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HEALTH MANAGEMENT:

REALIGNING SYSTEMS, CONTEXTS AND PLAYERS

ABSTRACT BOOK

#EHMA2020

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SYSTEMS & ORGANISATIONAL GOVERNANCE

#EHMA2020 | Abstract book

Health organisations' effectiveness in using performance data: an international comparative study in Europe, US, and Canada

Authors: Mr Damir Ivankovic; Prof Niek Klazinga, Dr Dionne Kringos

Amsterdam UMC, University of Amsterdam, Department of Public Health, Amsterdam Public Health Research Institute, Amsterdam, The Netherlands

Context

The use of performance data has been recognised as a great opportunity to fundamentally improve the way we provide healthcare. Managing healthcare organisations requires a delicate combination of strategic and operational management of clinical and all other support processes. Performance data provide the evidence necessary to monitor, evaluate, communicate and act - ultimately improving outcomes. Previous research has looked at different aspects of working with performance data but has rarely compared populations of healthcare managers in different countries. Aim of this study was to improve our understanding of organisational effectiveness worldwide in using performance data to support managerial work.

Methods

We surveyed healthcare managers in Europe (N=125) and Canada (N=229) on the use of performance data for decision-making in their managerial work. For this, we reused questions and responses from the New England Journal of Medicine Catalyst (NEJM Catalyst) project survey, conducted in the United States (N=566). In the European survey, respondents were the participants to the European Hospital and Healthcare Federation's (HOPE) Exchange Programme from 30 European countries, while in Canada these were the members of the Ontario Hospital Association (OHA). Respondents in all of the surveys presented managerial staff working with care processes and support for care processes as well as managing strategies and plans for entire organisations. The questions explored respondents' opinion on the effectiveness of their organisations' use of performance data for guiding clinical and business leadership, population health efforts and supporting care decision for individual patients. Surveys were conducted between October 2018 and December 2019.

Results

Respondents in all three surveys rated their organisations' effectiveness in using data for supporting business and clinical leadership higher than for supporting care decisions for individual patients and guiding population health efforts (Figures 1 – 4). Majority of respondents found their organisations' abilities to support business and clinical leadership by using data as effective (including extremely effective and very effective). The perception of effectiveness was lower when asked about using data to guide population health efforts and support care decisions for individual patients. In general, the perception of organisations' effectiveness was consistently highest among Canadian respondents, followed by the European cohort and lowest among US healthcare managers. The only exception was perception of the effectiveness of using data for guiding population health efforts where there was no statistically significant difference between European and US respondents.

Discussion

This work aimed to advance our understanding of the perception of healthcare managers on the effectiveness of using performance data to support managerial work. We encountered significant differences and found that, compared to their US counterparts, Canadian and European healthcare managers, that use performance data to inform decision-making, felt that their organisations are more effective in using data for different managerial purposes. Arguably, performance data, and the effectiveness of its use, are the key in healthcare's transformation from data-driven accountable towards data-driven learning organisations. Secondly, healthcare systems, in participants' countries, have different approaches to management, decision-making and accountability, on all levels - system, organisations and individuals. Hence, we plan to examine, contextualise and interpret these findings further

How do healthcare providers interpret and use national audit data for improvement?

Authors: Dr Grazia Antonacci[1,2]; Dr Julie Whitney[3,4]; Dr Matthew Harris[1,2]; Dr Julie E Reed[1]

[1]Imperial College London, London, United Kingdom; [2]National Institute of Health Research - Applied Research Collaboration North-West London, London, United Kingdom; [3]Royal College of Physicians, London, United Kingdom; [4]King's College, London, United Kingdom

Background

National Clinical Audits (NCAs) are used in the National Health Service (NHS) as a strategy to increase transparency and improve quality of care. NCAs represent a rich data resource available to stakeholders (healthcare professionals, managers, policy makers, patients, researchers) to drive improvement in processes and patient outcome. Evidence suggests variability in how NCAs are conducted, yet relatively few studies have explored how NCAs outputs are used. We aim to advance current understanding on the use of NCAs by evaluating barriers and enablers to the use of a single NCA (the National Audit of Inpatient Falls -NAIF2017) report by frontline healthcare professionals.

Methods

We used an inductive qualitative approach, purposively sampling NHS hospitals in England and Wales with the objective to compare hospitals which improved their inpatient falls' performances with hospitals registering a performance drop. Data were gathered from 18 interviews. We explored how the NCA was conducted within each hospital and its contribution to quality improvement programmes and/or practice change. Qualitative data analysis was guided by constant comparative techniques.

Results

We grouped findings in three broad categories: (1) Facilitators and challenges; (2) Feedback processes; (3) Actions undertaken.

The presentation in the NAIF 2017 report allowed benchmarking of local practice compared to other hospitals and helped to identify where improvement was needed. Most participants liked the colour coded representation of the audit results as it provided a simple visual representation, which was straight to the point about what the problems were. Case studies and recommendations were also valued, while the lack of clear responsibilities and resources allocated to improvement activities was reported as an obstacle to the effectiveness of the audit. Some participants also reported that communication, staff engagement and patient involvement in the audit and feedback process were a challenge.

Audit feedback was given in a variety of settings (ward, board), to diverse professional groups (clinicians, those with governance responsibilities) and in different formats (report, presentation).

As a result of the NAIF 2017 report, most organisations undertook quality improvement (QI) initiatives, such as reviewing assessment procedures and training requirements. However only 3/7 groups used structured QI methods like Plan-Do-Study-Act or Process Mapping because they felt that this was not relevant to improve practice.

Observed changes in practice included an increased awareness, attention and ownership regarding to patient safety aspects as well as improved communication and a greater involvement of patients and carers in fall prevention activities. Two respondents reported that no initiatives were undertaken following the audit, because of other competing priorities.

Discussion

The effective use of NCA national feedback to improve local practice heavily depends on the way in which data are collected and feedback presented and disseminated – Feedback should be perceived as reliable, presented in a straightforward visual format and accessible. Effective action following audit depends on the local context, organization and behaviours. Establishing clear responsibilities, time and training to participate in QI activities are required. A major factor leading to improvement was the actual participation in the audit, rather than the feedback. Although a major focus of NCAs is on data presentation and dissemination, more attention should be devoted to: (i) find and share ways to increase participation in audit data collection, (ii) foster a culture of improvement with strong leadership and (iii) provide the resources and training required to undertake QI activities.

Setting up innovative housing projects for older people in a highly regulated environment. The institutional work of rebellious managers

Authors: Dr Marianne van Bochove[1]; Dr Katja Rusinovic[2]

[1]Erasmus School of Health Policy & Management, Rotterdam, The Netherlands; [2]The Hague University of Applied Sciences, The Hague, The Netherlands

Context

Due to the closure of many residential care homes in the Netherlands, only people with severe care needs qualify for facility-based long-term care services. Several initiators try to change the existing housing/care landscape by offering in-between solutions for older people who are ‘too good’ to live in a nursing home but ‘too frail’ to live by themselves. However, setting up innovative housing projects for older people is a challenging objective, given the densely regulated character of the Dutch care and housing sectors. In this paper, we examine how managers perform institutional work to establish their ‘rebellious’ housing projects.

Methods

This paper is based on qualitative data from the ‘Responsible Rebellion’ project, a collaboration between The Hague University of Applied Sciences, Erasmus School of Health Policy & Management and several societal partners, including housing corporations. Together with these partners, we selected housing initiatives that qualify as ‘rebellious’ based on their aim to provide new types of housing that do not fit traditional categories of institutionalized care and ageing in place. In in-depth interviews, we asked the initiators (n=14), in most cases still the current managers, about their motivation for starting the initiatives, the process of set-up, and how they dealt with rules and regulations. The interviews were coded in Atlas.ti. We used narrative analysis, focusing on shared storylines. Institutional work and institutional biography were used as sensitizing concepts.

Results

The managers of the housing initiatives have in common that they present themselves as change agents who do not blindly accept existing formal and informal rules. In the terminology of institutional work literature, they attempt to disrupt existing institutions and to create new ones. However, they differ regarding how they present their successes and failures in shaping their institutional context. While relatively inexperienced managers talk about existing rules and regulations as potential dangers to the success of their initiatives, more settled managers claim that they have a thorough understanding of the institutional context and the actors involved and know how to bend them their way. Based on these findings, we identify three types of institutional biography construction, with different relations between agency and structure: the self-made (wo)man, the adaptive team player and the victim of the system.

Discussion

By adopting an institutional biography lens, this paper contributes to the call of Lawrence et al. (2011) to investigate ‘lives of interest not because of the great institutional changes accomplished but because of the complex … relationship they expose between an individual and a set of institutions’. In addition, by comparing managers in different stages of their biographies, the paper provides insight into the role of tacit knowledge and social capital in performing institutional work in the complex context of housing and care.

Observance of implementing the financial and targeting agreement between Vienna General Hospital and Medical University of Vienna with an innovative monitoring system (2016-2024) - results after the third reporting year

Authors: Prof Dr Guido Offermanns[1,2]; MMag Andrea Schweiger[2]

[1]University of Klagenfurt, Klagenfurt, Austria; [2]Karl Landsteiner Society, Institute for Hospital Organisation, Vienna, Austria

The Vienna General Hospital, one of the largest hospitals in Europe in close collaboration with MedUni Vienna are operating as separate organisations with different management and leadership structures and unequal legal basis without using shared potentials. Due to future challenges in healthcare a declaration between the two organisations, the Federal Ministry and the City of Vienna as repositories, were concluded, which provides strategic objectives, including organizational, financial and personnel goals from 2016 to 2024. To support the implementation of goals and the cultural change process, a Management and Supervisory Board were installed, besides both contractors aim at establishing joint management.

In addition to the strategic main objectives, operative goals were derived and based on clear assignment of responsibilities and requires close cooperation between both organisations, to have common success in long-term. It is fundamental to examine how to implement new strategies to build a health system governance, which can challenge current needs and provide supply structures in order to deliver better care for Austrian patients. Our innovative monitoring system examines the progress of implementation and provides a constant observance of structures, processes and outcomes as a transparent control and communication tool for University Medicine Vienna. A distinct measuring circuit is used, including for steps: (1) clear goal definition (2) coordinated measures (3) progress in implementation and (4) goal achievement. This tool enables to observe the degree of fulfilment for each goal and step per step continuously, which allows a transparent comparison of progresses or obstacles for each contractor per year.

The current monitoring system provides information about the progress and quality of implementation in the third reporting year. It should be noticed that every result, progresses as well as regresses or challenges, are affecting the outpatient and inpatient care system in the metropolitan region of Vienna. Results show the key topics “reinforcement of cooperation”, “strategic alternatives” that include decisions about personal resources to secure skills and performance and “focus on research and supply structures”, that might accompany the entire process. Our tool presents the development in each specific area, for example we found little progress in areas that include personnel resources and organisation. In association with our key topics, our measurement tool presented further regression and challenges in the areas of supply policy and even in research. In each reporting year the joint management of the contractors is continuously informed about progresses and challenges within the process.

The monitoring has a duration of nine years, therefore the currently obstacles can be seen as a signal function, in order to have the opportunity to improve the process of actions already initiated. Nevertheless, these challenges could threaten and influence the implementation of closer goals in the next reporting years. To overcome the obstacles, it will be necessary to take strategic decisions on the part of the City of Vienna and the Federal Ministry. For example, to ensure the observance of requirements, an adaptation of legal requirements should be discussed. Within the next reporting years our monitoring system will provide more detailed qualitative and quantitative information about progress and possible obstacles of the implementation, which will be a pioneering work in a system change process in health care.

How to achieve better quality and more sustainable healthcare at lower cost

Authors: Mr Angus Hunter

Optimat Ltd, Glasgow, United Kingdom. Coordinator of the EcoQUIP Plus project, EU consortium, United Kingdom

Healthcare is facing many challenges including the ever-increasing demand for customised services in the face of serious budget constraints. Also, its scale and 24/7 nature of operations means that its environmental impacts are relatively high. This could be regarded as contrary to the “First, do no harm” oath for medical students but the common perception is that sustainability costs more.

The EU-sponsored EcoQUIP project (2012-2016) set out to demonstrate that it is possible to increase the efficiency, quality and sustainability of healthcare (i.e. triple win) by taking an outcome-based approach to procurement. This means a departure from typical specification-based procurement methods, and requires management commitment and new organisational frameworks, but can be highly effective in enabling innovative businesses to respond with novel solutions. This approach is a key element in ‘innovation procurement’ or the ‘public procurement of innovation’ that is gathering momentum as a strategic procurement tool across public service organisations in Europe.

This presentation will provide an introduction to the rationale and principles of innovation procurement before providing several case studies of remarkable achievements by individual hospitals in Italy, Netherlands, Poland and the UK. These case studies demonstrate that better quality, more sustainable services can be provided at lower cost if procurements provide time and space for innovation. How this was achieved is presented in a final publication that details the methodology and case studies that addressed ‘unmet needs’ related to bed cleaning, catering, energy, facility services and patient comfort.

The projects were carried out at a time when healthcare budgets and services in Europe were coming under increasing pressures. In this environment, innovation can seem counter intuitive and associated with greater risk and higher costs. Instead the focus tends to be on short-term cost saving in procurements and downgrading the importance of difficult to quantify outcomes such as quality of care, environmental sustainability or the patient experience. Yet the costs of not innovating are rarely considered. As demonstrated in this and other pioneering projects, procurement has the potential to be an important strategic tool capable of delivering better public services, better value, and stimulating innovation in the supply chain.

The healthcare sector is, in principle, an excellent lead market; if one hospital has an unmet need, this is likely to be shared by others. This means that if one hospital can identify a need and engage suppliers in providing a solution, the supplier has a potential market of more than 15,000 hospitals in Europe and potentially a global market opportunity. In addition, the pressures on healthcare technically, demographically and financially mean that innovation is increasingly a necessity as the existing solutions fail to meet the needs of hospitals, healthcare professionals and patients.

The presentation will therefore conclude by summarising the aims and objectives of the follow on EcoQUIP Plus project, which recently commenced and aims to encourage more collaborative and aggregated approaches to innovation procurement. EHMA is one of the partners and will be aiming to establish a ‘Collaborative Buyers Forum’ of healthcare organisations that are keen to participate.

Building sustainable and comprehensive care Dudley ICP: leading for the future – the Good Governance Institute and Dudley CCG

Authors: Mr Harry Turner[1]; Mr Andrew-Corbett Nolan[2]; Mr Nabil Jamshed[2]; Mr Christopher Smith[2]

[1]Dudley ICP NHS Trust, Dudley, United Kingdom; [2]GGI Development and Research LLP (GGI), London, United Kingdom

Introduction

In June 2017 Dudley CCG became the first NHS organisation to launch a contract for the procurement of a Multi-specialty Community Provider (MCP). MCPs, built upon the GP registered list, combine the delivery of primary and community-based health and care services, and serve the whole population of a given area. This includes some services currently delivered in hospitals. The procurement of Dudley ICP is pioneering and unique within the NHS. The contract will run for 15 years and the MCP will be commissioned to deliver a set of specific health outcomes.

When it is formally established on 1st April 2020, the new entity, Dudley Integrated Care Provider NHS Trust, will be the first of its kind within the NHS. The model has been with extensive clinical, stakeholder and public engagement across the health and social care system and has the support of national bodies.

Objectives

There are significant lessons to be learned from this novel and pioneering procurement exercise which would benefit healthcare organisations internationally. As such, GGI and Dudley ICP have conducted a qualitative study which reflects on the experience of those involved in the procurement exercise.

Methods

To inform this study, GGI and the ICP have:

- conducted a thorough literature review
- undertaken 1-1 interviews with those involved in the procurement of the ICP, as well as national bodies and wider thought leaders
- facilitated focused workshops to test some of the ‘wicked’ problems posed by the development of the ICS

Results

The procurement of the ICP is scheduled to conclude on 1st April 2020, at which point the ICP will be established as a formal legal entity. The impact of this new model of care on service delivery is therefore unclear. Provisional estimates suggest the following improvements from the implementation of the ICP:

Stroke mortality	- 6.2%,
Childhood obesity	- 2.1% (4-5 yrs) & (10 – 11 yrs) by 1.5%
Smoking prevalence	- 0.8%
Alcohol related admissions (0-17)*	- 5.42
Suicide rate*	- 3.2%
Audiology diagnostics	- 3.99 weeks and treatment by -7.3 weeks
ENT treatment	- 2.43 weeks
Orthopedic assessment (Upper/Lower Limb & spinal)	- 2.58 weeks (combined average)
Speech and language therapy	- 8 weeks
Social isolation	- 6.7%,
Emergency admissions**	- 185 in adults and 43 in <19yrs
Mental health admissions (child)*	- 15.03

* (per 100,000)
**(DSR/100,000)

However, we believe there is also value in presenting the learning from the experience of those involved in the procurement of the ICP to date. In particular, organisations embarking on the procurement of novel and long-term contracts should reflect on:

- The time and resource necessary to realise the delivery of any new model of care
- The importance in taking time to develop relationships and align organisations behind a shared vision
- The challenge of understanding population health, and defining clear outcomes
- The need to ensure robust management of conflict of interest
- The importance of undertaking a thorough engagement exercise to build legitimacy for the work and ensure that it properly reflects the needs of the local population
- The need to create space to adequately reflect on the experiences of others in the procurement of complex contracts

Conclusion

Dudley ICP is a pioneering new model of care in England. The development and delivery of the ICP presents clear lessons for those within the NHS and also those from other countries exploring the implementation of integrated care and payment mechanisms to support this.

GGI is the governance partner of Dudley CCG. Both organisations are committed to developing resources and sharing the learning from the development and procurement of the ICP to as wide an audience as possible.

(Re)structuring hospitals – Developing a typology of hospital design and identifying the rationale behind these

Authors: Dr Jeroen van Wijngaarden; Anoek Braam, Msc

Erasmus School of Health Policy and Management, Rotterdam, The Netherlands

Context

Hospitals are searching for new structures that are more patient focused and process oriented. Traditionally hospitals in the Western world were structured using a so-called Traditional-Professional design, with separate units for nursing, inpatient housing and outpatient housing. Around the turn of the century most hospitals changed to a Clinical Divisional Hospital which groups services around the way medicine is organized e.g., directorates of surgery, mental health, and paediatrics or clusters of related specialisms (Braitwait et al 2006). Inspired by authors like Porter (2006) hospitals are now looking for designs in which the structures and processes are shaped more according to the needs of the patients, with integrated care units with multi-professionals and multi-specialty teams (Fiorio et al. 2018). However, hospital designs are not only guided by one rationale; path dependencies, network and market influences and strategy also play a part (Paauwe 2010). Therefore, different types of structures are currently in use. That is why in this study we build a typology based on all the designs of general hospitals in the Netherlands and identify the multiple rationales (and/or causes) behind these different types.

Methods

First, a preliminary typology was developed based on the organizational charts and annual reports of all 71 Dutch general hospitals and their 120 locations, supported by the scientific literature on hospital design. The researchers collected these data through internet search. Second, the preliminary typology was tested and validated through interviewing hospital managers, doctors, nurses and organizational advisors involved in the (re)structuring of hospitals. Third, in these interviews the underlying rationales were questioned by asking respondents about the history of the development of specific structures, the causes or rationale behind these structures, their strength and weaknesses, and possible future plans for restructuring. These findings were positioned in the scientific literature on hospital design.

Results

Work in progress. We first will present a typology of hospital designs in the Netherlands. Second, we will identify the rationales behind and/or causes of the development of different types of design. Additionally, we will elaborate on shared experienced strengths and struggles of different types. Finally, we will shed light on the directions in which different types are developing.

Discussion

Work in progress. We will discuss how our typology compares to what is known in the literature about hospital designs in other countries. Our findings will also be related to trends in health care; the rising costs, increasing multi-morbidity, the growing importance of network medicine, to critically reflect on current hospital designs and their development. Finally, we will discuss the factors and rationales that seem to influence hospital designs and what that means, in light of our critical reflection on current designs, for policy and management.

Building sustainable and comprehensive care - mental health
Improving access to psychological therapies analysis and guidance

Authors: Mr Andrew Corbett-Nolan[1]; Mr Andrew Walton[2]; Mr Christopher Smith[1]

[1]GGI, London, United Kingdom; [2]Connect Health, Newcastle, United Kingdom

Almost one in four people in the UK suffer from a mental health illness. The Improving Access to Psychological Therapies (IAPT) programme was introduced in 2008 to improve the treatment of common mental health conditions in England. Since its inception, the programme has transformed the treatment of adult anxiety disorders and depression in England, and has grown year on year to the point that it now sees more than one million people per annum. It is widely recognised as the most ambitious programme of talking therapies in the world.

Since April 2018, commissioning organisations in England have been required to offer IAPT services with physical healthcare pathways. This has been an important step, recognising the fact that two thirds of people with a common mental health problem also have a long-term physical health problem, and has helped to ensure that services are more joined up and deliver improved patient outcomes.

The NHS Long Term Plan proposes the further expansion of IAPT services, with a target of 1.9 million people to be seen by 2024. However, in order to achieve this, the programme will need to address some of the well-documented challenges that have faced the service. These include, for example, ensuring equality of access, and expanding the mental health workforce.

Working with Connect Health, the largest independent provider of integrated community musculoskeletal (MSK) and physiotherapy services in the UK, the Good Governance Institute (GGI) has explored the practical realities of the implementation of IAPT through the prism of governance. The focus has been to develop a high-level governance tool that can support Boards and management teams to better understand the IAPT programme and to also take better decisions with regards to its implementation.

The programme of work has resulted in the production of a Board Assurance Prompt that contains the following:

- A briefing on the current context of IAPT services in England
- A series of key assurance questions Board members will want to ask themselves when designing or procuring IAPT services
- A maturity matrix to support NHS organisations assess the maturity and effectiveness of their IAPT services, and make appropriate improvements

The Board Assurance Prompts are freely available via GGI and Connect Health’s websites, and will be iterated on as they are utilised by organisations working on delivering IAPT services.

Users' perspectives on non-clinical quality of care in public and private primary healthcare in Albania

Authors: Jonila Gabrani, PhD Candidate[1,2]; PD Dr Christian Schindler[1]; Prof Kaspar Wyss[1]

[1]Swiss Tropical and Public Health Institute, Basel, Switzerland; [2]University of Basel, Basel, Switzerland

Context

Aiming to tackle the rise of non-communicable diseases and an ageing population, Albania is engaged in boosting primary healthcare (PHC) services and quality of care. The patients' perspectives on their experience with public and private providers are, however, missing, although their viewpoints are critical while shaping the services. Consequently, we analyse perceptions of users of PHC services as it relates to non-clinical quality of care and the association to sociodemographic characteristics of patients and the type of provider.

Methods

A facility-based survey was conducted in 2018 using the World Health Organization responsiveness questionnaire along eight non-clinical domains of quality of care. The data of 954 patients were analysed through descriptive statistics and linear mixed regression models.

Results

Similar mean values were reported on total scale of the quality of care for private and public providers, also after sociodemographic adjustments. The highest mean scores were reported for the domain 'communication' (3.75) followed by 'dignity' (3.65), while the lowest mean scores were given for 'choice' (2.89) and 'prompt attention' (3.00). Urban governmental PHC services were rated significantly better than private outpatient clinics in 'coordination of care' (2.90 vs 2.12, $p < 0.001$). In contrast, private outpatient clinics were judged significantly better than urban PHC clinics in 'confidentiality' (3.77 vs 3.38, $p = 0.04$) and 'quality of basic amenities' (3.70 vs 3.02, $p < 0.001$). For the other domains, no statistically significant differences were observed. 'Autonomy' was reported as least important attribute of quality. Enrolment in health insurance was a predictor of higher quality ratings (coefficient = 0.06, $p = 0.02$).

Conclusion

While the perception of non-clinical care quality was found to be high and similar for public and private providers, promptness and coordination of care require attention to meet patient's expectations on good quality of care.

Key message 1

Urban public primary healthcare centres and private outpatient clinics do perform similarly in respect to attributes of non-clinical quality of care

Key message 2

There is a need to shift from a 'paternalistic' model to a 'co-managing the illness', raising awareness on autonomy.

Healthcare governability in a network society: A multi-actor approach on leading principles for governing beyond silos

Authors: Oemar van der Woerd, MSc[1]; Dr Wilma van der Scheer[2]; Prof Roland Bal[1]

[1]Erasmus School of Health Policy & Management, Rotterdam, The Netherlands; [2]Erasmus Centre for Healthcare Management, Rotterdam, The Netherlands

Context

Governing healthcare across traditional organisational boundaries is a central subject in debates how to govern against the backdrop of multi-faceted challenges in society. In response to this wickedness, networks in healthcare are seen as a fruitful way forward to shape integrated healthcare systems in which citizens needs and preferences are central. However, networks are hardly a clear-cut concept, and network contexts and practices differ in many ways. This study therefore shed light on what governing actors' mean with networks in healthcare, with whom they cooperate in networks, with what purpose and what leading principles are to them.

Methods

We developed a mixed method study design that allowed us to conduct narrative analysis, including rationales of healthcare executives, managers and professionals working in various organisations in the Netherlands, such as hospitals, elderly, primary and psychiatric care facilities. Thus, we applied a multi-actor perspective. First, we developed a questionnaire in January 2020 (n=174, 30,2% response), in which we included questions that underpin the overall study aim: unravelling actors' rationales on governing beyond silos. What are leading principles? Which challenges do actors encounter in collaborative initiatives across organisations? In how many networks do they participate and, if so, which responsibilities are shared with partners? Second, semi-structured follow-up interviews with respondents (n=10) were conducted to understand how actors deal with governability issues. The Dutch healthcare sector functioned as an interesting study context in light of health policy that encourages regional network building. We use public administration and political science scholarly for narrative analysis.

Results

Results show that respondents rationalise governing beyond silos differently, dependent on their function (executive, manager or professional) and organisational type (hospital, elderly, primary or psychiatric care facilities). However, respondents describe citizen' needs and preferences (46%) and professional space (36%) as leading governing principles, indicating a shift how to govern healthcare. Whilst traditional governance mechanisms highly centralise the role and responsibilities of institutions, emphasis by respondents is placed on the interaction between citizens and professionals, which requires another type of collaboration. Illustrative of this shift, governing actors increasingly participate in networks. They initiate networks, work within networks, or make them work to empower citizens and optimise healthcare practice. Respondents (40%) understand networks as a collaboration form that is consequential for the interactions between management and professionals. However, respondents (37%) signal emerging conflicts in their networked work with current organisation types, regulatory activities, interfering interests of external actors, and unclear and diffuse responsibilities.

Discussion

This study sheds light on the role of governing actors in shaping integrated healthcare systems. Taken an inside perspective on networks that questions leading principles of governing actors, we presented a variety of rationales on governing beyond silos, adding quantitative as well as qualitative insights to the debate how to govern healthcare. The findings demonstrate that actors rationalise governing beyond silos differently, and find it challenging to deal with accompanied conflicts that need to be dealt with. This indicates that networked healthcare is consequential for the work of actors. However, consensus about the development of shared responsibilities in new collaboration forms as a way forward is a promising outcome. The presented rationales are therefore considered as valuable input to further flesh out governing practices that underpin citizen' needs and preferences. This seems highly desirable in governing across traditional organisational boundaries, and the further development of integrated healthcare systems.

When the ripple effects may jeopardize healthcare system reform: the centralisation of 20 complex cancer diseases in Catalonia (Spain)

Authors: Prof Joan Prades[1,2]; Dr Paula Manchon-Walsh[1,3]; Dr Josep A. Espinas[1]; Dr Alex Guarga[4]; Prof Mark J. Dobrow[5]; Dr Josep A. Borras[1,3]

[1]Catalonian Cancer Strategy, Department of Health, Barcelona, Spain, Barcelona, Spain; [2]University of Barcelona (IDIBELL), Barcelona, Spain; [3]University of Barcelona (Department of Clinical Sciences, IDIBELL), Barcelona, Spain; [4]Catalonian Health Service (CatSalut), Barcelona, Spain; [5]Institute of Health Policy, Management and Evaluation, Dalla Lana School of Public Health, University of Toronto, Toronto, Canada

Context

While the hospital culture still favours taking on any level of additional clinical complexity, centralisation policies aim to increase the quality of highly complex care. In Catalonia (pop. 7.5 million, 64 publicly financed hospitals), Spain, the centralisation policy began in 2012 for 20 cancer diseases, based on a model combining the accreditation of centres with clinical audits. The broad scope of the reform entailed four policy measures (e.g. use of conditional cash transfers). We assessed the centralisation policy considering the alignment between the components making up the reform as well as indirect and unintended effects in the wider health system.

Methods

Exploratory study based on a two-step analysis. We first carried out the document review and the quantitative analysis of clinical and administrative data. The document review drew on research reports, legislation, and published and grey literature focusing on the centralisation of service delivery for complex cancer diseases in Catalonia. The quantitative analysis included the hospital discharge database and data from clinical audits. A descriptive analysis was conducted relating the caseload thresholds per disease to the number of hospitals performing the therapies. The second step consisted of 18 semi-structured interviews based on key informants conducted in March–December 2018; including policymaker, hospital administrator, researcher, medical oncologist, surgeon, pathologist, radiologist, and gastroenterologist. We used a thematic analysis approach. The coding process and emerging themes were drawn from Atun et al.'s conceptual framework on integration of interventions, which provides and explanation for the extent, pattern, and adoption of health interventions into health systems.

Results

The policy measure of associating the centralisation of diseases with improved clinical outcomes (assessed by means of audits) contributed to legitimising the reform, but it entailed high organisational costs and governance risks. An example of this were the difficulties in centralising a given disease when audits did not show significant differences between centres, even if the overall quality was suboptimal; also, the periodic adjustment of caseload thresholds could be vulnerable to the political inclination, leading to problems of internal stability. Economic disincentives (penalties) were effective in increasing hospitals' adherence to the reform, but incentives (reimbursement bonuses) did not lead to new investments in authorised centres. Regarding the unintended effects, although centralisation was concerned with complex cancer diseases, it also accelerated referral of patients with complex benign pathologies and non-complex malignant ones. Also, some hospitals were able to manage patient transitions between each other, while others incurred delays and services' duplication.

Discussion

The policy on centralisation in Catalonia created a framework for clinical management in high-complexity cancer diseases that put an end to the model of freestanding hospitals. However, the reform had relevant implications that changed both the behaviour of the adopters and the effectiveness of the measures implemented. At the health system level, the greatest challenge of centralisation resides in the inclusion of non-authorised hospitals due to their variable and non-specific role in complex oncology and the absence of common criteria for inter-hospital transitions. The horizontal integration between hospitals, characterised by expert clinicians in a given pathology that cooperate and formulate comprehensive clinical and organisational responses to complex patients, emerges as a challenge to be addressed in the future.

Organisational implications of hospital admissions at home for hospitals

Authors: Ed de Kluiver, MD, PhD[1]; Josiane Boyne, PhD[2]; Wendy Bruins, PhD[1]; Prof Hans-Peter Brunner-La Rocca, MD[2]; Alison Burdett, PhD[3]; Prof Paul Dendale, MD[4]; Mrs Janette Hughes[5]; Mr Daniel Knoppel[6]; Mr Marc Lange[7,8]; Mr Alan Lillie[5]; Martijn Scherrenberg, MD[4]; Valerie Storms, PhD[9]; Julie Vranken, PhD[9]; Astrid van der Velde, PhD[1]

[1]Isala, Zwolle, The Netherlands; [2]MUMC, Maastricht, The Netherlands; [3]Sensium Healthcare, Milton, United Kingdom; [4]Jessa Hospital, Hasselt, Belgium; [5]Digital Health & Care Institute, Glasgow, United Kingdom; [6]HC@Home, Zwolle, The Netherlands; [7]European Health and Telematics Association, Brussel, Belgium; [8]Build in Europe, Liege, Belgium; [9]Hasselt University, Hasselt, Belgium

Given the increased pressure on health care budgets, aging of the population, medical and technological developments, and the changed needs of patients, there is a clear necessity to modernise the health care system.

Up to 46 % of hospital might be provided at home. In the last years hospitals provided more ambulatory services at home. However, the delivery of hospital admissions at home is still in its infancy.

It is a wide spread paradigm that a hospital is the best place for patients. In fact, hospitals can be a harmful environment for patients, especially the elderly. Adverse events like delirium, hospital infections and fall incidents among admitted elderly patients are common. The vast majority of chronic heart failure patients is an elderly patient (≥ 65 years of age).

In 2005 Isala Heart Centre, The Netherlands, started a pilot for treating heart failure patients at home: Chance@Home. It was concluded that home-based administration of intravenous medication by specialised nurses was a feasible, effective, safe and patient friendly alternative for regular in-hospital care in patients with a known aetiology of high risk decompensated chronic heart failure. After this successful pilot, Chance@Home was offered as a regular service. Nowadays, more than 5000 patients were treated at home. Satisfaction of patients and professionals is high. Vulnerable patients benefit the most: no delirium was observed, the percentages of infections and fall incidents are low and patients are more active. Interestingly, a hospital admission at home costs on average 40% less than a regular hospital admission. By providing better outcomes against lower costs Chance@Home is a paragon of value-based health care.

