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Assessing the maturity of integration of health and social care in Finland – findings from a pilot study

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Abstract

Purpose – Integrated care is the leading approach to developing health and social care services in Finland. After the national health and social care reform, the importance of assessing integration has been emphasized. The aim of this study was to pilot the SCIROCCO tool, which assesses integration maturity, in Finland. The SCIROCCO tool was translated and adapted to the Finnish health and social care context. The feasibility and utility of this tool for assessing the maturity for integration across health and social care in Finland were evaluated using empirical pilot data collected among employees of selected well-being service counties. The study also provided baseline information on the maturity of integration after the national health and social care reform.

Design/methodology/approach – Employees ($n = 111$) of different personnel groups in health and social care services in four well-being service counties assessed the maturity of integration using a web-based survey. A pilot study design was used.

Findings – The SCIROCCO tool was found to be useful for assessing the maturity of integration in health and social care within the well-being service counties. However, the tool requires further development to be fully adapted to the Finnish health and social care system and to assess integration across sectors. The results emphasize the need to understand the perspectives of different personnel groups on integration and to consider them in the development work.

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Originality/value – This was the first study conducted in Finland that provided valuable insights into the assessment of integration across the health and social care sectors. This study establishes the foundation for future research and development in the field of integration assessment.

Keywords Integration, Integrated health and social care, Health and social care, Integrated care, Maturity of integration

Paper type Research paper

Introduction

Integrated care has become a leading approach to developing and providing health and social care services around the world (Kodner, 2009). The aims of integrated care are in line with a quadruple aim framework that is widely accepted by health organizations as a means for optimizing health system performance (Bodenheimer and Sinsky, 2014; Dessers and Mohr, 2019). The service integration can enhance the efficiency of the service system, improve the quality and safety of services as well as the well-being of professionals (OECD/European Union, 2022). From the customer's perspective, integrated care can improve access to care and enhance continuity of care by addressing service fragmentation (Shaw *et al.*, 2011). In addition, it aims to reduce costs (Kodner, 2009). The significance of integration in improving collaboration and optimizing processes across different sectors of healthcare and social services has been acknowledged, thus emphasizing the necessity for assessing integration. However, there are only a limited number of suitable tools available for assessing integration (Tikkanen *et al.*, 2023).

Assessing integration is challenging because of the multidimensional concept of integrated care. Integrated care is context-dependent and can be implemented at several different levels or breadths (Valentijn *et al.*, 2013). It can be targeted at specific patient groups, such as the development of care pathways for people with certain diseases, referred to as vertical integration (Goodwin, 2016; Kodner and Spreeuwenberg, 2002). In contrast, horizontal integration involves coordinating and integrating different services to create a comprehensive approach tailored to the patient's needs. Furthermore, integration can concern the whole system of health and social care.

Integration can be measured using many methods, such as process (coordination of care and communication between providers), outcome (impact of integrated care on patient health and satisfaction) and structural (organization and delivery of integrated care) measures (Ahgren and Axelsson, 2005; Tikkanen *et al.*, 2023). Although many integration measurement tools try to evaluate holistically, from the process to outcomes, most of the tools suitable for assessing integration are designed for specific and limited integration processes, usually in the healthcare sector (e.g. Elwyn *et al.*, 2015; Hébert and Veil, 2004; Oostra *et al.*, 2023). A previous study has indicated a shortage of standardized tools for assessing integration, particularly those that are suitable for assessing the integration of both health and social care (Tikkanen *et al.*, 2023).

Several barriers and facilitators to integrated care have been recognized, concerning different levels, including organizational structures, funding and interactions between professionals (Auschra, 2018). Nicholson *et al.* (2013) identified ten elements in the conceptual framework of integrated care that are essential for integrated healthcare governance. These include, for example, integrated information and communication technology, joint planning, a shared vision and the management of essential elements in service coordination and the delivery of patient-centered care (Nicholson *et al.*, 2013). Since barriers are often related and influence each other (Auschra, 2018), and these elements are crucial for successful integration, both barriers and elements should be considered when assessing integration.

