do you think of your elderly care?

All older persons are entitled to retirement with good quality. In order to improve and develop senior housing, the Statistics Bureau (SCB) implements this survey on behalf of the the National Board of Health and Welfare.

All responses are important

You are one of approximately 90 000 persons aged 65 years and older who has been selected to participate in this survey. We would like to know what you think about your retirement home and ask that you answer the questionnaire. You choose if you want to participate in the survey, but your views are very important. The ability to get a fair and useful result is greater the more responses we get.

The study will continue through week 39 but we would like to get your response as soon as possible. If you are not able to fill in your answers to the questions we ask a related party, trustee, or acquaintance to fill in your answers for you. Anyone who helps you should not belong to the staff.

Once you have answered the questions put to it in the return envelope. Stamp is not necessary. **THANK YOU FOR YOUR COOPERATION!**

Sincerely

Mona Herrgrew

Mona Heurgren Head of department National Board of Health and Welfare

Horan

Jessica Forsman Head of research Statistics Sweden

Please help us to facilitate the processing of your answers

The questionnaire will be read by machine. It is therefore useful to consider the following when answering the questions.

Best way to mark

-	Preferably use ballpoint pen, black or blue.		
-	Check anywhere inside the boxes	- like this	\ge
-	If you decide you need to remove your choice,		
	you can cover the entire box - like this	8	

Hälsa
1 Hur bedömer du ditt allmänna hälsotillstånd?
□ Mycket gott
Ganska gott
□ Någorlunda
Ganska dåligt
□ Mycket dåligt
2 Har du besvär av ängslan, oro eller ångest?
🗆 Nej
Ja, lätta besvär
Ja, svåra besvär
3 Hur är din rörlighet inomhus?
Jag går själv utan svårigheter
Jag har vissa svårigheter att gå själv
Jag har stora svårigheter att gå själv
Jag kan inte alls gå själv
Boendemiljö
4 Fick du plats på det äldreboende du ville bo på?
🗆 Ja
🗆 Nej
□ Vet inte

5 Trivs du med ditt rum eller lägenhet?
🗆 Ja
Delvis
🗆 Nej
Ingen åsikt
6 Är det trivsamt i de gemensamma utrymmena? T.ex. matsalen, sällskapsrum, korridorer.
🗆 Ja
Delvis
🗆 Nej
Ingen åsikt
7 Är det trivsamt utomhus runt ditt boende?
🗆 Ja
Delvis
🗆 Nej
Ingen åsikt
Mat och måltidsmiljö
8 Hur brukar maten smaka?
Mycket bra
🗆 Ganska bra
Varken bra eller dåligt
Ganska dåligt
□ Mycket dåligt
Ingen åsikt

9 Upplever du att måltiderna på ditt äldreboende är en trevlig stund på dagen?
 Ja, alltid Oftast Ibland Sällan Nej, aldrig Ingen åsikt
Hjälpens utförande
10 Brukar personalen ha tillräckligt med tid för att kunna utföra sitt arbete hos dig?
 Ja, alltid Oftast Ibland Sällan Nej, aldrig Vet inte/Ingen åsikt
11 Brukar personalen meddela dig i förväg om tillfälliga förändringar? <i>T.ex. byte av personal, ändringar av olika aktiviteter etc.</i>
 Ja, alltid Oftast Ibland Sällan Nej, aldrig Vet inte/Ingen åsikt

12 Brukar du kunna påverka vid vilka tider du får hjälp? <i>T.ex. tid för att duscha/bada, gå och lägga dig etc.</i>
Ja, alltid
□ Oftast
Ibland
□ Sällan
Nej, aldrig
Vet inte/Ingen åsikt
Personlig omvårdnad
Personlig omvårdnad 13 Får du hjälp med att borsta tänderna och/eller sköta tandprotesen i den mån du behöver?
13 Får du hjälp med att borsta tänderna och/eller sköta
13 Får du hjälp med att borsta tänderna och/eller sköta tandprotesen i den mån du behöver?
 13 Får du hjälp med att borsta tänderna och/eller sköta tandprotesen i den mån du behöver? Ja

