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Change Management in Health Care Organization

Systematized literature review on factors supporting change in health care organization context

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The purpose of this study was to explore resources that will benefit the management of health care organization during organizational change or merger. The study was conducted to provide health care organization specific answers to managing and supporting change.

Data driven systematic literature review was conducted on evidence-based literature from electronic databases to provide research findings. Research objectives and – questions assisted in narrowing down the data. Pre-designed methods, such as title level screening, abstract screening, and full text screening, were also utilized in deducting the data. Qualitative research content analyses method was used to analyse data. Continuous analyses were performed throughout the process to gain deeper understanding on the study phenomena. Data-oriented content analyses was used in modifying sentences and clustering content first into smaller simplified categories and then into larger contexts. Coding assisted in describing, labelling, and categorizing. Sub-categories were connected to main categories by their overall meaning to highlight results. Analyses was guided by the aim of the study and the research questions. Results stemmed from the data.

The results underlined that heath care organizations need to provide fundamental resources such as adequate amount of time, training, and personnel for change to occur. Subsequent adjustments to processes are needed for change to be sustainable. The findings suggest that health care organizations have a specific culture of function which can also be seen as a valuable intra-organizational resource. The professionals who work in health care organization create a network of trust and function, that can be mobilized to plan and sustain change. Network of trust creates a multi-professional view throughout the organization, convey knowledge of intra-organizational culture and detailed processes in the organization. Management leadership during organizational change is highlighted, executive management efforts are portraited on the health care organization. Management has a key role in promoting good intra-organizational relations through employee involvement, creating two-way dialogue, enhancing collaboration and communication which all contribute towards sustainable change in health organization context. Information decreases feeling of uncertainty, increases learning, and assists in making informative choices. Findings suggest that intra-organizational collaboration and dialogue enhances intrinsic motivation and increases change compliance in health care organizations.

Results suggest that health care organizations have valuable intra-organizational resources which promote successful and sustainable change. Intra-organizational collaboration and dialogue should be promoted and maintained by management. Employee inclusion and involvement create intrinsic motivation which assist in complying with organizational change. More detailed nation and culture specific research are suggested for the future.

Keywords	health care organization, change, merger, culture, collaboration, communication, employee engagement, employee inclusion, change leadership, change management

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1 Introduction

Advancements in medical research and technological break throughs are bringing pressure to health care organizations to adapt and provide excellent patient care. Health care related funding, regulatory body demands, and mixture of publicly funded hospital networks and concentrated markets of profitable independent hospitals create a complex, nation specific context to analyse. Aging and longer living population in Western Societies create a pressure for publicly funded health care sector to keep the health care costs at bay. Less amount of young people are educating into health care sector as in many countries the work conditions, workload, inflexible working hours, and poor pay compared to university degree education, limited resources for career progress and lack of reward system are yet to be resolved by stakeholders. Recent pandemic has created an increasing balloon effect of health care professionals leaving the health care sector. (Kallankari 2019: 13-14, 25; Pina e Cunha & Neves & Clegg & Costa & Rego 2018: 21, 220, 227-230; Jonasson & Kjeldsen & Ovesen 2018: 691-692; Palumbo 2021: 1037-1040; Schmid & Varkevisser 2015:16; SVT.)

In Finland, as in many other Western Societies, the public hospital network needs updating and renovation. This creates a chance to overview health care organizations, and its processes, assess current and future needs, and to implement relative changes. Macroscale organizational mergers such as integration of hospitals, and microscale mergers such as integration of specific health care services or wards, are currently under process. There is a need to efficiently lead change in health care organizations without interruptions to patient services and to ensure change is sustainable in health care organizations. (Rohde and Torvatn 2017: 530-532; Solstad and Petterson 2020: 85-86, 89; Jonasson et al 2018: 691-693.)

Studies have shown that up to 70% of change projects fail. (Kallankari 2019: 24-26, 3; Erlingsdottir et al 2018: 33; Lauer 2021: 57.) In Finland, HUS hospitals and Helsinki City are integrating part of their health care organizations through a merger. Changes brought by merger will result in re-organizing health care services and personnel as well as merging patient care units. HUS and Helsinki City have expressed a need to find relative research to assist in management and adaptation of these changes in the health care organization. (Päätökset, HUS; TED; HILMA.) Study subject is current as change management has been widely used and studied in other sectors. Health care organizations

such as hospitals have their own unique culture of trust and function based on professional layers, hierarchy, and etiquette. Understanding the health care organization specific work culture, structure, communication, and importance of dialogue through professional layers can aid in employee commitment to comply and sustain organizational changes. Individual capabilities to adapt to change, schedules, and to process new information are important in change management perspective. (Rohde and Torvatn 2017: 530-532; Pina e Cunha et al (2018: 217, 219, 228-230; McCray & Warwick & Palmer & Thompson 2021: 4.; Luffman 2019: 5-8.)

This Thesis aims to explore which intra-organizational factors and resources should be addressed and can be utilized to ensure sustainable change in health care organizations.

2 Theoretical framework

2.1 Human factors involving change management

“Change management is a systematic approach that includes the application of knowledge, resources and tools that can be used to leverage the benefits of change.” (Abdulla, Ahmed Al-Ali & Singh, Sanjay & Al-Nahyan, Moza & Amrik Singh 2017: 62). Luffman (2019: 5-8) adds that **“Change must be regarded as a cognitive process rather than a program, project, or training event”.**

Adapting to change requires individuals to alter their existing way of thinking and behaving which in turn requires cognitive reflection towards prior experiences and prior learning. Luffman (2019) encourages to understand the abilities and weaknesses of human brain and its processes what comes to adapting to change. Understanding the capabilities and restrictions can give guidance toward information delivery, change processes communication, and provide understanding towards the common reactions that rise from change. Recognizing typical, however normal reactions, can assist individuals to process change and its motions more effectively at a personal level. Humans tend to operate through priorly learned, repeated, and familiar patterns through unconscious processes such as habits, behaviour, or certain way of thinking. Change challenges this comfortable unconscious with a need for conscious processing. This can alter individuals’ confidence and result in withdrawment or resistance if the individual is not able to connect new information to prior learning and experiences. Fear, worry and resentment should be recognized and addresses at individual level. Organization should provide supportive and trustworthy managerial lead during change. (Luffman 2019: 5-8.)

Similar findings to neuroscience are supported by behavioural science. Behavioural science has recognized avoidance of cognitive dissonance and satisficing behaviour in individuals during change. Individuals tend to aim to achieve balance and harmony that can be misbalanced by change. There are two routes for individuals to take; one is the avoidance and elimination of change, or the other route is to seek information that can be linked into priorly learned content, also known as consonant information. Satisficing human behaviour is linked to change management due to individuals' capability to rationally process new information and context up to a certain limit. Exceeding the capability limit results in stress which in turn leads to avoidance. At an individual level, cognitive dissonance and satisficing behaviour can create barriers for change to occur in organizations. Higher education level and belief in self capabilities to learn have been linked to positive attitudes and flexibility towards change. (Lauer 2021: 32, 101.)

Neuroplasticity of the human brain can be exercised not just by actions but also by thinking, hence the importance of providing adequate amount of information about the change for individuals to process and connect to previous experiences. Changing pre-existing patterns or habits array between 18-254 days, averaging on 66 days. This can be interpreted that change processes benefit from time due to individuals' brain function abilities to adapt to change. Information regarding change should be shared at regular intervals, the amount of information should be processable and associable without difficulty. (Luffman 2019: 7.)

2.2 Communication during organizational change management

Organizational change involves individuals, organizational culture, and organizational structure. Need for organizational change can be externally or internally triggered. External factors rise from social, political, ecological, institutional, technological, and macroeconomic environment. All these external factors put pressure on organizations to adapt and keep up with the changing needs and development of modern society. Internal factors influencing change originate, for example, from demand for organizational growth, downsizing, investment needs or from organizational integration. Change management aims to assist the individuals in the organization through changes with the use of management techniques learned from strategic management. (Lauer 2021: 3-28.)

Unsuccessful change initiatives range between 70-75%. The failure has been mainly linked to middle management - and employee resistance. Most resistance stems from miscommunication and psychological defence mechanisms. Inadequate control of

change processes and rapid change phases are also behind unsuccessful organizational change processes. The unwritten rules of organizational culture also have a role in implementing successful change processes. Strict hierarchy, bureaucracy and need for change initiated only from the highest management level linked with lack of dialogue with personnel and use of external opinions (consultants, outside view) has the worst predicted outcome towards organizational change. Strong measure approach into silencing resistance has been found to be least favourable option. (Lauer 2021: 27-32, 45-56.) Strong resistance can be expected when organizational change involves disadvantages for personnel, such as income loss, lower work status or increase in workload. There should be a commonly shared goal in the organization that most individuals desire for the changes to become sustainable. (Lauer 2021: 57-61, 74.)

Organizational need for change, and the planned change processes should be communicated throughout the organization just as well as the desired outcome and goals. Each member in the organization has a need to understand the organizational change plan, process and outcomes. The effects of change relating to personnel and their own work should be clearly communicated. The personnel have a need to understand the vision and to have a chance to participate throughout the change process. Delivering organizational vision must be understandable and clear. Organizational vision should be divided into smaller sections or goals that relate to processes or individual efforts. Goals must be achievable and can be further divided into short- and long-term goals. Systems of measure must be in place. Shared vision helps personnel to commit to change, contribute their best efforts towards organizational change and to visualize the meaning of their individual effort in the change process. This links in employees’ extrinsic and intrinsic motivational factors which further contribute towards successful organizational change. (Lauer 2021: 104-118.)