SCIROCCO tool for assessing maturity of integration

SCIROCCO is one of the few integration assessment tools that evaluates integration readiness in several dimensions and cross-sectoral boundaries of health and social care (Tikkanen *et al.*, 2023). It consists of 12 dimensions (Table 1), each of which is essential for effective integration delivery, including all the elements of the Nicholson model. SCIROCCO, designed for organizations, is a self-assessment tool (Scirocco, 2016) that enables members of the organizations to establish a shared understanding of the state of integration and identify areas that need improvement. Addressing these elements helps promote integration and reinforces an understanding of the deeper dimensions of integration to promote it, for example, to governing services (Tiirinki *et al.*, 2022). The SCIROCCO tool has also been found to be a useful tool in facilitating knowledge transfer, thus expediting the process of scaling up and enhancing the transferability of integrated care solutions in Europe (Pavlickova, 2017).

The health and social care reform in Finland

In Finland, the demand for assessing integration has increased after the health and social care reform. The responsibility for organizing public health, social and rescue services was transferred from municipalities to the well-being services counties as of January 1, 2023 (European Commission, 2022; OECD/European Union, 2022). The aim of the reform was to respond to the increased demand for services, as Finland is one of the countries facing rapid population aging and a declining birth rate (The Ministry of Social Affairs and Health, 2020). To address the growing need for services in the future, it is essential to enhance the efficiency and effectiveness of health and social care services. After the health and social service reform, a total of 21 well-being services counties, along with the City of Helsinki and the HUS Group (specialized healthcare in Helsinki and the Uusimaa region), are responsible for the provision of care in Finland.

One key improvement target of the health and social reform is the integration of care by coordinating services. The reform emphasizes a people-centered approach with a focus on integration of services. Integration is extensive, as both social and health services across municipalities need to be unified within the well-being service county (Tynkkynen *et al.*,

Dimension	What is assessed?
1. Readiness to change	A vision of the compelling need for change; plans for implementing changes
2. Structure and governance	Fragmentation of organizational structure and governance
3. Digital infrastructure	The extent of digital infrastructure supporting integration
4. Funding	Availability and flexibility of funding to support the move toward integration
5. Process coordination	The extent of formal guidelines, description, agreements or standards on innovative coordinated care processes
6. Removal of inhibitors	Awareness, systematic approach and strategy to remove the inhibitors on integration
7. Population approach	Applying a population health and risk stratification approach
8. Citizen empowerment	Recognition of citizen empowerment, citizens' access to health information and health data
9. Evaluation methods	The degree of systematic evaluation of integration
10. Breadth of ambition	The levels at which integration is supported in the health and social care system
11. Innovation management	The extent of innovation management in the development of integration
12. Capacity building	The degree of capacity building, extent of systematic learning about integration and change management

Source(s): Authors' own work

Table 1.
Dimensions of the SCIROCCO tool

2023). However, the Finnish care system was already quite integrated before the reform (Tiirinki *et al.*, 2022), as there have been attempts to significantly reform the health and social services over the past two decades (Tynkkynen *et al.*, 2023). The reform had an impact on governance and organizational structures, although the extent of the impact varies between counties (Croell *et al.*, 2023). In some well-being service counties, there have been significant changes in organizational structures as they transitioned from a municipality-based structure to the new organization. However, in certain counties, regional joint authorities were already established, and therefore organizational changes were less extensive (Tiirinki *et al.*, 2022).

Integration is the leading approach to developing health and social care services in Finland, but appropriate tools for measuring integration are lacking. Therefore, the aim of this study was to pilot the SCIROCCO tool, which has been translated and adapted to the Finnish health and social care context. Particularly, we were interested in how suitable the tool is to assess the whole system of health and social care integration.

The pilot study was designed to:

(1) Determine the feasibility and utility of a translated and modified SCIROCCO tool for assessing maturity for integration in the Finnish social and healthcare system.

