Prospects and Problems of Transferring Quality-Improvement Methods from Health Care to Social Services: Two Case Studies

Truls Neubeck, MSc; Mattias Elg, PhD; Thomas Schneider, PhD; Boel Andersson-Gäre, MD

Abstract

Introduction: This study examines the use of quality-improvement (QI) methods in social services. Particularly the key aspects—generalizable knowledge, interprofessional teamwork, and measurements—are studied in projects from the QI program *Forum for Values* in Sweden.

Methods: This is a mixed-method case study. Two projects using standard QI methods and tools as used in health care were chosen as critical cases to highlight some problems and prospects with the use of QI in social services. The cases were analyzed through documented results and qualitative interviews with participants one year after the QI projects ended.

Results: The social service QI projects led to measurable improvements when they used standard methods and tools for QI in health care. One year after the projects, the improvements were either not continuously measured or not reported in any infrastructure for measurements. The study reveals that social services differ from health care regarding the availability and use of evidence, the role of professional expertise, and infrastructure for measurements.

Conclusions: We argue that QI methods as used in health care are applicable in social services and can lead to measurable improvements. The study gives valuable insights for QI, not only in social services but also in health care, on how to assess and sustain improvements when infrastructures for measurements are lacking. In addition, when one forms QI teams, the focus should be on functions instead of professions, and QI methods can be used to support implementation of evidence-based practice.

Introduction

High-quality social services are an important contribution to improved results in population health. These services are characterized by a focus on needs and value creation for clients, where treatments often involve client relations and interventions over a long period. To support quality improvement (QI) in the field of Swedish social services, Famna (the Swedish Association for Non-Profit Health and Social Service providers) has been working together with Qulturum (the Center for Learning and Innovation in Healthcare, Jönköping County Council, Sweden) in a Swedish QI program named Forum for Values. Although systematic QI in social services has been examined in a few studies,[1,2] not much is known about how to support and organize QI in social services.

Aim

QI programs have been used in various fields such as health care[3] and industry.[4] However, because it is not obvious how the transformation of QI between different fields affects the results,[5] it becomes important to understand if and how we can adapt methods and language for each new field.[6] The aim of this study is to examine the conditions for using QI methods that are described from health care in social services. Specifically, it examines three important aspects of QI—the use of generalizable knowledge, organization in interprofessional teams, and measureable improvements—in two social service QI projects carried out in Forum for Values.

Aspects of Quality Improvements

Three key aspects of QI can be identified from earlier studies of the application of QI methods in health care improvement[7-14]: 1) the use of generalizable knowledge, 2) how frontline interprofessional teams are organized, and 3) measurable improvements for feedback and learning.

Generalizable Knowledge

A key issue of QI according to Batalden and Davidoff[7] is to examine how generalizable knowledge and specific contexts lead to measurable improvements together with plans for and execution of change. The use of generalizable knowledge in health care is often equated with evidence-based medicine (EBM), in which scientific evidence, professional experience, and the clients' value base are weighed together for making best decisions about the care of individual patients.[8,14] In social services, EBM can be described as evidence-based practice (EBP).[15]

Interprofessional Teamwork

Studies from high-performing health care systems show how improvements can be achieved by frontline interprofessional teams working together using QI methods.[9-11] A profession can be defined by a social contract between the society and the professional.[16] This contract gives the profession autonomy, self-regulation, and influence over its knowledge base.

Truls Neubeck, MSc, is a PhD candidate at the Jönköping Academy for Improvement of Health and Welfare, School of Health Sciences, Jönköping University, Sweden, and Development Leader at Famna—the Swedish Association for Non-Profit Health Care and Social Service providers. E-mail: truls.neubeck@famna.org. **Mattias Elg, PhD,** is a Professor at the Jönköping Academy for Improvement of Health and Welfare, School of Health Sciences, Jönköping University, Sweden. E-mail: mattias.elg@liu.se. **Thomas Schneider, PhD,** is a Quality Officer at Famna—the Swedish Association for Non-Profit Health Care and Social Service providers. E-mail: thomas.schneider@famna.org. **Boel Andersson-Gäre, MD,** is a Professor at the Jönköping Academy for Improvement of Health and Welfare, School of Health Sciences, Jönköping University and Futurum, Jönköping County Council, Sweden. E-mail: boel.andersson.gare@lj.se.