With the societal urge for innovative solutions to cope with a rapidly increasing number of chronic (heart failure) patients, there is a need for upscaling and professionalising the Chance@Home initiative. Chance@Home is up to now a local initiative with the necessity to develop further into a fully mature service with the possibility of replication. Both organisational and technological innovation is needed for scale up.

NWE-Chance is an Interreg North-West Europe funded project conducted by a consortium of ten partners in three countries. Within NWE-Chance promising integrated eHealth applications will be developed for admitting heart failure patients at home and the feasibility of both technology and supporting care process will be tested by three hospitals. NWE-Chance will end with the launch of an innovation hub to bring stakeholders together and to share knowledge with respect to home hospitalisations.

From an organisational point of view a detailed description (blueprint) of the organisation is needed to provide a solid basis for other parties to elaborately implement a hospitalisation at home programme. Recently the first blueprint was delivered. It describes a full service home hospitalisation programme for heart failure patients. The blueprint describes the health care process, provides insights into the organisational model, logistic conditions and quality management. Furthermore, the technical environment is discussed. Last part of the blueprint is dedicated to standard (operating) procedures and work instructions.

Although the first blueprint focusses on a home hospitalisation programme for heart failure, general lessons valuable to other hospitals are learned. Main lessons learned so far: start with a well-defined patient pathway, but keep in mind that the service must be scalable; the patient is leading, not the technology; provide a 24/7 service.

Lost in translation? A network organisation as intermediary in achieving health system goals

Authors: Gijs Brouwer, MSc; Robin Peeters, MSc; Daan Westra, PhD; Marieke Spreeuwenberg, PhD; Mariëlle Kroese, PhD; Dirk Ruwaard, MD, PhD

Maastricht University, Maastricht, The Netherlands

Background

To improve health system efficiency, concepts like PHM and Triple Aim have gained increasing support from scholars and practitioners. However, the goals of healthcare organisations (i.e. delivering high quality care and generating sufficient revenue) are not aligned with the population-level aims of these concepts. Network organisations like ACOs in the US, care groups in the Netherlands, and CCGs in the UK, are important intermediaries between system-level purchasers and care providers. However, evidence regarding the effects of these intermediaries is highly mixed. It is therefore imperative to understand the mechanisms by which these intermediaries can successfully align organisational with system-level goals.

Methods

We used a longitudinal case study approach to investigate which mechanisms a network organisation uses in primary care and how effective these are. From the start of 2017 until the end of 2019, we studied an exemplary case of a care group that actively sought to stimulate 15 of its 75 primary care organisations to work towards a more efficient health system located in the South of The Netherlands. Data collection consisted of observations of meetings, documents of the care group and primary care organisations (such as policy documents, contracts, and improvement plans), and multiple rounds of interviews with employees of the care group, the care purchaser (i.e. health insurer), and the primary care organisations. Two researchers coded the data iteratively and interim results were discussed among each other and other authors. The main codes represented the different mechanisms and the way in which these changed over time.

Results

Over the years, the care group experimented with different approaches to stimulate primary care organisations to achieve system-level efficiency. These ranged from top-down directives to laissez-faire approaches requiring initiative from primary care organisations. Ultimately, a facilitating role in which the care group ‘translated’ system-level goals and objectives to actionable problems and outcomes for primary care organisations proved to be the best fit. It furthermore appeared important that primary care organisations perceived the system-level goals as transparent during this translation process. ‘Concealing’ efficiency goals as quality improvement initiatives carried the risk of generating distrust towards the project and among participants. Best practice benchmarking and creating fora for inter-organisational learning proved to be the most promising mechanisms to stimulate actions of primary care organisations towards system-level efficiency goals. However, primary care organisations did perceive an abundance of time-consuming topics to work on, with little financial reward as a major shortcoming.

Discussion

Our results show that network organisations have the potential to align the goals of individual healthcare providers with system-level goals and to support them to look beyond their daily priorities. However, supporting organisations requires a delicate balance between directing them towards specific actions and stimulating autonomous experimentation. This balance is not self-evident for network organisations, which could explain the mixed success of these type of organisations. Our findings suggest that it can be accomplished, most notably through mechanisms of translating system-level goals and needs to actionable information and insights for primary care organisations, effective ways of benchmarking, and facilitating deliberate inter-organisational learning. In line with previous research however, our results do emphasize that these efforts require many resources and take at least several years before system-level effects can be expected.

The role of the private sector in developing the health system in Albania and governance

Authors: Dr Qamil Dika[1,2]; Dr Marsida Duli[3]

[1]Sports Medicine Department/Sports University of Tirana, Tirana, Albania; [2]Department of Public Health/Medical University of Tirana, Tirana, Albania; [3]Medical University of Tirana, Tirana, Albania

Context

The private sector plays an increasingly important role in health systems in the countries with low and medium incomes. "Private health sector" includes a large variety of actors, including providers, financiers and physical and knowledge suppliers for the health sector. Boundaries between the public and private sector are often unclear, as many private actors act outside the framework health sector regulator on the basis of informality. Public sector institutions often have limited experience of engaging with the private sector due to lack of communication, concerns about sustainability, and complexity.

Methods

This study presents an analytical framework for conceptualizing the functioning of health care system governance and the role of government in the context of expanding private and public services its financing. Governance is increasingly recognized by the World Health Organization and other national and global actors, to have an essential role in the centre of the health system, and central part of their healthcare sectors and strategies for development.

Results

Governance is a multi-dimensional concept, and there are norms, instruments, and pragmatic models of the administration. In our conceptual model, the government interacts with the private sector on three different levels: protecting the public interest, working with the private sector, and learning from each other. The possible roles of governance are identified in the context of a growth of the private sector. Progress indicators are also suggested. The framework recognizes many public and private sector actors, including individual consumers, civil society, and donors.

Discussion

These actors are in complex interconnections involving the exchange of funds, skills, inputs, services, information, influence, and accountability. The framework is applied in the case of Albania illustrating how differences in context affect the nature of the administration function and approaches adopted for the governance of mixed health systems.

Public accountability and independent regulatory agencies in healthcare: a critical interpretive synthesis of agencification literature

Authors: Jolien van de Sande, MSc[1]; Dr Bert de Graaff[1]; Prof Dr Diana Delnoij[1,2]; Prof Dr Antoinette de Bont[1]

[1]Erasmus School of Health Policy and Management, Rotterdam, The Netherlands; [2]Zorginstituut Nederland, Diemen, The Netherlands

Content

The delegation of governmental tasks towards independent regulatory agencies (IRAs) and establishment of IRAs has become a common phenomenon in regulating European healthcare systems. However, this 'agencification' has consequences for the 'public accountability' of decision-making, because IRAs often largely operate outside democratic control. In healthcare, this problem is especially prominent because tasks of IRAs have become increasingly political in this domain. Surprisingly, few scholars addressed agencification in healthcare. Therefore, we used the extant body of public administration literature to find out what the consequences of agencification are for public accountability and what are possible accountability structures for IRAs in healthcare.

Methods

Since the aim of our review was to provide interpretive explanation of public administration theories regarding agencification and public accountability, we chose to use the rather purposive approach to literature reviewing of Critical Interpretive Synthesis (CIS). This method allowed for the synthesis of a large body of heterogeneous and complex agencification literature including both qualitative and quantitative studies. We used this method to show the heterogeneity and relations between concepts. As is common in CIS, we used loosely defined in- and exclusion criteria that shifted during the review process. We collected 40 publications through purposive searches in Web of Science and reference chaining. We subsequently synthesized the studies by constructing interpretive explanations based on reciprocal translation of studies into one another. We conducted this translation by using an extraction table that enabled us to analyse all publications in a similar way.

Results

We found three different themes regarding agencification and public accountability in the publications we studied. All themes derive from a different representation of the public as accountability forum, varying from voters, organized interests and individual citizens. It is often stated that lack of vertical accountability in the form of political control causes an 'accountability deficit'. To compensate this deficit scholars have first proposed that an appropriate balance needs to be found between agency autonomy and government control. Second, others criticize this understanding of agency accountability, rooted in principal agent theory. They argued that accountability regimes of agencies are much more complex and should include horizontal accountability forums such as organized interests. Third, authors discuss the deficit as a discrepancy between citizens being affected by agency decision-making but lacking opportunities for involvement in agencies' decision-making processes. Scholars have proposed citizen participation, consultation and other forms of public involvement as a solution.

Discussion

We critically synthesized public administration literature to analyse consequences of agencification for public accountability to find possible accountability structures for IRAs in healthcare. We found three different solutions to the accountability deficit, based on different notions of accountability forums. In healthcare regulation, horizontal accountability plays an important role due to the complexity of the field and the involvement of many stakeholders with conflicting interests. This is also driven by the difficulty to assess healthcare quality because of information asymmetry between providers and patients. In this context IRAs are entrusted with protecting societal values by intervening in or balancing those competing interests. However, to counteract private interests, relying on public involvement might become more important in healthcare regulation. Both public involvement and horizontal accountability seem to be gradually replacing vertical accountability mechanisms. However, more empirical research should be done on how IRAs account or are held accountable for their actions.

Enabling personalised healthcare: from regulatory pressure to flexible bureaucracies

Authors: Dr Hester van de Bovenkamp; Dr Lieke Oldenhof; Dr Annemiek Stoopendaal; Dr Marianne van Bochove; Prof Dr Roland Bal

Erasmus School of Health Policy & Management, Rotterdam, The Netherlands

Context

Regulatory pressure in healthcare– defined as the burden imposed by perceived functionless rules and regulations – figures high on the policy agenda. Regulatory pressure is an important governance problem as it is felt to prevent healthcare professionals to do their 'real' job. Professionals spend much time on registrations which they cannot spend on providing services. Also, having to stick strictly to rules limits professionals' ability to provide tailored person-cantered services. The solution to simply do away with rules does not do justice to the wickedness of the problem and is therefore an example of a governance response that might appear perfect, but at second sight seems unintelligent (Bannink & Trommel, 2019). Our study recognizes this wickedness by focusing on the networked and value-laden character of rules.

Methods

We conducted a qualitative multi-method study in elderly care, mental healthcare and social care in the Netherlands. The aim of the study was to explore the problem of regulatory pressure and experiments dealing with the problem in order to enable more person-centred services. We conducted a) semi-structured interviews with different stakeholders (professionals, managers, directors, policy makers and regulators), b) observations of experiments and c) a discourse analysis of relevant documents. Triangulating these data collection methods ensured the validity of our research.

Results

Our results show the multi-faceted nature of regulatory pressure. Rules leading to regulatory pressure can be formal and informal and have many origins; external parties such as regulators as well as care organizations, professional caregivers and family members. Regulatory pressure is often a result of de-coupling between management and professional caregivers, between professional caregivers and family members and/or residents and between external organizations and care organizations. We saw instances of means-end decoupling, e.g., related to accreditation systems, filling in detailed care plans and daily registrations. In such cases, the set rules are perceived as having no or only a weak relationship with the core task of the organization. Working in accordance with procedures in these cases becomes an end. Successful experiments to combat regulatory pressure focus on re-coupling ideas (De Bree & Stoopendaal 2018) on quality of care and the activities of different actors. A final result is the prevalent reflex of all actors to create new rules that turn out to be not functional to providing good quality care.

Discussion

To solve the problem of regulatory pressure in healthcare, the discussion needs to move beyond doing away with rules or giving professionals more autonomy (van de Bovenkamp et al. 2020). Instead, it requires a search for functional rules (Meurs 2014), that guide professionals, ensures accountability and allows for the flexibility needed to deliver person-centred care. In other words, it is important to move to flexible bureaucracies in healthcare. This can be accommodated by creating safe spaces or 'comfort zones' (Perezts and Picard 2014) where reflection on quality of care and the rules needed to guide care and accountability practices can be established. Discussions in these comfort zones requires establishing the origin and function of rules and debating them with all the actors connected to these rules. In addition, policymakers, healthcare managers and professional caregivers alike should be aware of the underlying mechanisms of regulatory pressure (including the regulatory reflex) if they truly want to make the move from regulatory pressure to flexible bureaucracies.

Accountability in (Integrated) Health Service Delivery in The Netherlands: a scoping review

Authors: Dennis van Kerkvoorden, MSc[1,2]; Dr Roelof Ettema[1,3]; Prof Dr Mirella Minkman[2,4,5]

[1]Hogeschool Utrecht, Utrecht, The Netherlands; [2]TIAS/Tilburg University, Utrecht, The Netherlands; [3]UMC Utrecht, Utrecht, The Netherlands; [4]Vilans Center of Excellence in long-term care, Utrecht, The Netherlands; [5]IFIC, Oxfordshire, United Kingdom

Introduction

Accountability in Dutch healthcare is seen from four perspectives: private, public, professional, and societal. Although accountability in general is seen as an important part of governance, in literature, there is debate about its definition and more synonyms are used. Accountability processes are often assessed from a single organization perspective. However, nowadays almost always multiple organizations are involved in a partnership. The aim is to identify meanings of accountability in current healthcare delivery and a search for indications of accountability in the integrated care context.

Research question:

What is the state of play of accountability in healthcare in the Netherlands?

Methods

A scoping review was conducted, following a systematic approach to map evidence and identify main concepts, theories, sources and knowledge gaps. Five stages were followed: (1) identifying the research question, (2) composing the search string and validating the search string, (3) database search, (4) assess the data, (5) collating en reporting on the results.

The databases Academic Search Premier, Business Source Elite, CINHAL, PubMed and Wiley Online Library were searched from 2009 to 2019. Studies that used or cited accountability and multiple synonyms in the context of (integrated) healthcare and the Netherlands were eligible.

Results

Preliminary results claim a variety of data on how accountability as term is used in the different contexts. Most attention in literature is paid to policy development and compliance. The lack of thinking about integrated accountability in the context of partnerships and networks of integrated health service delivery seems to be a gap in the literature and in practice.

Conclusion

This scoping review shows a variety of interpretations and perspectives in the description of the publications drafted from the different databases. On one hand, one can argue that this review has a disparate nature. On the other hand accountability in (integrated) healthcare services need a multifactorial approach. This scoping review is helpful in organizing and interpreting the different views and language given to the term accountability in healthcare.

Discussion

A literature research on accountability in healthcare seems limited but can be used as a starting point for accountability of integrated healthcare services.

Lessons learned

There are challenges in executing accountability if healthcare services become more integrated in the next future.

Governance dilemmas in integrated care networks

Authors: Mr Nick Zonneveld[1,2]; Mr Ludo Glimmerveen[1,3]; Mrs Monique Spierenburg[1]; Mrs Jessica Michgelsen[1]; Mrs Elize Van Wijk[1]; Mrs Sandra Dahmen[1]; Prof Dr Mirella Minkman[1,2]

[1]Vilans, centre of excellence for long-term and social care, Utrecht, The Netherlands; [2]Tilburg University / TIAS School for Business & Society, Tilburg, The Netherlands; [3]Vrije Universiteit, Department of Organization Sciences, Amsterdam, The Netherlands

Context

With a growing number of people living with multiple chronic conditions, the need for complex care and support is on the rise. Often receiving services from multiple professionals, organizations and domains, care for these people requires more thorough coordination and alignment. Integrated care is often seen as a leading approach to achieve such coordination and alignment. The pursuit of integrated care often takes place within inter-organizational networks. Often, however, networks and their participants still struggle with organizing governance mechanisms across organizational boundaries. In this study we identify key governance dilemmas and explore constructive ways of addressing these.

Methods

Our investigation of governance dilemmas is based on five case studies of inter-organizational integrated care networks. These five networks focused on a variety of target groups and were in different developmental stages. This diversity enabled us to gain a broad picture of the more generic, underlying governance dilemmas facing integrated care networks. In each case, we studied the challenges and their underlying dilemmas that network members encountered when organizing network governance. In total, we conducted 62 interviews with key stakeholders, observed 37 meetings and analysed 22 documents. Respondents varied from care professionals, patient experts and network coordinators to (middle) managers, board members and controllers. Additionally, we conducted two focus group discussions with integrated care experts and a number of key stakeholders from the studied networks to reflect on the emerging themes and insights. All qualitative data were coded and analysed in coding software (MaxQDA).

Results

Our analysis highlights four distinct network levels on which governance dilemmas surfaced: (1) between participants of an individual platform or working group within a network, (2) between multiple groups or platforms in a network, (3) between a network and the individual organizations participating in it, and (4) between a network and other collaborative initiatives working in the same region. On each level, we identified three governance dilemmas that participants had to work through while developing their network governance and activities. These dilemmas ranged from, e.g., pursuing inclusiveness in network decision-making while making sure decisions are taken in a timely manner, to the dilemma of fostering stability in network membership while simultaneously wanting to expand and include relevant 'new' stakeholders. Underlying many of the dilemmas we encountered was network participants' desire to develop collective governance mechanisms on the network-level while facing the (sometimes competing) demands and restrictions of their 'home' organisation.

Discussion

Our study highlights that network governance does not simply require an ever-increasing integration of member organizations' activities, but that it requires a careful navigation of a broad range of governance dilemmas surfacing on multiple network levels. As a rebuttal to the idea that integrated care networks are 'merely' about enabling flexible alignment across organizational boundaries, our paper discusses three key implications for health care managers and staff that are involved in integrated care networks: (1) developing a network is not synonymous for doing everything together, (2) the space for flexibility that is required and created for ongoing 'horizontal' alignment is just as easily narrowed down again, and (3) the growing importance of network governance does not imply that 'internal' governance within organizations becomes any less relevant. We reflect on our findings' implications on four key areas of governance: leadership, finance, accountability and supervision.

Employee engagement and adaptive performance achieved by agile transformational leaders in a changing healthcare system

Authors: Prof. Sandra C. Buttigieg[1,2]; Ms Maxine Vella Cassia[1]

[1]University of Malta, Msida, Malta; [2]HSMC, University of Birmingham, Birmingham, United Kingdom

While transformational leadership has been a well-known concept, excelling as a leadership model, as work environments continue encountering continuous change, leadership agility is steadily gaining momentum. Today's leaders must be able to equip their staff with skills and practices, enabling them to engage and adapt their performance to change. The study aims to examine the hypothesized relationships between transformational leadership and leadership agility, and how their interaction impacts adaptive performance. Furthermore, the study seeks to look into work engagement as a mediator to the described relationship. Quantitative data were collected by means of a psychometrically validated questionnaire. The sample consisted of 881 professionals working within the sampled units within Mater Dei Hospital, Rehabilitation Hospital Karin Grech, and Gozo General Hospital. A response rate of 49% in was acquired. The findings show that the interaction of transformational leadership with leadership agility, heightens their effect on adaptive performance. Furthermore, the absence of leadership agility in the relationship resulted in a negative impact of transformational leadership on adaptive performance in the second data collection. Work engagement was found to be a mediator to the relationship. The study supported the notion that the interaction of transformational leadership and leadership agility, enhances their effect on adaptive performance. Since this concept was not looked into before, it adds on to existing literature.

Leveraging Management Science in the Medical Setting. The Experience of the French Military Health Service

Author: Dr Guillaume Cassourret

Ministry of the Armed Forces, Central Directorate of the Military Health Service, Paris, France. Val-de-Grace Academy, Paris, France

Healthcare delivery is increasingly organized in group practices. Healthcare providers prefer to be able to benefit from the support of their colleagues rather than to practice alone. Group practices have proven to improve coordination and quality of care. However, managing a healthcare team or setting up a medical clinic cannot be improvised. These skills are not taught during medical studies. Increasing management skills has demonstrated to improve the health of patients and to lower health costs. Yet, we do not know what management skills health care professionals need, and which ones they feel confident to achieve.

The purpose of this study is to apply a three-dimension framework to make an inventory of management skills that nurses and doctors need to manage health, manage a team and manage a medical practice, in order to provide effective care. We will then propose skills from management science that could potentially address these needs. We conducted a national online survey among the largest network of primary care centres in France, the Military Health Service's network. Single-specialty medical clinics were randomly chosen among the 200 ones in Metropolitan France. The survey evaluated the competences military nurses and doctors would need and their expectations regarding management science in three areas: health management, human factor management and medical clinic management.

143 healthcare providers from group practices answered the survey. An average of 12 team members were supervised by each manager. 64% of doctors and nurses' time was reported to be devoted to management tasks, but 92% of staff reported not having received any training in management. They reported spending 2.3 hours per week in reporting performance metrics, and 55% of them thought those metrics do not help them in their job. They would like to be trained to manage projects, give feedback, and perform an appraisal. In terms of up-management, they overall feel competent in escalating a problem at the right time, but they would like to receive trainings in dealing with a conflicting situation, and in giving constructive feedback. A majority request a training in management of their own career-path. In terms of health management, a large majority said they were confident in providing simple and complex care.

The results illustrate the importance of management tasks in medical group practices, and their multifaceted characteristics. They also illustrate the paradox between staff's education and its actual occupation. In terms of up-management, contrasted results may illustrate a clash of generations or culture. Interviewees believed that self-management could benefit to themselves, to their team and to the health of the clinic. New ways of thinking and leading are required, especially regarding human factor management. In this domain, we propose three simple tools: a tool for effective appraisal, a self-management coaching program, and a method to provide productive feedback to a manager. Those techniques may represent a significant change in culture. Operational research in a field setting could enhance medical-management knowledge and competences. Medical education could largely take advantage of including management training. This new Medical-Management analysis framework allowed us to tackle the multifaceted needs of modern healthcare delivery.

Effects of organisational change in health facilities

Author: Dr Semiu Amosa Adekola

Idera Life Line Medical Center, Ede, Nigeria

Introduction

Change in personnel and re-shuffle of assignation of duties in the health sector is inevitable towards the attainment of the set objectives and work progress. More so, the end result of all activities is largely depending on the leadership style of the manager, his/her awareness of the change(s), level of self-commitment and form of ownership. In many health facilities, one of the most frequent changes is the re-define of a well-established code of conduct and perpetuity of the entity. However, this development always affects physicians and other hospital staff differently. The purpose of this study is to empirically explore the understanding and experiences of hospital staff in the structural change using hospital redevelopment structures in Nigeria, Sub-Sahara Africa.

Methods

Questionnaires were administered on the staff of a local medical centre. Questions asked are about their level of awareness of the upcoming redevelopment and their experiences in the early stage of this change.
Qualitative data were gathered and analysed using thematic analysis.

Results

Some staff expressed apprehension and posited adverse expectations with respect to the organizational/structural change. Concerns included inadequate staffing and potential for collaboration breakdown due to the new layout of workspaces. These fears were compounded by current experiences of feeling uninformed about the change, as well as feelings of being fatigued and under-staffed in the constantly changing hospital environment.

Conclusions

Findings in this study opine that it is imperative that the staff should have a prior understanding of the likely effects of the structural change and the probable ways of containing it, in order to be able to assuage its potential negative expectations. Also, there should be provisions for effective and relevant capacity buildings and sensitization activities for the concerned staff.

How ‘beroepsvisitatie’ (peer-to-peer review) can contribute to developing professional healthcare executives

Authors: Sophie Bijloos, PhD; Paul Poortvliet, MSc

Bosman & Vos, Rijswijk, The Netherlands

Context

Seven years ago, the Dutch Association of Healthcare Executives (NVZD) developed an accreditation system for healthcare executives. In Dutch it is called ‘beroepsvisitatie’, there is not a fully accurate translation available in English. The system is best compared to a system of peer-to-peer review.

This system is common practice in the Netherlands for assessing medical professionals. In this paper the effect of ‘beroepsvisitatie’ on professionalisation in medical professions is researched and compared to the accreditation system for health care executives to answer the question how beroepsvisitatie can contribute to the professional development of healthcare executives.

Methods

A literature study on the effects of beroepsvisitatie on the professionalisation of medical professionals has been done to define success indicators. The results are used to assess the theoretical impact of the accreditation system for health care executives.

In addition, 10 health care executives are interviewed. They are selected from the latest accreditation (January 2020). In interviews the perceived impact of the system is explored and compared to the theoretical impact. The interviews focus on the extent in which development goals are met, what the obstructing factors were and how the authority and background of the auditors influenced these results. Finally, executives where asked whether the accreditation had any effects on their practice.

Results

The literature study shows that medical professionals enjoy ‘beroepsvisitatie’, but opinions differ on the added value for their own practice and professionalisation. From the little available research, results show that value is added by the tailor-made characteristics of the system. For the accreditation system of Dutch Association of Healthcare Executives: learning targets are set within the specific context of the individual health care executive. Key success indicators for the accreditation system are the follow up on development goals and the authority, expertise, and experience of the auditors.

Discussion

Results are relevant for the professionalisation of health care executives and in a broader sense for the future of Europe’s Health Services.Unlike medical professionals, healthcare executives do not have the distinct right of professionals to perform acts that people are otherwise forbidden to do (internal regulation and quality control).Executives have a vital role in meeting the various challenges health care is facing. These challenges ask for a reflective and learning approach. Research on ways, such as ‘beroepsvisitatie’ to facilitate this are important. ‘Beroepsvisitatie’ reviews if executives are actively working on their professional development and have the ability to self-reflect. There is little evidence on the effects and non in comparison to other methods. Interesting for continued research would be what costs and effects of different methods are.

Themes addressed

Health management: realigning systems, contexts and players

What is the role of health management in leading the necessary changes towards better health systems and services? How can managers help to go beyond silos-oriented healthcare and bridge innovation, sustainability, systems and people? How can we scale up and integrate change in the healthcare ecosystem?

DIGITAL TRANSFORMATION

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vCARE - Rehabilitation for Secondary Prevention based on Virtual Coaching

Authors: Dr Sofoklis Kyriazakos[1]; Dr Massimo Caprino[2]; Dr Hannes Schlieter[3]; Dr Kai Gand[3]; Mr Marc Lange[4]; Mr Luc Nicolas[4]

[1]Aarhus University, Aarhus, Denmark; [2]Casa di Cura Privata del Policlinico, Milan, Italy; [3]Technische Universität Dresden, Dresden, Germany; [4]EHTEL, Brussels, Belgium

Context

Home based rehabilitation after an acute episode or supporting the enhancement of a care plan of chronic disease is often problematic with a clear lack of continuity between hospital and home. Secondary prevention is an essential element of long-term rehabilitation where strategies oriented towards risk reduction, treatment adherence and optimization of quality of life need to be developed. Frail and sometimes isolated, the patient fails to adhere to the proposed post discharge clinical path due to lack of appropriate clinical, emotional, and informational support. A recent review of the literature has demonstrated that virtual coaching systems were hardly used to support secondary prevention in this particular context.

Method

The vCare project concretely explores what a Virtual Coach (VC) can do to enforce effective rehabilitation strategies. It builds on the concrete clinical experience of 4 medical sites in four different countries and address neurological and cardiological diseases. The VC not only supplements the usual rehabilitation processes but also adopt strategies to empower the patient and his caregiver. The tailored rehabilitation clinical pathway activated by the clinician evolves thus constantly in function of the patient choices and rehabilitation goals he can reach. Personalization and adaptation of the clinical pathways is ensured by embedded machine learning engines and the integration with context and medical information provided by sensors. The project has carefully selected suitable and already available solutions and technologies in order to be able to deliver a service sufficiently mature to reach the market in a limited time span. It has also adopted a modular approach in order to allow maximum reuse and integration in native systems.

Results

Narratives, use cases, clinical pathways and corresponding coaching services, activities and ontologies have been developed and validated. In some instances, such as Parkinson disease, the project has been instrumental in designing entirely new home rehabilitation pathway. A very intensive participatory approach has been chosen to validate each phase of the project. For main use cases, the daily life of a patient living home with a VC has been described and translated in “story boards”. The prototyping phases (controlled environment, real life) directly involve patients to guarantee a real usability and user acceptance during the long-term evaluation phase. Physicians and therapists are due to gain a wholesome and objective point of view to appropriately guide and follow patients’ in their clinical evolution but the interaction requirements with the system and associated constraints will also be monitored to increase user acceptance at their level.

Discussion

vCARE not only contributes to the shift from hospital-based to home-based rehabilitation but also aims at filling an existing gap well identified by the medical community. Solutions which contribute to empower patients are still considered as nice to have but face resistance due to much needed cultural change and capacity building within organizations. vCare believes that an adequate selection of the use case coupled to the intelligent integration of existing technology will facilitate the adoption of services associated with the Virtual coach. vCARE will present early results from the first phase of evaluation and the proposed validation methodology.

Introducing Acute Kidney Injury alerts and electronic fluids prescribing systems in a hospital setting to improve patient outcomes

Authors: Dr Panos Michael[1]; Dr Deborah Elf[1]; Dr Emma Astaire[1]; Dr Oliver Sanders[1]; Mr Joseph Grayson[1]; Mr Sunjalee Fernando[1]; Miss Helen Pardoe[1]; Dr Marie Parsons[1]

[1]Princess Alexandra Hospital, Harlow, United Kingdom

Context

Acute Kidney Injury (AKI) is a life-threatening medical condition affecting 1 in 5 patients admitted to hospital as an emergency at our Trust. AKI is associated with poorer patient outcomes and predisposes to Chronic Kidney Disease. It also has a significant financial burden on the NHS, with an estimated additional cost of more than 1 billion pounds per year. An audit at our Trust showed that only 22% of our patients correctly received intravenous fluids as prescribed. We introduced a new hospital protocol of AKI alerts and electronic fluids prescribing in an attempt to improve AKI recognition and management.

Methods

As part of our new hospital AKI alert policy, the biochemistry laboratory started issuing electronic AKI alerts to the wards with advice about further management and escalation. Despite this, the average time for an alert to be recorded in the patient notes was 27 hours. Therefore, the laboratory now notifies the wards of patients who have a first diagnosis of AKI Stage 2 or 3. The nurses then contact the doctors and place an AKI alert sticker in the patient's notes. Furthermore, we have introduced electronic intravenous fluids prescribing, as opposed to the previous paper fluids chart prescribing, in an attempt to ensure a higher proportion of prescribed fluids being administered correctly. We carried out a pilot study on the gastroenterology ward, looking at the number of AKI alerts generated during the 2 weeks prior to and the 2 weeks following the introduction of electronic intravenous fluids prescribing.

Results

Since the electronic AKI alerts were introduced in April 2017, there has been a 78% reduction in patients experiencing an increase in their AKI alerts during their inpatient stay, from 58% to 13%. In the first week of introducing electronic fluids prescribing, there was a reduction in overall hospital AKI alerts from 226 to 197, compared to the same week of the preceding year. Our pilot study on the gastroenterology ward showed that the introduction of the electronic fluids prescribing led to a 100% reduction of AKI stage 3 alerts and 25% reduction of AKI stage 2 alerts, while AKI stage 1 alerts remained unchanged. These results indicate an overall reduction in AKI alerts on the ward by 41%. Furthermore, there has been a reduction in the number of patients who generated multiple AKI alerts by 50%.

Discussion

Electronic fluids prescribing was successfully introduced across our 400-bedded hospital, including A&E. Our pilot study on the gastroenterology ward showed that our Trust has become more efficient in reducing the number and severity of AKI alerts. This is a result of reliable and consistent fluid prescribing and administration facilitated by the introduction of the auditable electronic prescribing system. Limitations of our study included the use of a single 20-bedded gastroenterology ward and the short 2-week period prior to and following the introduction of electronic fluids prescribing. A further study involving more wards of various specialties over a longer time frame could give a more accurate picture of the impact of our electronic fluids prescribing intervention. In conclusion, we found that electronic fluids prescribing is more effective than paper fluids chart prescribing and can be the next step in reducing the number of AKI alerts and improving patient outcomes.

The human side of digital transformation – Empirical evidence from the Austrian hospital sector

Authors: Dr Arleta Franczukowska; Dr Eva Krczal
Danube University Krems, Krems/Donau, Austria

Background

The digital transformation has reached the healthcare sector representing a major challenge for many organizations. Digitisation changes existing workflows and processes, creates new information and communication technologies and leads to a reorientation of current work forms/relationships. To keep up with such technological trends, employees need to constantly develop their digital skills and change their mindsets. Our study focuses on the human side of digitization as it was designed to investigate how digitization is perceived by employees working in the hospital sector. Their expectations, attitudes and fears associated with the digital transformation as well as their coping strategies are examined.