(2) Determine the feasibility of Scirocco tool to use as a survey.

(3) Assess the maturity for integrated care in the pilot group of well-being service counties.

Method and setting

The Finnish Institute for Health and Welfare published an announcement on the Scirocco project in the newsletter, which was sent to each well-being service county via e-mail. The aim was to engage counties that vary in terms of the duration of services provided in the area under the current organizational structure. Interested counties were asked to contact the pilot management, and initially five well-being service counties were interested. An information session was held for those who registered, after which the final participants were selected for the study based on their voluntariness. In total, four different counties participated in the pilot study. A separate preparatory meeting was held with each well-being service county. The counties varied in size and organizational stage, and they were located in southern and central Finland. The study consisted of two phases: (1) the initial translation and adaptation process and (2) the collection of empirical data. In addition, we had feedback sessions for participants where the results were presented, and participants had the opportunity to provide feedback on the utility of the tool.

Translating and adapting the SCIROCCO tool

The SCIROCCO tool was selected because it assesses the maturity of integration across multiple dimensions and cross-sectoral boundaries of health and social care. The SCIROCCO tool has been translated into ten different languages (SCIROCCO Exchange, 2023), and based on previous studies, it has shown good structural validity and internal consistency (Grooten *et al.*, 2019). In this study, the tool was translated into Finnish and Swedish, the official languages of Finland. About 12 dimensions are included (Table 1), and each dimension is initially described briefly, followed by response options on a six-point scale, where 0 corresponds to “not fulfilled” or “not present/available” and 5 corresponds to “fully fulfilled” or “totally present/available.” In the translation phase, a seventh answer options, “I can’t say” was added to the translated versions. The Scirocco tool was translated by the research group, which included senior researchers with strong expertise in the Finnish

service system and health and social care integration. Both language versions were pretested with Finnish and Swedish-speaking experts, after which minor adjustments were made.

Adapting the SCIROCCO tool to the Finnish health and social care context presented certain challenges. We had to consider the special features of the Finnish health and social system and ensure that both health and social care aspects were adequately addressed in each dimension. One of the main challenges was the funding dimension, as the Finnish funding system differs from many other countries. Well-being services counties are self-governing, giving them the autonomy to provide services and make decisions about funding independently (Tynkkynen *et al.*, 2023). Their funding is determined by state government allocations, which means that the development of integration is also financed through general funding rather than project funding. This required us to modify the answer options because the original options emphasized various project funding alternatives.

Collecting empirical data

After the translation, we conducted a web-based survey (Webropol) of the SCIROCCO tool, including both language versions. For each dimension, we included an open-ended question where respondents could describe the current implementation of that dimension. We also added another question for each dimension, asking if the question was appropriate for assessing integration in the Finnish context. Respondents also had the opportunity to provide feedback on the question's content, language and other areas that could be improved. The survey was sent to the contact persons of each participating area, who forwarded the survey to the managers, planning officers and frontline workers. The data were collected between April 28 and June 5, 2023, four months after the health and social care reform.

Analysis

We conducted descriptive analyses, such as frequencies, means and standard deviations, from the quantitative data using IBM SPSS version 28 for Windows 10. The qualitative data were analyzed using qualitative content analysis. We used an inductive approach to search for patterns in the text and draw conclusions from specific to general (Graneheim *et al.*, 2017). In practice, our approach utilized thematic parsing and comparing of relevant text passages in order to provide with more abstract constructs. First, a researcher read open-ended answers multiple times to gain an overall understanding of the data. Then, the data were categorized into sub- and main categories. The categorization was reviewed by another researcher. Finally, the consistency of categorization was reviewed and accepted by the research team.

Ethics

The study was approved by the Ethical Review Board of the Finnish Institute for Health and Welfare (THL/1192/6.02.01/2023). Research permits were applied for from the participating well-being service counties. Participation in the survey was voluntary for the employees, and they were informed about the study before data collection. The data were collected anonymously and without identification. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki (Word Medical Association, 2013).