Extrinsic motivational factors, for example, include financial gain or lighter work tasks. Intrinsic motivation factors include autonomy, feeling of purpose or exceeding individuals own goals. Intrinsic motivation can be activated by inclusion and participation in organizational change processes. Goals can bring motivation in form of perseverance, achievement, completion, and social recognition. (Lauer 2021: 120-122.) Public sector organizations often lack a reward system. Leaders nurturing culture towards innovation can increase staff motivation, performance, and career satisfaction. Enabling and encouraging frontline innovation as well as managerially initiated innovation is important. Leadership abilities, organizational culture, and their effects on innovation and job satisfaction in a public sector organization are found to be linked. (Wipulanusat & Panuwatwanich & Stewart 2018: 890-891, 893, 907.)

Communication and sharing of information are crucial. Information brings motivation and feeling of appreciation. Information assists in adjusting to change, make correct informative choices, and assists in reflecting one's own actions to what is desired and considered appropriate in the organization. Accurate formal and informal communication is important during change management. For example, coffee table conversations provide an opportunity to clear misunderstandings and reduce fear of the unknown. Communication should be target-orientated and relative for the audience. Different channels of communication should be utilized to reach all personnel and to find suitable means of communication. Meetings, one on ones, reports, email, intranet, appraisal interviews provide various channel to reach individuals working in different levels of the organization. Communication should occur throughout the change process. Communication should include reported information on success, reaching targets and information on possible difficulties. Personnel need adequate amount of time to react and process change. (Lauer 2021: 120-127.)

Intra-organizational co-operation and participation is crucial. Individuals in the organization should be empowered to change the organization together, and to learn new skills and behaviour patterns though dialogue of communication. It is important to recognize progress and reached goals and to give appraisal to personnel. Continuous feedback should be gathered, and necessary changes made for change to be successful. Organization should allow dialogue and employee surveys should be utilized. Personnel should be enabled to assess and conclude realistic evaluation of the organizational change and processes. Sustainable change in organization includes adjustments made to organizational culture. Sustainable organizational change stems from open dialogue and positive attitudes towards change, intra-organizational co-operation and appropriate amount of autonomy practiced by employees. (Lauer 2021: 65-79, 126-127, 147, 157-175.)

2.3 Manager role in change management

Leaders have an essential role in managing change. Leaders at different levels of the organization have differing role input towards change. Executive leaders provide guidance for managers, communicate strategic decisions, and enable organizational change by providing adequate resources. Middle managers, however, have important duty guiding personnel through organizational changes through communication, sharing of information and creating dialogue between personnel and executive management. Middle management should interpret organizational goals to personnel and provide feedback on individual and organizational level progress. Understanding and nursing employee engagement is important, engagement has been found to motivate personnel to reach

individual and organizational goals. Engaged employees are found to contribute towards higher organizational performance, employee engagement is also known to increase staff satisfaction. Two-way communication is desired; top-down and bottom-up dialogue through various platforms, with a focus to reach all personnel affected by change in the organization. Information provided on organizational goals must be relative and relatable for the audience. Management must accommodate and provide suitable training towards changing processes and practicalities; thus, the daily work activities can occur smoothly, empowering personnel to successfully reach organizational goals. Personnel should be enabled to work as a team to find jointly agreed solutions, solve problems together which in turn emphasizes peer-trust and increase compliance towards change. Feedback should be collected regularly from personnel. Management should also provide feedback, recognition, and appraisal on reaching organizational targets as complying with change has required changes to individual and team behavioural. Reward and appraisal can be extrinsic such as bonus or increased wage package or of intrinsic form such as verbal recognition or award. Appraisal and feedback should be initiated regularly through various platforms such as performance review, workshop, or meetings. Continuous follow up is needed for to reach permanent sustainable organizational change, continuous follow up is needed to adjust changes to suit the complex organizational needs. (Lyke-Ho-Gland 2019.)

Change management leaders need to communicate and motivate employees in a trustworthy manner. Leaders should create a change positive atmosphere in the organization and demonstrate a willingness for change through their own actions. The leaders should guide personnel towards change and maintain motivation though different methods of communication. Change leaders should possess emotional intelligence which includes ability to motivate, empathy to recognize other persons situations, ability to self-reflect, self-control and practice good social skills. A change leader should provide constructive feedback and coaching, which in turn enables personnel to solve problems and find joint solutions. (Lauer 2021: 84-103, 120.) Management should provide an atmosphere of two-way communication in the organization, enable reflection and collaboration towards queries. Management should also provide feedback and appraisal for employees on participating in change processes. (Luffman 2019: 7-8.)

Modern advancements increase demand for organizational performance and productivity. Organizational changes are performed through organizational culture and change leadership. Organizational change demands an atmosphere of positive, guiding leader-

ship and willing, participating personnel. Collaboration between change leader and personnel is important. The leader should empower personnel to reach goals and create atmosphere of trust, communication and partnership that is needed throughout different levels of the organization. Different levels in organizations have their own unique layer of organizational culture. Change leader abilities and competencies are just as important as it is to create a culture for change. A change leader should be able to plan, implement and evaluate change and change processes while empowering employee involvement in decision-making processes. Change affects individuals, groups, organizational structure and organizational culture and it needs to be recognized, addressed, and nurtured along the processes of change. (Abdulla & Singh & Al-Nahyan & Singh 2017: 59-64).

2.4 Cross national factors of hospital merger

Each country has their own unique health care - and hospital system. In some countries patient care is mainly operated through publicly owned hospital network, and in others through concentrated markets: privately owned independent hospitals. It is common to have liaison between public and private health care providers based on each country's health care regulation and - funding. For this reason, hospital mergers should not be directly compared across nations. The usual reasons for hospital merger are regulatory body demand, cost savings or a need for reduced market competition due to under demand/surplus of goods. Studies have found that patients tend to get higher quality care in countries where the patient care prices are regulated through government policy demand more so than in open market pricing system. Hospital mergers, for example in Germany, are initiated due to reduced government funding on public hospitals, payment reforms and growing positive attitude towards market-share health care providers. In England, hospital mergers are often initiated due to need to save on health care costs. However, in England, the government has created initiatives for ensuring good quality care and freedom of choice, to some extent, for patients to choose their health care provider from. In England, government funds hospitals for each patient treatment that the hospital provides, leading onto a competition to provide good quality patient care and to increase patient satisfaction. In the Netherlands, instead, the regulatory body have opted towards mandatory private insurance for all citizens, implementation of strict government regulations for health care insurance providers and strong changes to previous health care systems due to health care reformation. All and all, when guided by government policy makers, hospital mergers can reduce competition in the health care markets, improve quality of patient care, and reduce health care costs. (Schmid & Varkevisser 2015:16-19, 23.)

2.5 Productivity after hospital merger

Advancements in medical research and technology have created new possibilities in patient care. This, and an aging population in Western Societies, have created a greater need for health care personnel which is unfortunately unavailable due to lack of competent, available work force. The following has generated a dilemma which is being patched up by efforts to increase efficiency, often through health care mergers. One example is hospital reformation conducted in Norway in 2002 that gave autonomy to hospitals to negotiate compatible wage packages and career options to their own personnel. (Johannessen & Kittelsen & Hagen 2017: 117-122.)

Traditionally the organizational productivity and macro level (personnel) productivity in health care has been difficult to measure systematically due to unpredictability (human factors, patient material, cases etc). For example, National Health Service report from England found over 100% variations between physician's in-patient admissions and completed consultations. Productivity is difficult to measure in health care environment as fundamental such as quality and health outcomes are a priority over efficiency. For example, in Norway, hospital merger decreased the number of in-patient beds between 2002 to 2013. However, there was an average of 47% increase to patient flow as patients were now treated through day-case - and outpatient departments. The variation rate of 15-92% is recorded in between the 19 hospitals in Norway. Treated-patient-ratio increased during the study period of 2001 to 2013, however, this was not due to increased productivity rather than due to increased number of physicians and nurses. For example, the number of hospital in-patients at the national level in year 2001 was 685 901 cases compared to 739 191 cases in 2013. Day-case treatment was up from 309 112 in 2001 to 432 376 in 2013. Compared against the number of physicians at the national level in 2001 was 7108 and 9852 physicians in year 2013. Number of nurses increased also from 22 032 in 2001 to 25 695 in 2013. There was only 1,4% increase on patients treated per physician with a 6% decline in diagnosis-related group scores after the hospital merger. (Johannessen et al 2017: 117-122.)

Correlating factors between productivity and the number of supporting staff per physician has been recognized. Other hospital personnel, such as nurses, secretaries, and other hospital personnel, play an important role in contributing and supporting towards physician productivity. For example, in Norway, the allocative efficiency could have been improved in 2013 if physician input was reduced from 17.1% to 14.6%, and health care assistant input increased by 2,1%: Johannessen et al (2017) study found that there was

a decline in number of secretaries, care assistants and non-medical hospital staff between 2001 to 2013. For example, the number of secretaries decreased from 6196 to 5242 members and health care assistant from 4873 to 3293members during the study period. Putting this in financial perspective, physician wages increased from 14,3% to 17,1% compared to nurse's smaller rise in wage costs from 24,1% to 24,4%. There was a larger decline in secretary costs from 5% to 3,7% and health care assistants from 4,7% to 2,7%. Non-medical staff costs decreased from 22,7% to 18,9% in between 2001 to 2013. However, study concluded that the physician input was out of proportion compared to supporting staff input which negatively affected efficiency. The study conducted in Norway found that the Norwegian hospital merger did not increase but actually decreased physician productivity, and productivity varied significantly across different hospitals in Norway. Productivity decline correlated with the reduction of physician support staff such as secretaries, care assistants and non-medical staff, concluding that an increase in the amount of physician support staff could bring in an increase in physician productivity in the future. (Johannessen et al 2017: 117-122.)