Methods

Our study combines several qualitative methods including individual interviews, focus groups, walking interviews and document analyses. The data was collected in the hospital setting involving a large public hospital in eastern Austria and a small private hospital in southern Austria. A series of individual interviews with the top and middle management from medicine, nursing and administration were conducted in each organization as well as several focus groups with five to eight employees from various disciplines (medical and nursing staff, medical-technical service, and administrative staff). The walking interviews lasting several hours were carried out on site by visiting and interviewing several units affected by digitization (purchasing, storage, administration, laboratory, nuclear medicine, nursing station et al.). In addition, document analyses were conducted to examine the extent to which requirement profiles and learning formats changed due to digitization. That involved, for example, the evaluation of job descriptions, job advertisements and training concepts.

Results

According to our results, the hospital sector is subject to rapid digital change by shaping the future of healthcare delivery. Hospital staff considers this development both positively and negatively. On the one hand, it harbours great opportunities for process optimization and work relief, on the other hand, it induces an ongoing rethinking and relearning process, contributes to process speeding up and increases work intensity and stress. The greatest concerns among the workforce are regarding increasing monitoring, system failures and data loss, increasing workload and stress, rationalization and personnel reduction (in the administration area), and the dehumanization of the organization. In this regard, generational and occupational group differences were observed. Several coping strategies on the organizational and individual level are set to cope with the digital transformation, whereby those on the latter one remain dominant including ‘learning by doing’ and the exchange of knowledge and information in the team.

Discussion

Based on the findings gained from our study, recommendations for the hospital management are derived, how the workforce can be supported in coping with the current and future requirements of a digital working environment. First of all, that implicates the promotion of a more human-cantered digital strategy, which is essential for a successful digital transformation process. Such a strategy goes beyond technology by focusing on humans including the reduction of prejudices, fears and resistances among the workforce, the visualization of the benefits of recent technical developments, the expansion of IT support, the continuous promotion and development of employees’ digital skills as well as the selection of suitable learning settings and formats, such as e-learning formats. Above all, the digital change should support employees’ skills and their everyday professional life ensuring better patient management and care, rather than giving them the feeling of being constantly monitored or replaced.

Social assistive robots for elderly

Author: Dr Isabelle Fabbricotti

Erasmus School of Health Policy & Management, Rotterdam, The Netherlands

Introduction

As the world's population is aging, whilst the healthcare workforce decreases, solutions are sought to cope with the increasing healthcare demands of elderly. Social assistive robots are one of the solutions that gain more and more attention from both academia, healthcare organisations as well as commercial companies. Social assistive robots are robots that enhance the wellbeing of elderly through social interaction. However, not much is known about the impact these robots have in healthcare. The aim of this study was to assess the value of the assistive robot Buddy for elderly, informal caregivers, and formal caregivers.

Methods

The study is embedded in the Horizon 2020 project on Agile Co-creation of robots for ageing (ACCRA), and was conducted in France and the Netherlands. The design was a "before and after" - design without a control group, in which giving an getting care with Buddy as an ad on (T1) is compared to the first time Buddy was introduced (T0) to the elderly (n=40), their informal caregivers (n=7), and formal caregivers (n=16). A mixed methods approach was applied. The data collected with surveys and interviews was used to evaluate the acceptability, satisfaction, user experience, safety, usability, and impact of Buddy. The data analysis encompassed the analysis of descriptive, and statistical differences between T0 and T1. The interviews were coded and analysed for patterns and convergences and divergences in opinions about Buddy. With regression analysis differences in gender and culture (France, Netherlands) were assessed.

Results

The main conclusion is that Buddy is deemed a positive technology that has much potential, but that needs further development. Both quantitative and qualitative data stress that Buddy's primary value lies in the companionship it gives elders. Buddy makes elders' daily life more joyful, lessening their loneliness, and hence the appeal they make on formal and informal caregivers. As an alternative for usual physical care, Buddy is less suitable as it cannot take over care activities. The attractiveness of Buddy and the verbal manner to give commands makes Buddy well accepted, and usable. But limitations in functionalities and technological issues regarding speech, hearing, and understanding of both Buddy as its users impedes the ease of use. No effect has been found on quality of life, job satisfaction, self-reliance, and burden. Dutch and French respondents hardly differ in their assessment of the value of Buddy.

Discussion

From a methodological point of view the numbers were low and a no control group was added. In this point in time only small-scale experimentations can be conducted. Experimenting with robots is difficult as robots are very expensive and much support is needed from technicians and researchers. Especially with elderly as elders are not accustomed to technology. It remains a question if next generation elders will be more at ease and able to work with robots, making experiments more feasible. But foremost, robotics in healthcare touches on the societal discussion if and to what extent human contact can be replaced by robotic solutions. In order to discuss these issues a demonstration of Buddy will be part of the presentation. Participants will use Buddy themselves.

Integrated personalised care for patients with advanced chronic diseases to improve health and quality of life (ADLIFE Project)

Authors: Mrs Dolores Verdoy[1]; Mrs Ane Fullaondo[1]; Mrs Ana Ortega[1]; Mrs Itziar Vergara[2]; Mr Jose María Quintana[3]; Mr Javier Mar[2]; Mrs Roma Maguire[4]; Mr Theodoros N. Arvanitis[5]; Mrs Natassia Kamilla Juul[6]; Mr Antoni Zwiefka[7]; Mr Oliver Gröne[8]; Mr Göran Larsson[9]; Mrs Rachelle Kaye[10]; Mrs Gokce Banu Laleci Erturkmen[11]; Mr Aratz Setien[12]; Mr Dipak Kalra[13]; Mr Esteban de Manuel[1]

[1]Kronikgune, Barakaldo, Spain; [2]Biodonostia, Donostia, Spain; [3]Unidad de Investigación Hospital Galdakao, Galdakao, Spain; [4]University of Strathclyde, Glasgow, United Kingdom; [5]University of Warwick, Warwick, United Kingdom; [6]OUH Odense Universitetshospital, Odense, Denmark; [7]FALKIEWICZ Hospital, Wrocław, Poland; [8]OPTIMEDIS, Hamburg, Germany; [9]Region Jämtland Härjedalen, Ostersund, Sweden; [10]Assuta Medical Centers, Tel Aviv, Israel; [11]SRDC, Ankara, Turkey; [12]everis, Bilbao, Spain; [13]i~HD, Ghent, Belgium

Due to population ageing and advances in medical science, people with chronic diseases – including advanced severe life-threatening chronic diseases - are living longer. Challenges are how to sustain quality independent living for patients; support caregivers facing increasing burden and ensure sustainable healthcare and social care systems with limited resources. The project ADLIFE (H2020, SC1-DTH-11-2019, 875209) provides a solution for the integration of therapies and approaches targeting early detection and assessment of deterioration, advanced and well-coordinated care planning and integrated supportive care. The aim is to enhance quality of life, reduce suffering and accelerate recovery from deterioration of advanced chronic patients.

ADLIFE will deploy trusted and personalised digital solutions for integrated supportive care capabilities: Personalized adaptive care plans; Clinical decision support Services (CDSS) and Patient and carer empowerment. Person centred care will be ensured by individualized plans involving a multidisciplinary care team. Intelligent CDSSs will enable customization of care plans and provide a rapid response to changing needs. ADLIFE will develop 3 types of CDSS: i) Scales and heuristic risk algorithms for functional status and patient/carer needs assessment; ii) Clinical guidelines to offer personalized treatment goals and activities and iii) Early warning systems based on risk predictors to anticipate changing clinical status and needs of patients. ADLIFE will provide a Patient Empowerment Platform for care plan management involving actively patients and carers. Patient Reported Outcomes will guide health care, empowerment adaptive interventions and share decision making. ADLIFE will also implement an intelligent support for personalized self-management to deal with a person's varying adherence.

ADLIFE will be deployed in seven countries and health systems, involving 577 healthcare professionals from 75 different hospitals, clinics, and primary care Services. It will evaluate its effectiveness in 882 patients and 1243 caregivers. Patients will be senior (over 55) with severe Heart failure (NYHA III-IV) and/or COPD (FEV1<50). The effectiveness and efficiency of the intervention will be assessed by evaluating health gain, quality of life, use of resources and economic costs.

ADLIFE aims to improve coverage, ensure earlier detection and multi-needs assessment, and provide high quality, effective and continued symptom management through evidence-based digital personalized care plans.

The project will produce guidelines and policy recommendations providing financial sustainable, flexible, and replicable solutions to disseminate results, transfer and deploy at large-scale to other patient groups in the EU and beyond.

ADLIFE will prove that it is feasible to provide a personalized integrated care to improve the health situation, deliver more appropriate targeted and timely care for patients with Advanced Chronic Diseases by means of the use of an innovative system that will support early detection of care needs and dynamic and personalized care provision.

A better use of resources, increasing the coordination among all the key stakeholders of care and improving working conditions of professionals will improve the efficiency in health systems. Empowered patients participating in decisions making on their own health and adapting to their changing conditions and context will protect functionality and enhance patient autonomy.

The project aims to demonstrate that ICT supported ADLIFE intelligent personalized care model of integrated care is flexible and can be deployed and replicated at large scale in different environments and can be trusted in regard to data access, protection and sharing.

Acknowledgements: ADLIFE project has received funding from the EU H2020 (GA No 875209).

Data Integration of Health Information Systems in Kenya

Authors: Ms Ann Chemutai[1]; Dr Joseph Sevilla[1]; Mr Emmanuel Kweyu[1]; Mr Anthony Ereng[1]; Dr Stephen Mburu[2]

[1]Strathmore University, Nairobi, Kenya; [2]University of Nairobi, Nairobi, Kenya

Context

While health data is abundantly available in Kenya, its use in policy, decision making, and service delivery is still low. This is attributed to low quality, unreliable, fragmented or insufficient access to data, and poor access to research evidence. The current status of health information management systems is largely defined by the different technologies used leading to silo systems that rarely exchange data.

This research looks at the development of a health and research observatory that collects data from various health reporting systems in Kenya which aims at strengthening and improving the availability and utilization of data.

Methodology

To determine the current status of health information systems prior to development, a landscape analysis was conducted in different healthcare facilities with different capacities such as patient traffic and resources available. The systems were reviewed to determine the capability to exchange data, data storage procedures and the data format being exchanged.

During development, co-design approach was used by involving some users, health information system experts and program managers from organizations such as the government and universities. Active participatory was used to improve a working prototype by incorporating feedback from users. This was done through a series of workshops where users working in different capacities in the healthcare sector were invited to give input on type and quality of data.

Results

The collected data is stored in a data warehouse through an extract, transform and load process using a micro-service. This data is then collated and analysed through pre-set algorithms where it is categorised into location, period and data type/measure. This information is passed to a web portal through application programming interface that displays the data in different formats such as graphs, tables, or publications. The data sources were categorized into routine reporting systems where data is collected weekly, quarterly, or yearly, and surveys where data is collected yearly, biennially or every five years.

The development of this system was largely informed by standards, guidelines and policies set by the Ministry of Health in Kenya and the World Health Organization to meet development and data management requirements such as key priority health indicators tracked by the government, sustainable development goals (SDGs) on health, the universal health care (UHC) and the WHO Greenbook.

Discussion

Data transfer from the different systems into the data warehouse was challenging due to the different data storage mechanisms used. The micro-service was used to ‘clean’ data collected by checking the period, location and measure used to collect, then converted to a standard data warehouse format. This information is categorized into different health indicator groups such and health status, inputs outputs and outcomes which is then used to populate statistics and graphs displayed in portal.

The web portal shows the current research being done in medical research institutions and universities, and the policies, surveys and guidelines published by the government. Users from different capacities have an option to blog about different topics and offer expertise in improving healthcare service.

This research will promote utilization of digital technologies to improve universal access to health by increasing accountability and improve quality of data for decision making and monitoring health performance.

C3-Cloud system: an innovative digital integrated care tool developed with and for multimorbid patients

Authors: Mr Dolores Verdoy[1]; Mr Nicolas Gonzalez[2]; Mrs Marie Beach[3]; Mr Mikael Lilja[4]; Mr Mustafa Yuksel[5]; Mrs Gokce Banu Laleci Erturkmen[5]; Mr Omar Kahn[6]; Mr Lamine Traore[7]; Mr Konstantinos Kalliamvakos[8]; Mr Rong Chen[8]; Mr Pontus Lindman[9]; Mr Malte von Tottleben[10]; Mr Dipak Kalra[11]; Mr Gunnar Klein[12]; Mrs Sarah Lim Choi Keung[6]; Mr Theodoros N. Aravanitis[6]; Mr Esteban de Manuel[1]

[1]Kronikgune, Barakaldo, Spain; [2]Osakidetza, Vitoria-Gasteiz, Spain; [3]SWFT, Warwick, United Kingdom; [4]RJH, Ostersund, Sweden; [5]SRDC, Ankara, Turkey; [6]University of Warwick, Warwick, United Kingdom; [7]INSERM, Paris, France; [8]CAMBIO, Stockholm, Sweden; [9]MEDIXINE, Helsinki, Finland; [10]empirica, Bonn, Germany; [11]EuroRec, Ghent, Belgium; [12]Örebro University, Örebro, Sweden

The clinical management of multimorbid patients with chronic diseases is complex and often uncoordinated, resulting in fragmented care. A more active participation of patients and informal carers is required for the better management of the patients' own care.

The aim of C3-Cloud project is to improve the care of multimorbid patients, enabling the delivery of integrated, collaborative, coordinated and patient-centred care through evidence-based decision support, and personalised care plans. The theory of change is achieved during the implementation of the C3-Cloud intervention across three different organisational settings in Europe and their evaluation.

The C3-Cloud project (http://c3-cloud.eu/) brings together key evidence-based information in an innovative ICT system to encourage improved patient-centred, integrated care activities by a multidisciplinary care team (MDT). C3-Cloud system philosophy and design is based on two main components, which are interlinked: a) the first is used by the patients promoting their empowerment and self-management and b) the second is used by all MDT healthcare professional members supporting these patients. The feasibility of the C3-Cloud system is demonstrated by pilot studies conducted in three European regions: Region Jämtland Härjedalen (Sweden), South Warwickshire (UK) and Basque Country (Spain).

Target population is multimorbid patients (55+), having at least two of among these chronic diseases: heart failure, renal failure, diabetes and depression. C3-Cloud also involves healthcare professionals. Both stakeholders participate in C3-Cloud by using the new system during the intervention as part of the routine care process across the three sites.

A user-centred design approach has been followed from the beginning of the project and has enabled the specifications of the conceptual design of the C3-Cloud architecture, from which the new system has been developed. Based on the application deployment design, the final application has been deployed and operated in the sites. Technical and semantic interoperability between C3-Cloud and local systems have been ensured by also implementing necessary security and privacy measures.

Modular design and standards-based components have made it feasible to transfer the C3-Cloud implementation to other sites.

In each site, operational procedures have been implemented for recruitment, training, operation of C3-Cloud and coexistence with local technology during the intervention and evaluation. The readiness of the main organisational aspects has been ensured for the intervention.

Co-production between technical teams and end-users has been assured by frequent structured interactions through the whole project.

The intervention aims to prove the improvement of the care of multimorbid patients by means of facilitating coordinated care, treatment optimizing and patient self-care. The evaluation of the implementation in terms of technology acceptance and cost-effectiveness will be performed after 6 months piloting (May 2020) and shared during the conference.

The transferability of the new organisational models will be supported by development of guidelines for smooth management of necessary changes considering diversity of European systems. After the evaluation, guidelines for health care provider organisations and for regional health care systems on making the needed organisational changes will be developed to deliver better integrated and patient empowered care for individuals with multiple interacting health conditions. The guidelines will consolidate the approaches taken to C3-Cloud adoption, and local decisions, specifications and adaptations required and extract the organisational change elements and organise these as an adoption and decision making blueprint for scaling up.

Acknowledgements: The C3-Cloud project has received funding from EU-Horizon2020 (GA 689181).

Implementation of the Integrated Referral System (SISRUTE) in Indonesia: concept, challenges and progress

Authors: Mrs Nurmala Sari; Dr Syahrir Andi Pasinringi

Hospital Management Department, Hasanuddin University, Makassar, Indonesia

Optimising the health referral system using information technology has been one of the more recent health reform initiatives in Indonesia. To accelerate digital-based referral services, the Ministry of Health has developed the Integrated Referral System (SISRUTE). The system was first developed by the Government General Hospital of Dr Wahidin Sudirohusodo in South Sulawesi, Indonesia and is currently being adopted nationally in other provinces in Indonesia. However, implementing SISRUTE in a larger system needs advanced adjustment and improvement. This review describes the innovative Integrated Referral System (SISRUTE) concept along with the barriers, progress and strategy required to enhance efficiencies and meet health service access goals.

Data for this review were identified through MEDLINE, PubMed, government regulation and government reports. Only articles published in English and Bahasa Indonesia were included. Search terms of this review included "SISRUTE", "integrated referral system", "online referral system", and "referral system in Indonesia."

SISRUTE is an internet-based information technology that can connect patient data from a lower level of service to a higher level of service or equivalent (horizontal or vertical). SISRUTE provides various features such as patient medical resumes, hospital resource information, outpatient reservation services, referral processes, referral histories and reports related to patient referrals. However, in the implementation of SISRUTE, some barriers faced are as follows: limited internet access in health facilities, lack of socialization at the district levels, and continued confusion regarding the use of the SISRUTE application and online referral system by Social Security for Health (BPJS-K). From the total of 21,103 health facilities, 6.67% of primary health care, 0.23% of clinics and 61.35% of hospitals have implemented the SISRUTE application. To evaluate the performance of SISRUTE, response time indicators have been measured, and have shown 65.8% of referrals were responded to within one hour and 14% of referrals were responded to in 1-6 hours.

SISRUTE is not the first referral application used in health care facilities. Before SISRUTE, the online referral Service System (SPRO) by BPJS-K was established for patient insurance participants. SPRO application has limited features particularly about patient data, hospital information, and mandatory tiered referral systems based on hospital classes. Consequently, patients could not access the health facilities near their location, patients piled up at class D or class C hospitals, and services in secondary level were exceeding the hospital capacities. Compared with SISRUTE, the features are more flexible based on patient needs. However, using different referral applications results in a complex integration mechanism as most patients were BPJS insurance participants. To solve this condition, MOH will standardize the criteria for patient referrals and develop SISRUTE features which integrate online referral service systems from BPJS-K, hospital information systems, inpatient systems, outpatient systems, telemedicine, ambulance tracking and referral communication.

INTEGRATION

A values framework for integrated health services: a quantitative European study

Authors: Mr Nick Zonneveld[1,2]; Mr Ludo Glimmerveen[1,3]; Mrs Nuria Toro Polanco[4]; Prof Dr Patrick Kenis[5]; Prof Dr Mirella Minkman[1,2]

[1]Vilans, centre of excellence for long-term and social care, Utrecht, The Netherlands. [2]Tilburg University / TIAS School for Business & Society, Tilburg, The Netherlands. [3]Vrije Universiteit, Department of Organization Sciences, Amsterdam, The Netherlands. [4]World Health Organization, Genève, Switzerland. [5]Tilburg Institute of Governance / Tilburg University, Tilburg, The Netherlands

Context

In order to organize good quality efficient care for an increasing number of people with complex health and social care needs, services need to be integrated. Integration of services often takes place collaborative networks, making it a complex and non-linear undertaking. Insight into the normative aspects of integration and the values of the different stakeholders could provide a better understanding of how these collaboration processes work. In this study we use a systematically developed values framework to investigate the value priorities of different stakeholders in integrated health services delivery across the European region.

Methods

Our identification of value priorities is based on a quantitative study design, assessing an 18-item values framework developed through a systematic review and Delphi consensus study. European service users/patients, informal caregivers, professionals, managers/directors, policy- and decisionmakers and researchers in integrated health services were invited to an online questionnaire. First, the importance of each value was assessed with a 1-9 scale (‘highly unimportant’-‘highly important’). Second, respondents were asked to choose their three most important values out of the framework of 18. At the end of the questionnaire, the respondents were offered the opportunity to add additional values that they may have missed. The quantitative data were analyzed by using SPSS software (IBM). Mean scores and standard deviations for each value were calculated, in order to construct scores that reflect their importance. Additionally, multiple statistical tests for stakeholder groups and geographical differences were carried out (e.g. GLM, Cramer’s V, Chi-square, Spearman’s Rho).

Results

In total, 1,013 respondents from 42 European countries completed the survey. Different response rates were obtained from the stakeholder groups and European regions. 16% for users and informal caregivers (n=163), 29% for professionals (n=295), 28% for policy- and decisionmakers (n=279) and 27% for researchers (n=276). 21% for UK + Ireland (n=211), 14% for Scandinavia (n=145), 25% for Western Europe (n=249), 15% for Eastern Europe (n=150) and 26% for Southern Europe (n=258). All of the 18 values in the values framework were considered as important. On the 1-9 scale, scores varied between 7.6 (‘Transparently shared’) and 8.6 (‘Co-ordinated’). When looking at the selection of three, the values ‘person-centred’, ‘holistic’, ‘trustful’, ‘co-ordinated’ and ‘effective’ were seen as most important. Multiple significant differences were found in value priorities between stakeholders and between European regions. E.g. prioritization of ‘efficient’ vs. ‘coproduced’ in Eastern and Southern Europe vs. Western Europe and UK + Ireland.

Discussion

This study provides multiple relevant findings. First, the study findings confirm the relevance of the 18 items in the values framework for integrated health services. Second, the results provide insight into the value priorities of different stakeholders in different European countries. A major strength of the study is its broad spread across Europe and multiple stakeholder groups. A limitation of this study is that the questionnaire was only available in the English language. This could have led to a limited number of participants from non-English speaking countries or stakeholder groups. Future research should focus on gaining insight into how the value priorities of this study are constructed and what factors play a role in this. Furthermore, the implications of met and unmet values in the lives of service users and daily work of professionals is a relevant avenue for further research. Both studies are planned in 2020.

Integrated Healthcare and Social Welfare for 200 000 inhabitants – Case Päijät-Häme

Authors: Marina Erhola, CEO[1]; Ismo Rautiainen, Project Director[1]; Jouni Peltomaa, Executive Director of Group Services[1]; Suvi Paananen, PMO Manager[1]; Olli Tolkki, Vice President[2]

[1]Päijät-Häme Joint Authority for Health and Wellbeing, Lahti, Finland. [2]Nordic Healthcare Group, Helsinki, Finland

Context

In this study we present how municipalities and hospital district of Päijät-Häme will create fully integrated healthcare and social welfare for 200 000 inhabitants of the region. The purpose of this study is to identify how a fully integrated system will resolve the current challenges researched. The Päijät-Häme Joint Authority for Health and Wellbeing (PHHYKY) was founded at the beginning of 2017. In the first phase, PHHYKY was more an administrative integration but it has taken significant steps towards functional integration including integrated care-pathways and cross-sectional knowledge management.

Method

This study is based on preparation and implementation of a PHHYKY reform and transformation program aimed to improve the customer-orientation, integration, personnel experience, value and cost-effectiveness of the services organised and provided. The program was prepared and initiated in 2019 in order to accelerate the ongoing integration development and to respond to the challenges in financing. The program was planned and documented by using Logical Framework Approach (LFA) methodology (Dey et al, 2006). Preparation of the program included six management workshops, 85 stakeholder interviews (management, local politicians and trustees), survey for personnel (2127 responses), extensive data-analyses and benchmarking to similar organisations in Finland. In addition to improvements in quality and value of services, the program documentation also includes detailed cost-benefit analysis and plan how the benefits can be achieved.

Results

The main challenges of the PHHYKY compared to the average of Finland according to the conducted analyses were:

- Rapidly aging population and high morbidity
- Low education level and high rate of NEET among young adults (Yates et al, 2006)
- High rate of unemployment and intergenerational transmission of social disadvantages
- Reduced ability to finance the services
- Socio-economic variance in different areas of the region

The main purpose of the reform and transformation program was defined to be efficient and value-based service provisioning that fulfils the needs of the inhabitants and is financially sustainable. Long-term goals are fully integrated services, measurable fall in social and health problems, good cooperation between PHHYKY and municipalities (owners/financiers), controlled and sustainable cost growth and positive brand.All the tasks to achieve the goals have been projected and assigned. The cumulative cost reduction potential is 87M€ in five years (the budget of PHHYKY is 800M€ per annum).

Discussion

The increasing complexity of the health/social challenges requires coordination and integration of cross-organisational processes and paths. A vast majority of the population (90%) may not benefit significantly from the integration due to their only occasional need for services, but the high demanding minority (10%) produces 81% of the total costs of all healthcare and social welfare services in Finland (Leskelä et al, 2013). Improved integration is needed to ensure the quality and cost-efficiency of service processes and path for this part of the population. Päijät-Häme will create a fully integrated organisation which is future-proof in a changing and challenging environment.

The lessons learned in PHHYKY can be applied while creating population-wide integrated systems, when essential structural and cultural prerequisites are taken into consideration, e.g.

- Reimbursement model
- ICT infrastructure and architecture
- Regional demographics and characteristics
- Cultural characteristics
- Local legislation

Assessing the degrees and domains of integration: a narrative review of partnership working and its implications for providers in the English National Health Service

Authors: Dr Justin Aunger[1]; Dr Ross Millar[1]; Prof Anne Marie Rafferty[2]; Dr Joanne Greenhalgh[3]; Prof Russell Mannion[1]; Dr Hugh McLeod[4]

[1]University of Birmingham, Birmingham, United Kingdom. [2]King's College London, London, United Kingdom. [3]University of Leeds, Leeds, United Kingdom. [4]University of Bristol, Bristol, United Kingdom

Context

Healthcare systems are facing mounting challenges to their sustainability which require novel ways of working to successfully tackle. Central to these discussions is the role and importance of integration and the development of holistic approaches to service delivery. Such debates and concerns are currently central to policy and practice agendas in the English National Health Services where there are increasing calls to move away from competition-based working to greater collaboration and partnership working to achieve common goals. Partnership working or partnering has long been advocated as a way to consolidate resources, improving efficiency, the workforce, and quality of care. Partnerships can take several forms, such as organisational and individual buddying, mergers/acquisitions, and the promotion of hospital groups or chains.

A variety of evidence exists regarding these different partnership forms. However, it is not yet clear which factors may contribute to the success or failure of these integration efforts and whether or not particular types of partnership working are more suited to particular contexts than others.

Methods

Using a purposive search of academic and grey literature, the paper presents a narrative review of policy, academic, and practice based evidence that aims to establish a working typology of partnering arrangements for improvement in the NHS. In doing so the paper aims to inform the development and presentation of a plausible working theory of partnering that is of relevance to all healthcare systems aiming to promote greater integration and collaborative working.

Results

Based on a review of existing typologies of healthcare collaborations/partnerships, we chose to characterise collaborations by the degree of integration and/or organisational change. A review of existing theories of partnership working also identified a base framework (AQuA 2014) which was able to incorporate a range of elements which were key to partnership working, such as governance, workforce, leadership, and culture.

We then present the results of how our review of theoretical and empirical elements have informed the creation of a working initial theory of how partnerships exert their effects and their interactions. Partnering arrangements are proposed to primarily exert change through leadership, governance, and financial and contractual mechanisms, which then go on to affect a series of domains that include IT systems, care model design, culture, user engagement, and workforce.

Through our analysis of these different aspects of the partnership literature we raise important questions about implementing approaches to integration in different settings. While it is clear that there is theoretical evidence for how partnerships can improve healthcare outcomes and efficiency, data regarding efficacy is still scarce.

Discussion

This review synthesises evidence from a range of sources and assesses the theoretical underpinnings of partnerships in the NHS and identifies a pathway to further integration and sustainability of health services in the future. Further realist evaluation, informed by this review as well as interviews with policymakers and NHS staff, will aim to investigate the moderating and mediating factors at play between these elements, such as capability, trust, and respect.

Facilitating and constraining influences of an Electronic Health Record on collaboration among medical specialties

Authors: Dr Janita Vos[1]; Prof Dr Albert Boonstra[1]; MSc Arjen Kooistra[1]; Dr Marc Seelen[2]; Dr Marjolein Van Offenbeek[1]

[1]University of Groningen, Groningen, The Netherlands. [2]University Medical Centre Groningen, Groningen, The Netherlands

Context

Collaboration among health professionals of the medical specialties involved in a patient stream is considered a key factor for achieving high quality clinical care. One major reason to implement comprehensive Electronic Health Records is to enhance such collaboration. However, in practice it appears that EHRs both promote and hinder collaboration, rendering EHR-enabled collaboration context dependent. Systematic knowledge on how the different EHR features actually affect collaborative practices is limited. Therefore, we are interested how the ways healthcare professionals communicate, and eventually collaborate, are influenced by the affordances of an EHR. In this study we examine facilitating and constraining influences on the actualization of an EHR’s inscribed collaborative affordances in five outpatient clinics.

Method

We conducted an embedded case study at five multidisciplinary outpatient clinics of a Dutch hospital that recently implemented an organisation wide EHR. Data collection comprised semi-structured interviews with representatives of medical specialties, medical administration, nursing, and management. Documents were analysed to contextualize these data. We examined the following six collaborative affordances of EHRs: (1) portability, (2) collocated access, (3) shared overview, (4) mutual awareness, (5) messaging and (6) orchestrating.

Results and Discussion

Our findings unravel how an EHR can simultaneously have facilitating as well as constraining influences on collaboration between specialties and disciples. Consequently, collaborative affordances inscribed in the system were not fully actualized in the focal hospital. (a) The EHR helps health professionals in coordinating patient care on an informed basis any time and any place, as long as their patient record use is a-synchronous. (b) The comprehensive patient file affords joint clinical decision making based on shared data, but specialty- and discipline-specific user-interfaces constrain mutual understanding of that data. Moreover, not all materials can be easily shared across specialties. (c) Reduced necessity of face-to-face communication saves time but is experienced to hinder the collective responsibility for a smooth workflow. (d) The EHR affords registration at the source and full registration of activities through orders, yet the heightened administrative burden for physicians and the strict authorizations constrain the EHR affordance of flexible, multidisciplinary collaboration. (e) While the EHR affords a complete overview, information overload occurs due to the parallel generation of individually owned notes and the high frequency of a-synchronous communication through messages varying in clinical priority.

Conclusions

For the full actualization of EHRs’ inscribed collaborative affordances in hospitals, health professionals’ coordinated use of these affordances is a prerequisite. To enable such coordinated use organizational, technical, and behavioural adaptations are required. Hospital-wide policies to enhance trust both in the EHR and in its coordinated use for effective collaboration are suggested.

The impact of payment models on network performance: a systematic scoping review of structure, process and outcome measures

Authors: Thomas Reindersma, MSc; Sandra Sülz, PhD; Prof. Kees Ahaus, PhD; Isabelle Fabbricotti, PhD

Erasmus School of Health Policy & Management, Rotterdam, The Netherlands

Context

Fragmentation of health care services remains widespread – both between and within the domains of primary, secondary, tertiary and social care – resulting in adverse effects such as inefficient and inequal care. Networks have the potential to address those ‘wicked’ problems. However, applying payment models on whole networks is challenging, as these models traditionally reimburse service providers separately, stimulate delivery of most profitable services and incentivize volume-driven care. The aim of this study is therefore to map how different payment models in networks affect how these networks perform on structure, process, and outcome measures.

Methods

Due to the broad nature of the research question, a systematic scoping review was conducted. We searched six bibliographical databases combining various terms that reflected ‘payment model’ and ‘inter-organizational network’. For example, we included ‘shared savings’, ‘alternative payment’ and ‘integrated network’ in the search string. After perusal of a sample of abstracts, the search string was refined. Our review team existed of four researchers and all titles and abstracts underwent blind screening by a minimum of two reviewers. Titles and abstracts were included based on our eligibility criteria. Articles are eligible for inclusion if they describe networks, payment (models), outcomes and if it is a peer-reviewed, empirical study in an OECD country. Studies were excluded if they did not relate to the study question or were a review article.

Results

Our search strategy yielded 3944 hits after deduplication. After screening of title and abstracts, 369 articles were found eligible for full-text screening. We are currently in the process of perusing those articles and checking their fit with our eligibility criteria. Data from eligible full-text articles will be charted based on a classification of payment models. The classification differentiates between different types of traditional payment models (such as capitation, fee-for-service, case-based payments etc.) and more recent payment models (such as pay-for performance, risk and gain sharing etc.). By associating network performance with those payment models, we hope to gain insight in how different models contribute to network performance. Every relevant structure, process and outcome measure found in the literature will be charted. Preliminary results indicate that a disproportionate amount of studies was conducted in the US with a focus on HMOs and ACOs, whereas studies in other OECD countries are underrepresented.

Discussion

Our study provides an overview of payment models and network performance on the network level. Many assumptions exist about incentives of traditional and alternative payment models. For example, that traditional models are used to reimburse individual providers whereas the more innovative ones are used to reimburse care chains or networks. By mapping structure, process, and outcome measures on the network level, we show what network performance is reached under a certain payment model. We observed scattered evidence given the multitude of measures. Furthermore, few papers focus on the implications of payment models on organizational aspects, such as integration and formalization. Instead, the focus is on clinical outcomes such as mortality. As for the focus on HMOs and ACOs in our review; this might change in the future since numerous OECD countries are experimenting with new payment models in networks. However, scientific output has yet to be generated.