Results

A total of 111 people participated in the survey (Table 2). About 25% of the participants belonged to the top management group. About 54% were part of the middle and frontline management group, which included middle and frontline managers and experts. The remaining 21% were professionals and client workers, who were included in the frontline

	County 1 (n = 46)	County 2 (n = 16)	County 3 (n = 22)	County 4 (n = 27)	Total (n = 133)
Top management	9	9	5	5	28
Middle and frontline management	24	7*	14	15	60
Frontline work	13	0	3	7	23
Organizational changes in the reform	Major changes. County formed from several different municipalities	Minor changes. A regional joint authority was formed a year before reform	Minor changes A regional joint authority was formed 4–5 years before reform	Minor changes. A regional joint authority was formed 13 years before reform	

Note(s): *Only middle managers
Source(s): Authors' own work

Table 2. Participants by county and personnel group

work group. The number of participants varied by county, ranging from 16 to 46. The counties varied in size based on workforce, with approximately 20,000 persons in county 1, 8,500 in county 2, 4,000 in county 3 and 5,000 in county 4 (Local Government and County Employers, 2024). The counties were also different by the total number of residents in the area. The counties varied from approximately 125,000 to 539,000 residents (Official Statistics Finland, 2024). As this was a pilot study, we did not aim for a representative sample.

Maturity of integration

The mean rating of dimensions varied between 1.8 ("Removal of Inhibitors" and "Evaluation Methods") and 2.6 ("Readiness to Change" and "Population Approach") (Table 3). The mean rating was 2 or lower in four dimensions: "Funding", "Removal of Inhibitors", "Evaluation Methods" and "Breadth of Ambition." The standard deviation varied from 0.7 to 1.5. The standard deviation was the highest in the "Structure and Governance" dimension, indicating the greatest variability in respondents' opinions, and the lowest in "Process coordination." The results can be treated as baseline information on the maturity of integration in Finland after the national health and social care reform.

Maturity of integration varied due to personnel groups and counties

Top managers assessed the maturity of integration higher than other personnel groups (Figure 1). The views of frontline workers on integration readiness differed the most from the top managers' views. The biggest differences were observed in the "Governance and Structure," "Readiness to Change" and "Capacity Building" dimensions. However, all personnel groups assessed the maturity in the "Process coordination" and "Digital Infrastructure" dimensions similarly.

The responses of top and middle managers (n = 58) were incorporated into the county comparison to ensure comparable personnel groups. According to the results, the county undergoing significant organizational changes in healthcare reform assessed the maturity of integration lower than others, except for the dimension of "Service Coordination." The most significant differences were observed in the dimensions of "Readiness to Change," "Structure and Governance" and "Digital Infrastructure."

Table 3. Quantitative and qualitative findings of the pilot study (n = 111)

	Maturity of integration			Question is appropriate (%)	"I can't say" (%)
	Quantitative findings				
Dimension	Mean (SD)	Description of mean value	Qualitative findings that support and contradict integration		
1. Readiness to change	2.6 (1.1)	Dialogue and consensus-building of shared vision are underway. Stakeholders are committed to the development plan's integration, but the practical implementation is inconsistent	Supporting finding: "*The need has been recognized, and there is an investment in integration. In centralized services, the management structures support integration.*" Contradictory finding: "*The need for integration has been recognized, but from the perspective of such a small health center, the reform has only increased fragmentation and made collaboration more challenging.*"	89.2	3.6
2. Structure and governance	2.2 (1.5)	Collaboration has started to establish a common vision and goals. However, organizational and leadership structures do not fully support integration	Supporting finding: *"On a positive note, top and middle managers have been regularly brought together in common forums."* Contradictory finding: "*Our organizational leadership structure is still somewhat unclear, meaning that the responsibilities and duties of top managers, resource managers, and sector leaders appear ambiguous in decision-making.*"	91.9	8.1
3. Digital infrastructure	2.2 (1.1)	There is a mandate and plan(s) to deploy regional/national digital infrastructure, including a set of agreed technical standards, across the health and social care system, but it is not yet implemented	Supporting finding: "*The information management unit does really good work for us in this regard. I've even been surprised by how well they understand the importance of integration.*" Contradictory finding: *"Legislation hinders genuine data integration. The fragmentation of electronic client and patient information systems also does not enable this."*	95.5	5.4