3 Aim and Research questions

The aim of this study is to explore resources that will benefit the management of health care organization during change or merger.

Research questions:

1. Which management actions are useful during change or merger in health care organization context?

2. Which intra-organizational resources support management of change or merger in health care organizations?

Research objectives are to provide research findings from data driven systematic literature review on evidence-based literature from health care and management databases. Literature review analyses will be guided by research objectives and - questions followed by qualitative content analyses and findings.

Problem of interest: Change management

Intervention under investigation: Resources that support management of health care organizations

Context of interest: Change and merger in health care organizations

4 Methodology

4.1 Insight to systematic literature review

Systematic literature review gives an insight on the amount of research data available on the desired research subject describe Johansson & Axelin & Stolt & Ääri (2007: 3). Systematic literature review is an evidence-based process continue Johansson et al (2007). Systematic literature review focuses on high quality evidence-based peer-reviewed data, published within a covered timeframe. Each stage of systematic literature review is pre-designed and can be repeated for the same outcome findings. (Johansson et al 2007: 4-5.)

There are roughly 3 stages in the systematic literature review process. The first one is the planning and designing phase followed by research and analyses phase, third phase focuses on publishing the research findings. The planning and designing phase consist of configuring existing data on the research subject. It is important to plan out the need for the research, including research questions, that will contribute towards the researchable data and research strategy. The research question content is further used in determining key words for research purpose from desired databases as well as setting up limitation criteria. (Johansson et al 2007: 6.)

Systematic literature review starts with a research plan. Research plan includes research questions that the systematic literature review aims to provide answers for. Exact and appropriate research questions will guide the systematic literature review towards the correct tract by narrowing down the search for most appropriate data available. PICO format is used when setting up the research questions. “P” stands for population or problem of interest. It is important to delimit the population of interest to have desired search words and specific search results. “I” stands for intervention under investigation; what does the research aim to study. “C” is comparison of interest or which kind of research findings are chosen to be compared and used for the study. “O” stands for outcomes that are most important when assessing the results. (Johansson et al 2007: 6-7.)

According to Johansson et al (2007: 46-52) PICO is also used in later phases of the systematic literature review process when narrowing down and assessing search results.

The research and analyses phase includes finding and gathering data which is determined to be high-quality by using pre-designed methods for selecting data that will also pass the limitation criteria. Record of the research strategy, research process such as

the data extraction is to be maintained and included in the final work to prove the relevance of the study. There is also a need to include other study material, for example published books, on the research subject. Description of information sources are to be kept and included. Last phase of the systematic literature review focuses on reporting findings, providing conclusions and suggestions. (Johansson et al 2007: 6.)

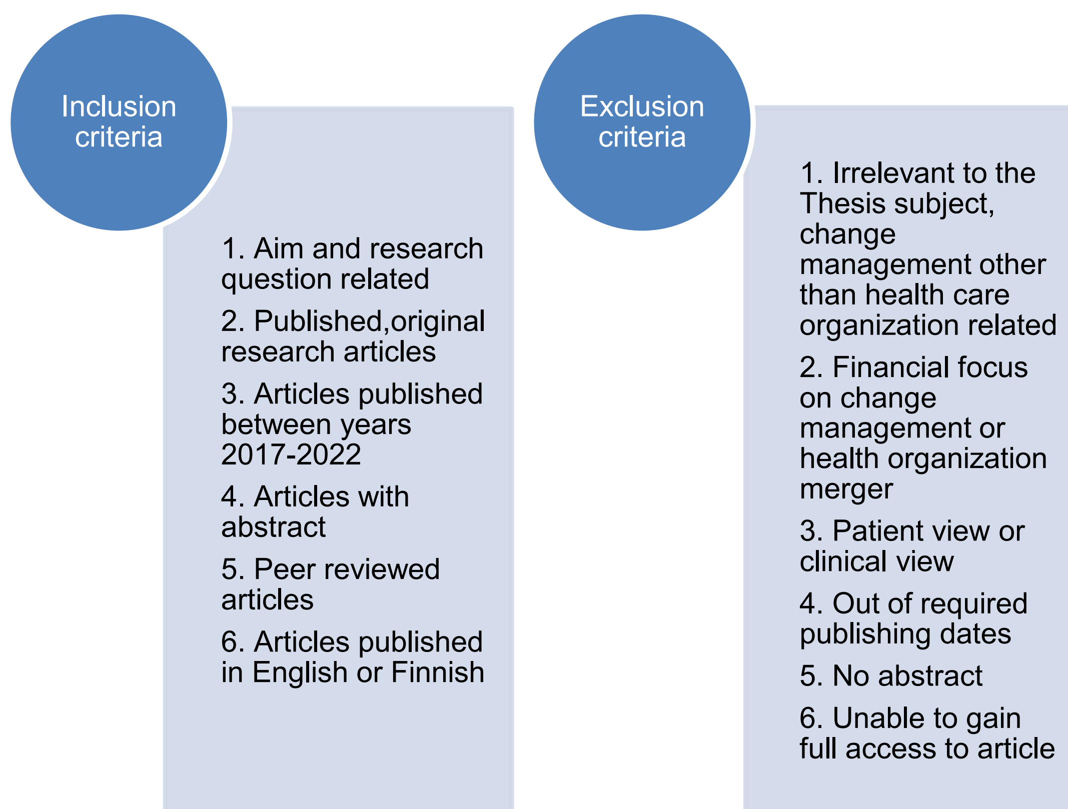
4.2 Data collection methods

At first, the Thesis project was started by familiarizing and researching on change management in general. Next the search was pursued towards finding literature relating to change management in health care organizations. Aim of the data driven systematic literature search was to find answers to research questions, with the guidance of narrowed PICo. Initially, the systematic literal search was aimed to figure the number of literatures relating to change management and health care organization, and to establish specific search words for systematic literature review search. Highlighted importance was paid towards ruling out articles relating to patient care or patient experience for the purpose of this Thesis. Search strategy and data base research was designed and trialled out with the help of professional research librarian. Liaison with the librarian, who did not have a health care professional background, assisted in conceptualizing the need to include precise search words that would emphasize health care professional culture and management of health care organization during change. This resulted in relative and accurate data base findings.

The search was carried out on Science Direct database with used search words “hospital merger” OR “health facility merger” OR “health organization merger” OR “health organization integration” AND “change management” OR “change management leadership”. Preferences of review articles, research articles, editorials, years 2011-2022 were added and resulted in 165 articles. Years were reset to allocate latest research conducted between years 2017 and 2022 to find 102 articles. Data driven systematic literature research methods were used, evidence-based articles were selected. Deductive analyses methods were used in selecting articles relative to this Thesis. 18 relative articles were identified after reading titles. The discarded articles where patient care and clinical care orientated, and organizational merger relating to productivity and finances. Next step was to read the abstracts. After abstract screening, there were 5 published articles for full-text review. Inclusion/exclusion criteria were used in the selecting correct articles to Thesis. Four articles were chosen for Thesis; two articles met the inclusion criteria for

results, two other articles were excluded from results however provided important information regarding Thesis subject and were used for theoretical framework section.

Table 1. Inclusion and exclusion criteria



Several more test runs were conducted before finding relative research articles on Pro Quest Central. Search words "health organization merger" OR "hospital merger" AND "change management" OR "change management leadership" and added preferences of peer reviewed, source type: published books, Government & Official Publications, Reports, Scholarly Journals, Standards & Practice Guidelines, English language, publishment years between 2017 to 2022 resulted in 53 articles. After title level screening, 9 abstracts were to be red. Abstract level screening discarded two more articles as irrelevant or duplicates. Inclusion/exclusion and PICo criteria guided the full-text review phase. All seven articles were screened appropriate of which four met the inclusion criteria for Thesis results. Three other articles were excluded from the results however, provided resourceful information for theoretical framework.

In Emerald Insight, preferences of article, case study, early cite article were added. Search words ("hospital merger" OR ("health facility merger") OR ("health organization merger") AND ("change management") OR ("change management leadership")) resulted

in 78 articles. 13 articles were included after title level screening. Ten articles were selected after abstract level screening for full-text review. Seven articles were accepted as relative for Thesis of which three met the inclusion criteria for results. Four of the articles provided insight to Thesis subject however did not meet the inclusion criteria. These four articles were used to support Thesis subject on the theoretical framework section.

Database called Finna.fi with search words '(muutosjohtaminen) AND terveydenhuolto AND (integraatio OR yhdistyminen)', preferences book (kirja), new paper (lehti), article (artikkeli), years 2017-2022. Language preferences Finnish and English (suomi ja englanti) resulted in 68 results. Only 1 published book passed the set criteria. Same published book was also found through published book search.

4.3 Description of studies

The selected studies were conducted in 6 European countries, 1 study was conducted in wider European context. Two of the chosen studies were from Norway, two from United Kingdom, two from Denmark, two from Sweden, one from Portugal, one covered European context. One published book was from Finland, and it appeared through database search. All studies were related to health care organizational change or merger.