Team integration for driving value care

Authors: Ms Bee Keow Goh; Ms Grace Lim Siew Wah; Ms Sheila Tan Sok Mui; Ms Mary Pauline Alphonse; Ms Lee Peng Kwek; Ms Ching Yee Sim

[1]KK Women's and Children's Hospital, Singapore, Singapore

This submission looks at how KK Women’s & Children’s Hospital (KKH), a public hospital in Singapore specialising in women and paediatric care, formed an interdisciplinary team as a mechanism to drive clinical value driven projects aimed at improving patient outcomes. This involves identifying expertise required, selection of a project team leader, project team member selection, establishment of data handling processes and critical communication establishment. Limited hospital resources and how the team was able to achieve synergy and team satisfaction are examined. The interdisciplinary setup had achieved relatively better outcomes team member satisfaction to that of functional reporting.

Methods

The methodology includes both qualitative and quantitative evaluations. This includes looking at the variance between planned and actual time taken to complete critical project milestones, attendances of team members. For the project milestones, data validation, clinical criteria confirmation, dashboard development and the turnaround for quarterly updates to management. Actual and planned duration including variances were tabulated for each of the respective milestones. The results are reviewed across different projects which are differentiated by clinical conditions. Comparison of the advantages of integration versus traditional setting are discussed.

Feedback was gathered to look at team effectiveness was done. A feedback survey was setup and conducted for each of the involved team members and the results were analysed using statistical approach to understand whether there were differences in the feedback on team effectiveness across different teams. The qualitative feedback was also collated to support ongoing efforts of improving overall team dynamics.

Results

From the methods and evaluation done, the different projects had their critical milestones met with some slack time. This was observed to be due to the awareness of the timeline as well as individual team member’s commitment in delivering the required information to revert to the health ministry as well as the clinician for decision making. The support from the clinicians were also critical for early project milestones as a preceding checkpoint. On the team effectiveness results, there were no differences in the responses to the questions by the respective functional teams across different projects. There were very positive comments coming from the clinicians on the support from the integrated team. Resolution of issues were swift due to the decisiveness of the critical stakeholders of the hospital and prompt actions undertaken with appropriate communications were the critical success factors of the team in its ability to produce results.

Discussion

Healthcare comprises of multiple different domains each of which focuses on delivering the best patient care and outcomes. The submission looks how KKH embarks on identifies the key domains, breakdown the silos through the formation of interdisciplinary team and as a result effectively bringing about a reduction of mean processing time from ‘data to insights’ to enable clinicians to have access to the critical information needed that the hospital is committed to deliver. For a holistic review, team effectiveness is also important where the roles and responsibilities are spelt out to ensure that each member performs the tasks well. Thus. how well the project members collaborate and leadership drives project success. Future recommendations are also suggested for future work for enhancing teamwork effectiveness within the project delivery team.

The burden of breaking down silos to build teams

Authors: Dr Odessa Dariel[1]; Dr Paula Cristofalo[1]; Dr Vanessa Durand[2]

[1]EHESP, Paris, France. [2]EHESP, Rennes, France

In healthcare delivery, “integration” has seeped into the discourse as a solution to the ever-increasing fragmentation of health and social care services. Innovative solutions are needed that will more closely align workforces, organizations, processes and payment configurations with the need to provide preventative holistic care that can improve health for individuals and populations. One such example of an innovative solution was presented at the EHMA conference in 2014. Buurtzorg, launched in 2006 in Holland, is a nursing model aimed at providing efficient value- and team-based care to patients in their homes. Today Buurtzorg includes over 800 self-managed nursing teams and has attracted international attention and been transposed to other countries.

In 2017 a new association was created with the aim of transposing the Buurtzorg model in France. This implementation took place in a very different healthcare system and in a context of profound changes. Moreover, Unlike in Holland, the French project did not come from health professionals but rather from actors and entrepreneurs captivated by the experiences of "liberated companies" promoted at the end of 2000 within management circles. This paper reports on the first two years (2017-2019) of a three-year qualitative research study. Using an organizational case study approach, we explore how the Buurtzorg model is being adopted and adapted in France. Data includes in-depth and informal interviews, non-participant observations of nursing practice and team meetings as well as documentary analysis (SoHu internal documents, articles, emails, meeting minutes etc…). Interviews, non-participant observations and shadowing data were thematically analysed in an iterative approach using data-driven induction.

We will discuss our findings pointing to some of the very real challenges of inter and intra-professional collaboration. This is not only in terms of ‘breaking silos’ across health and social care professionals, but also just learning how to work as a mono-professional team. Unlike the challenges teams face when trying to work together in hospital settings, primary care introduces a different set of challenges for healthcare workers. Team “work” requires deliberate and consistent efforts that is often postponed when the demands of patient care and running a small business take centre stage. Other factors such as unexpected resistance from existing homecare professionals, inadequate payment structures that do not reflect the nursing work and imperfect information technologies have contributed to hindering the achievement of a more ‘integrated care” model.

We will conclude by challenging the discourse that focuses on teams needing to better “collaborate” and “integrate” within healthcare systems that often seem designed to prevent it. Considering how professionals are paid, what they are paid for, how they are educated, what is valued and measured in their work etc… we will encourage discussions around potential policy changes that could better ‘nudge’ professionals towards more collaborative work and integrated care models.

Change-oriented organisational citizenship as a key factor in promoting client-safety in service integration – health and social care professionals as undervalued advocates?

Authors: Acting Professor Sanna Laulainen[1]; Prof Aini Pehkonen[2]; Marjut Arolam, PhD Student[2]; Minna Heinström, Manager[3]

[1]University of Eastern Finland, Department of Health and Social Management, Kuopio, Finland. [2]University of Eastern Finland, Department of Social Sciences, Kuopio, Finland. [3]The housing foundation for intellectually disabled in Savo (SAVAS), Kuopio, Finland

Background and theoretical concepts

There is an increasing interest to illuminate and investigate client-safety, especially when service integration is implemented locally, regionally and nationally. Client-safety means organizing, producing, and implementing health and social care services that do not compromise clients' physical, mental, social, and economic safety. Professionals work with clients follow the law and ethically sustainable principles and practices, and they are responsible for the quality of work. To fulfil these responsibilities new competencies are needed. One of the competencies expected is change-oriented organizational citizenship (OCB), which represents good profitable members of a work organization. It contains virtues such active critical voice, out-of-the-box thinking, initiative and taking charge. There is a reasonable doubt that professionals as 'advocates' of clients are not as active change-oriented organizational citizens as expected in practice. The aim of this study is to reveal how change-oriented organizational citizenship as a key promoter of client-safety is enabled or restricted in service integration.

Methods

The data was gathered in the project entitled Competent workforce for the future (COPE, 2016–2019) funded by the Academy of Finland. In this study, the group and individual semi-structural interviews (n=102) among health and social care professionals and managers from three health and social care districts, that have implemented large regional reforms of integration in Finland, were analysed by using content analysis and discursive analysis. Professionals and managers have been involving in discussing and interpreting results during the process.

Results

The data revealed that there are individual-based (e.g. attitudes, commitment, trust) and organizational-based (e.g. hierarchy, silos, leadership practices) factors affecting critically employees' prospects and willingness to work as active change-oriented organizational citizens and critical 'advocates' of clients. The complexity of carrying out change-oriented OCB and promoting client-safety was emerged throughout the research material.

Discussions

Service integration in health and social care is based on the premise of client-safety and it requires active change-oriented OCB. However, these expectancies are facing essential challenges. Critical perspectives and novel theoretical lenses of inspecting client-safety is needed to reveal and understand how health and social care professionals are able to act as 'advocates' of clients. These interpretations will be exposed to critical discussion in the conference.

Conclusions

The added value of this study is based on its strong link to client-safety, organization citizenship and organizational analysis, understanding both demand and supply issues and their interaction. The study provides novel practice- and theory-based knowledge of the role of professionals in client-safety, which can be used in planning and implementing service integration.

Lessons learned

This study is questioning client-safety as self-evident premise in service integration, and revealing how professionals are able to, or should, take more active role on it.

Limitations

The data was gathered from large regional organizations in Finland; hence, the results cannot be generalized in other regions and countries as such.

Suggestions for future research

The findings of this study can give important implications for organization citizenship and client-safety research, and for developing service integration in practice in different countries and health and social care systems.

PERSONALISATION

Towards responsive law in changing welfare states: the route to more personalised services?

Authors: Dr Lieke Oldenhof; Mr Eline Linthorst

Erasmus University, Rotterdam, The Netherlands

Context

Welfare states across Europe are currently under critique: they are said to create administrative pressure for professionals and uniform 'one size fits all' services for citizens. As a reaction, various welfare states currently are making a transition towards responsive law by taking into account social contexts and personal needs of citizens (Nonet and Selznick 2009). In theory, this transition supposedly creates more discretionary space for municipalities and their frontline workers to promote personalization as a public value. In this article, we zoom in on a case of responsive law in the Netherlands: the Dutch Social Support Act (2015). This case provides revealing insights into the implementation of responsive law in times of budget cuts and the tensions that arise between different public values.

Methods

We conducted a qualitative ethnographic study of the Dutch Social Support Act by conducting observations, interviews, and analysing documents. To get an in-depth understanding of how the value of personalization is operationalized in practice, we observed face-to-face interactions between frontline workers from municipalities and citizens who applied for social support in the city of Rotterdam (2019-2020). Fieldnotes were made during each face-to-face interaction: they describe how frontline workers balance different values, such as personalization and affordability, and how they justify these solutions to citizens and their professional peers. To place these micro-interactions in a broader network perspective, semi-structured interviews (n= 15) were conducted with policy makers, lawyers and judges in Rotterdam and other places. Interviews were transcribed in verbatim. In addition, documents were analysed such as policy guidelines of municipalities and caselaw. Jointly, these different data were analysed for value tensions and the use of discretionary space of municipalities in a multi-actor network.

Results

Our results provide insights into the use of discretionary space of municipalities and how they deal with different public values. First, despite much discretionary space that is created 'in theory' by the Dutch Social Support Act, our results show that discretionary space 'in practice' is collectively nested in a sequence of decisions by other actors (Hupe & Hill 2007), such as judges, lawyers, quality workers and policy advisors. As such, discretionary space to come to personalized solutions is not an individual matter of frontline workers, but a collective issue embedded in a broader network of actors. Second, the value of personalization -as operationalized by many municipalities in result-based indications policy- is often deemed in conflict with the values of equal treatment and legal certainty. This especially becomes evident in recent lawsuits filed by citizens and judgements made by the Court of Appeals about the arbitrariness of care. Third, due to recent budget shortages in social care, personalized support is often viewed as a 'value in disguise' due to the appeal to informal care networks of citizens to keep care affordable.

Discussion

Our results show that even a 'best case scenario' for personalized support -i.e. responsive law that grants much discretionary space to municipalities to tailor solutions to personal needs of citizens- is not a guarantee for the realization of personalized practices. As a case of responsive law, the Dutch Social Support Act risks losing its legitimacy when a) other public values such as equality and legal certainty are not sufficiently taken into account and b) personalized care is viewed as a 'value in disguise' that promotes budget cuts via the mobilization of informal care givers in the social network of citizens. To regain legitimacy, municipalities have to reinvent how to make multi-value compromises between different public values, thereby locally defining more situated forms of justice. Furthermore, it is necessary for municipalities to reflect on the current felt discrepancy between discrepancy 'in theory' (as granted by responsive law) and 'discrepancy in use'. Municipalities feel they have been handed a bad hand: their discretionary space being curbed in by law on the hand side and budget cuts on the other hand. However, collective discretionary space that is embedded in a multi-actor network does not necessarily mean that there is a priori little space to tailor policies to personal situations (Rutz et al. 2017). It does mean that municipalities have to come to a more relational and negotiated understanding of discretionary policy making which potentially offers opportunities for more local and personalized forms of justice (Elster 1992).

The MULTI-ACT project: enabling multi-stakeholder, mission-oriented research & innovation for improved health care

Authors: Prof. Giancarlo Comi[1]; Dr. Paola Zaratin[2]

[1]European Charcot Foundation, Milan, Italy. [2]Italian MS Foundation, Milan, Italy

In a time of challenges that involve transformative missions such as those in the health field, the future of sustainability requires new multi-stakeholder and multidisciplinary organizational models of cooperation that guarantee a long-term return on investment, not only economic. In particular, brain health and care are challenging our notion of good science as such and needs better research. To make this space attractive for all the stakeholders involved, a strategic and collaborative investment framework and new business models are required. This is in line with the mission of Responsible Research Innovation (RRI) EU's Horizon 2020 programme, that encourages different stakeholders to work together during the whole research and innovation process, to keep it aligned with the values, needs and expectations of society and patients. The RRI programme challenges our notion of good science by arguing that excellence, validity and relevance are connected by engaging patients and society in the research continuum as key stakeholders with a decision-making role. Within this strategic framework, the mission-oriented research & innovation model promoted by the EU-funded project MULTI-ACT aims to increase the impact of health research and innovation of Multi-stakeholder Research Initiatives (MSRIs). The health research community is actually already demonstrating an increasing interest in the MULTI-ACT approach[1][2].

MULTI-ACT provides a new Collective Research Impact Framework (CRIF),which is translated into: new governance criteria allowing for the effective cooperation of all relevant stakeholders in multi-stakeholder research initiatives and transformative governance; innovative guidelines for effective patient engagement across the health research and innovation pathway; a new tool for the assessment of research impact across different dimensions and a digital toolkit that integrates the MULTI-ACT model and tools. The core component of such CRIF, namely the Master Scorecard, lists 45 aspects and 115 indicators for assessing the impact of health under different dimensions: mission (efficacy), excellence, social, economic dimension, and the patient-reported dimension. Founding principles of CRIF will be increasing mission-based accountability and empowering the assessment of the social impact of the initiative, with special attention to how research affects patient reported dimension.

The mission-related dimension is the explicit driver for accountability approach developed by MULTI-ACT proposal. The MS Care Unit, a multi-stakeholder research initiative[3] promoted by the European Charcot Foundation, aims to provide a leading-edge multidisciplinary care model for the treatments of people with and affected by MS, while advancing research to prove its cost-effectiveness for the society (sustainability). During the meeting we will present how the MULTI-ACT CRIF is applied to the MS Care Unit Initiative to maximize and evaluate the impact of health research, with specific emphasis on those outcomes that matter to patients (science with and of patients input).

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[1] https://www.nature.com/magazine-assets/d41586-018-05750-5/d41586-018-05750-5.pdf

[2] https://www.thelancet.com/action/showPdf?pii=S1474-4422%2819%2930357-6

[3] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6439947/pdf/10.1177_1352458518807082.pdf

Relationships of self-management abilities to loneliness among older people: a cross-sectional study

Authors: Prof Dr Anna Petra Nieboer[1]; Dr KlaasJan Hajema[2]; Dr Jane Murray Cramm[1]

[1]Erasmus University Rotterdam, Rotterdam, The Netherlands. [2]Community Health Service South Limburg, The Netherlands, Geleen, The Netherlands

Background

We investigated relationships of broader self-management abilities (self-efficacy, positive frame of mind, investment behaviour, taking initiatives, multifunctionality of resources, variety of resources) to social and emotional loneliness among community-dwelling older people while controlling for background characteristics.

Methods

This cross-sectional study employed a representative sample of 41,327 community-dwelling people aged≤55 years in Limburg, the Netherlands, identified using the population register (weighted per district, complex sampling design). In total, 20,327 (50%) people responded to the questionnaire.

Results

All self-management abilities were associated negatively with emotional loneliness. Taking initiatives, multifunctionality, self-efficacy, and a positive frame of mind were associated negatively with social loneliness. Self-efficacy had the strongest relationships with social and emotional loneliness.

Conclusions

In combatting loneliness among older people, investment in their ability to self-manage their social lives and activities, such as increasing opportunities for positive social interaction and social support and reducing maladaptive cognition, seems to be crucial.

Primary care professionals' experiences with care delivery to high-need, high-cost, patients: a qualitative study

Authors: R.G.M. Smeets, MSc; M.E.A.L. Kroese, PhD; D. Ruwaard, MD, PhD; N. Hameleers, MSc; A.M.J. Elissen, PhD

Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht, The Netherlands

Context

Growing workload in primary care has contributed to alarming burnout rates amongst primary care professionals (PCPs), which poses risks for achieving high-quality care. In reaction to this, management strategies in primary care increasingly focus on patients who account for the highest workload, the 'high-need, high-cost' (HNHC) patients. To ensure that these strategies offer more person-centred and efficient care, and hence contain (additional) workload, it is crucial to take into account the PCPs' perspective. Therefore, the current study aimed to create insight into PCPs' experienced barriers and possible solutions with regards to person-centred, efficient care delivery to HNHC patients.

Methods

A qualitative study using focus group interviews with PCPs connected to a Dutch primary care group ('Huisartsenzorg Drenthe'). PCPs were gathered by convenient sampling. A semi-structured interview guide was developed for the interviews. The interview guide included one theme related to the experienced barriers and one theme related to the experienced solutions with regards to person-centred, efficient care delivery to HNHC patients. Qualitative content analysis was employed deductively to analyse the data. We developed a categorisation matrix for coding purposes. The matrix was based on the SELFIE framework that describes relevant concepts of integrated care for multimorbidity, according to six health system components with three levels (micro, meso, macro):service delivery, leadership & governance, workforce, financing, technologies & medical products, and information & research. Besides, a holistic understanding of the individual and his/her environment is positioned centrally in the framework. The software program ATLAS.ti was used to support the analysis.

Results

Forty-two PCPs, mainly general practitioners and somatic practice nurses, participated in five focus group interviews. In relation to the frameworks core (the individual and environment), reported barriers revolved mainly around the complex biopsychosocial needs of HNHC patients. With regards to the health system components, PCPs reported barriers and solutions in particularly four of the six health system components in the framework: service delivery, workforce, technologies & medical products, and leadership & governance. Barriers in the first three components mainly relate to micro and meso levels. These can be summarised as a lack of time to address psychosocial problems, an insufficient number of PCPs skilled to address the complex HNHC patients' needs, and a lack of efficient inter-professional patient information retrieval and sharing. In addition, barriers in the fourth component, leadership & governance, relate to macro level policy efforts that (sometimes unintentionally) stimulate complex task transferral to primary care.

Discussion

This qualitative study suggests that the current system of care delivery within primary care is insufficiently equipped to accommodate the complex biopsychosocial needs of HNHC patients. To strengthen the system, it is firstly important to enable PCPs to spend more attention to, in particular, the psychosocial complexities of HNHC patients. This calls for re-organising primary care internally: taking into account the experienced lack of time, the insufficient number of equipped PCPs and lack of inter-professional information retrieval and sharing is crucial. Secondly, PCPs should be supported in cooperating and communicating more efficiently with health services outside primary care to adequately deliver person-centred, efficient care. Therefore, as a prerequisite, it is crucial to direct policy efforts at the design of a strong system of social and community services. In terms of future research, it is important to assess the feasibility and effects of re-designing primary care based on the provided recommendations.

Why the presentation of outcome information is indispensable in making treatment decisions for Multiple Myeloma

Authors: Dr Mirjam Garvelink; Kirsten Daniels, MSc; Dr Okke de Weerdt; Dr Paul van der Nat

St. Antonius Hospital, Nieuwegein, The Netherlands

Context

As part of a Value-based healthcare (VBHC) trajectory for multiple myeloma (MM), outcomes of MM care (i.e. survival, side effects, quality of life and dying) are used to improve the quality of care. A next step for VBHC is to use outcome information to support Shared Decision-Making (SDM) and improve individual care. Not much is known about communication of real-world outcomes of care to support SDM for MM patients. We aimed to explore MM patients' and caregivers' views on 1) current communication, information exchange and decision-making processes and 2) how and which outcome information could be used to support SDM.

Methods

Qualitative data collection by means of two focus groups with MM patients and their caregivers (duration: three hours). Main topics were experiences and needs with information provision, communication in the consultation, treatment decision-making, and the use of outcome information. The topics and data collection methods were pilot tested with a group of researchers. Focus groups were audiotaped and transcribed verbatim and analysed in ATLAS.ti in an iterative process by two researchers using open coding to identify key themes and domains. Member checks were performed.

Results

Participants included 11 patients (91% male, 71 years old) and 10 caregivers (89% partners). Patients' informational needs varied according to their disease stage. At the time of diagnosis, stepwise information was preferred. Later in the trajectory, less information was required; patients solely wanted an explanation of symptoms and "how they were doing". Patients appreciated the empathetic behaviour of haematologists and the supporting ambience in the consultation.

No patients were involved in decisions about first line therapy. For follow-up lines of therapy, input was asked from patients about outcomes and ways of administration, but the haematologist made the decision and explained their considerations. Patients appreciated the haematologist deciding for them, as they considered themselves 'lay', and had much trust in their haematologist. However, in future decision-making processes, patients preferred more involvement and wanted more information about available options and outcomes (e.g. survival, quality of life, side-effects).

Discussion

Participants were satisfied with the information provision and decision-making, but they were not always aware of multiple treatment options and did not perceive to be involved in all treatment decisions. The consultation context seemed to provide a good basis for SDM, and haematologists seemed to implicitly follow multiple SDM steps (weighing options with their risks and benefits in terms of outcomes, taking into account what they think is important for their patients) in their treatment decisions, albeit not with the patient. The outcome information that is currently measured as part of the VBHC trajectory could fulfil an important information need and support future SDM by enabling discussions of what is important for patients.

The need for co-creation of care with multi-morbidity patients – a longitudinal perspective

Authors: Drs S.J. Kuipers; Prof Dr A.P. Nieboer; Dr J.M. Cramm[1]

ESHPM, Rotterdam, The Netherlands

Background

The global prevalence of multi-morbidity is increasing. The management of primary care delivery for this patient population is complex, due to single disease–oriented guidelines, complex care needs, time constraints, and the involvement of multiple healthcare professionals. Thus, co-creation of care may be valuable for improving healthcare delivery to multimorbid patients. Co-creation of care is based on the quality of communication and relationships between healthcare professionals and patients. This longitudinal study is the first to investigate the relationships of co-creation of care to physical and social well-being and satisfaction with care among patients with multi-morbidity in a primary care setting.

Methods

In 2017 (T0) and 2018 (T1), a longitudinal survey, measuring co-creation of care, social and physical wellbeing, and satisfaction with care, was conducted among patients with multi-morbidity from seven primary care practices in Noord-Brabant, the Netherlands (n=138). Paired sample t-tests and multivariate regression analyses were performed to identify improvements in co-creation of care over time, and relationships between (improvements in) co-creation of care and social well-being, physical well-being, and satisfaction with care.

Results

The mean age of the 138 participating patients at T1 was 73.50 ± 9.99 years; 42.2% were male, 37.2% were single and 33.8% had low educational levels. Co-creation of care improved significantly over time (t= 2.25, p = 0.026), as did social well-being (t = 2.31, p = 0.022) and physical well-being (t = 2.72,p = 0.007), but not satisfaction with care (t=0.18, p=0.858). Improvements in co-creation of care from T0 to T1 were associated with social well-being (B = 0.157, p = 0.002), physical well-being (B = 0.216, p = 0.000) and satisfaction with care (B = 0.240, p = 0.000).

Discussion

Improvements in co-creation of care were associated positively with the physical and social well-being and satisfaction with care of patients with multi-morbidity in primary care. Investment in co-creation of care by primary care practices may lead to better outcomes for patients with multi-morbidity. Some limitations should be taken into account. First, as it was conducted in Noord-Brabant, the Netherlands, the generalisability of our findings may be limited; further research in other countries and/or regions is recommended. Second, only patients who filled in the questionnaire at both T0 and T1 were included in this study; 36% (n = 78) of patients filled in the questionnaire only at baseline and were excluded. The high attrition rate resulted in a more favourable evaluation of co-creation of care by the remaining sample, which may have caused underestimation of improvement in co-creation of care, as improvement could have been greater in the total sample.

Tailoring the provision of health insurance information to the literacy level of insured in the Netherlands

Authors: Drs Laurens Holst[1]; Prof Dr Jany Rademakers[1,2]; Dr Anne Brabers[1]; Prof Dr Judith de Jong[1,2]

[1]Nivel, Utrecht, The Netherlands. [2]CAPHRI, Maastricht, The Netherlands

In several countries elements of managed competition in which insured can choose between multiple insurers have been introduced. In these systems choice of a suitable health insurance is important. Insured need an adequate level of health insurance literacy in order to understand health insurance information, and make an informed choice. This study focuses on insured's own perception of their skills in choosing health insurance. We aim to provide more insight into how easy it is for insured in the Netherlands to comprehend the information they receive on choosing health insurance.

We obtained information on insured's own perception of their skills in choosing health insurance by sending questionnaires to members of the Nivel Dutch Health Care Consumer Panel (DHCCP) in February 2017. In total, 1,500 members of the DHCCP were approached. The sample was representative of the general population aged 18 years and older in terms of sex and age. The results described in this report are based on the answers from 659 respondents (response 44%). We mainly performed descriptive statistics and differences between groups were tested using chi-square (Stata 15.0).

Results show that 60% of the insured in the Netherlands indicate that choosing health insurance is important and 48% indicate that it is worthwhile. Younger and more highly educated insured indicate to a greater extent that choosing health insurance is important and worthwhile than, respectively, older and lower educated insured. Furthermore, 57% of the insured in the Netherlands indicate that it is slightly, or very difficult to decide which health insurance they want. 53% indicate that it is slightly, or very difficult to judge if a specific insurance is suitable for them. Comparing different types of health insurance is considered slightly, or very difficult by 59% of the insured in the Netherlands. Finally, approximately half finds it slightly, or very difficult to judge information regarding health insurances on reliability (54%), relevance (46%), and completeness (61%). In these statements, no clear differences were found regarding age or level of education.

A majority of the insured in the Netherlands acknowledge that it is important to choose health insurance. However, a large number of insured also indicate that they find it difficult to judge information on different types of health insurance. Based on the information provided to insured, they do not seem to have the right skills, or motivation, to decide which health insurance fits their preferences best. A greater understanding of the health insurance literacy of insured is needed in order to gain more insight into insured's skills in choosing suitable health insurance. Insight into the level of literacy regarding health insurance among insured is a first step. It is the beginning of a process that will guide the tailoring of health insurance information to the literacy level of all insured in the Netherlands.

Implementation of a complex intervention to reduce the risk of cardiovascular disease events in rural primary health care in China: process evaluation of a pragmatic clustered randomised control trial

Authors: Dr Guanyang Zou[1]; Miss Wei Zhang[2]; Dr Rebecca King[3]; Mr Zhitong Zhang[4]; Prof John Walley[3]; Prof Xiaolin Wei[4]

[1]School of Economics and Management, Guangzhou University of Chinese Medicine, Guangzhou, China. [2]China Global Health Research and Development, Shenzhen, China. [3]Nuffield Centre for International Health and Development, University of Leeds, Leeds, United Kingdom. [4]Division of Clinical Epidemiology &Institute of Health Policy, Management and Evaluation, Dalla Lana School of Public Health, University of Toronto, Toronto, Canada

Context

Cardiovascular disease (CVD) is the biggest public health challenge in China, accounting for 45% and 43% of total deaths in rural and urban areas respectively in 2015. Despite the high incidence of CVD in China, standardised CVD preventive care has not been available in rural primary care facilities, and there are no operationalized clinical guidelines designed to prevent CVD events for patients with hypertension or diabetes. This study aims to understand the feasibility of implementing a complex intervention to reduce CVD events in the rural primary health care of Zhejiang province, China.

Method

This was a pragmatic cluster randomised controlled trial (cRCT) conducted over 3 years in 33 intervention and 34 control township hospitals. We recruited 28,130 participants, who were 50-74 years old, had hypertension and CVD risk scores >20% or diabetes, but without a history of severe CVD events. We implemented case management guideline, training and performance monitoring meeting and patient adherence support activities fit within the job description of family doctors in the township hospitals. Specifically, the family doctors recommended a standardised package of preventive medicines, lifestyle changes and provide medication adherence support for the participants. A mixed-method approach was adopted for the evaluation one year after the intervention. The quantitative data was collected from the internet-based public health management information and trial management system designed for family doctors. In addition, we conducted 27 providers and 18 patients' semi-structure interviews and 23 observations of clinical practices in the 9 township hospitals in the intervention arm.

Results

As compared to the control arm, the intervention substantially improved prescribing rates of anti-hypertensives, statins and aspirin, and medication taking rates of aspirin and statins ($P<0.001$), but it did not change the mean systolic and diastolic blood pressures significantly ($P = 0.79$ and $P = 0.05$, respectively, $n=28,130$). The intervention significantly reduced rates of smoking ($OR = 0.23$, $P = 0.02$) and salt intake ($OR = 2.85$, $P = 0.03$) in the panel ($n=950$) versus control arms. The qualitative study showed that, effective and repeated training using an interactive approach was crucial to improve the prescribing behaviour of primary care providers and their patient communication skills. The poor awareness of patients may have compromised the uptake of CVD preventive drugs and lifestyle changes. Health system factors constrained provider and patient response to the intervention, such as low doctor-patient trust, financial barriers due to limited health insurance reimbursement and drug purchasing system, and poor primary staff motivation.

Discussion

Our study suggests the feasibility of implementing a complex CVD risk reduction strategy, which improved prescribing and some lifestyle changes in the rural primary care in China. However, success and sustainability of the intervention will depend on the improvement of health systems barriers.

Current Controlled Trials ISRCTN58988083.

Positive and negative ageing perceptions account for health differences between older migrant and native populations in the Netherlands

Authors: Prof Dr Anna Petra Nieboer; Dr Thijs van den Broek; Dr Jane Murray Cramm

Erasmus University, Rotterdam, The Netherlands

Objective

To assess the extent to which the persistent differences in self-rated health (SRH) between older migrants and natives are attributable to negative and positive aging perceptions.

Method

Three populations in Rotterdam, the Netherlands were analysed; A sample of natives aged ≥70 (n=1150), Turkish migrants aged ≥65 (n=680), and Moroccan migrants aged ≥65 (n=292). To assess people's internal representations of the ageing process, we used the Aging Perceptions Questionnaire Short (APQ-S) based on Leventhal's social regulation model. The APQ-S distinguishes negative (consequence negative, timeline chronical, timeline cyclical and emotional representations) and positive (consequence positive, control positive and control negative) dimensions and has been validated in native and migrant populations. We analysed differences in ageing perceptions between migrants and natives and the influence of ageing perceptions on SRH. We used the KHB decomposition method to assess the mediating role of ageing perceptions on the relation between migration background and SRH.

Results

Older migrants exhibited more negative and less positive ageing perceptions than natives (with the exception of positive consequences of ageing). Furthermore, ageing perceptions mediated the relationship between migration background and SRH. Differences between Turkish migrants and native Dutch older persons were mainly explained by differences in consequence negative and timeline cyclical. Differences between Moroccan migrants and native Dutch older persons were mainly attributable to differences in consequence negative and control positive.

Discussion

Differences in positive and negative ageing perceptions between older migrants and natives in the Netherlands largely explain the persistent differences in SRH between these populations.

SUSTAINABILITY

Improving the sectoral qualifications system in the field of healthcare

Authors: Dr Vitaliy Koikov[1]; Dr Zaure Baigozhina[1]; Dr Zhanagul Bekbergenova[1,2]; Dr Ayagyoz Umbetzhanova[1,2]; Dr Gulmira Derbissalina[2]; Dr Aigul Mergentai[1]

[1]Republican Center for Health Development, Nur-Sultan, Kazakhstan. [2]Astana Medical University, Nur-Sultan, Kazakhstan

Context

The intensive development of the labor market in the healthcare sector and the active introduction of new technologies, noted in recent years, require the creation of conditions for the continuous provision of the healthcare sector with the necessary number of specialists with the appropriate level of qualification and competencies. For this, it is necessary to ensure the timeliness and objectivity of planning and forecasting the need for human resources for health care, the development of training systems, the assessment of professional preparedness and the continuous professional development of health workers. Moreover, the development of the sectoral qualifications system, as well as its main elements (the sectoral framework of qualifications, professional standards, training programs and the system for confirming the qualifications of personnel in the field of health) is particularly relevant.

Methods

We have analysed the existing system for regulating the qualifications of health professionals in the Republic of Kazakhstan with an analysis of its strengths and weaknesses, opportunities and threats (based on a SWOT-analysis), a content analysis of the existing regulatory framework in the healthcare sector and, taking into account the best international experience, proposed legislative regulatory mechanisms for the sectoral qualifications system in the field of healthcare.