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Measurable Improvements

Measurable improvements can be defined as a sustained positive change based on the measures that have been set to indicate improvements.[12,13] Statistical process control tools (eg, run charts, control charts)—measurements of process performance over time—are often suggested as a useful tool to indicate significant improvements.[13]

Contextual Setting: Forum for Values as a Driver of Quality Improvement

The studied QI projects were carried out within the context of Forum for Values, a QI program in Sweden. The program focused on building competence and capacity in QI while improving performance that was relevant for the participating organizations. During the years 2009 to 2012, more than 400 employees participated in 80 QI projects in Forum for Values. The projects were conducted in several different areas of social work such as elder care, social psychiatry, care for mentally and physically disabled children and adults, and rehabilitation of drug abusers and criminals. In Forum for Values, improvement teams from different organizations were being educated and trained for the use of QI methods. By focusing on value creation in the microsystem of social services, these teams learned from each other in 5 collaborative learning seminars. Similar to a clinical microsystem,[11] the microsystem of social services can be defined as the group of professionals who work together with the client on achieving the shared goal of the service. Between seminars, participants worked with defined improvements in their own organizations. In all improvement teams, a designated improvement leader facilitated the improvement work. The improvement leader received in-depth training in improvement and coaching skills. Because the teams chose their own focus of improvement, the improvement leaders got an assigned role to relate the project to management and organizational goals, something that is important for the sustainability of QI.[17,18]

The learning seminars—which functioned as a vehicle for change and learning—focused on various themes over time, starting with system descriptions, testing small-scale changes, and following-up and spreading results. At the final seminar, the participating teams presented documentation with descriptions of the basis for improvement, specific context, tested ideas, and results in their improvement project. This way of organizing learning seminars is similar to the "breakthrough series" developed by the Institute for Healthcare Improvement.[19]

During the program, participants received training in QI skills such as understanding their microsystem,[10] cause-and-effect analysis,[20] and the improvement model[3,4,21] following a QI protocol. The protocol was based on and adapted from QI described in the Dartmouth curriculum[10] as well as other health care QI initiatives.[22,23] This protocol also served as a Web-based checklist in which program leaders could assess the development of different QI methods and tools that were being used in each project.

The participants' experiences were evaluated continuously by self-assessment after each completed project. The evaluation included questions about the extent to which the projects had affected value for clients and whether participants would recommend the program to others (Table 1). Of the 400 participants, 200 completed the evaluation.

Methods

To highlight some problems and prospects regarding the use of QI in social services, we studied two projects that were selected as "critical cases."[24] Although critical and deviant cases may not be generalizable for the whole population, they can be used to explore or extend existing theories[25] and were thus chosen to support the aim of this study. We used a mixed-method approach,[6,26] combining quantitative evaluations with qualitative analysis of documentation and interviews. We wanted to study projects that were considered successful by program leaders and project participants. In this study, we defined successful projects as those in which the teams followed the curriculum closely, measurable improvements resulted, and participants experienced relevance and increased value for users. Compliance to the curriculum was checked in the self-reported protocol. Improvement leaders from the two studied projects reported that the teams used all methods and tools in the curriculum. In addition, relevance of the projects was verified by results that were above average in participants' program evaluations concerning value for users and recommending the program to others (Table 1). The two QI projects included in the study were: 1) a daycare for physically disabled children, which aimed at improving outdoor activity, and 2) a nursing home for elderly residents with multiple diseases, which aimed at improving the elderly individual's experience of quality during meals and prevent malnutrition.