Table 2. Description of selected studies

Author Year Country	Purpose of the study	Sample, Sample size	Data collection method	Analyses method
Rohde et al (2017) Norway	Study newly merged Norwegian health region change strategy design, tools that emerged from change process, and results of change relating to government goals	62 individuals were interviewed through 36 individual and nine group interviews. Data analyses	Multimethod approach: interviews, document analysis and (re)analysis of existing data	Data envelopment analysis (DEA) was used together with bootstrapping to estimate intervals. Constant and variable return to scale. Ranking, index, Comparison of parameters
Ratnapalan (2019) United Kingdom	To explore Pediatric Emergency Department personnel's perceptions of factors influencing change and change management	20 physicians, 13 nurses, two support workers and six managers	Qualitative study	Secondary analysis of 41 interview transcripts Grounded theory methodology

Pina e Cunha et al (2018) Portugal	Study health care personnel's experiences on Portuguese hospital mergers	61+15 interviews	Qualitative study	Interviews and observation, exploration of data
Erlingsdottir et al (2018) Sweden	Describe salient factors that emerge in successful change processes in healthcare context	22 + 21 employees of two Primary Care Centers, 3 members of a management team and 1 external consultant	Two qualitative case studies: in-depth interviews, observations, and research on documents	Formulated triangulated hypothesis
Storkholm et al (2018) Denmark	Translate and validate a Danish version of the Organizational Readiness for Implementing Change (ORIC) questionnaire	Employees (N = 284) at a hospital department	Quantitative study	Questionnaire Exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA) were used to assess construct validity
Solstad & Petterson (2020) Norway	Investigate health care personnel and middle managers view on their relationship with top managers after hospital merger	196 hospital personnel (survey) and 6 middle managers (interview)	Qualitative case study: Survey and follow-up interview.	Data analyses, trend analyses, Likert scale Validation, comparison, and contrasting
Jonasson et al (2018) Denmark	Investigate the emergence of distributed leadership and the influence of leadership's during hospital merger	21 members of hospital personnel	Qualitative longitudinal case study: interviews and documents.	Systemized coding, categorization, triangulation
Palumbo (2021) Europe	Investigate the direct and indirect implications of employee engagement and innovative behavior	10,000 health professionals working in Europe	Quantitative study	Regression-based path analysis. Ordinary least square (OLS) regression model, structural equation modeling. Mediation analysis.
Kallankari (2019) Finland	Published book on change management in health care organization	Published book	Published book	Published book, peer reviewed
Savage et al (2020) Sweden	Explore conditions that facilitate/impede medical leadership on organizational performance	73 publications included out of 2176	Systematic review	Thematic synthesis; inductive approach
McCray et al (2021) United Kingdom	Analyze the effects of action learning in doctor leadership development program	9 Doctor leadership development program participants	Qualitative study	Interviews Thematic analytic procedure, inductive approach

Total of 11 studies were selected for the review. The study design, apart from one published book, were quantitative, qualitative, and multimethod approach. Various data

collection methods were used in original studies, such as interviews, observation, data analysis, questionnaire, surveys, and systematic review. Quality appraisal was trialled to ensure high quality data.

4.4 Quality appraisal of the chosen studies

The quality of the original study data has highlighted importance. Good quality data enhances the credibility of the literature review results. Standardized methods are recommended for critical appraisal. (Johansson et al 2007:101-102.)

Joanna Briggs Institute, JBI Critical Appraisal Tools, were used to assess the quality of the chosen data. Checklist for Analytical Cross-Sectional Studies was used to analyse quantitative study data. Checklist for Systematic Reviews and Research Synthesis were used to assess systematic review and multi-method studies. Checklist for Qualitative Research were used for qualitative studies. JBI appraisal criteria was acknowledged and cross-checked with the original studies; however, this was conducted as an individual effort. Highlighted efforts were practised to exclude bias and misunderstandings. JBI Critical Appraisal Tools assisted in confirming chosen studies to be high quality. Minor discrepancies were noted. However, the study material was found to be relative to this Thesis and added value to the phenomena under study. The JBI Checklists and critical appraisal are included in **Appendice 1.**

4.5 Data Analyses

4.5.1 Systematic literature review

The research and analyses phase included finding and gathering data though data driven systematic literature research on electronic databases. Total of 301 articles were identified through systematic literature review. Pre-designed methods for selecting data were used, see **Table 3. Prisma Flow Chart.** Other search methods, such as websites, books, and organization publications, did not provide further data for this study. One published book that was relative to this study was located from library. However, the same published book was identified through the systematic literature research. Therefor the book was identified as a database find.

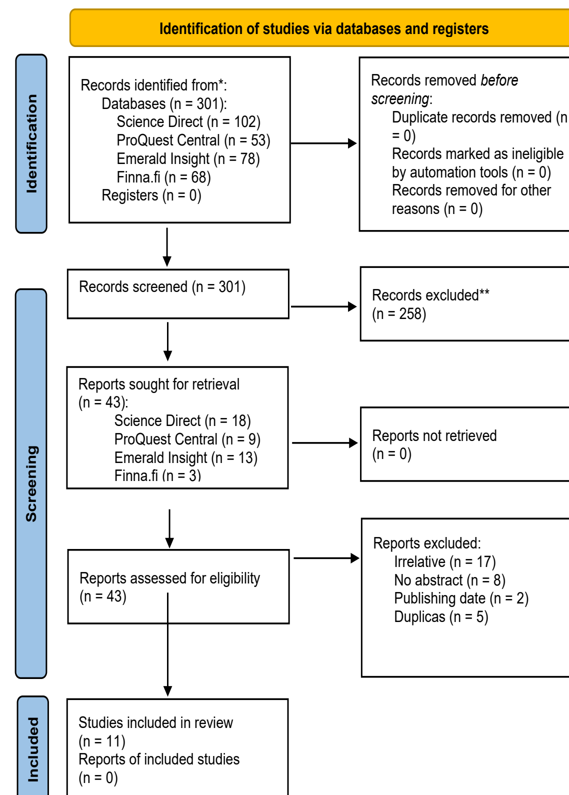
Inclusion/exclusion criteria and PICo method assisted in narrowing down literature, **Table 1**. Record of research strategy and research process including data extraction was maintained and documented.

Research should be aimed at the data which has most knowledge on the research subject. Narrow perspective and extreme cases should not represent the final findings, however, are useful in explaining differing aspects. Commonly, the amount of study data is 15 studies or less when using qualitative approach. Larger scope becomes repetitive and does not offer wider view to the results. (Kananen 2008: 37-38.)

Systematic literature review was performed as thoroughly described on Table 3 Prisma Flow Chart and section 4.2. Data collection methods. Systematic review findings of 301 publications, as seen on Table 3, were selected, and further scrutinized though deductive data identification process. The data identification process included narrowing down the literature by title level screening, abstract screening, and full text screening. Duplicates were removed at the latter stages. Evidence-based publications and one published book were selected through the systematic data base research process. Total of 11 publications were identified to be used in this Thesis. These were assessed with JBI Checklist and critical appraisal tools and were found to be high-quality data. All 11 publications passed Thesis inclusion criteria, PICo, and were relative to Thesis aim and research questions.

Seven other publications did not pass the inclusion criteria and did not offer answers to the research questions. However, these publications were identified as a valuable source of information to be used in Theoretical Framework to support the study content. Published books were also used to support research and analyses process and offer guidance on reporting findings.

Table 3. Prisma Flow Chart



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).
**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71.

Systematic literature review results needed to be analysed. Qualitative research aims to gain a new way of understanding the study phenomenon. It focuses on describing the matter through different angles. Qualitative research aims to express people's perspective and experiences on the matter, and to explain the context. (Kananen 2008: 25.)

4.5.2 Content analyses

Aim of qualitative research is to describe the phenomena under research and to create a deeper understanding on the matter. Qualitative research lacks a strict theoretical framework. Analyses is a continuous process throughout different phases of the research process. (Kananen 2008: 24-25.)

Research and analyses processes are a product of the researchers understanding on the study material. Analyses is a continuous process since the start of the research process. (Kananen 2008: 25.) Re-arranging data is needed for understanding the phenomena. Analyses phase can begin after understanding the phenomena, its processes, and effects (Kananen 2008: 88). Content analyses is thought to assist in arranging individual

sentences into wider categories. Content analyses is commonly used and recognized in nursing research (Elo & Kyngas 2007: 107-108).

Content analyses was needed, after the deductive systematic literature review, to gather relative findings. Qualitative research content analyses method was chosen. Content, as seen on Appendice 1. JBI Critical Appraisal Tools, can be seen as high-quality research data as required by the research objectives. Good scientific practice methods were used. Continuous analyses were carried throughout the process to gain deeper understanding on the study phenomena. All information on resources and references are documented throughout the Thesis and Appendices, full list of references is included at the end of the Thesis.

Researcher must thoroughly read and familiarize with the data (Elo & Kyngas 2007: 109). The first step in content analyses is to determine the interest in the content. It is important to read through the content and highlight material that is relative to the study subject. All other irrelative content must be left out. The chosen material must be gathered and separated from irrelevant content. All relative content must be reported. Coding the content should be practiced. Coding the content works as a note and as a reference to the correct text and the original author. Coding the content assists in describing, labelling, and categorizing different phenomena's. (Tuomi & Sarajarvi 2004: 93-95.) The researcher must have a clear research aim which to look out for in the data. Pre-assumptions should be acknowledged. Transcribing the data is necessary, coding the data is one method. Coding aims at simplifying and highlighting meanings behind phenomena's relative to study. Coding assists in deducting data. Coding guides toward understanding and describing the phenomena under study. Coding is a stage before analyses phase. (Kananen 2008: 88-89.)

