Improved home care services and reduced workload for carers with a new work model

January 17 2018

The number of elderly people who require home care will rapidly increase in Finland in the near future. The number of carers in not going to increase, though, at the same rate, and carers' excessive workload and the use of temporary agency staff already causes major problems. How to guarantee good care for all in a discord like this?

An Aalto University-led research group has together with carers and managers of municipal home care units found solutions. The research has been ongoing since 2009 and has lightened caregivers' workload and improved the service people in need of home care receive now in fifth of the country's municipalities.

'Caregivers in many home care units experience shortages in staff first and foremost because they tend to be in the wrong place at the wrong time. Caregivers in one home care unit's district may have too much work while at the same time colleagues in a neighbouring district have it much easier,' says Johan Groop, an Aalto University doctorate who has continued his research in Nordic Healthcare Group.

Because there never seems to be enough pairs of hands available, caregiver teams try to minimise travel times between clients. Unnecessary demand peaks occur especially in the morning: caregivers move on from a client that needs care early in the day to a nearby client who necessarily wouldn't need a morning visit at all. Caregivers' schedules also cannot fully take into account the fact that clients' conditions may suddenly change and vary from one day to the next.

'Because caregivers are tied to their own district, they can't get to places where their skills and time would be needed the most,' Groop notes.

Chronic work overload causes sick days and a constant need for stand-ins and agency workers. Stand-in arrangements and orientations take time and make things even busier.

'We have solved these problems by allocating some of the carers to a shared caregiver pool so that they are able to move across different districts to serve wherever the need is greatest,' Groop continues.

The pool also reduces the continual need for stand-ins and repeated orientations. It also addresses the most common concern of home care clients: the fact that nurses change all the time. No relationships with familiar carers and patients can develop because one is always dealing with a new stand-in or a new customer.

'In municipalities and units where the new working model has been implemented, the number of short-term stand-ins has been reduced by at least 30 and up to 60 percent,' Groop reports.

Design science at the service of carers and clients

The working models developed by Groop and his colleagues have been implemented in every fifth municipality in Finland. In addition to the carer pool, they have also developed the planning of carers' visit lists. The demand for home care service in a district typically cannot be predicted even a single day in advance, but staffing is planned for weeks at a time. Employees also have many sudden sick days which leads to a mismatch between client needs and the number of available carers.

'Attempts at predicting the number of carers needed for a team on a certain day are bound to miss the mark. The carer pool will make

foresight and preparing for surprises much easier,' Groop says.

Getting from problems to shared understanding, changing familiar ways of working, and trying out new solutions are all examples of 'design science', a research approach developed for over 20 years at the Aalto University Department of Industrial Engineering and Management. Professor Jan Holmström emphasises the practical approach of design science and the importance of working together with the people in the organisation under study.

'The goal is not to optimise and increase the efficiency of carers' activities in a way that would be foreign to them and intricacies of their work. Instead, we seek to come up with solutions that are truly beneficial – so that the carers would fare better in their work and each client could receive just the right kind of care when they need it,' Holmström explains.

'Researchers are inclined to think their job is to explain and understand the world. In design science, however, researchers actively seek to change the world one system and organisation at a time,' sums up Madrid IE Business School Professor Mikko Ketokivi, who participated in the home care research.

The article on improving home care using design science methods, written by Johan Groop, Mikko Ketokivi, Mahesh Gupta and Jan Holmström, has been published in the Journal of Operations Management, a top international operations research publication.

More information: Johan Groop et al. Improving home care: Knowledge creation through engagement and design, *Journal of Operations Management* (2017). DOI: 10.1016/j.jom.2017.11.001