The qualitative material from the projects consisted of project documentation and interviews with project participants conducted one year after the end of the projects. The material was

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Table 1. Evaluation of participants' experiences after completed projects[a]			
	Forum for Values projects, mean (UL 95% CI) of all participants (N = 200)	**Critical case projects**	
Question		**Individual responses, daycare (n = 4)**	**Individual responses, nursing home (n = 4)**
To what extent did your improvement project affect value for patients/clients?	7.4 (7.7)	**8**, 10, 7, **8**	**10**, 8, **10**, **8**
To what extent would you recommend a friend to participate in the program?	9.0 (9.2)	**10**, 10, 9, **10**	8, 9, **10**, **10**

[a] Participants self-estimated to what extent the project had affected different perspectives. Answers ranged from 1 (not at all) to 10 (to a large extent). Table includes average results (with upper limit of 95% confidence interval, or UL 95% CI) for participants in all Forum for Value projects and reported evaluations from the 2 studied critical case projects. Bold figures indicate results that were above average with a 95% CI.

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Table 2. Aspects of quality improvement (QI) in studied cases

Aspect of QI	Daycare project	Nursing home project
Use of generalizable knowledge	Scientific report	Professional expertise and opinion of elderly individuals
Organizing in frontline interprofessional teams	Team of preschool teachers	Team of assistant nurses, nurses, physical therapists, and social pedagogues
Measurable improvements	Innovative measures for time of outdoor activity; measures are not reported in any documentation system	Weight data from electronic health record together with innovative measures on quality of meals

Table 3. Differences in aspects of quality improvement (QI) between health care and social services

Aspect	Health care	Social services
Use of generalizable knowledge	Abundance of clinical research as a base for QI	QI as implementation of evidence-based practice
Organizing in frontline interprofessional teams	Interprofessional	Interfunctional
Measurable improvements	Clinical measures are part of an existing infrastructure	Lack of infrastructure for improvement measures

analyzed with content analysis[27] on the three aspects: 1) the use of generalizable knowledge, 2) interprofessional teamwork, and 3) measurements for improvements.

Results

The content of the studied projects shows that generalizable knowledge, interprofessional teamwork, and measurable improvements are aspects of QI in social services (Table 2).

The improvement project in the daycare for physically disabled children was based on the generalizable knowledge from a report from the National Institute of Public Health in Sweden, which shows that outdoor activity is an important factor for increasing quality of life.[28] The goal of the project was to ensure that all children had a minimum of 3 hours of outdoor activity per week. This was achieved by planning outdoor activities, involving the children (many of whom had cognitive disabilities), and informing both full-time and part-time colleagues. To assess whether the new ways of working were improvements, the team logged outdoor activity for each child in 15-minute intervals and displayed this on a board with different colors for each child. Data were plotted as weekly averages during the 2 months of the project. These measurements served as a good example for new measures developed

by the team (Figure 1). These innovative measurements not only helped the team to follow progress over time but also clarified important aspects of the meaning of good quality in daily outdoor activities.

One year after completion of the program, the team still continuously measured outdoor activity manually but did not use any documentation system. The improvement team expressed that the ease and fun of the new QI methods and the connection to a relevant problem were the primary reasons for the positive results of the project. The team consisted only of preschool teachers and was not interprofessional. However, team members had different functional roles in the project. Different persons were responsible for different children regarding planning, documentation, and contact with relatives. Also, performing different organizational functions such as leading meetings and staffing substitute teachers differed within the team. During the project, the team members informed other professions outside their own organization such as physical therapists, nurses, and physicians about the project. Other departments in the organization have been interested in their work but have not started any similar project.