The following stages were thoroughly carried through as guided by literature. The study data was first narrowed down from the original publications as found relative to this Thesis aim and research questions. All relative content was gathered and reported in detail. Study data was then pre-coded and transferred into data-oriented content analyses.

Next stage in qualitative research content analyses is to label content, cluster and establish categories (Tuomi & Sarajarvi 2004: 94-95; and Kananen 2008: 89). There is no rigid method of labelling content or creating categories. Categories are established through authors understanding and logic of the content. (Tuomi & Sarajarvi 2004: 101-102.) Clustering and categorizing decreases change for pre-assumptions and assists in

seeing into the data. This should be done without losing insight (quality) nor creating too narrow of perspective. (Kananen 2008: 89.)

Data-oriented content analyses is used in modifying sentences and clustering content into smaller, simplified categories and then into larger contexts. This occurs through a method of analysing the content through the Aim of the study and the set research questions. This assists in recognizing and highlighting the relative research content. The simplified sentences are then further labelled and clustered into sub-categories. Content that has different label, however similar meaning, are transferred into the same sub-categories. Sub-categories are connected to main categories by their overall meaning. Eventually all categories will be joined and named as one main phenomena. Sub-categories, categories and the main phenomena will provide answers to the research questions. (Tuomi & Sarajarvi 2004: 102-103, 110-115.) Differing methods can be used, such as colouring, highlighting, or segmenting. Segments have differing text content. (Kananen 2008: 90.)

The full processes of coding were performed in stages as suggested. Data-oriented content analyses, which includes original simplified statements, sub-categorizing, categorizing, and finally conceptualizing phenomena's' into results. References to the original authors were maintained throughout the statement - and categorizing stages. The following detailed records are maintained by author. Examples can be seen on Appendice 2 Examples of clustering and creating categories.

Data-oriented content analyses aims to create a theory base on the study content. Analyses is based on the aim of the study and research questions. Results will stem from the study content and cannot be pre-determined. Therefore, previous theories and studies are not used or referred to. Writer should avoid and acknowledge possible pre-assumptions and unconscious bias when withdrawing conclusions. (Tuomi & Sarajarvi 2004: 97-98; and Kananen 2008: 90-91, 94.) Content is first separated then, content is analysed. (Tuomi & Sarajarvi 2004: 106-107). Author should attempt to use different orientation methods towards study material. Main content and the context should be conceptualised. Individual words and their meaning are reflected to each sentence and vice versa. Controversies should be highlighted. Sentences are reflected towards the wider study concept. (Tuomi & Sarajarvi 2004: 103-104.)

The following processes were thoroughly carried through as all relative content was first separated from the original text. Continuous processing and conceptualizing the systematic literature review data against Thesis aim and research questions have been practiced. All relative content was selected from the original research data and was included in analyses. Controversies were separate, analysed and clearly included in results. All of the deducted study content was further cross checked to answer research questions. The relative sentences were coded and transferred into content analyses. Coding can be seen as a preliminary result that rise from the original authors statements, and which provided answers to the Thesis research questions. Original sentences were further organized into sub-categories and then into main categories which provided answers to the phenomena under study. Results stemmed from the content analyses that was conducted from the systematic literature review data.

Last stage of qualitative research content analyses is the conclusions. Content analyses assists in organizing content to results. Conclusions are withdrawn from the results of the content analyses as seen appropriate for the study Aim. The content analyses describe the study phenomena and provide wording. Data-oriented content analyses assists in categorizing content without losing information. Results are concluded logically by the writer as seen appropriate by the phenomena under study. (Tuomi & Sarajarvi 2004: 94, 104, 110.) Validity and reliability of the study must be maintained and assessed throughout the qualitative study (Kananen 2008: 123). Research questions are to guide the content analyses (Elo & Kyngas 2007: 113).

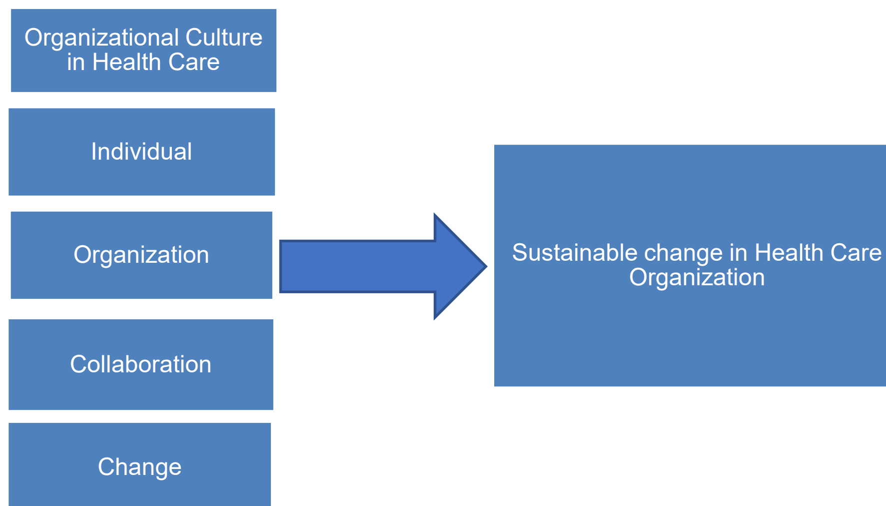
All efforts have been made to maintain reliability, traceability, and validity throughout the process.

5 Results

Data-oriented content analyses resulted in clustered themes, sub-categories, and main categories. Some themes tend to overlap between categories. In many cases the goal, which is change in health care organization, is dependent on several sub-categories. The Aim of the study is to explore resources that will benefit the management of health care organization during change or merger. Results are reflected through the research questions. All content is relating to health care organizational merger or change in a health care organization as per PICo.

Five main categories were detected though data-oriented content analyses. These categories are Organization, Organizational Culture in Health Care, Individual, Collaboration and Change. Sustainable change in health care organization is the collected main phenomena of these categories.

Table 4. Main categories influencing towards sustainable change in health care organization context.



5.1 Organization

Health care organizations and hospitals were clustered under Organization- category.

Organization has a significant part in contributing towards change. Health care organizations specifically, have internal and external accountabilities. External accountabilities or inter-organizational duties are, for example, stakeholder/shareholder demands, health care funding, liaison with universities, legislation, and regulatory body demands. Internal accountabilities or intra-organizational duties, for example, are intra-organizational resources, plans, goals, processes, and performance.

Mergers and change are set up by health care organization. Hospital and health care mergers are a responsibility of the organization. Mergers bring a need to change processes and practices. Organizations should provide adequate resources during change, reform, and merger. Resources, for the organization to ensure, are adequate amount of time and personnel, management, leadership, chance to learn, training, and support to

subsequent processes. Processes and practices must be adjusted and re-built. Adequate number of resources support change. Final responsibility of change is with the health care organization.

Organizations are expected to provide clear goals and plans. Organizational vision should be shared. Continuous assessment, evaluation and feedback on organizations current situation, future goals, plans, and change is needed from the organization's behalf. Organization should provide flexibility during merger and change as resources and plans might need adjusting at any stage.

Categorizing content led several processes under Organization. The final responsibility of many processes is on the organization even most processes are performed by individuals or teams. These include daily activities and daily processes, patient care, daily practices, uninterrupted services, and routines. Recruitment process, staff turnover and process design were also clustered under Organization -category. These are strongly linked with resources which are an organizational responsibility.

The above sub-categories contribute towards wider perception on the organization and assist in understanding organizational identity. Organizational identity appears to be lost especially after macroscale health care organizational mergers, and the organizational identity must be rebuilt. Collected organizational learning is just as important as individual - and group learning. Functioning organization with clearly shared organizational goals and targets assists individuals to understand their place and role in organization which contributes towards better organizational performance.

Health care organization should provide fundamentals for change to occur. Organizations include individuals who make organization functional. Stakeholders or executive management have a responsibility in enabling performance of organizational duties and responsibilities and ensuring goals can be met. However, the demand, in this study content, is portraited on the organizations: There is a strong link to collaboration and dialogue which are needed from executive management to personnel to reassure executive management understanding daily processes. Executive management conduct is portraited on the organization. Executive management efforts are viewed as organizational efforts.

5.2 Individual

Individuals in the organization are the driving force behind change. Individuals include personnel, management, and executive management. It is important to understand what motivates individuals to contribute towards change and sustainable change in organizations. Individuals have various roles in health care organizations. Different roles create authority, hierarchy and alter expectations and contributions towards planning, implementing, and maintaining change in organizations. Expectations towards executive manager, middle manager and employees are different in health care organization context. Therefore, the contributions and demand towards organizational change are role dependant. The data-oriented content analyses mainly revealed individual level, or employee and management level, suggestions. In this study, stakeholder responsibilities were analysed under Organization. Executive management responsibilities were also largely portraited on organization.

5.2.1 Intrinsic motivation

The importance of intrinsic motivation stemmed from each study material content. Intrinsic motivation is an important resource in managing change and implementing sustainable change in health care organizations.

Positive feedback and acknowledgement enhance intrinsic motivation and should be practised by management. Information sharing enhances employee commitment to change. Management duty is to enable and empower employees to participate in all stages of change. Distributed leadership contributes towards employee inclusion and employee engagement which further benefit change compliance. Health care professionals have a strong motivation to make a change in health care organization. This important intra-organizational resource should be recognized and supported by management.