Results

The key problems of regulating the qualification system in healthcare in Kazakhstan include the lack of a functioning sectoral framework of qualifications and professional standards that regulate the requirements for the health workers, there is no clear distinction of competencies by the qualification levels. There is also a mismatch between educational programs and practical health care needs, an imperfection of the system for assessing professional preparedness when graduates are allowed to practice. Health care professionals trained and evaluated under existing programs do not fully meet the needs of practical health care.

Given the existing weaknesses and analysis of world experience, we have made suggestions for legislative consolidation of regulatory mechanisms for the sectoral qualifications system in the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system".

According to our model, the sectoral qualifications system in the field of healthcare is a set of mechanisms for legal and institutional regulation of the demand for qualifications of health workers from the labour market and the supply of qualifications from the health education system, including:

1) sectoral framework of qualifications in the field of healthcare;
2) professional standards in the field of healthcare;
3) state compulsory standards of education in the field of healthcare;
4) system for assessing the professional preparedness and certification of specialists in the field of healthcare;
5) system of continuous professional development of health workers.

Discussion

The sectoral qualifications system is a mechanism for providing the healthcare sector with human resources that meet the needs of the state, business and society. Legislative consolidation of these norms made it possible to ensure conditions for effective legal and institutional regulation of the demand for qualifications of health workers from the labour market and the offer of qualifications from the health education system in order to meet the needs of the state, business and society in maintaining and strengthening the health of the population in Kazakhstan.

Examining health workforce governance through the lens of the profession – A re-analysis of New Zealand's primary care workforce policy actors

Author: Dr Gareth Rees

ESAN University, Lima, Peru

Context

Professions are an important player in health care governance and delivery. As such, professions exert influence over policy and may act to promote or impede that which legitimises or challenges their status or power within an institutional setting. In a situation of reconceiving Primary Care (PC) as integrated and therefore, less bounded and more collaborative, an understanding of power dynamics and the positions of professions on workforce issues is beneficial for developing appropriate workforce governance settings. Here, this theme is examined for New Zealand through an analysis of its PC workforce through the lens of the profession.

Methods

This study uses the actor-based framework for studying professions, which identifies four actors and enables systematic analysis of these actors' interactions. The four actors are: (i) Practicing professionals; (ii) University-based professionals; (iii) Organised users, consisting of the employers and third party payers of professions; and (iv) the State, as regulator and policy maker. For this study two actor configurations were analysed. The first, is the framework's four-actor configuration and the second has five actors, where the practicing professional actor is separated into two actor categories, Medical and Nurse, to enable their comparison. The study's data were sourced from previously gathered health workforce actor data and reclassified according to the framework's criteria. By appropriately formatting and entering these data into the actor analysis software MACTOR, a range of tabular and graphical output of the actors' relative power, inter-relationships and issue positions for each configuration were produced.

Results

The results of the first configuration reveal the Organised user actor to be dominant, with high influence and low dependence scores, while the others exhibit an opposite pattern. This contrasts with the second configuration, where the Medical and Nurse practicing professionals have much higher influence than their collective position in the first. The University-based professional actor similarly realigns in the second configuration, also due to its influence score rising. In both configurations the State has little influence. In terms of inter-relationships, Practicing professionals and Organised users have strong convergences in both configurations, indicating they have moderate alliance forming potential, though the convergence strength weakens somewhat for the Nurse practicing professionals in the second configuration. The State and Organised users have the strongest divergence over issues in the first configuration, though in the second configuration, the strongest divergence relationship is between Nurse practicing professionals and Organised users.

Discussion

New Zealand's PC ownership is dominated by the sole or small group general practice model. These employ nursing staff and sometimes allied health professions. While this model is a barrier to integration, it is slowly changing. This institutional setting contextualises the relative power of the actors and indicates that the actors may accept some workforce policies but not others. Some workforce issues find unanimous support, such as those affecting provision quality, access to staffing and business viability, suggesting an easier implementation of policy solutions for these, though actor divisions are also indicated for issues such as the workforce's professional mix and addressing medical shortages. These harder to resolve actor positions provide insights that more traditional stakeholder analysis may miss. Thus, these data enable policy makers and managers to design inclusive workforce policies and actions, while preparing to address divisive issues that may require deeper consideration.

Personalised care, personalised training? Challenges in tailoring nurses' training to the meet the demands of personalised nursing home care

Authors: Dr Marieke van Wieringen[1]; Dr Ludo Glimmerveen[1,2]; Prof Henk Nies[2,1]

[1]VU Amsterdam, Amsterdam, The Netherlands. [2]Vilans, Utrecht, The Netherlands

Context

In the Netherlands, as in other Western countries, there are increasing calls for personalized care and for professionals that are capable of delivering such care. At present, however, most nurses' training programs predominantly focus on 'technical' nursing skills, while nursing home care would benefit from a more pronounced focus on 'social' skills, allowing students to tailor their work to individual clients' welfare, needs and values. We study an innovative nursing training program in which training institutes and care providers try to better align nurses' training to the requirements of personalized care by providing more personalized and relation-oriented training for students.

Methods

Five organizations from the same region participated in the program: two vocational training institutes and three organizations providing (mainly) residential elderly care. A key objective of the program was to train students to take individual clients' welfare, needs and values as the starting point for care-giving, and, thereby, re-align nurses' training with the context in which they come to work. In our study, we focus on the implementation and coordination process of the program, aimed at making such alignment happen both between the different organizations participating in the program, but also within these organizations. Our data consists of field observations of project meetings within and between the participating organizations, in-depth interviews with the various managers, educators, nurses and students that were involved in the program as well as document analysis.

Results

An important feature of the program was to flexibly adjust nurses' training to the individual needs of students and the particular requirements of their on-the-job training context. However, we encountered a paradoxical dynamic. Overall, training institutes' educators and nursing home staff shared enthusiasm for the programs' goals. However, the relationship between educators and nursing staff was suboptimal; they hardly communicated with each other. This situation both triggered and amplified questions about who – school, nursing home staff or their joint program's management - was in charge of particular elements of students' training. Importantly, these questions did not just exist between school and nursing home staff, but also came up within each participating organization. We reveal that a misalignment of employees' tasks and responsibilities regarding the program within each organization inhibited employees' efforts to externally align their work with external partners, in turn, hampering the envisioned flexible adjustment to students' needs.

Discussion

The innovative nurses' training program we studied was part of a wider movement aimed at realizing more person-centred care. The programs' goals and content enjoyed wide support among all stakeholders involved. However, we also highlight the challenges that come with the implementation of such an initiative in the situated contexts of both training institutes and care organizations. Our study shows that successfully implementing a new vocational training program that aligns in-school and on-the-job learning requires intra-organizational and inter-organizational alignment prior to and throughout the implementation of the program. Nursing home managers and training institute managers play an important role in aligning perspectives and roles within their organizations. This includes engaging their staff - the people actually enacting the program - in discussions about the (changing) roles and responsibilities in student training. Moreover, managers should actively facilitate staff to coordinate and align their work across the boundaries of their own organization.

Shaping and sustaining the NHS clinical workforce of tomorrow: optimising recruitment and retention of overseas doctors through support strategy development

Author: Dr William Sacre

University Hospitals of Leicester NHS Trust, Leicester, United Kingdom

Context

The United Kingdom's National Health Service (NHS) faces a significant workforce shortfall in the near future. Potentially insufficient clinician numbers threaten the sustainability of adequate service provision, essential in order to meet the rapidly rising demand upon modern healthcare. In the recently published 'Interim NHS People Plan', proposed strategies to address this focus on work environment optimisation and enhanced staff recruitment, with overseas doctors being proposed as a potentially promising labour source. The long-term effectiveness of this workforce intervention will be reflected in retention figures, highlighting the fundamental importance of establishing early robust professional initiatives to support induction and integration.

Methods

The University Hospitals of Leicester NHS Trust has adopted a proactive and structured approach to overseas doctor recruitment for several years. Consequently, the Trust employs a substantial number from this group, as demonstrated by the junior doctor workforce numbers within the Emergency & Specialist Medicine (ESM) directorate, with approximately 50% having trained internationally. Novel strategies focussing upon providing pastoral support and professional development of newly recruited overseas doctors have been trialled and embedded within the Specialist Medicine branch. Trust Induction is facilitated through the 'Buddy System', a collaborative support network which links each newly starting international doctor with an individual mentor, with the ultimate goal being enhancement of the overall experience of working in a new healthcare system. Education and training needs have been addressed through the development of a dedicated peer-led teaching programme, a unique concept providing active teaching opportunities.

Results

Results for these aforementioned interventions can be divided into short and long term. Since its inception in early 2019, the 'Buddy System' pilot has provided mentorship for 42 internationally trained doctors new to both the NHS and the Trust. Informal individual feedback has been positive overall; formal feedback is currently being undertaken for the most recent recruitment cohort, to review how this pilot concept can be further optimised. The peer-led teaching programme commenced in April 2019 and, over the 18 sessions to date, has had a variety of medical topics presented. Attendance at these continues to grow and future presenters volunteer months in advance, demonstrating successful ongoing embedding of the initiative. From a longer-term perspective, measures of success of these workforce integration strategies such as enhanced recruitment and retention figures cannot be commented upon at this stage due to their recency.

Discussion

Within the workforce infrastructure of the NHS, overseas doctors are key players, comprising 28% of current primary and secondary care doctors. Identification of a forthcoming clinician shortfall has prompted urgent interventions to be devised in order to maintain service delivery. Development of strategies directed towards internationally recruited doctors promotes integration and nurtures professional growth, thereby optimising the work environment. Such educational and support initiatives are postulated to have a widespread long-term benefit for the industry, through amelioration of clinical ability, improved workforce retention and an enhanced recruitment profile. A wealth of potential exists for advancement of such integration and development projects. Future work should focus on further initiative design and optimising current strategies, with subsequent interprofessional and transnational expansion, in order to engender sustainability within the healthcare environment.

Delphi study to identify the professions that the national health system will need in the future

Authors: Dr Vitaliy Koikov; Dr Amangali Akanov; Dr Assel Abduazhitova; Dr Alma Aubakirova; Dr Dinara Otargalieva

Republican Center for Health Development, Nur-Sultan, Kazakhstan

Context

The labour market is constantly changing, and the professions that were in demand 5 years ago may be unnecessary today. At the same time, constantly emerging new professions require timely planning for the training these specialists in advance of the need for these specialists in the health system. In this regard, regular research is required to predict future professions. With this in mind, the aim of our study was to determine the list of new professions that the national health system of the Republic of Kazakhstan will need in the next 10 years.

Methods

To conduct the Delphi study, a group of experts was formed according to the specified inclusion criteria. The inclusion criteria for experts were that they should be professionally connected with the studied area of the health system and have adequate understanding or work experience in at least one of the following four areas: the provision of health services at a professional level, personnel selection, high-tech health services, health service management. Survey developers were excluded because they could affect the cleanliness and quality of the survey results.196 experts were selected according to the principle of “cardinal points” - from 5 organizations in 5 regions of the Republic of Kazakhstan (north, south, west, east, centre). The Delphi study was conducted in two rounds. According to the results of the Delphi study we prioritized new professions that the national health system will need in the next 10 years. We also gave recommendations on the necessary conditions and requirements for the implementation of these competencies and specialties.

Results

Based on the Delphi study, a list of the following future professions was determined: IT specialist in medicine (creating and managing health databases, developer of programs and applications), bioethics, telemedicine physician(diagnostician using ICT and able to make diagnoses online), molecular nutritionist, clinical bioinformatics, consultant for healthy old age, expert in personalized medicine, engineer for organs and tissues, life style strategist (mentor and consultant on human lifestyle issues), operator of medical robots, ergotherapist, kinesiotherapist, biopharmacologist (specialist in the design of new biological products). Experts also noted the need to introduce such new professions, the training of which is not carried out in the health education system, but which are related to the formation of public health and the provision of the health system, such as a medical journalist, medical law specialist, architect of medical equipment, developer of cyber prosthetics and implants, medical economist, medical travel agent.

Discussion

The results of the Delphi study indicate the need to include selected professions in the sectoral qualifications system (sectoral qualifications framework, nomenclature of specialties, professional standards), as well as the need to launch training programs for these specialists. It is also necessary to create at the sectoral level a support and promotion system for new professions in order to improve the quality of healthcare services, as well as to update regularly the list of future professions based on Delphi studies and foresight of technological trends with the health system.

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The long arm of the financial crisis: how Basel III and Solvency II influence Dutch healthcare organisations

Authors: Tessa van Dijk, MSc[1]; Dr Wilma van der Scheer[2]; Prof Dr Richard Janssen[1]

[1]Erasmus School of Health Policy & Management, Rotterdam, The Netherlands. [2]Erasmus Centre for Healthcare Management, Rotterdam, The Netherlands

Context

In the past decade, healthcare organizations have faced major policy reforms in all western countries. In the Netherlands this included a system reform that introduced managed competition in 2006. One of the consequences of this reform was that healthcare organizations became risk bearing entities responsible for their own financial stability. It also resulted in banks and health insurers as their main financial stakeholders. The first provides both long- and short-term capital, the second acts as purchaser of healthcare services.

Soon after, the financial crisis followed which induced stricter regulation for banks (Basel III) and insurers (Solvency II) in order to create a more resilient sector and to prevent another crisis. Because of these developments, the Basel III and Solvency II regulations (indirectly) influenced the Dutch healthcare sectors trough banks and health insurers.

Methods

In order to uncover the impact of Basel III and Solvency II on Dutch healthcare organizations and their interaction with banks and health insurers, information has been collected through semi structured interviews (n=22).Five important groups are represented in this research: financial experts (n=4), healthcare organizations (n=4), banks (n=5), health insurers (n=5) and supervising authorities (n=4). Within the group of healthcare organizations, a distinction has been made between hospitals, mental healthcare organizations and long- term care organizations as they represent the largest sectors within healthcare. Interviews were conducted between March 2017-March 2018, and again at the end of 2019. Atlas.ti was used to thematically code and analyse the data.

Results

Our results show that Basel III and Solvency II have an indirect impact on healthcare organizations trough their interactions with banks and health insurers. Basel III causes banks to decrease their amount of capital investments and loan periods and increase the interest rates and commitment fees within the healthcare sector. Furthermore, banks demand more information through business plans, future prognosis and financial indicators. Solvency II has caused a major shift in the health insurance organizations and their focus on risk management and accountability. The consequences for healthcare organizations are demands for faster declarations of healthcare services and stricter contracting agreements.

We can conclude that banks and health insurers manage their own (financial) risks by shifting it towards healthcare organizations. This is mainly done through contract agreements and the exercise of power, which makes banks and health insurers increasingly critical stakeholders.

Discussion

The introduction of managed competition in combination with pressures from banks and health insurers because of Basel III and Solvency II has forced Dutch healthcare organizations to behave increasingly according to the principles of the private sector, especially concerning financial- and risk management.

From a societal perspective, the new requirements set by banks and health insurers lead to increased costs for healthcare organizations that cannot be spent on care itself. Furthermore, they encounter difficulty in access to capital for the building and renovation of healthcare facilities as well as the funding of medical equipment and large innovation projects. Consequently, the pressure on healthcare executives has increased as they need to maintain a good relationship with both banks and health insurers as well as manage risks and costs.

Hidden bedside rationing and conflicting loyalties in the Netherlands: a cross-sectional survey among physicians in internal medicine

Authors: Ursula W. de Ruijter, MD[1,2]; Hester F. Lingsma, PhD[2]; Willem A. Bax, MD PhD[1]; Johan Legemaate, PhD[3]

[1]Department of Internal Medicine, Northwest Clinics, Alkmaar, The Netherlands. [2]Medical Decision Making Section, Department of Public Health, Rotterdam, The Netherlands. [3]Health Law Section, Department of Public Health, Amsterdam University Medical Centers location AMC, Amsterdam, The Netherlands

Context

Public healthcare expenditure has been increasing rapidly, compromising the economic sustainability of healthcare systems. One possibility for cost-containment is healthcare rationing. Healthcare rationing can be defined as withholding beneficial care for cost reasons. Rationing by physicians, or bedside rationing, is frequently done without revealing the decision to ration or its rationale: so-called hidden bedside rationing. Hidden bedside rationing is problematic because it may result in conflicting loyalties for physicians, unfair inequality among patients and illegitimate distribution of resources. Our objective was to establish whether bedside rationing occurs in the Netherlands and whether it qualifies as hidden.

Methods

We distributed a cross-sectional survey among internists (i.e. consultants) and internal medicine residents (i.e. specialist registrars) employed at one of twelve participating hospitals in the Netherlands. The online questionnaire concerned knowledge of -, experience with -, and opinion on rationing. The content and phrasing of the questionnaire built upon previous research and was constructed in cooperation with medical professionals. A pilot questionnaire was tested among 20 physicians and was adapted accordingly. Multivariable ordinal logistic regression was used to explore relations between bedside rationing as well as disclosure of rationing and four variables: year of graduation, residency, type of employing hospital and mode of employment.

Results

The questionnaire was distributed among 1139 physicians. Response rate was 18% (n=203). Most participants (n=129; 64%) had experience prescribing a cheaper course of treatment while a more effective but more expensive alternative was available. Subsequently, 32 (24%) participants never disclosed this decision to their patient. Physicians underlined they experience conflicting loyalties with on the one hand decreasing healthcare access due to rising expenditure and on the other individual patient interest. The majority of participants (n=153; 75%) rarely discussed treatment cost possibly due to half of participants (n=100; 49%) reporting they rarely feel sufficiently informed about treatment cost in order to discuss it. Employment at an academic hospital was independently associated with more bedside rationing (OR=17 95%CI 6.1-48). Furthermore, residents were more likely to disclose rationing to their patients than internists (OR=3.2, 95%CI 2.1-4.7), while salaried physicians were less likely to do so than physicians in private practice (OR=0.5, 95%CI 0.4-0.8).

Discussion

Hidden bedside rationing occurs in the Netherlands: patient choice is on occasion limited with costs as rationale and this is not always disclosed. Physicians feel insufficiently informed about treatment cost which poses questions as to how well rationing decisions are being made. Moreover, most physicians face conflicting loyalties when engaging in bedside rationing. Our findings underline the importance of examining healthcare distribution, and whether it should include bedside rationing. Administrative gatekeeping, a possible alternative, allocates physicians' conflicting duties to different locations: unrestricted patient advocacy at the bedside and rationing scarce resources when constructing (clinical) policies. However, research into such alternatives needs to address the potential impact on bureaucracy as well as the imprecise nature of overarching policies in a time where tailored medicine is the aim. Further studies into incorporating informed opinion of the general public (i.e. future patients) on limit-setting could be used as legitimization of overarching rationing policies in order to decrease bedside rationing.

The challenge of sustainable LTC: the weak basis of hard figures

Authors: Nick Zonneveld, MSc[1]; Prof Dr Henk Nies[1,2]; Dr Marc Pomp[3]

[1]Vilans, Utrecht, The Netherlands. [2]Vrije Universiteit, Amsterdam, The Netherlands. [3]Marc Pomp Economische Beleidsanalyse, Egmond aan Zee, The Netherlands

Context

Sustainability of long-term care (LTC) is at stake in many countries. Appropriate projections are crucial for strategic planning of services and societal measures to face the challenges of population ageing. Cross-national comparisons of expenses may lead to useful avenues for policy development in and between countries.

OECD and EU data are often used to substantiate these comparisons. In this study we analysed the statistics of three high LTC spending nations: the Netherlands, Denmark, and Sweden. We analysed the 'hard' statistics of these countries. The present study was commissioned by Dutch Parliament to explore useful elements from Scandinavian policies and practices.

Methods

First, the Dutch LTC system was compared with the systems of four Scandinavian countries (Denmark, Finland, Norway and Sweden), based on desk research, consultation of OECD and EU data, interviews and communication with national experts by email.

Secondly, OECD data, EU data, national data, reports and interviews with seven experts were carried out to substantiate a number of hypotheses to explain the, at first sight, significant differences between the Netherlands, Denmark and Sweden. The manuals for comparative data collection were analysed, the data provided were compared with existing national and - where applicable - local sources.

Where significant underreporting appeared to be the case, validation by other sources was carried out and hypotheses for differences or lack of information were discussed with national and international experts involved in data delivery, as well as with additional publications.

Results

The data revealed that in particular the figures of OECD data on the health care elements of LTC are to some extent comparable, although significant inexplicable differences exist. However, the figures on social care elements of LTC are ambiguous and in several even cases lacking. Underreporting could be demonstrated to add up to more than 1% of GNP, whereas the health-related expenditures contribute to 2.3 to 2.7% of GNP. As comparative projections are based on baseline data, that are incomplete, the differences in projections between countries are not comparable and inaccurate.

Further, the explanations for the differences between the three countries, were tested by comparative data on differences in population ageing, health status, number of people with disabilities, supply of formal and informal care, salaries of staff, housing expenses, level of institutionalisation and costs per unit. It appeared than markedly less differences exit than the international statistics suggest.

Discussion

The study reveals that international LTC statistics are hard to compare between nations. In particular the social care elements have a too weak basis for comparisons. As these figures account for billions of Euros, now and in the future, international policies of bodies as OECD and the EU are lacking a firm basis. Moreover, even if data on expenditures were comparable, additional figures to explain the differences or similarities are insufficient. Cross-national learning, based on facts and figures, still has a long way to go, although the particular countries already make great efforts to collect reliable data.

Long-term care appears to be difficult to conceptualize, partly because it is often decentralised in countries and services vary in character and funding. For economic projections, the basis is too weak, whereas expenses will undoubtedly and significantly increase and sustainability of LTC is a concern: the 'hard' figures have a weak basis.

Magnet4Europe: a EU-funded cluster randomised trial of a targeted multifaceted intervention to improve clinical work environments in European hospitals

Authors: Mr Simon Dello[1]; Ms Dorothea Kohnen[1]; Mr Luk Bruyneel[1]; Mr Matthew McHugh[2]; Ms Linda Aiken[2]; Mr Walter Sermeus[1]

[1]KU Leuven, Leuven, Belgium. [2]University of Pennsylvania, Philadelphia, USA

Context

It is estimated that 4-17% of patients experience adverse events, presumably 44-50% are preventable.1 Ample evidence indicates that unsafe care is influenced by work environment and clinical staff.2 An effective model in redesigning hospital work environment is the Magnet® model; non-experimental evidence indicates an association with improved patient outcomes and less burnout among clincians.3 Despite healthcare leaders in Europe demonstrating significant interest in Magnet®, effective uptake is slow in Europe. Magnet4Europe aims to actively intervene and modify hospital work environment to evaluate whether the Magnet® model can serve as system-level approach to improve patient outcomes and clinician wellbeing in Europe.

Methods

A multi-country, hospital-based, matched pairs wait-list cluster randomized controlled trial with nested qualitative process evaluation is used. A convenience sample of sixty volunteering hospitals in five European countries (Belgium, Germany, Ireland, United Kingdom and Sweden) is obtained. Every European hospital is twinned with a Magnet® hospital. The latter, coinciding with European learning collaboratives and critical mass creation, is part of a highly effective multi-facetted implementation strategy facilitating implementation of the Magnet® blueprint of organizational redesign. One baseline measurement and three follow-up measurements in both intervention and wait-list group with a 12-month interval will take place. Administrative discharge data (ICD-10) from every hospital will be collected. Length of stay, all-cause readmission and 30-day mortality adjusted for patient age, sex, admission type and comorbidities present on admission will be evaluated. Burnout will be measured using the EE-subscale of the Maslach Burnout Inventory.4 The PES-NWI5 will be used to measure modifiable organizational behaviours.

Results

Improved hospital work environment is expected to lead to a reduction in burnout and increased mental health wellbeing among nurses and physicians. Provided the boosted implementation strategy, effectiveness of the evidence-based intervention on improving clinician wellbeing is expected to increase even more. Patient related outcomes are expected to be positively impacted, translating in a decrease in length of stay and a reduction in all-cause readmissions. Increased healthcare workforce productivity, combined with improved patient related outcomes, may have positive impact on the cost-effectiveness of the hospital.

Discussion

Multiple factors may bias the effect on the targeted outcomes. First, Magnet4Europe is a complex intervention; fidelity, dose, adaptation and reach of the intervention will vary among participating hospitals. External validity is strong, yet liable to selection bias. Every participating hospital a-priori has increased motivation to change their work environment, other European hospitals may lack this. Organizational redesign as targeted by Magnet4Europe may foster delayed treatment effects, not observed in the four-year period of this study. National health system organization characteristics, e.g. educational requirements and funding schemes may pose barriers to organizational redesign, this may elicit further policy redesign. To date, Magnet4Europe will be the largest and most ambitious project for large scale organizational redesign of hospital work environment in Europe.

Acknowledgements

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Magnet4Europe - The impact of an organisational redesign intervention on mental health outcomes of nurses and physicians in Europe

Authors: Ms Dorothea Kohnen[1]; Mr Hans De Witte[1]; Mr Wilmar Schaufeli[1,2]; Mr Simon Dello[1]; Mr Luk Bruyneel[1]; Mr Matthew McHugh[3]; Ms Linda Aiken[3]; Mr Walter Sermeus[1]

[1]KU Leuven, Leuven, Belgium. [2]Utrecht University, Utrecht, The Netherlands. [3]University of Pennsylvania, Philadelphia, USA

Context

Mental health morbidity among the healthcare workforce poses a major concern worldwide. Empirical evidence suggests that job-related health outcomes of nurses and physicians are mainly determined by the work environment underlining the importance of further examining organizational structures and processes. A promising concept of organizational redesign is the Magnet® model that has been shown to successfully improve well-being among clinicians and to reduce turnover rates. Being the largest initiative of its kind, Magnet4Europe aims to redesign the clinical work environment, particularly of nurses by applying the Magnet® concept and to evaluate its transferability to the European context.

Methods

Magnet4Europe follows a multi-country, hospital-based, matched-pairs wait-list cluster randomized controlled trial (RCT), with a nested qualitative process evaluation. An innovative multi-methodological approach is applied to facilitate organizational redesign in sixty hospitals in five European countries (Belgium, Germany, Ireland, Sweden, and United Kingdom). By doing so, each hospital participates in a twinning relationship with a Magnet® recognized hospital promoting the successful implementation of the original Magnet® Recognition Manual blueprint. The intervention is complemented by annual Europe-based learning collaborative and critical mass creation maximizing network exchanges, knowledge sharing, and opportunities for feedback. Data will be gathered on baseline and three follow-up measurements with 12-month intervals. The job demands-resource (JD-R) model will serve as theoretical framework to assess mental health outcomes of clinicians. Accordingly, job demands and resources as well as health and organizational outcomes such as burnout, work engagement, mental health (i.e. anxiety and depression), and job satisfaction will be assessed.

Results

The project has started in January 2020 and first results of the baseline measurement are expected by the end of the year. Changes in the clinical work environment of European hospitals are expected to decrease undesirable effects of job demands leading to a reduction in burnout and mental health morbidity among nurses and physicians. Furthermore, the intervention is anticipated to increase job resources that may not only buffer the harmful impact of job demands but also may lead to enhanced work engagement and well-being of clinicians. Lastly, a positive impact on productivity and economic results of workplaces is expected by improved policies and actions to promote mental health.

Discussion

To date, organizational interventions are not widely implemented and evaluated in the healthcare sector, limiting the implementation, scalability and learning capacity of such initiatives. A challenge for the current study also lies in the complexity of the intervention. Although certain components are standardized, the implementation also implies co-creation of the hospital and its twinning partner. That means that hospitals may choose which key aspects of the Magnet® concept they want to include in their organizational redesign process. Furthermore, a comprehensive workplace innovation like this requires full commitment of participating hospitals, not only in Europe but also in the U.S. However, commitment and motivation to participate in the intervention may vary among hospitals included in the study. Following the European Framework for Action on Mental Health and Wellbeing, Magnet4Europe represents a promising approach to promote a healthy and sustainable work environment for health professionals in Europe.

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VALUE-BASED HEALTHCARE

#EHMA2020 | Abstract book

Redefining value: a discourse analysis on value-based health care

Authors: Gijs Steinmann, MSc, MA; Dr Hester Van de Boovenkamp; Prof Dr Antoinette De Bont; Prof Dr Diana Delnoij

[1]Erasmus School of Health Policy & Management, Rotterdam, The Netherlands

Introduction

Today's remarkable popularity of value-based health care (VBHC) entails a shadow of ambiguity concerning the very meaning of the concept. This is evident within academic publications and mirrored in the fragmented and diversified manners in which VBHC is being implemented, both within and across countries.

Methods

We conducted a Discourse Analysis, based on a document analysis (n=22) and semi-structured interviews (n=23), aimed at exposing how VBHC is interpreted in the Netherlands, thereby also shedding light on its conceptual ambiguity.

Results

We identified four diverging discourses, each founded upon certain presuppositions, and each with their own perception regarding the main purpose of VBHC: as a framework for strengthening the position of patients regarding their medical decisions (Patient Empowerment); as a toolkit to incentivize providers (Governance); as a methodology for healthcare delivery (Professionalism); as a dogma of manufacturability (Critique). Additionally, we found that – within each discourse, and in contrast to the pioneering literature – shared decision-making (SDM) is seen as a crucial component of VBHC.

Discussion

The notable discursive diversity on VBHC erupts from differing and often deeply rooted presuppositions, which frame different perceptions on value in health care. The label "VBHC" will not only be perceived and utilized diversely, but this will also continue to engender varying and probably contrasting practical initiatives; which will be evaluated differently, according to different standards. Policymakers, healthcare administrators and practitioners would be wise to at least take the validity of different logics and their entrenched presuppositions into consideration when they truly aim for more value for patients.

VBHC: key take-aways and a successful use case in setting a VBHC programme for melanoma

Authors: Prof Francisco Gonçalves[1,2]; Prof Filipe Costa[3,4]; Prof Marina Borges[5]

[1]FMUP, Porto, Portugal. [2]LUZ Saude, Lisbon, Portugal. [3]Nova SBE, Lisbon, Portugal. [4]Hospital Luz Lisboa, Lisbon, Portugal. [5]IPO Porto, Porto, Portugal

A lot has been written about VBHC - and related subtopics such as outcomes measurement or digital transformation – but actual experiences, highlighting drivers that have been put to practice and activities on a how-to perspective, do not abound.

Context and aims

This presentation will cover a period of 8 years of projects in VBHC and provide a useful guide on positive decisions and some challenges regarding the implementation of these projects. A special use case will be developed, using skin cancer as the condition of choice.

In this case, to optimize effective care and improve survival outcomes, an integrated cancer clinic comprised, in a patient-centred way, innovative treatments and technologies, along with continuous training and creation of multidisciplinary units of healthcare professionals.

Measurement of outcomes, such as clinical, quality of life and cost, was decisive in determining affordability and access to the best available state-of-the-art care. Besides, treatment of skin cancer has significantly improved over recent years, but with increasing costs, which brings a challenging mission to guarantee access to treatment and quality care. Value-based healthcare allowed the achievement of better health outcomes and higher quality services while reducing the costs associated with the full-care cycle.

Findings

We have produced a systematic overview on the main drivers of success in VBHC, that demands a well governed process of implementation and a focus on leveraging important pillars: integration of car; outcomes and cost measurement; value based contracts; and benefiting from the digital tools that are available. We have pooled these insights from several experiences in Portugal, for example from the experience of LUZ Saúde and IPO Porto (a private and a public centre that have active VBHC programmes in Portugal). In the illustrative use case, we have been able to improve on several dimensions, such as access to innovation or PROMs. We provided access to more 21% patients. QoL and survival kept rising in general for our patient population. Quality of life sub scores in topics related to symptom control came close to 100. Healthcare services also improved (more 69% surgeries), reduced waiting time for patients, reduced in about 20%. Average costs, as it will be shown also decreased and hopefully will be better calculated with TDABC. Cost accounting is an area under development across all the known implementations of VBHC and we will show from our experience what are some of the hurdles and how to tackle them in practice.

Innovative contribution to policy, practice and/or research

We have shown that VBHC is not a fad. That it works. Most importantly, from the governance of the project point of view, VBHC can leverage the healthcare systems and should develop in line with health institutions' organization and culture, increasing adherence to best practices and create value. Details on the positive drivers and challenges will be presented and discussed in detail in the presentation.

Change in equality of surgical fee schedule in Japan

Authors: Prof Yoshinori Nakata[1]; Mr. Yuichi Watanabe[2]; Dr. Hiroshi Otake[3]

[1]Teikyo University, Tokyo, Japan. [2]Waseda University, Tokyo, Japan. [3]Showa University, Tokyo, Japan

Context

We previously reported that the surgical fee schedule failed to reflect resource utilization and is unequal among surgical specialties by comparing the efficiency scores calculated from data envelopment analysis (DEA)[1-3]. DEA is a measure of efficiency that takes account of multiple inputs and multiple outputs. It can be applied for evaluating outputs while controlling multiple inputs. The Gini coefficient is a well-known index for measuring the degree of inequality in the distribution of income and wealth. The purpose of this study is to examine how the degree of inequality of surgical fee schedule changed using Gini coefficients.

