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Public/private ownership and quality of care: Evidence from Danish nursing homes

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ABSTRACT

The involvement of private for-profit (FP) and not-for-profit (NFP) providers in the otherwise public delivery of welfare services is gradually changing the Nordic welfare state towards a more market-oriented mode of service delivery. This article examines the relationship between ownership and quality of care in public and private FP and NFP nursing homes in Denmark. The analysis draws on original survey data and administrative registry data (quality inspection reports) for the full population of almost 1000 nursing homes in Denmark. Quality is measured in terms of structural quality, process quality and outcome quality. We find that public nursing homes have a higher structural quality (in terms of, for instance, staffing), while FP providers perform better in terms of process quality (e.g. in the form of individualised care). NFP providers perform well in terms of structural criteria such as employment of full-time staff and receive fewer critical comments in the inspection reports. However, the results depend to some extent upon the method of data collection, which underlines the benefits of using multiple data sources to examine the relationship between ownership and the quality of care.

1. Introduction

Measuring and improving the quality of long-term care is a key objective for policy makers and is an issue of international concern (Szebehely and Meagher, 2013). With an ageing population, limited financial resources, a diminishing work force and a general focus on servicing individualised care-consumers and their relatives, long-term care provision must accommodate many demands and requirements. While the US has been in the forefront of the development of quality measurement and assurance of long-term care, so far only a few European countries have such systems or processes in place (Nies et al., 2010).

Many countries have witnessed an increase in private for-profit (FP) and not-for-profit (NFP) providers operating in the welfare services arena, including in the operation of nursing homes (Amirkhanyan, 2008; Petersen and Hjelmar, 2013). In the US, more than two thirds of nursing homes are operated by FP companies. In the UK around 74% are operated by FP companies, and in Canada around 50% of nursing homes are owned by FP organisations (Comondore et al., 2009; Bos et al., 2016; Barron and West, 2017). In the Nordic countries, the municipalities have traditionally been in charge of organisation and financing as well as delivery of services, but the share of privately owned nursing homes has been on the increase. Around 14% of homes are operated by a private provider in Denmark and by around 20% in Sweden (Hjelmar et al., 2016; Rostgaard, 2017; Winblad et al., 2017). The privatisation of nursing homes in the Nordic context involves a combination of a voucher system and contracting out, whereas outright divestment is infrequent (Brennan et al., 2012).

Several studies and meta-analyses examine the relationship between ownership status and the quality of nursing home care. Many studies focus on the distinction between NFP and FP operators (cf. Chou, 2002; Comondore et al., 2009; Grabowski et al., 2013) or between FP and municipal providers (Stolt et al., 2011; Harrington et al., 2012). However, there is still a limited amount of cross-sectional research examining the quality of nursing homes across the full scale of ownership types, i.e. municipal, NFP and FP ownership (Ronald et al., 2016; Winblad et al., 2017).

In this article, we consider Danish nursing homes with the various kinds of public-private ownership and carry out a cross-sectional analysis of the relationship between ownership type and quality of care among municipal, private NFP and FP providers. Our dataset combines empirical data from two sources: 1) an original survey distributed to all registered nursing homes in Denmark and 2) administrative registry data coded from regulatory inspection reports for the full population of

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almost 1000 public, FP and NFP nursing homes (year 2015/16). We compare quality of care among nursing home providers along the structure, process and outcome dimensions set out by Donabedian (1980, 1988). We use a total of 35 quality indicators covering mainly structure (n = 18) and process (n = 15), and, to a minor extent, outcome quality (n = 2).

Our research question is whether there are any differences in the quality of care provided by Danish nursing homes with public, private NFP and private FP ownership. Nursing home care typically consists of accommodation and personal care, as well as cleaning, recreational activities and physical training. In Denmark, in addition to public providers non-profit providers run by charities and religious organisations have existed for decades, and more recently for-profit providers have entered the market. Regardless of ownership, the municipality will be in charge of assessment, and the public subsidy is the same. However, FP providers are allowed to operate their own waiting lists and can decide which residents to admit. They are also allowed to provide extra services and charge for these. Overall, around 4% of persons aged 65 + in Denmark live in a nursing home.

Theories about the relationship between quality and ownership can lead to different expectations. On the one hand, public sector organisations lack the incentives to strive for improvements in efficiency and quality, since there is no competitive pressure and no bankruptcy constraint. In other words, they can continue to perform at sub-optimum levels, without the risk of going out of business. This would lead to the expectation that the quality in private organisations is higher, particularly in terms of the quality dimensions related to reputation and visible customer satisfaction (Alonso et al., 2015). On the other hand, introducing competition with market-determined prices may lead to skimping on quality, unless counteracted by regulatory measures (Propper, 2018).