Employees have the inside knowledge on detailed processes in the organization, therefore employee participation in planning and visioning change in health care organization is crucial. Employee inclusion and employee involvement in all parts of change processes is needed. This creates commitment and employee engagement towards change and the health care organization. Sharing information on organizational plans, and employee inclusion since the beginning of change process, creates understanding and compliance among employees. These contribute towards willingness for change and assist in accepting organizational change. Employee ownership is important to acknowledge; individuals have a desire to be proud of their contributions in the organization and have

a need to belong. Employee inclusion, employee involvement, employee commitment and employee ownership contribute towards intrinsic motivation which is a key component to nurse during change in health care organization. Employee involvement and participation decreases change resistance and enhances change compliance. Employee involvement helps in taking responsibility and ownership of organizational change. It also creates positive attitudes towards the organization and increases staff satisfaction.

Intrinsic motivation is nursed by competency trust which is commonly used in health care organizations. Individual responsibilities, tasks, and work autonomy create a purpose in organizational context which all increase intrinsic motivation.

Employee engagement creates a meaning for work tasks and creates a sense of belonging in the organization. It enhances organizational commitment and improves views portraited towards the organization. Employee engagement increase change compliance and contributes toward successful change. Employee engagement assists in organizational learning. Employee engagement increases individual performance and adds value to higher organizational performance. Employee engagement increases collaboration and enhance intra-organizational relations.

Employee voice and participation through dialogue create meaningful work roles, give chance to influence, and make a difference in workplace and organization. These support employee’s intrinsic motivation which creates a foundation for organizational commitment and increase overall job satisfaction. Intrinsic motivation adds value to individual efforts to act as change drivers in health care organizations.

Content analyses highlighted a need to nurse similar intrinsic motivation on middle management and medical leaders. This, however, is described in detail on chapter 5.4.3, 5.4.4 and 5.6.2. Executive management have an important role in creating atmosphere of trust through employee engagement. This, in turn enhances change compliance.

5.2.2 Human behaviour

Understanding human behaviour and knowledge of Behavioural Science could assist in understanding typical behaviour patterns that occur during change and mergers which in turn could provide guidance for managing change in health care organizations.

Past experiences and prior learning can either benefit or hinder individuals' acceptance and compliance towards change. For example, negative experiences from previous organizational change can multiply in organizational context if not addressed. Mix of emotions occur in individuals when confronted by change. Typical emotions such as fear, and worry can be discarded by providing information and enabling employee inclusion in change plans and change processes. Employee engagement enhances change compliance. Problem solving at individual level and at group level should be enabled. This individual and group learning initiate thought process and aids in linking new information with priorly learned context and will further contribute towards organizational learning.

Individual effort and individual contributions can be enhanced by employee inclusion. This is linked to change compliance, and higher individual and organizational performance. Intrinsic motivation creates positive perception towards organization, organizational goals, and change.

Health care professional in general, are found to be committed to their organizations. Health professionals have a strong work autonomy, they are enthusiastic about improving practices and making a difference. These are invaluable individual resources to consider during change management in health care organizations.

5.3 Organizational Culture in Health Care

Culture was one of the main categories underlined in data-driven content analyses. The complexity of organizational culture in health care organizations need to be understood for the change and mergers to be successful. As with intrinsic motivation, cultural context was highlighted in all study data directly relating to successful/unsuccessful change in health care organization context.

All data is selected to be relating to hospital, health care organization and health care sector. All the reference were further clustered under organizational culture in health care -category. All study material is health care organization merger or - change related even if the individual sentences do not verbalize the matter.

It became evident, based on the content analyses, that health care organizations have multiple levels. This refers to multiple units in health care organizations such as wards, several levels of management such as executive management, middle management, ward management, medical management, nurse management and so on. Multiple units

also refer to mix of multi-professional teams and personnel who work in health care organizations. These are several levels of management, secretaries, accountants, health care professional such as physicians, nurses and health care assistants, cleaners, coordinators, cook and catering personnel, transfer officers and many more support workers.

All the different levels in health care organizations have their own sub-cultures, management and hierarchy. Content analyses highlights that the multiple levels and units in health care organization work independently and have a strong autonomy. These factors support and maintain organizational efficiency, create, and sustain organizational identity. However, this becomes relative when planning and implementing change. Several levels of management, multiple organizational unit and levels all function independently and have strong autonomy, are factors that need to be addresses during organizational change and merger.

Multiple levels, unit level autonomy and multi-professional workforce are linked with network of trust that creates a culture of trust and function in health care organizations. Network of trust is created and maintained by shared values, norms and rules which are complied, shared, and practiced by all the different professionals who work in several unit and levels of health care organization. Network of trust includes understanding individuals' place in the organization; unit, team and at individual level. Hierarchy is a component in the network of trust. It relates to knowing ones' role, work tasks, responsibilities, and expectations by profession and unit. These shared every day norms contribute towards organizational performance. Competency trust, as mentioned in section 5.2.1, side-lines network of trust and links in employee engagement and organizational commitment. Network of trust should be understood when planning for organizational change. Network of trust is a valuable resource to mobilize for planning and implementing change as it involves multi-professional view throughout the organization, and it possess knowledge of intra-organizational culture and detailed processes in the organization.

Positive attitudes in the organization towards learning should be emphasised and be part of organizational culture. Change should be seen as a positive resource and be a part of culture in the health care organization. Positive perceptions towards change and learning can be emphasised by providing adequate resources such as time and personnel, while ensuring adequate resources to maintain daily processes. This as mentioned in section 5.1, is an organizational duty. Management attitudes and leadership also contribute towards change positive attitudes, atmosphere, and health care organizational culture.

5.4 Collaboration

Collaboration is an important aspect in health care organizational change. As written before, health care organizations are complex structures of multi-professional workforce, multiple level and units which perform through autonomy and a network of trust. Health organization mergers or change in organization must translate to each level, unit, team, profession, and individual for change to occur and be sustainable. Collaboration through teamwork and communication is a fundamental tool to use during health care organizational change management.

5.4.1 Teamwork

Teamwork is a valuable tool to use during merger or change. Teamwork should be allowed and enabled by management lead and by the organization. Intra-organizational co-operation in and between professionals, multi-professionals, units, and different levels of the organization should be enabled. Planning, learning, and evaluating change, change processes and effects of change into daily services and practices should be liaised through teamwork. Joint problem-solving and team learning are important tools for planning change. It is beneficial to allow multi-professional teams to highlight potential issues through risk assessment and to find best suitable solutions. The benefits of teamwork methods multiply as multi-professional cross-sectional insight view is gained to the different levels of the health care organization. Partnership and liaison through different units in health care organization assists in risk assessing, planning, implementing, and evaluating change. It is important to remember that employee inclusion is part of intrinsic motivation which increases change compliance and is associated with organizational positivity. Inclusion through teamwork help team learning and building new organizational identity during change and merger. Teamwork is associated with decreased hierarchy, emphasizes dialogue and innovation. Organizational identity contributes towards better performance and is linked with employee engagement.

Inter-organizational networking and collaboration was found to create trust, support, and decrease hierarchy in health care organization context.

5.4.2 Communication

In this content analyses, communication was clustered under collaboration and linked with teamwork. Communication is a necessary change management tool to use during

health organizational change or merger. Communication should be linked with collaboration to reach wide distribution of information in health care organization.

Communication includes sharing of information. Information should be shared through various platform is health care organization context. These platforms include meetings, email, newspaper, flyers, one-on-one's, coffee table conversations, intranet, portals. Information should be repeated and given in small understandable and relatable sections. It is important to remember that health care organizations have multiple levels and multi-professional workforce. Information must be audience related and suit each audience.

Communication includes sharing of knowledge and experience and therefore should be relatable to teamwork and collaboration. Sharing of knowledge, experience, and information through teamwork increases intra-organizational collaboration and organizational learning.

Collaboration allows dialogue though various organizational levels and multi-professional teams in health care organization. Collaboration and dialogue decrease hierarchy between different professionals and improve personnel-management relations. Dialogue allows bottom-up ideas, two-way communication, and innovation. Dialogue creates employee inclusion and engagement, allows a change to influence, and make a difference. These are also intrinsic motivational factors as discussed in detail in section 5.2.1.

Data-driven content analyses highlight that the health care organizational change should be planned through intra-organizational collaboration. This means involvement of all personnel and management through collaboration and dialogue. The risk assessment and change plans should stem from intra-organizational collaboration. The ideation on how to implement change in health care organization, the evaluation on the effects of change to processes, and how to avoid these should stem from the employee involvement. Intra-organizational collaboration on assessment and change plans increase occurrence of change in organization and creates a better prospect for sustainable change.

5.4.3 Manager is the enabler of collaboration

Manager role is seen as the enabler of teamwork, communication, and collaboration. Middle managers, especially, have an important part in mediating between employees and executive management. Manager is seen to be familiar to employees. Familiarity brings trust which is needed during change. Managers should interpret the need for change in the organization in a way that relates to team -, and unit processes. Manager

should create and allow dialogue between executive management and employees. Bottom-up ideas should be enabled.

Content analyses emphasize that managers are often between the executive decision to implement change into organization and the employees who are planning, implementing, and sustaining change. However, there is a strong suggestion that manager efforts are needed in change leadership which is a valuable management method during change. Managers should believe in organizational change, motivate employees, and enable change. Managers are needed in organizing and leading intra-organizational collaboration, creating dialogue and good relations, and ensuring employee voice is heard in planning and implementing change. These will contribute towards sustainable change in health care organization context.