Methods

We collected data from all the surgical procedures performed in the main operating rooms of Teikyo University Hospital in 2013-18. The authors defined the decision-making unit as a surgeon with the highest academic rank in the surgery. Inputs were defined as (1) the number of medical doctors who assisted surgery, and (2) the time of operation from skin incision to closure. An output was defined as the surgical fee. Each surgeon's efficiency score using output-oriented Charnes-Cooper-Rhodes model of DEA was calculated, and the median of efficiency scores in each surgical specialty was computed. We inferred Gini coefficients and their standard errors in each year and each surgical fee schedule using the medians of efficiency scores.

We compared the Gini coefficients between the years and between the surgical fee schedules using the methods described by Davidson [4]. A p-value < 0.05 was considered statistically significant.

Results

We analysed 16,307 surgical procedures during the study period of 2013-18. The numbers of surgeons and surgical procedures were stable over the study periods.

Figure 1 showed the change in Gini coefficients by year. The Gini coefficients ranged from 0.231 to 0.312. There was no statistically significant difference between the years ($p > 0.05$).

Figure 2 showed the change in Gini coefficients by surgical fee schedule. The Gini coefficients ranged from 0.235 to 0.310. There was no statistically significant difference between the surgical fee schedules ($p > 0.05$).

Discussion

We demonstrated that the degree of inequality did not significantly change during the study periods of 2013-2018 despite three revisions of surgical fee schedules. The Gii coefficients ranged from 0.23 to 0.32. There is no known threshold for acceptable inequality of efficiency scores. Our previous three studies demonstrated statistically significant difference in efficiency scores among surgical specialties [1-3].

The current fee-for-service reimbursement system does not formally define which cost components are covered by the surgical fee. This lack of details gives surgeons and physicians the impression that the reimbursement system is unfair. In fact, it is uncertain whether the prices are appropriate or not. This is the first study that demonstrated that the degree of inequality of surgical fee schedules remained constant from 2013 through 2018.

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Does time matter? The impact of unplanned re-operations after surgical procedures on organising operative activity

Authors: Kati Koskinen, M.Sc. (Health Econon.)[1,2]; Irma Jousela, MD, PhD[1,2]

[1]Helsinki University Hospital, Helsinki, Finland. [2]University of Eastern Finland, Kuopio, Finland

Introduction

Operation room (OR) is the one of the costliest units in the hospital, and operative activity needs to be well organized to control the costs. Unplanned re-operations mean added work and more costs. Routinely collected data derived from observational studies or registries can provide new insights beyond those addressed by randomized controlled trials. Little is known about the amounts and resources demanded for unplanned re-operations in surgical procedures in real life settings.

Data & Methods

Operative and administrative data on consecutive unselected elective and emergency operations performed in a large university hospital during 2014 were filtered from the centralized hospital database. Data is collected routinely to a patient data management system. Personal identity code for each patient is registered on the database, and we identified patients with more than one procedure performed between 1.1.2014-31.1.2015. Data was reviewed by an experienced anaesthesiologist. Procedures were classified as primary operations, planned re-operations or unplanned re-operations. Unplanned re-operation within 30 days from the primary operation were included in the study. Operations within 30 days not connected to the primary operation were not included in the category of unplanned re-operation but were included in the study.

Primary operations leading to re-operation were further analysed by the time of day as well as the time from the first operation. Incidence and costs for unplanned re-operations was calculated.

Results

A total of 82961 procedures, both elective and emergency were performed during study period. Out of those, 2497 (3,2%) were followed by at least one unplanned re-operation within 30 days.

Most re-operations (57 %) were performed within seven days after primary operation. We found wide variation in re-operation rate depending on the starting time of the primary operation (1,8 – 12,8 %). Weekly rate of the re-operation rate varied between 2,1 and 6,2 %

Costs of the operating room time used for re-operations were calculated. One OR minute was estimated to be 20€ including all costs. Operation room time used for treating re-operations was 8342 hours and costs were 10 million euros. Results are preliminary.

Conclusions

As far as we know, it is not known which portion of the primary operations lead to an unplanned re-operation within 30 days. Based on our results, the holiday season seems to increase the probability of an unplanned re-operation.

When organising the OR activities, it is necessary to know the portion of unplanned re-operations and how much OR time for those should be expected as detailed as possible. This also means being prepared for additional costs. Following continuously the number of unplanned re-operations gives a tool to follow the quality. It also helps timely reacting to changes in case mix or number of operations, and even when planning a new operative department.

Procalcitonin: a successful clinical formula in the emergency department?

Authors: Dr Agampodi De Thabrew; Miss Helen Pardoe; Dr Andrea Annoni; Dr Marie Parsons; Dr Georgia Lucas; Mr Nicholas Kroll; Dr Angela Bartolf; Dr Siddarth Kumar; Dr Zoya Murtaza

Princess Alexandra Hospital, Harlow, United Kingdom

Sepsis is defined as “a dysfunctional immune response to infection”. It causes 30000-60000 deaths/year in the UK. Recognising sepsis in the early stages is difficult.

Only 25% of patients treated for sepsis in the Emergency Department (ED) have confirmed cases. ED staff need a quick, reliable test to identify septic patients and those at risk of deterioration. Procalcitonin (PCT) is a blood test released early in bacterial infections and correlates directly with the severity of sepsis. Internationally, PCT is used most widely in the intensive care (ITU) setting. We wanted to know if PCT could add value in the ED.

We used the Institute for Healthcare Improvement (IHI) quality improvement (QI) approach to improve outcomes for septic patients over August-November 2019. Throughout this project, patients admitted to the ED with septic features were required to have a PCT test alongside the sepsis six protocol. PCT levels were remeasured 24-36 hours after admission, and clinicians were asked to follow the Brahms criteria to guide their antibiotic usage. Our plan-do-study-act (PDSA) cycle 1 had poor compliance for measurement of 2nd PCT and use of Brahms criteria. Therefore, in PDSA 2, we used process mapping to identify target areas to focus on. We reassessed and implemented changes through educational events in view of changing the culture within our hospital - The Princess Alexandra Trust (PAHT) in the UK. Our outcomes measures were: antibiotic usage, length of stay, ITU admission, readmission, mortality rates, and cost difference.

In PDSA 2, there was 28% (75/267) compliance with our protocol. 22% or 60/267 patients were diagnosed with sepsis. >60% of cases were urinary tract infection (UTI)/ declining or neutropenic sepsis. Respiratory presentations were also common (34%). Total mortality rate was 15.6%. 86% of these deaths occurred in the over 75 age group. Patients admitted to ITU had higher median PCT (0.4 vs 0.2). 1st PCT ≥ 0.3 µg/L elicited higher mortality rates (23.5%) versus 10% if 1st PCT ≤0.2 µg/L (P=<0.001). Out of the 75 patients who had 2 PCT’s, 30 patients had 1st and 2nd PCT ≤0.2 µg/L. 7 had no antibiotics prescribed or had antibiotic treatment successfully stopped within 48 hours as per the Brahms criteria. 23 patients had antibiotics prescribed >48 hours. On average, it was 7.3 days until antibiotic treatment was stopped. The approximate potential additional cost of unnecessary antibiotic usage was £754 in total.

A high PCT level on admission to the ED correlated with significantly increased mortality rates eliciting a high-risk group that could benefit from an early senior review. Mortality was prominent in the elderly. There were a disproportionate number of neutropenic cases. We may improve demographic variety, and validity by targeting the multidisciplinary team, and reinforcing ways to recognise, and diagnose sepsis with the aid of PCT. Adherence to protocol was poor overall. Compliance to antibiotic guidelines was <50%. Antibiotics were prescribed for longer than necessary reducing cost effectiveness. Implementing PCT requires a huge culture change. However, further education about the clinical, and financial benefits of PCT, and antibiotic stewardship will support our outcomes. PCT has the potential to inform clinical decision making, reduce costs, and crucially minimise patient harm, and antibiotic resistance. Further implementation of our project could therefore allow for value-based healthcare in a variety of ways.

Validation of the SPF-Q, an instrument to assess the quality of production functions to achieve well-being, among multimorbid patients

Authors: Prof Dr Anna Petra Nieboer; Dr Jane Murray Cramm

Erasmus University Rotterdam, Rotterdam, The Netherlands

Background

In a time of ageing populations, examination of the ability of multimorbid patients to achieve well-being has become increasingly important. Social production function theory is used to characterise people’s ability to achieve well-being. Whereas much research has examined the fulfilment of substantive needs, far less research has investigated the quality of production functions (being in control, avoiding a loss frame, and efficiency) to achieve well-being. Therefore, this study involved the development and validation of the Social Production Function–Quality of production functions (SPF-Q) instrument to assess the quality of production functions via the fulfilment of production needs to achieve well-being.

Methods

The 12-item SPF-Q was used to assess the quality of production functions via the fulfilment of production needs to achieve well-being among patients with multimorbidity from seven health care practices in the region of Tilburg, the Netherlands. A total of 216 patients filled in the questionnaire (55% response rate). To test the validity of the SPF-Q, we used structural equation modelling to specify a measurement model by loading each item on its respective latent factor, and we examined associations between production needs and other measures.

Results

Psychometric results clearly showed that the SPF-Q is a valid and reliable instrument for the assessment of the quality of production functions among multimorbid patients. Confirmatory factor analyses revealed good indices of fit for the instrument. As indicated by the high reliability coefficient, the scale also showed good internal consistency. We found support for construct validity through significant positive correlations between substantive and production well-being needs, as well as with overall well-being and life satisfaction.

Conclusion

This study clearly showed that the SPF-Qis a valid and reliable instrument for the assessment of production needs among multimorbid patients. Given that multimorbidity is becoming the leading threat to population health, such an instrument can help to improve the ability to achieve well-being in this vulnerable population.

Quality improvement meets mortality

Authors: Miss Helen Pardoe; Mr Robert Ayers; Mrs Lindsay Hanmore; Mr Nicholas Kroll; Miss Ellie Hill

The Princess Alexandra Hospital Trust, Essex, United Kingdom

Context

The Princess Alexandra Hospital NHS Trust (PAHT) in Harlow is a district general hospital (DGH) in Harlow. Hospital standardised mortality rate published by doctor foster illustrates that PAH has consistently been a statistical outlier (1 of 38 acute trusts). The rolling year November 2017-October 2018 saw a high HSMR of 125.4. A Mortality Improvement Board (MIB) was established with the support of the trusts Quality Improvement Team (Quality First) to identify areas of improvement that have an impact on patient mortality with an aim of to Achieve 'as expected' patient outcomes across all specialities, with no more than two outlier alert over a 12 month rolling period by March 2021 and to be sustained.

Methods

PAHT strategic planning put in place a quality improvement (QI) programme of work focused on improving patient outcomes (mortality) and reducing unwarranted variation in care. The 'model of improvement' QI methodology has been used throughout ensuring a consistent approach is taken and is supported by a central corporate QI Team (Quality First) who were established with funding. Workstreams set up involved: diving into process and pathways of specific diagnosis creating "care bundles", improving compliance with vital signs, fluids and electrolytes management, correct antibiotic use, improving documentation and implementing an electronic hospital at night service. Quality First's role was to empower and enable colleagues to drive their projects by providing in house QI training-reducing outsourcing costs while providing quality improvement expert oversight, using but not limited to methodologies such as PDSA, process mapping, driver diagrams and root cause analysis. A progress and performance tracker was also developed by an informatics graduate trainee to allow monitoring of the specific projects within the programme. Statistical process control charts were used to judge the improvement.

Results

Our 12-month Rolling mortality rate has decreased to 120.7 as of Oct18-Sep 2019 as well as having 5 continuous individual months with no outlier alert, also 3/5 of our key diagnosis are no longer a statistical outlier over 12 months (Fracture neck of Femur, Sepsis, COPD, Intestinal obstruction without hernia). Additionally, electronic hospital at night was successfully implemented. Antibiotic usage which is measured by DDD's per 1000 admissions shows a reduction (5315 in Q1 2019/20 to 4491 in Q2). Compliance against vital signs and fluid balance has made improvements from 74.8% to 82.4% and 47.2% to 79% in vital signs and fluid balance charts respectively. Quality first has trained 104 colleagues in both leading projects and leading change using QI methodology.

Discussion

Currently, as we draw towards the end of year one of the programme, we are still an outlier for HSMR judged by Dr foster. Nonetheless, inroads have been made to achieve our aim by March 2021. Working together using Quality Improvement methodology we have shown we can reduce mortality as we strive to be an outstanding organisation. We are a clinically lead organisation and this MIB programme has highlighted the importance of clinical engagement to drive improvement and change. This project has also highlighted the importance of quality improvement within an organisation, experienced project managers with problem-solving skills are key. This project has been an example of the power of QI methodology within an organisations ability to change without receiving additional funding for clinicians time.

The role of PROMs in value-based health care: a scoping review

Authors: Giulia Polchri, MSc; Dr Oskar Roemeling; Dr Nienke Renting; Dr Gerdien Regts

University of Groningen, Groningen, The Netherlands

Context

Value-based healthcare (VBHC) proposes a shift from volume- to value-driven healthcare systems to keep ensuring the quality of care while containing healthcare costs. One of the pillars of VBHC is measuring performance, especially in terms of patient-reported outcome measures (PROMs). PROMs reflect patients' perception of their health status and can help to align expectations and goals for treatment. A comprehensive overview of how PROMs can be deployed in clinical practice to support VBHC lacks, due to scatteredness of publications over a variety of journals in different domains. This scoping review aims to address this issue, by bringing together this body of literature and unravelling the ways PROMs can be used in VBHC.

Methods

This research applies the scoping review approach, which is characterized by broad research questions, and it does not include specific patient groups or study designs as search criteria. This review adheres to the PRISMA guidelines for scoping reviews, for which the literature search was conducted between November-December 2019. The starting point for this review was the seminal work of Porter: "A strategy for health care reform - Toward a value-based system". Studies citing the work were selected for inclusion and further refined based on language, outlet, and critical terms in keywords, title and abstract. Ultimately, the selection criteria and refine process reduced the relevant literature from 923 to 80 papers incorporated in this research.

Results

The outcomes of the review show that PROM oriented studies often relate to orthopaedic and oncologic disciplines. Moreover, 52 of the studies were empirical, and these covered topics such as creation and evaluation of outcome measures, comparison of outcome measures and importance ranking, and evaluation of improvements in clinical health, satisfaction and economic outcomes. The remaining 28 studies consisted of other literature reviews, and theoretical and conceptual work focused on the topic of VBHC, outcome measurements, PROMs and cost-effectiveness. The studied literature highlights that PROMs are used in five different roles which relate to 1) value assessment and benchmarking, 2) patient engagement, 3) clinical decision making, 4) knowledge generation and learning, and 5) value-based payments. Deriving from these findings, we propose a framework that shows these multifunctional functions, how PROMs are applied, and how the various functions are interrelated.

Discussion

The developed framework shows the variety of roles PROMs can fulfil in practice. However, it does also underline that specific PROM aspects remain underdeveloped; for example, it appears that cost-consciousness in relation to PROMs is mostly absent from the discussion. Alternatively, for patient engagement, it remains unclear if PROMs alone provide a sufficient basis for engagement or that patient-reported experiences should be included as well. Moreover, the framework highlights interrelations between the different roles: a bilateral link between patient engagement and clinical decision-making, and a unilateral link between knowledge generation & learning and clinical decision-making. These links suggest an interconnection between functions or the possibility for one function to augment or complement the effects of the others and provide the basis for related propositions. Finally, the result support earlier studies that hint at the possible beneficial influence of PROMs on the care process.

Value Based-healthcare as a cause for a “Shine on you Crazy Diamond”- Psychological safety organisation model as a floor needed

Authors: Dr Filipe Costa; Profª Filipa Fonseca

Nova SBE, Lisbon, Portugal.

The impact of introducing a VBHC methodology has a significant impact on organizational culture, as well as the effective results created by a psychological safety organizational environment on the impact of outcomes. This permanent analysis of the organizational culture change for a new VBHC strategy aims to provide information of relevance to the decision making about the alternatives that best answer the management needs and changes of the internal philosophy of a health organization.

Working in a psychological safe environment does not mean that people always agree with one another for the sake of being nice. It also does not mean that people offer unequivocal praise or unconditional support for everything you have to say. You could say it`s the opposite. Psychological safety is about candour, about making it possible for productive disagreement and free exchange of ideas. It goes without saying that these are vital to learning and innovation. Conflict inevitably arises in any workplace. Psychological safety enables people on different sides of a conflict to speak candidly about what`s bothering them. Psychological safety is about candour and willingness to engage in productive conflict so as to learn from different point of view. To test the hypotheses in the team learning model, we studied real work teams in healthcare organizations that have a variety of team types using a combination of qualitative and quantitative methods to investigate and measure the constructs in the model. In the first phase of the work, semi-structured interviews with key informants’ physicians and nurses were conducted in two hospitals in four pathologies. The interviews were made with members of these eight teams. The objectives were to verify that the theoretical constructs of team psychological safety and value based-healthcare could be operationalized and, if so, to develop survey items to assess these constructs in language that would be meaningful in this setting a modified empathic strategy. In the second phase of the work we applied questionnaires validated to the Portuguese population to measure the psychological safety organizational culture.

The research demonstrated a high degree of sensitivity ($p<0005$) for the measurement of the multiple variables that characterize the organizational culture in the various stages of implementation of the VBHC strategy. The tools used to measure the psychological safety organizational model were crucial to evaluate the organizational culture in a context of implementation of the value-based healthcare strategy. It was possible to evaluate the organizational culture in a context of implementation of the value-based healthcare strategy, as well as to evaluate the organizational culture in the period before and during the implementation directed to specific pathologies with success.

It was possible to prove that the implementation of a value based healthcare strategy implies a change in the organizational culture, and that the instruments of data collection about the organizational culture measures with sensitivity the degree of success of the implementation of the value based healthcare strategy, verifying that it is not enough to assume theoretically the constitution of a group around the treatment of the patient with a specific pathologies (integrated practice units), it is necessary to have the correct strategy of implementation and monitoring of the culture of value based healthcare, and that the more psychological safety environmental you have the best results you get with the integration of the VBHC culture.

Monitoring risk avoidance while implementing a bundled payment model

Authors: Dr Marijke Timmermans[1]; Dr Dennis van Veghel[1]; Drs Lineke Derks[1]; Drs Aline Stolk[2]

[1]Netherlands Heart Registry, Utrecht, The Netherlands. [2]Menzis health insurance, Wageningen, The Netherlands

Introduction

After successfully collecting high quality outcome data, demonstrable improvement and sharing of best practices, the implementation of Value Based Health Care in Dutch heart care has moved to the next stage by the introduction of the first pay-for-performance model in 2018. In a 3 years project 10 hospitals, health insurance company Menzis and the Netherlands Heart Registry (NHR) initiated a community for quality improvement and the further development of the pay-for-performance model for coronary artery disease treated with CABG or PCI, rewarding hospitals for quality instead of volume. In 2019, the pay-for-performance model was officially applied for the first time. When applying the model, it is important to monitor potential adverse effects, such as risk selection.

Methods

Data analyses were performed in order to observe trends regarding the risk profile of treated patients before and after the application of the model. We monitored trends in f.e. EuroSCORE, age, shock, urgency and renal insufficiency. To correct for trends which are not related to the pilot, a control group was used, consisting of treated patients of hospitals which do not apply the pay-for-performance model.

In addition, a 17-items questionnaire was developed which was send to all cardiologists and cardiothoracic surgeons of the 10 hospitals. The questionnaire contained 5 questions regarding the impact of the model on treatment decisions, 5 questions regarding the impact of the organization of care and 7 questions regarding physicians vision on the model. Questions could be rated on a 5-point likert scale, ranging from strongly agree to strongly disagree. The questionnaire was send two times: 1) a baseline measurement at the start of the pilot before implementing the bundled payment model, in order to measure physicians opinion on the model and their perceptions regarding risks; and 2) one year later, after the first application of the model, in order to measure changes in perceptions

Results

96.340 PCIs and 48.734 CABGs were included for data analyses. Data analyses showed no significant change of risk profile before and after the introduction of the pay-for-performance model.

At date, 50 physicians filled in the questionnaire. The response rate was about 25%. In the baseline measurement in 2019 23% of the physicians agreed with the statement that as a consequence of the pay-for-performance model, high risk patients might not receive adequate care. In 2020, after the official introduction of the model, that percentages decreased to 12%.

Conclusion

Although subject to further development, the first pay-for-performance model in Dutch heart care has been successfully introduced and applied. So far, data analysis shows no signals of risk avoidance. It is important to repeat trend monitoring analyses on a yearly basis. In the next phase, the transition of the pay-for-performance model into a bundled payment model will be examined.

The effect of restructuring a hospital based on patient-themes on multidisciplinary cooperation

Authors: Anoek Braam, MSc; Dr Martina Buljac; Dr Jeroen van Wijngaarden; Prof Carina Hilders

Erasmus School of Health Policy and Management, Rotterdam, The Netherlands

Context

Hospitals have a long history of using a functional hospital structure based on medical disciplines (Liberati, Gorli, & Scaratti, 2017). Due to people becoming older and having multiple diseases, multiple disciplines are needed to provide care for one patient. Functional hospitals are struggling to provide care that fits the patient's multidisciplinary needs best (van der Poel, 2020). In order to better structure care around the patient and provide patient centred care, some hospitals have decided to change the organization to a more multidisciplinary structure, with units based on patient groups or themes (Kiers, 2019; van der Poel, 2020). Their purpose of creating these new structures is to improve collaboration across medical boundaries, which has been problematic in hospitals due to deeply internalized identities and social norms among medical disciplines (Liberati, Gorli, & Scaratti, 2017). The new structure should support medical specialists from multiple disciplines to team up. In this study we analyse the influence of structures on social identities of medical specialists and how this affects multidisciplinary cooperation in terms of relational coordination between disciplines.

Methods

Based on qualitative interviews we first identified the structural changes that were introduced in a Dutch hospital which recently restructured based on patient-themes. A survey was held among all medical specialists and nurses (n = 1000) in this hospital. The survey included questions on (a) team identification; measuring the extent to which a person feels psychologically attached (validated by Brown, Condor, Matthews, Wade, & Williams, 1986), (b) entitativity; measuring the degree to which collection of individuals possess the quality of a team and meets criteria included in team definitions (validated by Vangrieken, Boon, Dochy, & Kyndt, 2017), and (c) relational coordination; measuring the effectiveness of coordination determined by quality of communication and underlying relationships (validated by Gittell, 2002). Medical specialists were asked about features of, identification with and relational coordination within the new patient-theme-based unit and their own medical (mono) discipline. Nurses were asked about the patient-theme-based unit and their ward.

Results

Work in progress. We will first describe the features of, and level of identification with the new and old organizational team structures. We expect to find different levels of team identification and team features between the different units, and between old and new structures. Furthermore, based on multilevel regression analysis we expect to support our hypotheses that teamed up medical specialists who experience features of a team and identify with this team show a positive relationship with the level of relational coordination.

Discussion

Work in progress. Hospital management in the Netherlands is trying to find ways to handle the challenges of providing more patient care and more patient centred care without additional resources. In our research we try to study if an organizational structure change might provide a solution, based on team-research. We consider this to be the first step to investigate whether moving away from the functional hospital structure increases multi-disciplinary cooperation and will lead to better outcomes. With these insights we hope to assist hospital management in the choices they need to make.

HEALTH MANAGEMENT & COVID-19

#EHMA2020 | Abstract book

How to effectively prevent and control the spread of COVID-19 in rural China?

Authors: Prof Shangcheng ZHOU; Ms Xiaoxia YUAN

Guangzhou University of Chinese Medicine, Guangzhou, China

Context

Since corona virus disease 2019 (COVID-19) outbreak of pneumonia emerged in Wuhan, Hubei province, China has spread rapidly nationwide since December, 2019. According to the newest guidelines for diagnosis and treatment of COVID-19 (Fifth Edition), person infected by COVID-19 is the main source of infection, while the droplet transmission and contact transmission are the main transmission ways. The current preventing and controlling measures focus on cutting off sources of infection, blocking transmission routes and protecting susceptible populations. In this public health emergency, rural areas of China become one of the weakest links in the chain of prevention and control with several challenges.

Methods

Literature review method was used to analyse the development of public health emergency response system in rural areas of China, with the use of China National Knowledge Internet Database and Wanfang Database. Policy analysis method was used to analyse the national and local policy for rural public health emergency prevention and control when public health emergency occurs (including the 2 COVID-19 epidemic outbreak). Related articles and policies published/announced from 2000-2020 were collected and analysed. The capability of the current rural public health emergency response system and the effect of the corresponding policies were discussed in order to find out the challenges of public health emergency prevention and control in rural areas of China.

Results

From the literature review and policy analysis, we found that the public health emergency prevention and control in rural area of China face severe challenges with the following reasons:1) The public health emergency response system in most rural areas of China were set up after the 2003 outbreak of severe acute respiratory syndrome (SARS) and were still imperfect; 2)Medical facilities in the rural areas are not as advanced as those in the urban areas; 3) There's lack of staff who specialized in epidemic prevention and control in rural areas; 4) There's around 0.174 billion migrant workers in China in 2018, and most migrant workers will return to their hometown during some holidays, which may increase the occurrence of spreading virus. 5) Most villagers in China have limited knowledge level, weak self-protection awareness and weak hygiene awareness.

Discussion

As the public health emergency prevention and control in rural areas of China faces severe challenges, several targeted countermeasures have been put forward in this article, including: 1) Improve capability of the epidemic prevention and control in rural areas by completing the public health emergency response system and providing manpower and material resources. 2) Take effective measures to cut off the infectious source like quarantining the confirmed or suspected villagers. 3) Block the transmission route of the virus like demanding the villagers to stay at home and block roads to the village. 4) Guide the villagers to develop good health habits like wearing disposable masks and washing their hands frequently. 5) Enhance the villagers' awareness of this epidemic incident by printing leaflet, sending phone message or using the loud speakers. The countermeasures above may provide reference for the epidemic prevention and control in rural areas in similar public health emergency.

Results on the risk perceptions of the Healthcare Professionals (HCPs) in the management of Covid-19 pandemic - evidence from a nationwide survey of the healthcare sector in Cyprus

Authors: Mr Chris Bachtsetzis[1,2]; Mr Sozomenos Hadjivassiliou[2]; Dr George Athanasiou[3,4]; Prof George Boustras[1]

[1]Center for Risk and Decision Sciences, European University Cyprus, Nicosia, Cyprus. [2]University of Nicosia Medical School, Nicosia, Cyprus. [3]Primary Care Center, University of Nicosia Medical School, Nicosia, Cyprus. [4]Frederick University, Nicosia, Cyprus

The World Health Organization (WHO) officially announced Covid-19 as a global pandemic in early March 2020. This study aims to investigate the risk perception of Healthcare Professionals (HCPs) involved in the treatment of Covid-19 cases in Cyprus, a quite vulnerable geographical location in terms of the pandemic, as it can be considered as the hub connecting the very end of South-eastern Europe to the Middle East and Africa. First cases were reported in the country on March 9th, 2020 and after some drastic measures taken by the government, the transmission of the virus has been restrained successfully.

An online survey was conducted from mid-March to mid-May, 2020. A new questionnaire was developed, and delivered to frontline medical staff, in both the private and the public sector. The tool had been validated from two experts, who were working as medical professionals and academic researchers in the fields of healthcare management and health and safety. The was initially tested in a focus group of 8 HCPs with minor adjustments to follow. The final survey consisted of a 18-item questionnaire with Likert scale options as well as multiple choice responses. A sample of 116 healthcare professionals practicing in Cyprus, who were representative of the general healthcare population by age and sex, participated in the nationwide survey.

The results of this researched are very interesting as they are showing clearly that HCPs were neutral to positive about their general knowledge on the pandemic. However, as time passed, and available information was increasing globally this had a direct positive impact on the perceptions of the medical staff. Based on the characteristics of the general health of the local population in Cyprus HCPs were able to provide an estimate about the severity of the patients they would have to manage, in the dawn of a rise of Covid-19 confirmed cases. Furthermore, evidence showed a common agreement and understanding of the majority of the medical staff that the combination of all available personal protective equipment (PPE) is the way to increase both occupational health and safety and patient safety in general. Lastly, there was a common idea that risk communication was critical to prevent the spread of the virus within the country (i.e. self-isolation, post-travel quarantine etc.)

These unprecedented and challenging times are not only hard for the community, but also for the HCPs themselves. Therefore, there is an extended need to assess the fears, expectations and perceptions of the medical staff as this is a topic that was hardly given any attention to date. WHO has issued several guidelines and provided online courses and training sessions free of charge to all HCPs and allied healthcare professionals around the world in order to help them raise their awareness and preparedness regarding prevention and control of the virus. However, in several parts of the world the pandemic has kicked in before this awareness was available. As a result, the perception of the risk as captured by the frontline medical staff varies globally. This is the reason why the findings of the current study are going to be value-adding to the general knowledge that researchers and everyday professionals are gathering on Covid-19 as time passes.

Against the background of government measures - decision-making and moral leadership of health care administrators

Authors: Dr Relinde de Koeijer; Dr Wilma van der Scheer; Drs Helene Wust

Erasmus Centrum voor Zorgbestuur, Rotterdam, The Netherlands

The Corona era is a special time, also for care drivers. They are faced with complex issues that require fast and adequate decision-making, in an arena full of uncertainty and diverse stakeholders. In times of acute crisis, management is central and managerial. After all, it is all about survival. Now, in the post-acute phase, is the search for a new balance. The crisis period with its central management has brought tough dilemmas for healthcare administrators. This is evident from the weekly interviews with care managers and experts conducted by researchers from the Erasmus Centre for Healthcare Management during the crisis. The interviews were recorded on film and a short version of the interview were published on https://www.erasmuscentrumzorgbestuur.nl/reflectie-actie/. Below, we highlight three dilemmas' and outline how these dilemmas resulted in our research project.

The first dilemma outlined by healthcare administrators is the feasibility of measures for their target group and the associated health risk for their staff. On the one hand, this has to do with the fact that, in the eyes of healthcare administrators, the perspective of their target group is insufficiently considered in the development of measures. In the regional forums for acute care, for example, long term care institutions are not or only to a limited extent represented. For example, a measure such as keeping 1.5 meters cannot be implemented for severely mentally or visually handicapped persons. On the other hand, the feasibility is made even more difficult by the fact that (centrally) required protective equipment and tests were not available at the beginning of the crisis for long-term care employees, which caused unrest and fear among these employees. Healthcare administrators faced a dilemma: how do I guarantee the best care for my clients, and at the same time, how am I a good employer towards my employees? These two worlds regularly proved to be insufficiently compatible and difficult, if not impossible, decisions had to be made.

The second dilemma that emerged from the interviews was: where do we follow the national policy and where do we set our own course (and how to do it)? Whereas previously decision-making could be more rational and based on accurate information, in the crisis it is all about the right way of improvising, supported by moral leadership. Healthcare administrators told us how they dealt with this, what values were important to them, how they assembled the crisis team, how (internal and external) experts were heard and how decision-making subsequently took place. Adjacent dilemma was and is how to stay in touch with the organization (professionals and patients/clients) and external stakeholders, while physical proximity is not possible.

The third dilemma faced by healthcare administrators concerns the acute danger of COVID infections on the one hand and the long-term health effects on non-COVID patients on the other. Think of the measure aimed at closing long-term care institutions to visits. The acute risk of COVID infection has thus been reduced, but the impact of this measure on the quality of life of patients can be considerable. Stopping regular care is also expected to have major health effects, such as oncology and cardiology. An extra dimension is the (limited) degree of participation that patients have had in the decision-making process.

These three dilemmas outline the impact of the corona crisis and the government measures aimed at managing that crisis, on healthcare administrators. As we enter the post-acute phase of the crisis, a pressing question for the future is what we can learn from this crisis. Is there good governance? The question of good governance in times of crisis is a complex one. In a time of crisis, there are many uncertainties. What is 'morally right' is no longer evident. Values are shifting, existing protocols are no longer adequate and cost-benefit considerations also provide little guidance as to whether *the right thing* has been done. Instead, moral leadership is needed: making ethical considerations and moral choices. Our research focuses on what healthcare administrators learn *during* the corona crisis and what that teaches us about the moral leadership needed for *future* crises.

Uncertainty work in an emerging pandemic: an ethnography of healthcare management in a Dutch university hospital amidst the start of the COVID-19 pandemic.