The second project studied was conducted in a nursing home for elderly individuals. The improvement team was partly interprofessional. Assistant nurses, nurses, physical therapists, and social pedagogues worked together, but other aspects of elder care such as medical care or needs assessment were delivered by other providers. The goal of this improvement project was to improve the elderly nursing home resident's experience of quality during meals and to prevent malnutrition. The documentation did not state any clear description of evidence that was used in the project. With the use of a combination of professional expertise and the opinions of the residents, new ways of working were established in the project. The improvement team developed new measures and manually collected and displayed data on the number of elderly individuals who had good meals, who experienced calmness with little anxiety, and who experienced good sleep during the night. During the project, the team members took different functional roles such as identifying elderly participants, informing coworkers, and collecting data.
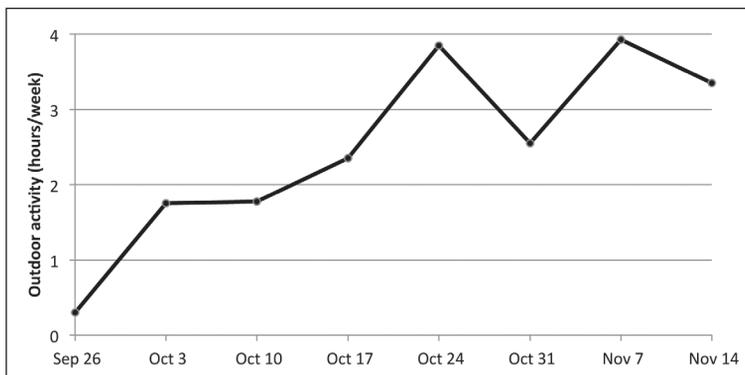

Figure 1. Mean weekly outdoor activity in a daycare for disabled children (n = 4).

Sep = September; Oct = October; Nov = November.

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The results were plotted during the two months of testing and exemplify how the team developed new measurements for assessing improvements in the project (Figure 2). The team also used and followed existing weight data from electronic health records. In a comparison of weight data from previous years, a positive change could be shown during the project for three elderly individuals with low weights (Figure 3). The data collected on meal experience were not part of an existing measurement infrastructure in the organization, but deviations from the new working routines were reported into the documentation system.

One year after the project, the team members reported that the new working procedure had spread throughout the whole nursing home, but they have not continued to measure their results on experienced quality during meals. The improvement team believed that success factors primarily were the relationship with the manager of the nursing home and the relevance of the problem to the residents.

Discussion

The two studied cases from Forum of Values highlight problems and prospects of using QI in social services. The general characteristic of Forum for Values focuses on clients' needs and an internal drive for change by emphasizing value creation in the microsystem of social services. Use of the internal drive for QI in social services fits well with results showing that drivers for change are an important aspect of spreading and sustaining successful improvements.[29] However, the studied cases also reveal some differences between health care and social services regarding the use of generalizable knowledge, frontline teams' capacity to work interprofessionally, and measurable improvements (Table 3).

Use of Generalizable Knowledge

The abundance of clinical research that can be used as generalizable knowledge in health care is often lacking in social care.[15] However, implementing generalizable knowledge as the framework for improvements in social care also requires professional training and knowledge.[30] In the described projects, the teams applied scientific evidence, their own professional experience, and the client's value base (EBP) to find improved ways of working. The studied projects also used QI methods known and tested in the field of health care.[3,19] Our results show that the use of QI methods is a possible way to implement EBP in social services. QI might also be considered as a method to implement EBM in health care.

Organizing in Interprofessional Teams

In health care, different professions represent different areas of expertise, all of which are needed to create value for patients. These experts are spread throughout different functions in the systems. In social services, the needed expertise is often organized in the same professions, such as social workers. In the studied projects, the teams were not interprofessional. Instead, the team members took different relevant functional roles for the project. The improvement teams also tried to organize relevant functions from other departments to succeed, sustain, and spread improvements. Interfunctional teams in social services seem to correspond

to the earlier defined criteria of interprofessional QI teams in health care. A focus on function instead of profession when one forms QI teams may apply to not only social services but also health care.