(*continued*)

	Maturity of integration			Question is appropriate (%)	"I can't say" (%)
	Quantitative findings				
Dimension	Mean (SD)	Description of mean value	Qualitative findings that support and contradict integration		
4. Funding	2.0 (1.0)	Financing supports the development of integration, but budgeting and financial incentives do not practically support the implementation of integration	Supporting finding: *"There is funding to acquire a new electronic customer and patient record system."* Contradictory finding: *"If the wellbeing service county's budget is missing 30 million, integration is primarily about centralizing and downsizing services."*	90.1	21.6
5. Process coordination	2.5 (0.7)	Standardized and coordinated care processes and pathways are in progress or described. A systematic approach to their standardization is planned but not yet implemented	Supporting finding: *"Care pathways exist for several diseases, and integrations in social and healthcare have been developed and planned collaboratively."* Contradictory finding: *"The ongoing issue is the constant workload pressure on frontline workers. As long as the workload cannot be significantly eased, the development of new forms of collaboration is not feasible."*	95.5	6.3
6. Removal of inhibitors	1.8 (1.2)	Awareness of inhibitors and often a strategy for removing inhibitors are agreed at a high level, but plan is not implemented	Supporting finding: *"A good example is the construction of a multidisciplinary social and healthcare center team model."* Contradictory finding: *"Barriers are recognized, but silos, cultural reasons, other work, and legislation hinder progress."*	94.6	16.2

(*continued*)

Table 3.

Table 3.

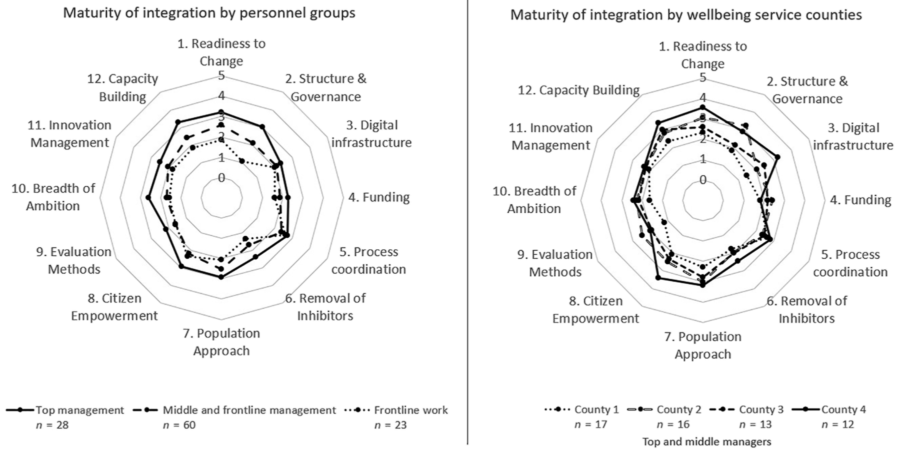
	Maturity of integration				
	Quantitative findings			Question is appropriate (%)	"I can't say" (%)
Dimension	Mean (SD)	Description of mean value	Qualitative findings that support and contradict integration		
7. Population approach	2.6 (1.1)	Risk stratification approach is used in individual projects or for specific groups, such as those who are at risk of becoming frequent service users	Supporting finding: *"The work is underway, but the challenge is to get need-based information through many different information systems."* Contradictory finding: "*Recognition of service needs is, in many cases, lacking, or due to a lack of time resources, they are not addressed."*	93.7	17.1
8. Citizen empowerment	2.4 (1.1)	Citizen empowerment is recognized as important part of integrated service provision, and citizens have (delimited) access to health information and health data	Supporting finding: "*In the operation of my own unit, the clients together with the employees have developed and influenced the design of the service process."* Contradictory finding: *"This is segmented or regionally focused."*	92.8	7.2
9. Evaluation methods	1.8 (1.3)	Evaluation of integrated services is planned to take place and be established as part of a systematic approach. Some evaluation of integrated services exists	Supporting finding: *"The impact of integrated models of operation is assessed quite systematically, and evidence-based data is collected to support decision-making."* Contradictory finding: *"Finding suitable metrics is challenging."*	92.8	18.0
10. Breadth of ambition	2.0 (1.1)	Integration within the same level of care (e.g. primary care and social service) is achieved	Supporting finding: *"Integration within the same level of care continues to work better and better — Integration between primary care and special care is partially achieved."* Contradictory finding: *"At the moment, social and healthcare services, as well as their access and referrals, still operate in complete isolation, with only occasional connections between them."*	91.0	18.0