Management practices should be fitted to suit each health care organization context as they all have various needs and cultural content.

5.4.4 Relations

Relations relate to organizational culture in health care. However, they are an important aspect of collaboration. Data-oriented content analyses highlighted the meaning of good relations in health care organizations. Good intra-organizational relations contribute towards change compliance, change occurrence and sustainable change, and therefore should not be overlooked. Maintaining good relations should be a management priority and it is an asset to consider during change health care organization. Middle managers have a leading role in maintaining and creating positive relations with employees. Middle managers knowledge and close relations with personnel help selecting change drivers and change leaders among personnel.

Managers were also portraited as the enablers of a dialogue between executive management and employees. The need for executive manager involvement was depending on the scale of change in health care organization. Executive manager involvement was especially desired by managers and employees during mergers and larger change in health care organizations. Content analyses emphasizes that executive manager presence was needed to create a feeling that decision makers understand the daily processes and issues that occur in health care organization. Executive manager presence was seen to bring trust and security during change. Executive managers set an example

in the organization that diffuses through the different levels of the health care organization. Executive management efforts in creating good relations in the organization have indirect consequences on change success.

Physician involvement created balance to relations between health care employees and managers during change in health care organizations. Physicians appeared to have plenty of responsibilities and requirements from the organization, yet they did not have much influence on organizational matters. This could easily create a drift and unbalance change in health care organization context.

Quality of inter-organizational relations between employees and management, management and executive management, and executive management and employees were all linked with change compliance, success of change and merger in health care organizations. Data analyses highlight that the health care organizations that had positive intra-organizational relations had better success with change. Health care organizations with poor intra-organizational relations contribute to poor change compliance and unsuccessful change. Relations matter at all levels of the organization. However, the middle management collaboration, dialogue, and efforts to create positive relations in organization appear to matter the most. Good intra-organizational relations, and management role in enabling and creating good intra-organizational relations can be seen as a management method which contributes towards successful change in health care organization.

5.5 Change

Several sub-categories and categories were clustered under main category “Change”. The underlying subjects all affect the target; change or merger in health care organization, either positively or negatively. These are all issue to consider during planning, implementation and evaluation stages of change or merger in health care organization.

Qualitative research content analyses revealed that the implementation phase of change was not as significant as the initiation, planning, assessing, and evaluating phases. Resources should be enabled by health care organizations at all stages of change. This mainly means that time, personnel, support network, processes, and equipment must be readily available before and during change without forgetting the sustaining change -phase. The need for change and change initiations should rise from two-way communication between employees and management. Need for change and change initiations should be enabled to be raised by personnel, by management or preferably by the collaboration of both. Collaboration between employees and management have positive

effects on ensuring successful change in health care organization context. Change plans, change assessment and risk assessment should be created through intra-organizational collaboration. Two-way collaboration between management and personnel is needed. Thorough plans and assessments on change are needed on organizational level, team level, unit level, and on professional level. Collaboration must be highlighted. Thorough and detailed planning, and collaboration between multi-professionals assists in implementing and sustaining change in health care organizations. Collaboration and participation lead to change compliance which contributes towards successful change. Need for organizational change, and goals of organizational change must be communicated. Changes into processes, that are preferable pre-assessed and then implemented, contribute towards successful change in health care organization.

Change drivers, who all contribute towards change in organization, are employees, physicians, leaders, managers, and executive managers. This sums up the importance of intra-organizational collaboration, two-way communication, and multi-professional involvement in health care organization context as all contribute positively towards change. Employees are the experts on planning change in their unit. This multiplies in organization context and leads to sustainable and successful change. Physician involvement during change and mergers appeared to have a highlighted meaning in contributing towards successful change in health care organization.

Managers know employee strengths in the organization. Management leadership and change management is needed in all aspects of change stages. Intra-organizational change leaders should be selected from multi-professional backgrounds. Collaboration and communication need to be highlighted and enabled by change leaders. Management should provide positive feedback during different stages of change; individual efforts should be recognized.

Previously learned patterns, behavioural, processes, cultural, must be addressed and adjusted. Adapting to change requires effort from all individuals in the organization. Adjusting to change takes time, all individuals should be included since the beginning as adapting to change can take several months.

The above is also applicable during health organization merger and unit merger.

5.6 Negative patterns

5.6.1 Organization

Change can be unsuccessful if organization does not provide adequate resources. Daily processes and daily tasks must be adequately resourced by the organization during change.

5.6.2 Individual

Employee or individual disengagement decreases change compliance and has direct negative consequences on change success. Disengagement diffuses throughout the different levels of the organization. The example set by executive management sets a strong influence throughout the health care organization. Change failed often in those health care organizations where the executive management and middle management individual efforts were withdrawn from creating and enabling employee/management inclusion and involvement. Lack of employee and management engagement created lack of trust in change processes resulting in failed change. Lack of trust is linked to poor relations between employees, management and executive management.

Intrinsic motivation is connected to change compliance, better organizational performance and change success. Intrinsic motivation can be negatively affected by lack of influence, lack of voice, lack of commitment and lack of engagement to change processes. These all conclude towards poor commitment towards change, poor performance and contribute towards failure of change or merger.

5.6.3 Relations

As mentioned earlier poor inter-organizational relations resulted in poor change compliance and resulted in unsuccessful change. In this content analyses, medical managers appeared to struggle most with relations to executive management. Medical managers appeared to have plenty of organizational responsibilities expected from them by executive management. However, medical managers seemed to lack authority and influence towards decisions made by executive managers. Medical managers had no voice on matters regarding organizational responsibilities which they were managing. The relations between executive management and medical managers appeared poor in this study content. There was a general wish that medical managers could be more involved with organizational strategy planning, goals, and organizational change in the future.

Physician involvement had positive effects on change in health care organization. Physicians appeared to have many demands and responsibilities from the organization, however they lacked influence on organizational matters. This unbalanced hierarchy and collaboration can manifest to unsuccessful change in health care organization.

When the relations were poor between executives and management, it was often due to lack of voice or influence. If managers were not agreeing on change set by executives, it resulted in manager withdrawment from employees. This further affected employee-manager relations. Poor relations set a chain of negative emotions towards change. Factors that relate to intrinsic motivation such as inclusion, engagement, collaboration, were discarded. Employee change compliance decline as there is no management leading, providing resources and believing in change. Organizational change becomes unsuccessful.

5.6.4 Change

Issues that can negatively affect change in health care organization context were detected from qualitative research content analyses.

Lack of resources provided by health care organization proved to be one of the major issues that resulted in failure of change. Lack of resources include inadequate time to accept change, too short time to prepare and accept change or merger. Lack of support towards training, learning, and processes under change can lead to unsuccessful change in organization. Lack of personnel and supporting staff can negatively affect the implementation stages and have effects on sustaining change in health care organization. Change can stop at any stage and at any organizational level.

Lack of feedback in general can conclude towards failure of change in health care organization. Lack of feedback on change processes, change stages, evaluation, and assessment phases can contribute towards failed change in organization. Lack of feedback on success or difficulties along change phases can have negative effects on the result: change. Lack of appraisal towards personnel can contribute towards negative patterns on change. It is beneficial to recognise that personnel have changed their individual and employee behaviour to contribute towards change which in turn needs to be appraised.

Leader withdrawment and lack of leadership had significant negative effects on change. Change was often considered to be unsuccessful in cases where leaders had withdrawn. In the qualitative research content analyses leaders withdrawment was often due to a

lack of resources provided by the organization, lack of influence on change. The above resulted in leader withdrawment from processes involving change and had negative effects on leaders change compliance. Leader withdrew from personnel as the leader was not committed to organizational change. Lack of change compliance escalated to the personnel as their leader was not available and was not leading the organizational change. This resulted in failure of change.

Change resistance should not be taken lightly. Change resistance can result in failure of change. Resistance can be addressed by information, communication, involvement, collaboration, reassurance, and time. These all involve management efforts and change leadership.

Content analyses highlighted that larger the health care organizational change or merger has been, the less collaboration there has often been from stakeholders and executive management. In these cases, the change has been portraited as a failure from management and personnel's perspective, change compliance has lacked and organizational identity has been lost in the process.

6 Discussion

These findings conclude that health care organizations need to provide fundamental resources such as adequate amount of time, training, and personnel for change to occur. Subsequent adjustments and support to processes are needed for change to be sustainable. Management leadership during organizational change is highlighted, executive management efforts are portraited on the health care organization.

Thesis findings relate to earlier studies on human behaviour and individuals' acceptance for change. Individuals tend to need time, average 66 days, to accept change. Participating in change processes from early on assists individuals to comply with change though learning and acceptance processes. (Luffman 2019: 5-8; Lauer 2021: 32, 101.)

The findings suggest that health care organizations have a specific culture of function that need to be addressed to make change sustainable. Health care organizations have multi-professional workforce, multiple units and hierarchy levels, and a strong unit autonomy which all function together through network of trust. Network of trust relates to

hierarchy, professional/team/unit task and responsibilities, and knowing one's place in the organization. Network of trust is a valuable resource to mobilize when planning and implementing change as it allows a multi-professional view throughout the organization, convey knowledge of intra-organizational culture and - detailed processes in the organization. Management has a key role in promoting good intra-organizational relations through employee involvement, creating two-way dialogue, enhancing collaboration and communication which all contribute towards sustainable change in health organization context. Information decreases feeling of uncertainty, increases learning, and assists in making informative choices. Findings suggest that intra-organizational collaboration and dialogue enhances intrinsic motivation and increases change compliance in health care organizations. Therefore, these findings demonstrate that health care organizations have valuable intra-organizational resources which promote successful and sustainable change.