Authors: Dr Bert de Graaff[1]; Ms Jenske Bal[1]; Dr Joke Boonstra[2]; Prof Dr Roland Bal[1]

[1]Erasmus University Rotterdam, Rotterdam, The Netherlands. [2]Erasmus MC, Rotterdam, The Netherlands

Context

The COVID-19 pandemic provides researchers of healthcare with an urgent possibility to study healthcare management in action (Bal et al. 2020). Often only imagined in historical works and practiced in scenario's, organizations throughout the healthcare sector face acute uncertainties of diverse nature and origin, such as in the availability of personal protective equipment, in the clinical picture, or even about the name of the virus. Healthcare managers' responses to the uncertainties and risks posed by COVID-19 are construed and constantly recalibrated in recognition of the tentative nature of the knowledge upon which to base action (Ansell & Boin 2019).

Method

University hospitals in the Netherlands play a pivotal role in working with these uncertainties, for instance through (re)calibrating institutional arrangements. In this paper we explore the 'uncertainty work' of a Dutch university hospital's management amidst the emerging pandemic (Moreira, May & Bond 2009; Pickersgill 2011). We build on an extensive ethnographic study in one university hospital that played a key regional and national role in the Dutch COVID-19 crisis. As embedded researchers, we were able to study the crisis through non-participatory observations of, and interviews with, crisis-management teams from the start of the crisis in the Netherlands in early March 2020 onwards. This approach offers us a unique insiders-perspective on the healthcare governance of the emergence of the COVID-19 crisis.

Results

Our analysis focuses on the concrete efforts that our participants put into working with the uncertainties their organization faces. Relevant categories, criteria and relations are produced, stabilized or questioned to facilitate (in)action (Moreira, May & Bond 2009), while participants are confronted with high emotional and temporal pressures. We find how such uncertainty work is done through emphasizing trust when redefining formal crisis coordination structures as these are built on shorter timeframes, while giving attention to informal relations – using and cutting through existing workarounds. Next, we find how uncertainty work is exercised through a re-appraisal of professional expertise in lieu of evidence-based medicine, tentatively stabilized through ceaseless dialogue in numerous protocols and guidelines. We also find, finally, uncertainty work in a process of tinkering and innovating with the (limited) availability of protective materials, equipment, space and personnel; what is needed, when and for who are redefined often.

Discussion

Uncertainty work opens-up an analysis of the practical, collective production of uncertainties (Pickersgill 2011) and our ethnographic approach enables a close-up perspective on the managerial approach of this elite Dutch university hospital. We find participants working with uncertainty through emphasizing trust, reappraising professional expertise and tinkering with resources. Although ontological and epistemological uncertainties remain about COVID-19, over time our participants appear to have become attuned to the relatively extreme uncertainties posited by the crisis – in and outside of healthcare. Their uncertainty work slowly, and incrementally (Ansell & Boin 2019), became routine. However, with the interpretation of the crisis now moving from facing acute risks to pondering longer-term uncertainties, the (co-)produced categories and criteria through which the COVID-19 crisis has been governed so far, and thus the just-now settled routines, are yet again questioned.

Health Care Crisis and the Primary Health Care Supply: Survey for General Practitioners and Primary Care Physicians during COVID-19 in Austria.

Authors: Dr Alexander Braun[1]; Ass. Prof Dr. Eva Krczal[2]; Dr Arleta A. Franczukowska[2]

[1]University of Applied Sciences Krems, Krems, Austria. [2]Danube-University Krems, Krems, Austria

Objective

During the COVID-19 outbreak in March 2020 the main policy goal was to avoid or mitigate hardships for patients and the health care system. Hence, one of the public health measures was a reduction of non-emergency treatments and keep the care facilities as good as possible ready for COVID-19 patients. Elective surgeries were cancelled, seeing a medical specialist became more difficult and waiting times for patients for special care getting longer. In the ambulant sector Primary Health Care units and General Practitioners (GPs) became the spine of the health care system and were the first responder for many patients. To this respect, the GPs have clear insights into the challenges, burdens, and problems of health care delivery during this pandemic.

Methods

Based on the International Survey of Primary Health Doctors (Commonwealth Fund, 2012) we have developed COVID-19-pandemic specific survey questionnaire. Based on N=1,449 GPs and Family Doctors with their residence in Lower Austria, we calculate the sample size with n>136 GPs (based on 95%-CI and ±8% margin of error) (ÖÄK, 2019). The questionnaire was sent as online version to 823 GPs on 28th May, and a reminder on 17th June 2020. To increase the external validity, we are also planning computer-assisted telephone interviews (CAPI) with the GPs who did not have an e-mail-account. Our questionnaire askes (1) for the general satisfaction of being GP in Austria, (2) the pandemic management of the authorities, (3) changes in health care delivery during the public health measures, and (4) the perceived struggles and hardenings for patients and doctor's offices. Further, we wanted to know how good they are prepared for treating COVID-19 patients and their general and special resources and equipment.

Results

The survey is still in field. Therefore, this abstract presents preliminary results. Mostly, GPs appraise the Public Health measures as 'fair' or 'good'. Though, also a major part of GPs concluded a worsening in the care delivery for patients and see ongoing impairments, especially in patients with chronic conditions. Mostly, the cooperation with specialists and the hospital care were stated as critically and many GPs argue that their patients had to struggle with long waiting times or getting an appointment with a specialist. It was also stated that patients with chronic conditions, e.g. diabetes, had worse medical parameters and did not go to their routinely check-ups. Also emerging psychiatric diseases, as anxiety and panic attacks, suicides, and self-harming, as well as depressive episodes were identified. Also disturbed interactions and reducing trust in the patient-doctor-relations due to anxiety for infection and mask wearing were headed.

Conclusions

Overall we see that the PHC system was highly resilient at the high season of the SARS-Cov-2 wave from March to May 2020. Hence, the GPs are the spine of the health care supply they need also support, especially in strengthening the psycho-social care, to deliver best service in times with uncertainty and imminent danger to get infected by a novel virus without effective treatment. We also see that the GPs could adapt their treatment relative quickly to new hygiene concepts but need still support to increase their test capacities and access to protecting resources. Further, the most GPs shows willingness to use telemedicine, as complement to their personal examination and think holistic in protecting their patients as well as their employees. Further, we conclude that strengthening the PHC system could help to mitigate the stated adverse side-effects of the public health measures. We need to reflect thoroughly on the services that have been reduced or stopped to be better prepared for a sustained care provision in a pandemic situation.

Leadership in the psychiatric services in the era of COVID-19

Authors: Elina Laukka, MSc; Kia Gluschkoff, PhD; Anu Kaihlanen, PhD; Tarja Heponiemi, PhD

Finnish Institute for Health and Welfare, Helsinki, Finland

Context

In attempt to reduce the risks of COVID-19 infections, many psychiatry outpatient clinics have replaced face-to-face appointments with remote appointments when possible. The rapid digital leap required by the pandemic has put not only healthcare providers but also managers in a new situation and facing potential challenges. The aim of this study was to find out what the increase in remote psychiatric services has required from health care leadership.

Methods

An electronic survey was developed for psychiatric service managers (n=39) to obtain information about the impact of COVID-19 pandemic in psychiatric services. Monthly surveys were sent to managers of Finnish psychiatric special healthcare units (n=20) between March and May 2020. In the open-ended questions the respondents were asked to describe how the sudden increase in remote services has impacted the leadership practices. The responses were analysed using content-analysis.

Results

The requirements for leadership regarded organizations, healthcare professionals, and healthcare managers. The requirements related to organization were the increased need for IT equipment, need for organizing operations related to remote services, inquiries related to IT, and evaluation of remote services. The requirements related to healthcare professionals were the increased need for instructions, support and education to meet the changed situation, overseeing remote work, discussing and informing about the occurring changes and problems, and easing the professionals' fear of getting infected. From the managers, the changed situation has required patience and creativity.

Discussion

This study provides new information about psychiatric service leadership in the era of COVID-19 pandemic. It appears that the pandemic and the sudden increase in remote services created a number of demands on managers. The most common requirements were the increased need for IT equipment, supporting healthcare professionals and giving them instructions to guide their work.

Caring for Care professionals! The effects and lessons of the COVID-19 outbreak on the well-being of nursing home staff. A qualitative interview study

Authors: Robert van Kleeff, PhD Candidate[1]; Nick Zonneveld, PhD Candidate[2]

[1]Utrecht University, Utrecht, The Netherlands. [2]TIAS School for Business and Society, Tilburg, The Netherlands

Context

The COVID-19 pandemic has put great pressure on our health and care systems worldwide. During the peak of the COVID-19 outbreak, much attention has being paid to health professionals working in the frontline. However, we notice a mixed picture within healthcare. While hospital staff gained much recognition ('not all heroes wear capes'), nursing homes had to deal with far less positive attention. From our standpoint to broaden this perspective, we therefore investigate the effects of the COVID-19 outbreak on the well-being of professionals working in nursing homes, and explore ways to address these.

Methods

In order to study the effects of the COVID-19 on the well-being of nursing home staff we conducted a qualitative study. The interview guides were theoretically underpinned by the Job Demands – Resources framework (JD-R model). The JD-R model distinguishes job demands, which predict possible exhaustion, and job resources, motivating and engaging employees. Both job demands and resources may refer to physical, psychological, social and/or organizational aspects. Although they initiate different processes (motivational and health-impairing), demands and resources may also interact. For instance, resources can buffer the relationship between demands and exhaustion. In this study we use the JD-R model to identify job demands and resources in nursing homes, specifically related to the COVID-19 outbreak. We have therefore interviewed twelve staff members from four Dutch nursing homes. All staff members are nurses and were working during the COVID-19 outbreak. The interviews were coded and analyzed by two researchers using thematic analysis.

Results

Our analysis identified four types of job demands that increased during the COVID-19 outbreak: (1) work overload, because of additional activities and tasks such as hygiene measures and managing visitors, but also activities formerly executed by an caregiver, (2) emotional demands, coping with uncertainty of both the employees themselves and their clients, (3) the need for developing new digital competencies, related to new technology (Zoom, Skype, etc), and (4) coping with new value conflicts/clashing values, such as safety versus quality of life. On the other hand, we have identified two job resources developing during the COVID-19 outbreak: (1) team climate, a growing 'us against the world'-feeling and,(2) increased support, from both colleagues and team leaders.

Discussion

This study highlights COVID-19 results in a broad variety of increased job demands for nursing home staff, while also providing additional job resources. We discuss key implications for leaders within nursing homes. First, the results show an amplified importance for leaders to acknowledge the increased emotional and normative demands of nursing work, for instance by supporting staff in value trade-offs and other emotionally challenging situations. Second, this study reveals opportunities for leaders to further increase job resources, such as increased team climate and social support. These resources are not only helpful by themselves (i.e. motivational), but can also buffer negative effects of the increased demands on nurses' well-being. Besides, we argue that the (lack of) appreciation for nursing home staff is a missed opportunity in the challenge to recruit new nursing home staff from the societal level. In other words, reasons to care or our professionals in the Care.

GP care use in deprived neighbourhoods during COVID-19

Author: Dr Paul Kocken

Erasmus School of Social and Behavioral Sciences, Erasmus University Rotterdam, Rotterdam, The Netherlands

Background

In deprived neighbourhoods, there is an overconsumption of general practitioner (GP) care. During the Corona crisis, GP practices raise higher barriers to reduce patient visits. GP practices in deprived neighbourhoods in Rotterdam want more insight into the possibilities of continuing to provide remote care when scaling Covid-19 measures. Insight is needed in which groups remote care can be used.

Methods

Structured interviews were held with 15 GPs and 8 nurse specialists (POHs) from the participating GP practices. The research provides insight into (a) the patient's help-seeking process, (b) the care process of the general practice and (c) the output of the general practice.

Results

Preliminary results show GPs and POHs answered they were satisfied with their working method under the given circumstances of Covid-19, but had questions about primary and specialist care for their patients in the near future. An important part of the care needs was provided with remote care. A first indication, however, is that solo GP practices in comparison to group health centres had already switched to regular face-to-face contacts to a greater extent.

Conclusion

More insight is needed into the relationship between the process of care provision in general practice and the help-seeking process of patients. Not only for the time when there is no vaccine or treatment for the virus yet, but also because Covid-19 has accelerated the use of ICT resources in general practice.

Crisis management during COVID-19; the experiences of nursing home directors

Authors: Prof Dr Kees Ahaus; Dr Jeroen Van Wijngaarden; Dr Marleen De Mul

Erasmus School of Health Policy & Management, Rotterdam, The Netherlands

Context

At the unset of the COVID-19 crisis, hospital care stood central stage. Most attention focused on how hospitals could be facilitated to create adequate ICU capacity. Scarce resources such as protective masks were prioritized for hospital use. At the same time the crisis struck hard back-stage, in the nursing homes. Almost half (46%) of all deceased Dutch Covid-19 patients lived in nursing homes (RTL, June 5th, 2020), this was indicated in the Dutch media as a ‘silent disaster’. Devoid of enough resources to protect all staff and residents, nursing homes needed to improvise to save lives and keep their infrastructure running. Overnight the directors became crisis managers. This study focuses on their actions during the COVID-19 pandemic.

According to the literature, crisis managers must perform several tasks during a crisis among others diagnosing and deciding, and informing and empowering (Boin et al., 2013). At the same time a crisis goes through different phases: pre-crisis, acute crisis and post-crisis phases (Steen and Morsut, 2020). Unclear is how these tasks change during the course of a crisis and how this is related to the central goals of saving lives, protecting infrastructure and restoring trust. That is why we set out to study which tasks these directors need to perform, which goals need to be pursued and how these tasks and goals change during the crisis.

Methods

Seven nursing home directors in the Netherlands were interviewed (bi)weekly during a period of 15 weeks, starting on March 27th till July 2nd, 2020. In total, 47 interviews were conducted with an average duration of 41 minutes (minimum 27 minutes, maximum 68 minutes). These open interviews focused on the concrete experiences and actions of these nursing home directors related to the COVID-19 crisis. Based on a literature search a conceptual model was developed identifying the different phases during a crisis, and the goals and the tasks of crisis managers. In a first step we used a rigorous inductive approach (Gioia et al., 2013) by extracting data (in vivo codes) related to goals and tasks of the directors in their role as crisis managers. Themes were used to categorize the data where possible and further our analyses. Finally, the findings were discussed and validated during a focus group interview with all respondents.

Results

Work in progress.

The results section will provide a picture of the incredibly intensive period in which they had to face painful situations, such as for example offering the residents a relatively safe home which came at the price of feeling socially isolated during the lockdown.

We will reveal a refined categorization of the phases of the crisis and the goals and tasks of the nursing home directors in their role as crisis managers. We will discuss how they tackled the dilemmas they faced, how their tasks changed during the different phases of the crisis and how this was related to the goals they pursued.

Discussion

Work in progress

We will use our findings to further develop our conceptual model and discuss how this model contributes to literature. We will also discuss what we can learn about crisis management in healthcare on both an organizational and a regional level and what this means for managing long-shadow crises such as the COVID-19 pandemic.

The advantages of being in control of medical technology during times of crises (revised version)

Authors: Ir René Drost

NAMCO, The Hague, The Netherlands

Dutch hospitals need to comply with a national standard with regard to the safe application of medical technology. Medical technology meaning, from low risk disposables to complex equipment, systems and software. This standard was driven by scientific research in The Netherlands on the yearly number of avoidable fatalities and incidents, related to medical technology. The standard describes requirements to the governance process, requirements to assure that healthcare and supporting personnel are skilled and requirements to the life cycle management processes in the hospital, including purchasing, maintenance and disposing of the products. On behalf of the Hospital branches, René Drost developed this set of requirements in 2011. Since then, he monitors the implementation of the standard by means of hospital visits and audits.

When COVID-19 started, hospitals were preparing for the implementation of new European regulations with regard to medical devices and in-vitro diagnostic medical devices. These regulations are aiming at higher levels of patient safety and at an improved system of market entrance for innovative products. The regulations are basically meant for economical operators, not for hospitals. At hospital level there were growing concerns that these regulations would lead to lower availability of medical devices and to higher costs. COVID-19 fuelled these concerns even more.

The COVID-19 crisis lead to the immediate need for specific medical equipment, such as ventilators and all kinds of personal protective equipment, some of it being a medical device, some not. Traditional ‘modus operandi’ had to be set aside.

As a result of the gained experience with the national standard on medical technology, the problems remained focused on the availability of products in the supply chain, instead of on how to organize things differently in hospitals due to the crisis. Having said this, many challenges had to be addressed. Service personnel of industry was not allowed to enter the hospitals, leading to scheduled preventive maintenance running out of the maintenance window. The accelerated market entrance of new products, leading to doubts whether the devices were effective or not. And if equipment was no longer needed in hospitals it had to be recalled. In my presentation I will dig deeper into these challenges: what went wrong? What were the lessons learned?

Evaluation of COVID-19 so far, leads to the conclusion that life cycle management of medical devices in hospitals, supported by an active governance approach by hospital leadership, definitely helps to encounter a crisis like COVID-19. I therefore advise hospital leadership to organize the inventory of its medical technology according to the principles of life cycle management and thus improve being in control.

Transferring scientific knowledge in the COVID-19 pandemic as a non-pharmaceutical intervention: the experience of the Italian National Institute of Health (Istituto Superiore di Sanità - ISS)

Authors: Dr Luigi Bertinato[1]; Dr Aurora Angelozzi[2,1]; Dr Susanna Caminada[2,1]; Dr Gianfranco Brambilla[1]; Dr Licia Bacciocchi[1]; Dr Paola De Castro[1]; Dr Alfonso Mazzaccara[1]; Dr Duilio Carusi[1]; Miss Cinzia Miracco[1]; Prof Silvio Brusaferro[1]

[1]Istituto Superiore di Sanità, Roma, Italy. [2]Sapienza Università di Roma, Roma, Italy

Background

With the Covid-19 epidemic the Istituto Superiore di Sanità (ISS) had to provide, since January, a rapid and effective response to the request for scientific information and training from the Italian territory about the new disease. The social distancing linked to the pandemic forced ISS to make a great cultural transition, switching to virtual training events, through audio-visual technologies such as teleconferencing and other communication channels in order to reach healthcare workers on the frontline.

Objectives

In order to provide the government with technical-scientific information, to train and update health personnel and to inform all stakeholders, ISS has set up different strategies: 1) weekly national scientific meetings addressed to the science community, investigating various topics concerning COVID-19, were planned since January 29, in order to guarantee a scientific exchange between experts and stakeholders; 2) Working Groups were set up from March, with experts of the ISS and of other national and international institutions (such as WHO), aimed at responding to various needs concerning COVID-19; some working groups organized periodic thematic webinars since April to reach citizens and health workers; 3) video tutorials on some specific issues (e.g. dressing and swab execution) and online courses were provided since February.

Results

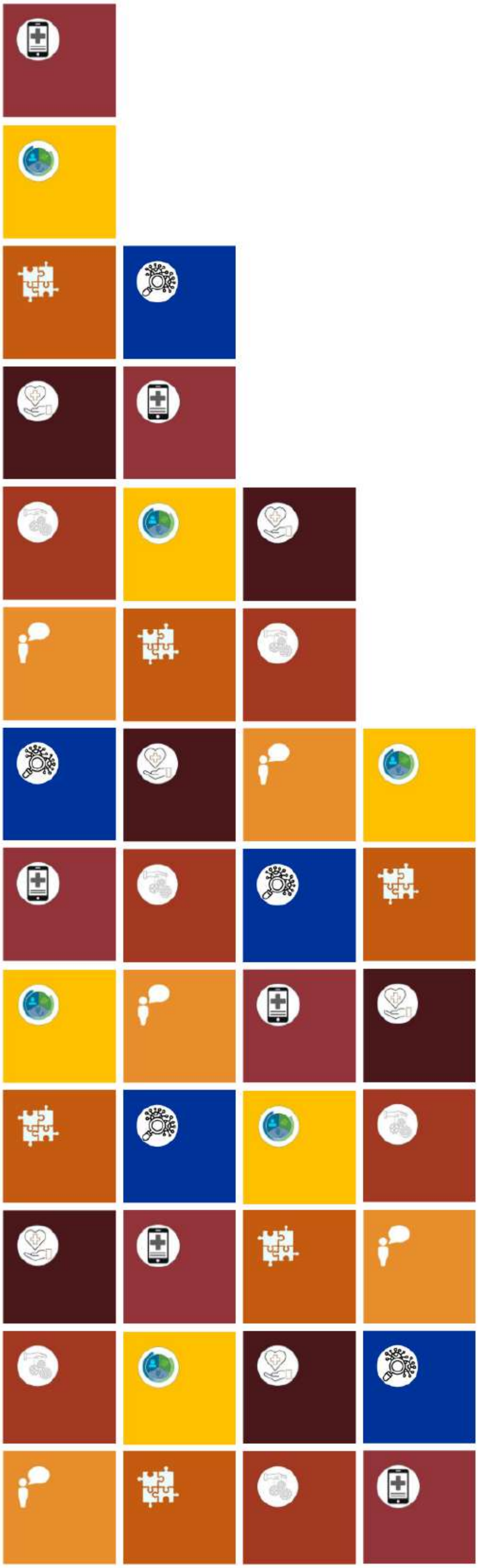
1) 23 scientific meetings were organized in form of interactive webinars, with the participation of over 90 speakers, reaching over 13000 participants.

2) 22 multidisciplinary working groups saw the participation of 446 experts through periodic teleconference meetings and produced 54 Covid Reports, covering major issues like infection control, diagnostic tests and therapy, but also specific topics such as technologies, telehealth and mental health. As of May 31, over 500,000 accesses were registered to the Covid Reports from the ISS website and over 150,000 from the quotidianosanità.it website that hosted them. 8 weekly interactive videoconferences took place regarding social and medical needs of patients with rare diseases; such webinars averaged around 4500 views and 9500 direct interactions of patients and health workers from Italy and 11 other EU and non-EU countries. 6 interactive videoconferences addressed at operators of long-term care facilities on the prevention and control of SARS-CoV-2 infection were streamed, with an average of 800 connections each; and over 1000 downloads.

4) The online courses, concerning issues such as preparation and contrast of the infection (216,000 participants) and contact tracing, were addressed to health and social workers, universities and third sector operators. They have been translated into English and French for countries with limited resources.

Conclusions

The new ISS working methods - imposed by the change due to social distancing as non-pharmaceutical intervention to reduce the transmission of SARS-CoV-2 – was able to switch from interpersonal to interactive communication to stakeholders, with significant results in pandemic time. The fact that the material has been translated into other languages and that the webinars have been followed abroad accounts for the exportability of the model, proving that Italy constituted a reference model for other countries during the pandemic.



KAROLINSKA MEDICAL MANAGEMENT CENTRE & EHMA RESEARCH AWARD

PHD STUDENTS' SESSION

#EHMA2020 | Abstract book

Working Alone, Together: Towards Collective Entrepreneurship-as-Practice

Author: Dr Nour Alrabie

Université Toulouse Capitole, Toulouse, France

Summary

Several European countries have recently faced a decrease in the number of healthcare professionals wanting to practice in rural areas, which led governments to push the creation of colocation-based healthcare practices. After ten years, the results are not as great as expected. Care integration literature shows that evidence of the effectiveness of multidisciplinary co-location for healthcare integration is mixed. This Ph.D. takes an entrepreneurial approach to a health management problem. It investigates how co-locating self-employed healthcare practitioners promote collective actions in successful colocation-based practices. The thesis consists of three essays and focuses on six practices in France and Germany.

The first essay investigates a project that is implemented across four French colocation-based practices known as Multi-professional Health Homes. The second essay investigates four collective entrepreneurial journeys taken by self-employed healthcare practitioners leading to the creation of four rural colocation-based practices in southwest France and southwest Germany. The third essay investigates entrepreneurial actions emerging from self-employed healthcare practitioners who belong to a community of practice (CoP). It explores how entrepreneurial actions emerge unwittingly from practitioners who are part of CoP, by studying their day-to-day practice.

The first essay expands the theory of care integration by identifying three antecedents of multidisciplinary collaboration: (i) prior GP joint-practice experience, (ii) professional impetus, and (iii) GP peer group membership. The second essay extends the understanding of the unfolding of engaging for collectiveness among self-employed practitioners. It improves understanding of their creative organizing by (i) theorizing well-being as a driver of collective entrepreneurship in the rural healthcare context; (ii) conceptualizing regional embeddedness as a process of 'being in, 'doing at', and 'understanding of' the territory; and (iii) theorizing peer co-working as a catalyst of collective entrepreneurship. The third essay's contribution is three-fold: the essay (i) introduces the concept 'unwitting entrepreneurs' calling entrepreneurship scholars to push the boundaries of investigation, (ii) unveils entrepreneurs' openness as practice by elucidating their practice of 'taking whatever comes' that initiates a 'process to entrepreneuring' with possibilities of emerging entrepreneurship, (iii) suggests CoP play a regulatory role and calls for further investigation of their potential in empowering and promoting the unwitting entrepreneurship among self-employed practitioners.

Acknowledgments

I defended my Ph.D. thesis in December 2019. I want to thank Prof. Federico Lega, President of the European Health Management Association, who was an external examiner of the Ph.D. thesis. Since my doctoral research has evolved through participating in EHMA annual conferences since 2015, I extend my thanks to all EHMA members. I am glad that the first article of the Ph.D. thesis is published in Health Services Management Research:

Alrabie, N. (in press), Integrating Professionals in French Health Homes: Fostering Collaboration beyond the Walls, Healthcare Services Management Research, DOI: 10.1177/0951484819858828

“I live in an ethical dilemma: I want to give patients the best medicine here, but I also need to keep this place financially in balance”. Dual agency in hospitals: how do managers and physicians reconcile between financial and clinical considerations in Germany and Israel?

Authors: Ms Ruth Waitzberg[1,2,3]; Dr Wilm Quentin[3,4]; Prof Reinhard Busse[3,4]; Prof Dan Greenberg[2]

[1]Myers-JDC-Brookdale Institute, Jerusalem, Israel. [2]Ben Gurion University, Beer Sheva, Israel. [3]Technical University Berlin, Berlin, Germany. [4]European Observatory on Health Systems and Policies, Brussels, Belgium

Context

Hospital managers and physicians may face dilemmas due to their role as dual agents, committed both to their hospitals and their patients. We aim to pinpoint the situations where economic and clinical considerations are aligned or conflicting; and to explore whether differences exist with regard to how managers and physicians reconcile economic and clinical considerations in their decision-making in Germany and Israel.

Methods

We used a qualitative, thematic analysis based on 47 semi-structured in-depth interviews with Chief Executive Officers, Chief Financial Officers, clinical managers, chief physicians/ward directors and physicians in five hospitals in Germany and five in Israel, sampled by maximum variation according to hospital characteristics.

Results

Economic and clinical considerations are aligned when hospital payments-costs gaps are small, and economic incentives do not distort clinical considerations; or when good medicine avoids complications while saving costs. Managers and ward directors face dilemmas when procedures are under-priced, resulting in financial losses to the hospital, and represent barriers for adoption of new, costly, medical equipment. In many instances, managers and ward directors choose one of the principals (hospital or patient), yet sometimes they develop reconciliation strategies: (1) improving coding of activities and diagnoses to assure higher payments; (2) reducing costs-per-case by choosing cheaper supplies with the same quality, bulk-purchasing or reducing unnecessary lengths-of-stay; (3) providing clear treatment guidelines that support decision-making. Hospitals in Germany aim to become more efficient through specialization, and try to find alternative, less costly, care settings such as rehabilitation facilities. In Israel, hospitals balance the amount of unprofitable/complex cases with many other profitable/simple cases.

Discussion

Hospital managers and physicians face, at times, dilemmas that arise from their dual commitment to both the hospital and the patients, regardless of the amount of funds available in the hospital market. While sometimes one principal prevails, agents in both countries develop reconciliation strategies. Physicians are less involved in creating these strategies, but often adopt them. In Germany, a high-expenditure hospital market, there is some flexibility to change the character of hospitals activity, while in Israel, a middle-expenditure market, agents balance activities within the existing framework.

Citizen participation: bargaining over boundaries in the organisation of care services

Author: MSc Ludo Glimmerveen

Vrije Universiteit, Amsterdam, The Netherlands

Hailed as a way to grant citizens more control over the care services they may use, advocates portray citizen participation as a crucial ingredient for service improvement. Critics, however, consider participatory efforts to be something of a Trojan horse, used to legitimize decisions that have already been made or to compensate for cutbacks in public spending. In my doctoral thesis, I investigate how these disparate accounts of citizen participation interact within concrete participatory efforts. How do participatory initiatives evolve as people bargain over participation's parameters?

Relying on ethnographic methods, my study zooms in on the developments surrounding a small-town elderly care home in the Netherlands that was at risk of being closed. In line with the care organization's policy ambition to create more space for citizen participation, I investigated how employees and citizens jointly explored the feasibility of keeping the care home open until its scheduled replacement by smaller-scale facilities several years later. In this process, I followed both 'front-line' interactions between citizens and employees, but also to the 'internal' meetings in which employees negotiated the extent to which participation effectively impacted organizational (decision-making) processes. In total, I spent 38 days on site, observed 45 meetings (with and without citizens), conducted 16 formal interviews and engaged in a myriad of informal conversations.

Approaching citizen participation as a contentious organizational phenomenon, my findings show how people delimit the scope of participation as they negotiate (1) the issues that are (not) included to the realm of participation, (2) the actors that are (not) considered to be legitimate participants and (3) the extent to which participation is allowed to compromise established positions of authority. By engaging in a power-sensitive analysis of these three interconnected areas of contestation, my study sheds a different light on the prevalent idea that effective participation is at odds with centralized control. While participation by definition requires a degree of decentralized control, our findings suggest that hierarchical enforcement may sometimes be necessary in order to 'internally' advocate for participation among front-line employees who would otherwise not be inclined towards citizen participation. As such, 'top-down' management involvement (or a lack thereof) can either make or break the significance of participatory initiatives.

In sum, my thesis generates insights that help us grasp the elusive character of citizen participation—explaining why it sometimes turns out to be a pathway towards democratizing care services while at other times functioning as an instrument in the pursuit of predetermined agendas. It reveals the delicate power dynamics that, I contend, are intrinsic to participatory practices. Too often, these power dynamics remain obscured or become simplified in accounts that treat participation as a panacea for service improvement or, alternatively, as a cynical attempt to co-opt citizens.

Built to order: patient profiling to tailor type 2 diabetes care

Author: PhD Dorijn Hertroijs

Maastricht University, Maastricht, The Netherlands

One of the major drawbacks in the care for patients with type 2 diabetes mellitus (T2DM) is that the care recommended in protocols is highly standardized, based on the average patient. Yet, the average patient does not exist. Studies suggest that patients might benefit from a more tailored approach to the treatment of T2DM. Therefore, the aim of my dissertation was to develop and validate patient profiles to support tailored care for patients with T2DM. I identified relevant patient characteristics for tailoring T2DM care and used these to stratify patients into subgroups with similar care needs and preferences.

I used several study designs with a strong multidisciplinary character to develop the patient profiles, which is unique. First, I conducted a systematic literature review, which revealed that age, glucose-lowering drugs, diabetes duration and baseline HbA1c influence the glycaemic control of patients with T2DM. Second, data from the Maastricht Study enabled me to explore this relationship further using descriptive-, regression-, and latent class analysis. I found that patients with insufficient glycaemic control had a worse biopsychosocial profile than patients with sufficient glycaemic control. Third, I identified and validated three distinct glycaemic control trajectories in patients with newly diagnosed T2DM using data from large Dutch diabetes care networks: 1) stable, adequate glycaemic control; 2) improved glycaemic control; and 3) deteriorated glycaemic control. A machine learning model was built that could accurately predict trajectory membership with BMI, HbA1c and triglycerides. Fourth, I conducted two Dutch online Delphi studies to assess relevant patient characteristics for patient profiling: one with healthcare providers (HCP) and one with patients with T2DM. The studies revealed a discrepancy in opinions between HCPs and patients. HCPs ranked self-efficacy as the most relevant characteristic for patient profiling, whereas patients were more in favor of health-related characteristics and ranked HbA1c as the most relevant characteristic. Finally, I elicited care preferences of patients with T2DM using a discrete choice experiment. Patients strongly did not prefer to receive emotional support from a psychologist and preferred traditional care models. Significant differences between the glycaemic control trajectories were not found.

My dissertation has resulted in eight articles published in international journals and more than 10 presentations at (inter)national conferences. The results of the Delphi studies are in line with the increasing interest for a biopsychosocial approach to health. However, in the treatment of T2DM there is little emphasis on the psychosocial and social well-being of patients with T2DM. The second part of the patient profiles will therefore contain a consultation model to promote a dialogue between HCPs and patients on relevant biopsychosocial patient characteristics. When complete, the patient profiles have the potential to provide the right care, in the right place and at the right time.