(*continued*)

Dimension	Maturity of integration: Quantitative findings – Mean (SD)	Quantitative findings – Description of mean value	Qualitative findings that support and contradict integration	Question is appropriate (%)	"I can't say" (%)
11. Innovation management	2.1 (1.0)	Innovations are captured and there are some mechanisms in place to encourage knowledge transfer	Supporting finding: *"Other counties have shown interest in our county's multi-disciplinary operating model, and we are happy to share information with other counties."* Contradictory finding: *"This area has taken a step back [after the reform] when it has been necessary to focus on other tasks."*	91.9	11.7
12. Capacity building	2.5 (1.2)	Some learning about integration and change management is in place but not widely implemented. Collaboration networks have been established but not systematically	Supporting finding: *"In our primary care services, we currently have systematic ICF (the International Classification of Functioning) training specifically to support integration."* Contradictory finding: *"There is no time for competence development/new learning alongside basic work. The general atmosphere does not encourage it, as basic work is considered a priority."*	93.7	10.8

Source(s): Authors' own work

Table 3.



Source(s): Authors' own work

Figure 1. Integration maturity (mean value) in different dimensions by personnel group and by well-being service counties

The utility of the tool and improvement needs

Participants evaluated the utility of the SCIROCCO tool for assessing the maturity of integration in the Finnish context to be good, although some improvements are needed. When analyzing the open-ended responses related to the content of the questions, language and other areas of development, three main areas that require improvement were identified:

(1) Determining target group and integration level of the survey

> The perspective of the response could still be clarified, considering what needs to be answered. Within our own organization, within the operational area of our organization, on a broader scale, nationally . . . ?

(2) Checking the grammar and improve the fluency and clarity of the text

> Currently, poor language, confusion, and somewhat rigid sentence structures make the questions difficult to grasp.

(3) Checking the content of the questions and answer options.

> The question options are not comprehensive and do not mutually exclude each other.

All dimensions were evaluated as appropriate (90–96%) for assessing integration in the Finnish social and healthcare context (Table 3). Particularly relevant were the "Digital infrastructure" (96%), "Process coordination" (96%) and "Removal of Inhibitors" (95%) dimensions. Least appropriate were the "Readiness to Change" (89%) and "Funding" (90%) dimensions. In the case of "Readiness to Change," the lower percentage can be explained because the question itself was often seen as multifaceted. The "Funding," on the other hand, was challenging, especially for frontline workers, to answer due to a lack of sufficient information. This was also reflected in the highest "I don't know" response (22%) rate in the

"Funding" dimension. Therefore, the least appropriate dimensions may have actually been the ones that were most challenging to respond to. The "I don't know" response rate was high (18%) also in the "Breadth of Ambition" and "Evaluation Methods" dimensions.