Measurable Improvements

During the projects, the improvement teams developed new measures for assessing their improvements. Defining these measures led to clarification and consensus about what constituted the concepts of good quality in each project. The two QI projects show measurable improvements during the project phase. However, in social services, many information systems and the infrastructure for measurements are built for long-term documentation and follow-up of each client. The studied projects lacked an infrastructure for aggregation and comparison of data. Accordingly, data from the projects could not be followed easily over time to ensure sustainable improvements. The documentation in social services differs from health records, in which gathering and aggregating data are easier. However, there are other ways of assessing improvements over time, and the interviews
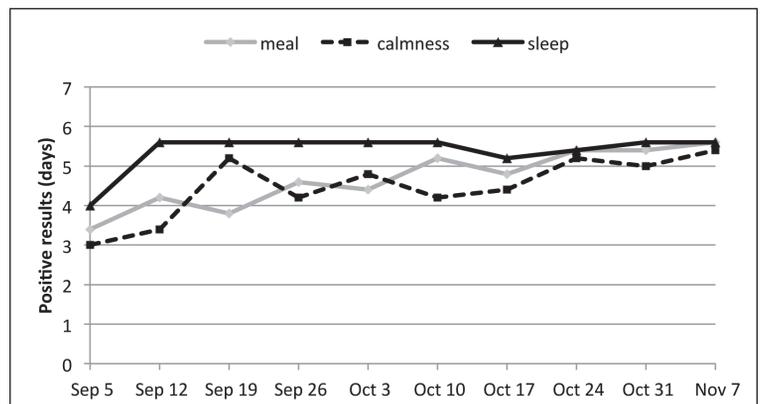
Figure 2. Mean weekly number of good meals, experienced calmness with little anxiety, and nights with good sleep for elderly residents of a nursing home (n = 4).

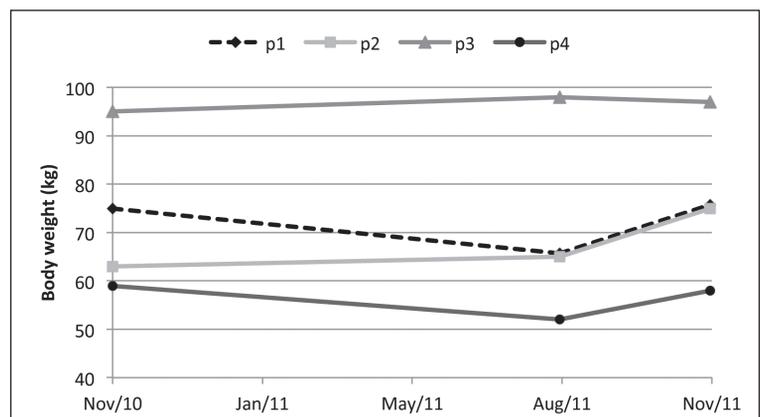Sep = September; Oct = October; Nov = November.

Figure 3. Body weight of elderly residents of a nursing home (n = 4).[a]

[a] Data for 2010, one year before the end of the project, come from existing health records.

p = patient; Nov/10 = November 2010; Jan/11 = January 2011; May/11 = May 2011; Aug/11 = August 2011; Nov/11 = November 2011.

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reveal sustained improvements one year after the projects. The two cases in this study also indicate that the process of developing new measures might be an important aspect of sustainable improvements by itself. These ideas of how to assess and sustain improvements over time without predefined measurements are also interesting for many instances of QI in health care.

Conclusion

The studied QI projects reveal some problems and prospects in achieving measurable improvements in social services. We argue that QI methods used in health care are applicable in social services and can lead to measurable improvements. Our results also indicate that a focus on function instead of profession should be considered when forming QI teams. The use of QI as a way to implement EBP in social services might be relevant also for the implementation of EBM in health care. Furthermore, the study reveals possibilities for how to assess and sustain improvements when infrastructures for measurements are lacking, a situation known from both social services and health care. ❖

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Initiate Change

Without change there is no innovation, creativity, or incentive for improvement.
Those who initiate change will have a better opportunity to manage the change that is inevitable.

— William Pollard, 1828-1893, Quaker author and minister