Г

14 Får du hjälp med fotvård i den mån du behöver?		
\square Inte aktuellt		
15 Får du hjälp med att gå på toaletten i den mån du behöver?		
🗆 Nej		
\square Inte aktuellt		
16 Får du hjälp med gymnastik och träning i den mån du behöver?		
🗆 Nej		
\square Inte aktuellt		
Bemötandet		
17 Brukar personalen bemöta dig på ett bra sätt?		
\Box Ja, alltid		
□ Ibland		
□ Sällan		
Nej, aldrig		
□ Vet inte/Ingen åsikt		

18 Har du känt dig kränkt av någon personal under det senaste året?
🗆 Nej
Ja, någon gång
□ Ja, flera gånger
□ Vet inte/Ingen åsikt
19 Brukar personalen ta hänsyn till dina åsikter och önskemål om hur hjälpen ska utföras?
\Box Ja, alltid
□ Oftast
🗆 Ibland
□ Sällan
Nej, aldrig
Vet inte/Ingen åsikt
Truceshot
Trygghet
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende?
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 20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt
 20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt
 20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt
 20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt Mycket otryggt
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Ganska otryggt Ganska otryggt Vet inte/Ingen åsikt
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt Mycket otryggt Vet inte/Ingen åsikt 21 Känner du förtroende för personalen på ditt äldreboende?
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt Mycket otryggt Vet inte/Ingen åsikt 21 Känner du förtroende för personalen på ditt äldreboende? Ja, för alla i personalen
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt Mycket otryggt Mycket otryggt Vet inte/Ingen åsikt 21 Känner du förtroende för personalen på ditt äldreboende? Ja, för alla i personalen Ja, för flertalet i personalen
20 Hur tryggt eller otryggt känns det att bo på ditt äldreboende? Mycket tryggt Ganska tryggt Varken tryggt eller otryggt Ganska otryggt Mycket otryggt Vet inte/Ingen åsikt 21 Känner du förtroende för personalen på ditt äldreboende? Ja, för alla i personalen Ja, för flertalet i personalen Ja, för några i personalen

Sociala aktiviteter	
22 Hur nöjd eller missnöjd är du med de aktiviteter som erbjuds på ditt äldreboende?	
 Mycket nöjd Ganska nöjd Varken nöjd eller missnöjd Ganska missnöjd Mycket missnöjd Ingen åsikt 	
23 Är möjligheterna att komma utomhus bra eller dåliga?	
 Mycket bra Ganska bra Varken bra eller dåliga Ganska dåliga Mycket dåliga Vet inte/Ingen åsikt 	
24 Händer det att du besväras av ensamhet?	
 Ja, ofta Ja, då och då Nej Vet inte/Ingen åsikt 	
Tillgänglighet	
Nu kommer några frågor om hur du tycker det är att få kontakt med personal från olika personalgrupper.	

25 Hur lätt eller svårt är det att få träffa sjuksköterska vid behov?	
Mycket lätt	
🗆 Ganska lätt	
Varken lätt eller svårt	
🗆 Ganska svårt	
Mycket svårt	
Vet inte/Ingen åsikt	
26 Hur lätt eller svårt är det att få träffa läkare vid behov?	
Mycket lätt	
🗆 Ganska lätt	
Varken lätt eller svårt	
🗆 Ganska svårt	
Mycket svårt	
Vet inte/Ingen åsikt	
27 Hur lätt eller svårt är det att få kontakt med personalen på ditt äldreboende, vid behov?	
Mycket lätt	
🗆 Ganska lätt	
Varken lätt eller svårt	
🗆 Ganska svårt	
Mycket svårt	
Vet inte/Ingen åsikt	
Hjälpen i sin helhet	

28 Hur nöjd eller missnöjd är du sammantaget med ditt äldreboende?
□ Mycket nöjd
Ganska nöjd
 Varken nöjd eller missnöjd Ganska missnöjd
□ Mycket missnöjd
□ Ingen åsikt
Avslutande frågor
29 Har du själv svarat på frågorna? Med SVARAT menas att du antingen själv kryssat i svaren eller att du uppgett svaren till någon som kryssat i för dig.
 □ Ja → Tack för din medverkan! Var god skicka in enkäten □ Nej, frågorna besvarades av annan person → Gå till fråga 30
30 Vem har svarat?
□ Närstående/anhörig
Bekant
God man/förvaltare
 Personal Annan person
31 Varför har personen själv inte svarat på frågorna? Flera alternativ kan anges
Nedsatt syn/synskada
Nedsatt fysisk hälsa
 Nedsatt psykisk hälsa Demenssjukdom
\square Annat skäl