Discussion

The main purpose of this pilot study was to evaluate the utility of the SCIROCCO tool, which was translated into Finnish and Swedish and adapted into the Finnish health and social care context for assessing the maturity of integration across health and social sectors. The secondary purpose was to evaluate the feasibility of using the Scirocco tool as a survey and assess the maturity of integration in the pilot group.

Adapting the tool to the Finnish health and social care system proved challenging. Some dimensions, such as "Financing," had to be modified extensively due to the unique financing system in Finland. Despite the modifications, many respondents found the questions difficult to answer. Additionally, according to the results, social services should be more thoroughly considered in the questions and response options, resulting in partial success in adaptation. We received similar improvement suggestions from users as those obtained in previous projects in Europe (SCIROCCO Exchange, 2020). Language was often found to be difficult and formal, with each question containing too much information. Therefore, a general improvement needed for the entire survey was to check the grammar to enhance the overall fluency and clarity of the text. Additionally, some response options were not mutually exclusive, making assessment difficult. Another improvement needed for the tool was to review the content of the questions and answer options.

Originally, the SCIROCCO tool is designed for a self-assessment tool where regional stakeholders first provide individual assessments and then discuss the results to reach a consensus on the level of maturity of integration. Contrary to the original design, we used it as a survey without the participants having the opportunity to discuss and reach a consensus. A similar approach was used in a Swiss study where the maturity of integration was measured nationwide (Peytremann-Bridevaux *et al.*, 2021). Using the SCIROCCO tool in this format, some participants faced challenges when assessing integration. They hoped for a clear definition of integration and guidance on the appropriate level at which to assess it, as integration is a multidimensional concept and context-dependent (Valentijn *et al.*, 2013). These challenges may become more pronounced when assessing the maturity of integration for the entire system of health and social care or at the entire well-being service county level.

In addition, responding to some dimensions was challenging, especially for frontline workers, due to a lack of sufficient information on the subject. For example, financing questions were often found challenging to answer, resulting in a high "I don't know" response rate. Although the responses may also reflect that information flows poorly within the organization. However, it should be considered whether the survey, in its current form, is suitable for all personnel groups. On the other hand, according to the results, different personnel groups assess integration readiness differently. Therefore, it would be important that all personnel groups participate in assessing the maturity of integration. This was emphasized in feedback sessions, as counties recognized that understanding the perspectives of different personnel groups is essential for creating a genuine overview of the stage of integration. Different perspectives of personnel groups should also be considered when comparing different well-being service counties to ensure that the respondent groups in the counties consist of the same personnel groups.

Wellbeing service counties have different starting points for integration due to organizational changes caused by the reform (Croell *et al.*, 2023). This was reflected in the findings, as the overall maturity of integration was somewhat higher in the county where the current organizational structure had been in place for the longest time. The largest

differences were observed in the dimensions of "Readiness to Change," "Structure and Governance" and "Digital Infrastructure." These results are not surprising, as it is evident that in a new organization, a common vision and practices have not yet been established, governance is fragmented and a common electronic information system is not yet in place. Therefore, the results indicate the valid psychometric properties of the tool. In addition, it is important to allocate sufficient time for service integration, especially in counties with a new organizational structure.

Both qualitative and quantitative results indicate variations in maturity of integration, which may be due to personnel groups or counties. In addition, the results highlighted that the maturity of integration is service-specific. The maturity of the integration in this pilot study was at an average level, even though the Finnish health and social care system has a long tradition of developing service arrangements, and health and social services are more closely integrated than in many other European countries (Keskimäki *et al.*, 2018). The results may be influenced by the fact that the care system was highly decentralized in Finland (Keskimäki *et al.*, 2018), and service fragmentation has been identified as a significant obstacle for integrated care (Trane *et al.*, 2022). Since the survey was conducted when the new counties had just started four months ago, service fragmentation may still have had an impact. The health and social care reform itself may have influenced the results, as organizational changes resulting from the reform may have decreased integration readiness in some dimensions. If the county was formed by merging the health and social services of 10–15 municipalities, it is clear that the service process itself caused many problems. For example, the growth in the size of organizations may lead to increased bureaucracy, increased hierarchy and greater fragmentation, all of which are considered key challenges for integrated care. Therefore, this study provided baseline information on the maturity of integration after the national health and social care reform. However, since this was a pilot study, the results do not necessarily reflect the overall situation across Finland.