The paper proceeds as follows. First, we introduce our main concepts of quality in care, drawing in particular on Donabedian's (1980, 1988) structure-process-outcome framework. In the next section, we review the empirical literature on ownership and quality in nursing home care. We then present the data and the statistical methods. The penultimate section presents the statistical analyses of nursing home quality according to ownership status. Finally, we conclude on the findings and discuss the contributions of the study to the literature.

2. Defining quality in nursing homes

Due to its multidimensional and elusive nature, quality of care is a notoriously difficult concept to define (Zimmerman, 2003; Castle and Ferguson, 2010). According to Malley and Fernandez (2010), the complexity of capturing quality of care is due to its three characteristics: Firstly, social care services are individually experienced performances and thus difficult to entangle, measure, count or verify. Secondly, social care services are labour intensive and typically vary significantly from service provider to service provider, consumer to consumer and even from day to day, with changing needs. Thirdly, consumption and production of service goods are simultaneous and inseparable, for which reason both the consumer and the producer influence the quality of the service provided.

From a healthcare perspective, one could expect the quality of nursing home care to reflect clinical and professional standards in the sector, with staff holding the competences necessary to maintain or improve outcomes for the residents. Furthermore, one could expect this to be reflected in outcomes for the residents, e.g. in the incidence of undesired outcomes such as pressures ulcers (Malley and Fernández, 2010). However, non-clinical aspects, such as the relationship to and social contacts with staff, are of the utmost importance for residents (Kane, 2003; Murakami and Colombo, 2013). Appropriate staff-user ratios and continuity of front line care staff matter greatly. Other more procedural quality aspects are also important, such as individualised care and individual care plans. This is beneficial in the prevention of falls and reduction of side effects of chronic conditions, as well as in the improvement of older people's functional ability (Suhonen et al., 2008).

A useful and often-used approach to operationalise and measure quality of care is Donabedian's division of quality into structures, processes and outcomes (Donabedian, 1988). Structural quality refers to the organisational characteristics, material resources and human resources in the system that are required to attain the required standards. Indicators can encompass items such as availability of basic equipment, staff (e.g. user-staff ratios, professional mix, education and training); characteristics of the facility (e.g. size and accreditation) and the composition of the user group (age, gender, caseload and payer mix). Process quality refers to the actions required to attain the standards, such as planning, needs assessment, execution, integration of services, monitoring and sanctioning of overuse/underuse of care and poor technical performance. Outcome indicators of quality are often of a clinical nature and include objective outcomes, such as mortality rate, number of accidents, changes in cognitive functioning and changes in health status and conditions.

3. Existing literature on ownership and quality in nursing homes

A number of meta-analyses and reviews focus on ownership and the quality of nursing homes. Comondore et al. (2009) have conducted a meta-analysis of 82 studies of nursing home quality in relation to FP and NFP providers, focusing on four quality indicators: the number of staff members per resident and/or the level of training of staff; use of physical restraint in the facilities; the prevalence of pressure ulcers; and deficiencies in government regulatory inspections. The meta-analysis of the four quality indicators shows significantly superior performance of NFP providers with regard to staff numbers/qualifications and pressure ulcer prevalence, and non-significantly better performance with regard to use of physical restraint and deficiencies in government regulatory inspections. The vast majority of studies stem from North America, with 74 studies having been performed in the US and 5 in Canada (the remainder are from Australia and Taiwan).

The results of Comondore et al. (2009) rather univocally indicate a tendency towards better quality of NFP nursing homes. Of the 82 studies, 42 studies find lower quality in FP nursing homes, 37 studies provide mixed or unclear results, and only 3 studies suggest higher quality in FP nursing homes. Similar results have been reported in other literature reviews. Ronald et al. (2016) report inferior quality in FP nursing homes, and Davis (1991) concludes that, on average, NFP providers deliver a higher quality of care than FP providers. Similar conclusions were reached in a systematic review of North American studies (Hillmer et al., 2005), which found a lower quality of care with FP providers in a number of dimensions relating to process and outcome quality of nursing home care.

Other assessments focus on specific themes, such as resident welfare, financial performance, employee well-being, and staffing level/mix of staff. In a recent review of 50 cross-sectoral studies, Bos et al. (2016) compare FP and NFP providers, mainly in the US. While FP providers tend to show superior financial performance, NFP providers perform better in relation to client satisfaction and staff well-being. Grabowski et al. (2013), also compare non-profit and FP providers, using an instrumental variables approach, and find that the former outperform the latter with regard to 30-day hospitalisations and improvement in mobility, pain and overall functioning. Some studies also examine the staffing and performance of large nursing home corporations and nursing homes owned by equity companies, finding that large chains have fewer nurses and nurse staffing hours as well as 41% higher deficiencies than public facilities (Harrington et al., 2012, 2017).

While the literature on other welfare state models than the Nordic ones seems to agree that NFP nursing homes, on average, outperform FP nursing homes in terms of quality, the literature is also characterised by certain limitations. Firstly, the literature focuses intensively on differences in nursing home quality stemming from differences in ownership