Previous studies have highlighted that organizational change often fails due to middle management and employee resistance. Change goals and organizational vision should be clearly communicated to all individuals in the organization, and participation in change processes are crucial for success. (Lauer 2021: 27-32, 45-56, 104-118.)

Individuals have different roles in health care organization. Each member: executive manager, manager, and multi-professional employees, in the organization contribute a valuable part towards organizational change. Executive management leadership sets the example for the whole organization. Management has an important role in communicating, creating two-way dialogue and intra-organizational collaboration. Employee inclusion is vital during all stages of change. Engaged individuals are motivated to implement and sustain change in the organization. Multi-professional collaboration emphasizes good relations and allows detailed changes to relative processes. Good intra-organizational relations are linked with successful organizational change.

Employee engagement and inclusion add value to organizational positivity, motivation, staff satisfaction and increased performance. Dialogue should be enabled throughout the organization and should be emphasized by management. (Lyke-Ho-Gland 2019.)

Noteworthy limitations are the homogeneity of the study based on the systematic literature review content. The selected articles give an insight to change management in health care organizations in Europe. Further studies are needed as cultural aspects may differ between countries. More specific studies are needed in revealing which multi-professional efforts contribute towards change in health care organization.

6.1 Reliability and validity

Original study data must be proved to be of good quality. This ensures the recommendations for future are valid. Systematic tools for critical appraisal must be used. Critically assessing systematic review data is a timely effort. (Johansson 2007: 101-107.)

In this Thesis the reliability and validity of the research and results are addressed by the transparency of the Thesis processes. Good research practices were maintained throughout the study. Original authors were appropriately referenced and accredited throughout the Thesis, including in the Appendices. Systematic literature review can be confirmed by using the same search words provided with the reference to each database. Systematic literature review process in described in detail. Study content selected based on data-base search has been demonstrated to be of good quality by using JBI Critical Appraisal Tools. Selected studies serve the purpose of this Thesis as they meet PICo, inclusion criteria and provide answers to the research questions and study aim. Transparent content analyses methods guided by published literature were exercised. All stages of the qualitative content analyses are fully traceable and available on Thesis and Appendices. Highlighted emphasis should be made on describing the research process for peers to evaluate (Tuomi & Sarajarvi 2002: 139).

However, it is appropriate to recognize that the systematic literature review and qualitative content analyses was performed by one author. Pre-assumptions and unconscious bias are possible even the best efforts have been made to transcend them.

6.2 Ethical considerations

This study has complied with guidelines and recommendations set by The Finnish National Board on Research Integrity TENK for responsible conduct of research during this study (Finnish Advisory Board on Research Integrity (TENK) 2012: 29). This study is conducted with highest regards to research integrity, all systematic literature searches and findings can be accurately repeated for the same results. Electronic database search process has been included and described in detail. Systematic literature review process is transparent and fully described. In this study the author has respectfully and clearly cited and referenced other researcher's publications. The author confirms not to have a conflict of interest nor financial gain from this study. (Finnish Advisory Board on Research Integrity (TENK) 2012: 29-31). This study complies with Open Access Statement rules, and it is authentic work of the author (Rectors' Conference of Finnish Universities of

Applied Sciences Arene 2020: 8, 25). The conductor of this study declares to have no competing interests.

7 Conclusions

The presented study was conducted by data driven systematic literature review on evidence-based literature from health care and management databases. Qualitative research content analyses method was used to analyse data.

The results suggest that health care organizational change should be planned through intra-organizational collaboration. Health care organizations should promote good intra-organizational relations between management and employees. Executive management actions set example that are reflected on the organization. Management change leadership is highlighted. Management should enable and empower employees to participate in all stages of organizational change. Collaboration allows dialogue though various organizational levels and multi-professional teams in health care organization. Network of trust is a valuable resource to mobilize for planning and implementing change as it involves multi-professional view throughout the organization, and it possess knowledge of intra-organizational culture and detailed processes. Multi-professional collaboration and dialogue assists in risk assessing, planning, implementing, and evaluating organizational change. Positive perceptions towards organizational change can be emphasised by providing adequate resources such as time, training, and personnel, while ensuring adequate resources to maintain daily processes.

Intrinsic motivation is an important resource in managing change and implementing sustainable change in health care organizations. Intrinsic motivational aspects, such as employee involvement and participation, decrease change resistance and enhances change compliance. Employee involvement creates understanding, commitment, and willingness towards change in health care organization. Inclusion creates positive attitudes towards the organization and further enhance good intra-organizational relations. Each member in the health care organization contribute towards sustainable change, expectations and contributions are role dependent.

Noteworthy limitations of this study are the homogeneity of the study based on the systematic literature research data. The selected articles give an insight to change management in health care organizations in Europe. Further studies are needed as cultural aspects may differ between nations. The presented study could add value to recognize multi-professional expertise as an available resource in health care organizations. Individuals' intrinsic motivation, multi-professional collaboration and good intra-organizational relations could provide management keys for sustainable change in health care organizations.

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Appendices

Appendice 1. JBI Appraisal checklists

JBI Critical Appraisal Checklist for Systematic Reviews and Research Synthesis

	Author Published	Savage et al 2020	Rohde et al 2017
1.	Is the review question clearly and explicitly stated?	YES	YES
	Were the inclusion criteria appropriate for the review question?	YES	YES
3.	Was the search strategy appropriate?	YES	YES
4.	Were the sources and resources used to search for studies adequate	YES	YES
5.	Were the criteria for appraising studies appropriate?	YES	YES
6.	Was critical appraisal conducted by two or more reviewers independently?	YES	YES
7.	Were there methods to minimize errors in data extraction?	YES	YES
8.	Were the methods used to combine studies appropriate?	YES	YES
9.	Was the likelihood of publication bias assessed?	YES	UNCLEAR
10.	Were recommendations for policy and/or practice supported by the reported data?	YES	YES
11.	Were the specific directives for new research appropriate?	YES	UNCLEAR
	TOTAL	**11/11**	**9/11**
	Include/Exclude	**YES**	**YES**

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JBI Critical Appraisal Checklist for Qualitative Research

	Author **Published**	Ratnapalan 2019	Pina e Cunha et al 2018	Erlingsdottir et al 2018	Solstad & Petterson 2020	Jonasson et al 2018	McCray et al 2021
1.	Is there congruity between the stated philosophical perspective and the research methodology?	Yes	Yes	Yes	Yes	Yes	Yes
2.	Is there congruity between the research methodology and the research question or objectives?	Yes	Yes	Yes	Yes	Yes	Yes
3.	Is there congruity between the research methodology and the methods used to collect data?	Yes	Yes	Yes	Yes	Yes	Yes
4.	Is there congruity between the research methodology and the representation and analysis of data?	Yes	Yes	Yes	Yes	Yes	Yes

5.	Is there congruity between the research methodology and the interpretation of results?	Yes	Yes	Yes	Yes	Yes	Yes
6.	Is there a statement locating the researcher culturally or theoretically?	Yes	Yes	Yes	Yes	Yes	Yes
7.	Is the influence of the researcher on the research, and vice- versa, addressed?	Yes	Yes	Yes	Yes	Yes	Yes
8.	Are participants, and their voices, adequately represented?	Yes	Yes	Yes	Yes	Yes	Yes
9.	Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	Unclear	Yes	Yes	Yes	Yes	Yes
10.	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	Yes	Yes	Yes	Yes	Yes	Yes
	TOTAL	9/10	10/10	10/10	10/10	10/10	10/10
	Include/Exclude	Yes	Yes	Yes	Yes	Yes	Yes

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JBI Critical Appraisal Checklist for Checklist for analytical cross-sectional studies

	Author **Published**	Storkholm et al 2018	Palumbo 2021
1.	Were the criteria for inclusion in the sample clearly defined?	Yes	Yes
2.	Were the study subjects and the setting described in detail?	Yes	Yes
3.	Was the exposure measured in a valid and reliable way?	Yes	Yes
4.	Were objective, standard criteria used for measurement of the condition?	Yes	Yes
5.	Were confounding factors identified?	Yes	Yes
6.	Were strategies to deal with confounding factors stated?	Yes	Yes
7.	Were the outcomes measured in a valid and reliable way?	Yes	Yes
8.	Was appropriate statistical analysis used?	Yes	Yes
	TOTAL	**8/8**	**8/8**
	Include/Exclude	**Yes**	**Yes**

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Appendice 2. Examples of clustering and creating categories

Author, year, page	Original statement	Simplified statement	Subcategory	Main category
Kallankari (2019: 53-55, 67-71)	**Employee involvement reduces resistance and suspicions towards change.**	Employee involvement assists in complying with change	Change compliance Employee engagement	Change Intrinsic motivation
Solstad & Petterson (2020: 95-96)	**Executive management should bring themselves forward to middle management and personnel, and to make effort to relate and create trust**	Executive managers have a role in creating intra-organizational interaction and collaboration	Executive manager role Intra-organizational collaboration Maintaining good relations Managerial lead	Role Collaboration Relations Leadership
Pina e Cunha & Neves & Clegg & Costa & Rego (2018: 217)	**hospitals having a unique and complex culture**	Hospitals have their own complex workplace culture	Workplace culture Hospital	Culture Health care organization