Participants found that the tool was particularly useful for internal use within the organization, and it can be used at various levels or breadths, including the entire health and social care system. Similar findings have been found in previous projects across Europe, where the tool received positive evaluations for providing valuable information from users. For example, it was found to be useful for identifying the main challenges related to the integration process of health and social care (SCIROCCO Exchange, 2020). However, the tool requires further development to make it more suitable for the Finnish social and healthcare context. In addition, if the tool is used as a survey, as was done in this study, it should be noted that some dimensions could be difficult for frontline workers to answer. Using the tool as a survey, the advantage is to gather views from a wide range of participants. On the other hand, it misses the dialogue, and thus it is not possible to generate a system-wide consensus. Based on feedback from users in previous projects, engaging in dialogue with various stakeholders was considered important and achieving consensus was seen as beneficial (SCIROCCO Exchange, 2020). One possibility could be to divide each dimension into multiple sub-questions, following the traditional survey format, if the tool were to be used as a survey in the future. This could potentially address concerns when users feel that each question contains a lot of information and the question options do not mutually exclude each other.

There was a high "I don't know" response rate in the "Evaluation Methods" dimension, which, in turn, may indicate that limited assessment of integration exists due to the absence of suitable tools. Therefore, the tool was perceived to particularly address this gap. However, the tool was generally found to be useful for assessing integration maturity, and all questions were considered appropriate. In addition, as the SCIROCCO tool has been found to enhance the transferability of integrated care solutions (Pavlickova, 2017), it could be beneficial for all well-being service counties in Finland after major health and social care reform.

Limitations and strengths
Our study has several strengths and limitations. In the assessment of the tool's usability, various sources of information have been utilized, as it is based on the evaluation of the appropriateness of the questions, open-ended responses and information received from the feedback session. However, the tool could be perceived as useful simply because there has not been an available tool for evaluating integration previously. Using the tool as a survey was a potential limitation, as there was no dialogue and consensus between the stakeholders. One limitation was the tool itself, as SCIROCCO is designed to gather views from professionals; thus, it does not include the important perspectives of citizens, patients, carers and community partners. In addition, we did not assess the validity of the tool itself, and therefore, face-validity of the survey may be questionable. Data size is another limitation of this study. As this was a pilot study, the data is not comprehensive due to the limited number of participants. In addition, participation was voluntary, and the participating counties were mostly located in southern and central Finland. Therefore, the results regarding the maturity of integration do not represent the entire situation in Finland. However, according to this pilot study, the SCIROCCO appears to be a promising tool for comprehensively assessing the maturity of integration across health and social care.

Conclusion

Scirocco is a promising tool for assessing the maturity of integration. Integration as a phenomenon is difficult to process and concretize, but with the help of the tool, it can be evaluated and, moreover, visualized in a comprehensible form. It evaluates various dimensions that are prerequisites for successful service integration, helping to identify an organization's development needs. The tool also highlights differences in perspectives among personnel groups and disparities between organizations. This information benefits well-being service counties for the development of integrated care solutions after a major health and social care reform in Finland.

The health and social care reform itself may have decreased the maturity of integration in some dimensions. By using the SCIROCCO tool regularly, well-being service counties can evaluate the progress of integration within their organization and utilize the results of this study as baseline information on the maturity of integration after the national health and social care reform.

The tool needs further development to be fully adapted to the Finnish health and social care context. In addition, there appears to be a need to balance gathering views from a wide range of participants through a survey with the ability to generate a system-wide consensus view through dialogue with a representative group of stakeholders from all sectors and at different levels in a well-being service county. One possibility is to develop the tool toward a more traditional survey format. However, this requires further research.

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