POSTERS

Transforming Operating Theatres management

Authors: Gorka Sanchez Nanclares, MD[1]; Juan Antonio Lopez, Company MD[1]; Mr Jordi Rovira Simon[2]; Ms Elena Castellano Cotanda[2]; Dr Carlos García Palenciano[3]; Ms Núria Rizo Morant[2]

[1]Servicio Murciano de Salud, Murcia, Spain. [2]MYSPHERA, Valencia, Spain. [3]Hospital Virgen de la Arrixaca, Murcia, Spain

Healthcare expenditure represents on average 8.3% of European GDP. Hospitals are highly complex organisations, typically with thousands of employees and hundreds of admissions and operations performed every day, in large spread-out areas. They look very much like "micro-cities" and their costs represent an approximate staggering 60% of total healthcare expenditure. Daily operations in hospitals involve a range of time consuming and complicated processes (care, logistic, operative, etc.), which must run smoothly to provide (cost-) effective, safe and friendly healthcare assistance to the population. A medium-large hospital spends more than 70% of its yearly budget on surgical interventions. Healthcare cuts in recent years, sometimes reducing budgets by up to 10%, have made it more difficult to maintain the high quality and excellent performance of public health services. Indeed, waiting lists for surgical procedures are rising due to an increase in both healthcare demand and service cuts.

Surprisingly, the most complex and expensive process in hospitals—the surgical process—is still managed in a rudimentary way by relying on professionals repeatedly phoning each other to look for available people (i.e. porters, nurses), information and essential equipment in time demanding situations. MYSPHERA has identified this need, which has no current solution in the market. Patient flow and real time location system (RTLS) are key technological components that could enable a new generation of applications to boost the surgical process management. By leveraging its cutting edge RTLS technology, MYSPHERA has developed a unique and pioneering service in the context of the European innovation project OR4.0 that will transform the delivery of healthcare in hospitals. This solution is able to automate the patient journey throughout the surgical process triggering events as patients move along their journey and orchestrating the generated actions and tasks between professionals to smooth coordination and collaboration between the surgical block staff. This innovation is under piloting in different hospitals in Europe, which includes sites in Spain, France, Belgium and the UK.

One of the success cases of this piloting experience has been obtained in the main university hospital in the region of Murcia (Spain), the Hospital Universitario Virgen de la Arrixaca. The head for the innovation in this healthcare system in Murcia, MD Gorka Sánchez Nanclares, is pleased to present the preliminary results of the impact generated on key performing indicators of the operating rooms implementing the new solution after the first months of operation. As more data is collected, the working team has more evidence to implement organisational changes to optimise the surgical block performance. Interestingly, an improved professional satisfaction is anticipated by the level of engagement obtained during the design sessions, which included a wide spectrum of professionals. Relatives satisfaction is also expected to be high since more transparency and improved communication is provided throughout the duration of the surgical intervention.

The change management of digital transformation in healthcare

Author: Mirka Parkkinen, PhD Student
University of East Finland, Kuopio, Finland

Context

The purpose of the study is to describe the change management of digital transformation in healthcare organizations. The purpose of this study is to explain, how does it come true, what are the promotional and preventive factors in digital transformations change management.

Methods

A systematic literature review was performed to find articles that identify and describe change management of digitalisation. Searches of electronic databases were conducted using set criteria for article selection. Altogether 16 papers underwent an inductive content analysis.

The second research data was collected by electronic survey from healthcare leaders and managers(n=406) in six social- and health care circles during year 2018 in Finland. The data were analysed using quantitative, statistically descriptive methods.

Results

The following themes emerged from the definitions of digital transformation change management: Continuous Innovation, Technology and Networks management and information implementation.

The study concludes main themes emerging from research data related to change management of digital transformation in healthcare. These are:
1. Customer orientation in leadership - Customer is taken as a co-partner.
2. Powerful key actors - Doctors professional autonomy.
3. Innovation management, experimental culture.
4. The unpredictability of socio-technical impacts. Doctors, human actors, translate the actual use of the technology differently form the designers' perspectives.

Research data shows that digital transformation of healthcare is a slow and difficult change in organizational culture. Digital transformation is slowed down by technical problems. Leaders and managers need more support for change management. Usually the pressure on digital transformation comes from outside the organization but change management of digital transformation do not success without powerful key actors support. Patients role becomes more active, as co-partner.

Discussion

The study shows that there is a little scientific research about this subject. The study describes that digital transformation change management diverges from previous change management theories. Digitalisation change management diverges in different organisations because of the socio-technical elements. Digital transformation in unpredictable change in healthcare organization. Digital transformation might have different consequences, which are difficult to predict.

Moments' of Life - KKH online birth registration

Authors: Mdm Vimalla Ganesan; Mdm Eunice Seah; Mr Douglas Chew

KK Women's and Children Hospital, Singapore, Singapore

Situation

In KKH Women & Children's hospital, we have a Birth & Death Registry Team in Admissions Office to process the birth registration for the newborns and death certificates.

In the past, parents would have to fill up the hard copy of the birth registration form which was issued at the Obstetrics Wards to mothers who have delivered their children. The parents or one of the parents would then process their children's birth registration at the Admissions Office with the Birth & Death Registry Team to get the birth certificate on the spot. In addition, they need to produce the hard copy registration form, notification of live birth form, original marriage certificates and original identity cards for both parents.

On 2 July 2018, as part of the move towards Smart Nation, the Moments of Life (MOL) online birth registration for Singpass Account Holders was introduced by the Public Service Division (PSD) to allow Parents to use this mobile application to register for their Singaporeans' Newborns online.

Team from PSD came to KKH for several discussion on quarterly basis to review on the birth registration process with Birth & Death Registry Team and the various stakeholders from Nursing Team, Women Specialist Outpatient Clinics and Marketing Communication Team on how to bring awareness of the MOL mobile application as well as to encourage eligible parents who are Singpass account holders who have registered their marriages in Singapore to log in to the MOL mobile application to pre-register for their Singaporean Child's birth online.

Measurement

The Team aimed to achieve a seamless and convenient experience for parents on birth registration of their children at KKH. The convention way is for parents to walk down from the Ward to Admissions office (AO) - Birth Registration Counter at Level 1, to do the manual birth registration for their newborns.

With the introduction of the MOL mobile application, the direction was to streamline the birth registration process as well as to increase the MOL take-in rate for eligible parents by 50%.

In the beginning, Team did encounter challenges with parents who refused to use the online application and found it too tedious to log in especially after they have completed the manual birth registration form (BD13).

In order to boost the take-up rate for the MOL mobile application further, the Birth Registry Team approached the Nursing Team from the Obstetric Wards on the proposal to stop the issuance of the hard-copy Birth Registration Report Form (BD13).

With full support from Deputy Secretary from PSD and KKH Chief Nurse, our Team also had quarterly meetings since June 2018 with the PSD team and other KKH stakeholders like the Specialist Outpatient Clinics' & Nursing from Obstetrics Wards, Delivery Suite as well as the Marketing Communication to explore different channels to bring awareness of the MOL mobile application to eligible parents at KKH compound.

Activity

1. A retrospective data analysis was conducted (July to September 2018) with results shown:
   - Average Daily of 2 online birth registration cases.
   - Average Wait Time of 10 minutes, transaction time of 12 minutes.
   - Average MOL login rate was 9%
2. Quarterly meetings to gather concerns from various stakeholders, addressing and finding solutions to bring up MOL login rate.
3. MOL Website Publicity in KKH website was completed in October 2018.
4. PSD designed collaterals (step-by-step guides) to convey messages and benefits to eligible parents.
5. The Birth Registry Team approached the Nursing from Obstetric Wards in April 2019 to stop the issuance of the hard-copy Birth Registration Report Form the Ward.
6. ICA and PSD implemented an enhancement in April 2019 which removes the need for parents to key in a lengthy electronic Notification of Live Birth (eNLB) number to apply for birth registration. Instead, parents now only need the mother's ID to retrieve the birth record from backend. Nurses no longer need to print the eNLB for parents.
7. PSD provided a tablet and a temporary staff to station at the Obstetric Wards, Women Outpatient Specialist Clinics and Delivery Suite Admission to create awareness of the on-line Birth Registration.

Leadership on allied health professionals

Authors: Amadeu Martins, MSc[1]; Isabel Faro de Albuquerque, PhD[2]

[1]Higher School of Health of The Portuguese Red Cross, Lisbon, Portugal. [2]NOVA National School of Public Health, Public Health Research Centre, Lisbon, Portugal

Purpose

Allied Health Professionals (AHP) form a large part of the workforce in health care force and play a central role in diagnosis and therapeutic procedures. Leadership outcomes on allied health professionals are unclear and little studied. This article consists on a systematic review about leadership outcomes on allied health professionals globally, contributing to a better definition of the leaders role on value based healthcare.

Methodology

This was a systematic review of the literature in the PubMed, B-ON, ScienceDirect and Scopus databases, using the terms: leadership AND allied health professions. This research was limited to articles published between 2008 and 2018.

Findings

746 papers were retrieved; 11 met the inclusion criteria. The included literature varied in quality and design, being 9 quantitative studies and 2 qualitative studies. After thematic analysis leadership outcomes were obtained and grouped in three major areas: characteristics of the leaders, barriers to leadership and needs of improvement.

Value

This systematic review adds to the growing body of evidence and indicates that leadership has been studied to identify and characterize leadership profiles on those professionals. There were highlighted several barriers to leadership that depends on external and internal factors. Additionally, leadership challenges and potential areas of development for leadership training were identified, as well as for the implementation of specific leadership programs for each job category and country.

Professional identity and performance of allied health medical imaging and radiotherapy technologists: can leadership profiles make a difference?

Authors: Amadeu Martins, MSc[1]; Isabel Faro de Albuquerque, PhD[2]

[1]Higher School of Health of The Portuguese Red Cross, Lisbon, Portugal. [2]NOVA National School of Public Health, Public Health Research Centre, Lisbon, Portugal

Recently, interest in management outputs of Allied Health Medical Imaging and Radiotherapy Technologists (AHMIRT) is increasing (Martins and Isouard, 2015). However, little is known about the influence of different leadership profiles on motivation and outcomes value. Based on Quinn's Model (Quinn's et al, 1988), we predict that the relationship between professional identity and performance is mediated by work engagement and the relationship between work engagement and performance is moderated by leadership profiles. When leadership profiles presents higher levels of the flexibility side a higher level of work engagement should be accompanied by higher levels of performance. When leadership profiles presents more levels of control, work engagement should fail to produce a positive effect on performance. Our model was explored among a sample of 392 AHMIRT that have answered an online survey. The results of the moderated mediation analysis supported our hypothesis. That is, professional identity was significantly related to performance via work engagement when leadership profiles presented higher levels of flexibility but not when leadership profiles presented high levels of control.

Potentially avoidable emergencies for Ambulatory Care Sensitive Conditions

Authors: Dr Bruno de Sousa Martins[1]; Teresa Magalhães, PhD[2]; Rui Santana, PhD[2]; Dra Patrícia Rocha[3]; Dra. Cristina Marujo[3]; Dr Luís Lopes[3]

[1]NOVA National School of Public Health, Universidade NOVA de Lisboa, Lisboa, Portugal. [2]NOVA National School of Public Health, Public Health Research Centre, Universidade NOVA de Lisboa, Lisboa, Portugal. [3]Centro Hospitalar Universitário de São João, Porto, Portugal

Context

The use of emergency department increased over the past decade and for many patients it is the main source of medical care. Portugal is the OECD country with more emergency episodes. Many of these episodes were potentially avoidable emergencies for Ambulatory Care Sensitive Conditions (ACSC) and can be avoided through addressing these conditions effectively in Primary Health Care (PHC). The aim of this study is identify the potentially avoidable emergencies for ACSC, and understand the factors that explain this phenomenon using administrative data of a Portuguese hospital.

Method

We used the Canadian Institute for Healthcare Information methodology to identify the potentially avoidable emergencies for ACSC. After the identification process the following analysis were performed: 1) characterization of emergency episodes comparing the results between two groups (episodes with and without ACSC) 2) identification of predictive factors of avoidable emergencies for ACSC using logistic regression method and 3) Estimate hospital waste caused by avoidable emergencies for ACSC comparing treatment´s cost in emergency department with follow-up and monitoring costs in PHC.

Results

In 2018, 5% (2346) of the emergencies episodes for medical causes were potentially avoidable according to the Canadian methodology. In the first analysis, there were no differences between groups for the variables age, origin of admission, colour in Manchester triage and destination after discharge. Chronic obstructive pulmonary disease were responsible for 44.29% of avoidable emergencies episodes. The risk of avoidable emergency increased 2,627 times between ages 70-75 and 1.896 when admission is through National Institute of Medical Emergency. There were a significant difference between treatment costs of avoidable emergencies in hospital comparing to outpatient care with a total cost waste of 154 601,40€.

Discussion

Inappropriate use of the emergency department, lack of integration between levels of care and hospital waste are some of the results found. Our findings show the need for more focused attention on outpatient care, mainly in the control of acute pathologies and effective management of chronic diseases to reduce the number of avoidable emergencies admissions for ACSC promoting the sustainability of emergency department. We defend that potentially avoidable emergencies for ACSC should be an indicator for measuring performance of PHC and emergency departments at national level.

Assessing the organisational governance: the experience of Puglia region using the SCIROCCO exchange tool

Authors: Dr Serena Mingolla[1]; Dr Efthimia Pantzartzis[1]; Dr Raffaele Lagravinese[2]; Dr Elisabetta Graps[1]

[1]Evaluation and Research Area, Strategic Regional Agency for Health and Social Care, AReSS Puglia, Bari, Italy. [2]Department of Economics and Finance, University of Bari, Bari, Italy

Context

Puglia Region, by means of its Strategic Regional Agency for Health and Social Care (AReSS), aims at improving social welfare and health care through innovation policies targeting value-based care systems and patient's needs. The aforementioned policies included the experimentation of the Integrated Care (IC) Model "Puglia Care" at its 3.0 revision to improve the disease and care management of chronic patients. In order to acquire data on the stakeholders' perception on the organisational governance of IC in the Region, AReSS assessed the IC maturity level of the Local Health Authorities (LHAs) using the EU Health Programme funded SCIROCCO Exchange online Tool.

Methods

The SCIROCCO Exchange project provides a 12-dimensions online tool for European regions to assess their maturity in the provision of integrated care, including identification of strengths, gaps and areas for improvement. It is intended to stimulate discussion, to encourage regions to share their experience, and to provide inputs for knowledge transfer and capacity-building activities with an objective to address the emerged maturity gaps. The methodology provides the following steps: 1) selection of key role stakeholders participating in the assessment process at macro, meso and micro level; five stakeholders for each LHA were selected to provide a multi-perspective assessment: General/Clinical Director; Integrated Health and Social care Community Centre Director; Care Manager; IT specialist; Patients' Representative; 2) Conducting the individual assessments; 3) Building the consensus among the involved stakeholders. The outcomes of the assessment were captured in the form of spider diagrams, highlighting Puglia' LHAs strengths and weaknesses in integrated care.

Results

This research has provided a multi-dimensional representation of the IC maturity level of the Puglia LHAs. The level of maturity of each LHA health care system varies from medium to high, coherent with the peer-assessment conducted by the European Commission which awarded Puglia in 2019 as a 4 stars Reference Site in the European Innovation Partnership on Active and Healthy Ageing. With reference to the SCIROCCO Exchange tool dimensions, major strengths include: Population Approach, Process Co-ordination, Citizen Empowerment, and Digital Infrastructure. The areas of Finance & Funding, Removal of Inhibitors and Evaluation Methods have still rooms for improvement. Puglia has invested considerable resources for the chronic care in recent years; however, cultural and infrastructure gaps may sometimes result in barriers. The emerging picture reveals a dynamic scenario in which several e-Health good practices are on the verge of being scaled up as a result of a positive assessment by the Regional HTA centre.

Discussion

The experience of LHAs' stakeholders using the SCIROCCO Exchange Tool have demonstrated benefits and added value of the Tool in guiding involved stakeholders towards the implementation of integrated care in Puglia. The outcomes of the process are often influenced by the different backgrounds of the stakeholders and by their different knowledge of the local context; sharing information emerged as relevant element to fill in the knowledge gaps existing among them. The Tool has proven to be useful in stimulating multi-stakeholder discussions and participants' engagement.

The assessment results will be used to orient an Action Plan to facilitate much more effective and tailored knowledge transfer process in Puglia. In addition, the analysis will be compared with the other regions taking part in the project facilitating learning and sharing of knowledge on how to improve the delivery of IC in Europe.

Universal health coverage and health worker maldistribution in the European Union: what roles and responsibilities for health managers?

Author: Corinne Hinlopen, MSc MPH

Wemos Foundation, Amsterdam, Netherlands

Context

Health inequalities in the European region remain a challenge and are partly due to an uneven distribution of health workers. With health workers being free to move within the European Economic Area, the net flow of health workers is benefitting richer countries who can afford to employ more health workers, and undermining already fragile health systems in Central, Eastern and Southern European countries. This contrasts with the spirit of shared prosperity in the European Union. To achieve Universal Health Coverage and SDG3 in all parts of the European Region, higher level policy solutions are required.

Methods

The EU-funded Health Workers for All Programme (2013-2016) aimed to strengthen health workforces in eight countries through a variety of interventions, e.g. by improving data collection on health worker mobility, by upgrading working conditions, thus reducing the outflow of health workers, or by increasing awareness of existing principles for ethical international recruitment . Advocacy activities of this partnership – carried out in alignment with the World Health Organization – included the development and dissemination of tools for policy analysis, such as users' kits, stakeholder analysis and a collection of best practices; the creation of a community of practice of national and international stakeholders, through workshops at national and European level, the involvement of health workers representative bodies and through the launch of a Call to Action; all geared towards better investments in sustainable health workforces.

Results

The program resulted in:

- Improved monitoring, by civil society, of Member States' efforts to strengthen national health workforces.
- High level discussions on the applicability of existing codes of conduct for ethical international health worker recruitment and increased awareness of those principles.
- Increased collaboration between civil society organizations, professional associations, trade unions, employers' organizations and policy makers, resulting in a number of high level dialogues with European Parliamentarians.
- A publication of case studies showcasing best practices to improve working conditions, develop cross-border solutions to health worker shortages or enhance national health workforce planning and forecasting capabilities.

We have achieved a lot, but there is still a way to go. Actual changes in policy and practices, resulting in better access, for all, to a health worker, will require more advocacy.

Discussion

The right of European health workers to move freely within the European Economic Area, develop professionally and build long-term careers, is a great good. However, governments could do more to improve working conditions and reduce health workers' desire to move abroad. Active and targeted recruitment of health workers from countries with critical shortages is on-going, evidenced for example in the 2018 reporting round of the WHO Code of Practice on the International Recruitment of Health Personnel. With the Sustainable Development Agenda gaining momentum, action plans to achieve Universal Health Care abound. But given current state of affairs, (how) will we achieve SDG3 and UHC in the European Region, including a more just distribution of health workers? Also, what are the roles and responsibilities of health managers, who arguably have a greater responsibility to adequately staff their facilities than to contribute to stronger health systems European-wide?

Reimagining Procurement in the NHS

Authors: Mr Andrew Corbett-Nolan[1]; Mr Andrew Walton[2]; Mr Christopher Smith[1]

[1]GGI, London, United Kingdom. [2]Connect Health, Newcastle, United Kingdom

The NHS Long Term Plan (LTP) sets out a clear vision for the NHS over the next 10 years. It builds on the foundations established by the NHS Five-Year Forward View and Next Steps on the Five-Year Forward View, with a focus on further integration of services and expanding new models of care.

English health and care organisations have been working together to integrate services across regional footprints to plan, commission and deliver care, initially as sustainability and transformation partnerships and increasingly as integrated care systems.

However, it is well recognised that the collaboration envisaged by the LTP sits uneasily alongside primary legislation that mandates the need for NHS services, over a certain threshold, to be procured through competitive tender.

To address this challenge, one of the proposals put forward by the LTP is to introduce a new procurement regime, “free[ing] up NHS commissioners to decide the circumstance in which they should use procurement, subject to a ‘best value’ test to secure the best outcomes for patients and the taxpayer.”

NHS England and NHS improvement have recently completed a consultation exercise to inform the development and content of the new regime. They published their proposals for change in October 2019.

Following the conclusion of the recent General Election, the Government has reiterated its commitment to the direction of travel described in the NHS LTP, and has stated that it may introduce legislative changes in the near future to support this. These will likely be based on the proposals published by NHS England and NHS Improvement.

To support the development of a new procurement regime, the Good Governance Institute and Connect Health have developed new guidance. It presents what we consider to be some key learnings for the NHS on the implementation of a new procurement approach, drawing on the experiences of other sectors.

The report also explores the concept of best value: what it is, and how to ensure that it can be effective in an NHS which is going through significant change. It then provides a series of case studies, and tools to support the development and implementation of a new procurement regime.

Value-based healthcare: How are Portuguese hospital managers adapting to this new approach?

Authors: Researcher Adriana Gradim; Invited Assistant Professor Daniel Polónia

University of Aveiro, Aveiro, Portugal

Context

Challenges in the healthcare sector (e.g. aging population, the rising of chronic diseases, changes in the lifestyle of the citizens and the technological evolution) are a major topic for those debating themes related to citizenship and society. In the recent past, Value-Based Healthcare (VBH) has emerged as an alternative to the existing status quo on healthcare management. In Portugal, the implementation of VBH is being debated by the various entities involved in the healthcare ecosystem. This study aims to analyse the current situation and how Portuguese hospital managers are incorporating the VBH in their daily practices.

Methods

This article has, as a starting point, the work developed by Nuno (2019) on the use a Value-Based Healthcare approach in imaging in the Portuguese healthcare sector. This work was then complemented by a review of the most important and recent articles on value-based healthcare, and it was followed by four semi-structured interviews with managers involved in the development and implementation of VBH strategies in Portugal, drawing a clearer picture on the projects that are being implemented to introduce a VBH strategy in Portuguese hospitals and on the results that are being obtained.

Results

All the interviewees agreed that VBH is a new management formula that is important for Portugal and that, due to its nature, managers of private hospitals have available more systematic processes comparing to public ones. This fact is delaying the implementation of a value-based healthcare strategy in public hospitals. Despite all the difficulties, managers from public hospitals are trying to develop pilot projects based on VBH. From the learnings on the implementation of these projects, it is frequently mentioned the importance for managers to listen all stakeholders from the healthcare ecosystem, involving all the parties and giving them information about the benefits of the value-based healthcare and its impact on the system before, during and after the projects are implemented. Finally, as a result of these contacts, it was possible to define a basic set of guidelines for managers to use when implementing a VBH strategy in their institution.

Discussion

Portugal is not in the leadership in terms of VBH projects but is giving significant steps to the development of projects of this nature. From the projects assessed, in order to have successful implementations of VBH, hospital managers must develop an innovation culture based on knowledge transfer, involving people working on the hospitals and players from the ecosystem in common projects. By presenting the Portuguese case, this study can be used by other researchers to assess the state of implementation of value-based healthcare approaches in different countries. However, in practical terms, it is obvious that each country will evolve differently according to its healthcare system context and funding.

Frailty management in a Local Health Authority in Piedmont - Italy

Authors: Federica Riccio, MD[1]; Tiziana Cena, MD[2]; Chiara Serpieri, General Manager[3]; Paolo Rasmini, MD[4]

[1]Public Health Authority, Unit for Quality Improvement, Vercelli, Italy. [2]Public Health Authority, Unit of Epidemiology, Vercelli, Italy. [3]Public Health Authority. General Manager, Vercelli, Italy. [4]Public Health Authority, Chief in Child Neuropsychiatric Unit, Vercelli, Italy

Context

The global burden of chronic diseases is a serious problem recognized by public health. The population of Vercelli ASL* District is characterized by an aging index higher than the regional average. The ASL has developed a fragility management model, aimed at improving the quality of care for this target population. The following definition of fragility: "imminent loss of one or more functional domains of daily living, related to the influence of different variables (biological, physical, psychic, social, environmental, economic)" has been adopted. For this reason, the population has been stratified, according to risk factors.

**Local Health Authority*

Methods

The population of VC* ASL has been stratified into 4 levels of frailty according to specific determinants: exemption for pathology, access to the emergency room, consumption of drugs, integrating home care.

For each level of fragility, different methods of taking care and specific settings have been s defined. The database developed for "frail subjects" is updated yearly since 2016, starting from current information flows.

The specific activities developed from 2016 to 2018 were:

- opening of 11 S.U.S.S.
- clinical pathways referred to people with chronic pathologies
- establishment of a fragility coordination table, with the aim of monitoring the number of inappropriate access to the emergency room for a representative sample of subjects
- experimentation of the professional figure of the family and community nurse as case manager of pathways defined on the frail (polypathological) and chronic (a prevalent pathology) patient.

**Vercelli*

Results

A short report, the result of a multi-professional and multidisciplinary work, defined “operating manual” that describes timing, content, responsibilities and methods of carrying out the activities described to ensure systematic monitoring was product.
In particular, all the passages of the frailty class were analysed, with the aim of evaluating the impact of the interventions implemented at a later date.
Specifically, a decrease in moderate-severe frailty has been noted since 2016, compared to a greater passage of subjects from a mild frailty (I) to a type 0 (chronic pathology) condition. What has been observed is linked to the presence of the variable "number of emergency room visits". Another data is the reduction of the hospitalization rate against an increase in the patients followed in integrated home care.

Discussion

The challenge to chronicity is a global effort, because it involves overcoming the fragmentation between health, social services and professional integration with respect to the "centrality" of the person and his life project, in an attempt to reduce the sudden (and often improper) use of social and health services.
The aim of the work is to be able to create a dynamic tool for measuring and evaluating the activities put in place for the management of the frail subject, through the correct allocation of economic and staff resources. For each class of frailty, process and outcome indicators have been defined, distributed over time and transversal for several classes (e.g. reduction of avoidable hospitalizations) to be detected over two years, to evaluate, with the support of a data manger, the impact of the activities on some primary health outcomes.

Participatory and evidence-based planning of primary healthcare services in Kosovo

Author: Dr Bajram Maxhuni

Swiss TPH, AQH project in Kosovo, Prishtina, Kosovo

Context

AQH project in Kosovo funded by the Swiss Agency for Development and Cooperation and implemented by the Swiss TPH aims to ensure that the health of the population of Kosovo has improved, with strengthened healthcare providers and managers able to meet the needs of the patients (especially vulnerable groups), who are more aware of their rights and needs. In this context, AQH supported 12 project municipalities to develop health masterplans through adopting inclusive and evidence-based planning approach.

Method

In order to ensure ownership of the masterplan and inclusiveness of the relevant stakeholders, municipal Mayors are encouraged to establish a Steering Committee, comprised of health, social and education sectors, as well as, community representatives/CSOs, to oversee and guide the process of development of participatory and community needs based primary healthcare masterplan. Members of the steering committee and working groups received training on health planning using Result Based Management (RBM) concepts and approaches. Evidence is ensured through series of studies conducted by AQH project in collaboration with the local authorities and NGOs, including Quality of Care study, Knowledge, Attitudes and Behaviors study, Community Health Needs study, and analysis of the most frequent diagnosis in the PHC institutions.

Results

12 comprehensive and based on community needs primary health care masterplans are developed and adopted by the respective municipal assemblies.

Discussion

Primary healthcare health masterplan developed by the project municipalities is a five year development plan which is generated through adopting key guiding principles of result-oriented planning such as: situation/problem analysis and prioritization, stakeholder analysis and involvement, SMART defined expected results and performance indicators with the targets and benchmarks set for each indicator, and appropriate monitoring and evaluation framework.

It should be emphasized that municipalities demonstrated commitment with the respect to ownership and responsibility for implementation primary healthcare masterplans.

In addition, this process was an excellent opportunity for the municipalities to put into practice knowledge and skills gained from the management training package provided by AQH project in collaboration with the Kosovo Ministry of Health, in particular, modules on planning primary healthcare services, quality management, and monitoring and evaluation.

Water safety in healthcare as condition for sustainability pathway (Vojvodina, Serbia)

Authors: Prof Dr Sanja Bijelovic[1,2]; Prof Dr Marija Jevtic[1,2]; Dr Emil Zivadinovic[2]

[1]University of Novi Sad, Faculty of Medicine, Novi Sad, Serbia. [2]Institute of Public Health of Vojvodina, Novi Sad, Serbia

Context

Water and sanitation are essential to sustainable development with strong links to other Sustainable development goals (SDGs). SDG 6 is the main goal related to water and sanitation - “ensure availability and sustainable management of water and sanitation for all”. The targets within SDG 6 are interconnected with other SDGs and across sectors. One of the crucial driver towards the sustainability pathway of our health care systems is ensure supply of quality and safe water. Water safety in healthcare facilities (HCF) is essential for safe patient care, especially for maternal and child health, hand washing, and cleaning of medical devices. Water is one of the essential environmental determinants of health and well-being recognised as human rights, and its fulfilment is in the focus of the 2030 Agenda for Sustainable Development, specifically under SDG 6 and SDG 3. The Serbia has a regulatory framework for the provision of water safety in HCF, but complementary standards and guidelines providing practical definitions are scarce.

Methodology

During 2019 in the South Backa District of Serbia (1 urban settlement and 8 rural settlements) 1670 samples of drinking water samples from HCF were analysed, mostly (93%) from the urban settlement Novi Sad. All of the analysed HCF are connected to municipality water piped systems. Sampling and analyses were done by accredited and authorised Public Health Institute of Vojvodina, in line with proposed external monitoring of drinking water safety considering main set of microbiological, chemical and physical parameters.

Results

The results have shown that 46 (2.75%) samples were not in line with proposed microbiological criteria, where the main hazards were Pseudomonas aeruginosa (isolated in 11 samples only in urban settlement Novi Sad), Enterococcus faecalis and Escherichia coli (isolated in 3 and 1 sample, respectively, mostly in rural settlements). According to chemical and physical parameters, 179 (12.05%) samples were not in line with proposed criteria, mainly due to concentration of manganese, iron, total organic compounds, ammonia, and sensory characteristics of water. Among hazards, arsenic and nitrites were found in a drinking water samples from rural settlements.

Conclusion

The results are indicated the necessity of drinking water treatment in order to achieve SDG 6 and 3. From 2020 there is a new regulation in Serbia which recognises the necessity of monitoring water safety and management of water piped system in HCF, which further encourages the implementation of water safety plan procedures in order to establish controlled water safety management in HCF. The new regulation encourages improvements in quality management of the health sector and decreases the risk to the patient. Also, these binding procedures indirectly contributes to the achievement of certain sub-objectives primarily within SDGs 6 and also within SDGs 3.

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SDGs and Green Deal as players in health care sector transformation in the context of climate change

Authors: Prof Dr Marija Jevtic[1,2]; Prof Catherine Bouland[2]

[1]University of Novi Sad, Faculty of Medicine, Novi Sad, Serbia. [2]Université Libre de Bruxelles (ULB), Research Centre on Environmental and Occupational Health, School of Public Health, Brussels, Belgium

Environmental, economic and social impacts influence the sustainability pathway of all health care systems. Transformation of health sector is a necessary process to emphasize sustainability. Health care systems should realign themselves and work on sustainability and better adaptation to the changing environment. The mission of the health sector is protecting human health, but unfortunately, it has also a major contribution to the climate change process. Health care sector's climate footprint is equivalent to 4.4% of global net emissions, equivalent to the annual greenhouse gas emissions from more than 500 coal-fired power plants.

Health care's climate footprint sources are numerous. During the process of health care delivering, health care systems also produce emissions of greenhouse gases, both directly and indirectly. Reduction of these emissions should be implemented at national or regional levels. According to the data available, emissions emanating directly from health care facilities and vehicles owned by health care systems make about 17%, indirect emissions from purchased energy sources such as electricity, steam, cooling, and heating comprise another 12%, and 71% represent the majority of emissions, primarily derived from the health care supply chain through the production, transport, and disposal of goods and services, such as pharmaceuticals and other chemicals, food and agricultural products, medical devices, hospital equipment, and instruments (HCWH&Arup 2019).

The health care sector should take accountability for its climate footprint and react to the rising climate change emergency not only by treating patients, but also by fundamentally reducing its own emissions through taking informed decisions. Health care climate action is aligned with the ambition of the Paris Agreement to achieve net zero emissions by 2050 or even earlier. Heath care sector must undertake this effort by using Sustainable Development Goals and Green Deal as major arguments.

Climate change is a serious challenge for health sector. Climate impacts increase burden of different disease, morbidity and mortality on one side, but also press the health service provision and increase emission and footprint, on the other side. Decarbonization strategies in the health care sector should take into account that people in low income countries are living without sufficient health care. Future research has to investigate the connection between the health carbon footprint, health care performance and health outcome (Pichler 2019). What is needed hereof is better understanding of the permeation a health care and climate change, analysis of health care emissions in future, investigation of the supply chain of health sector and its climate impact, health and economic costs, as well as the benefits analysis of transition to climate-smart healthcare. All of the above require further research.

Since Green Deal aims at an inclusive transition to help improve people's well-being and secure a healthy planet for generations to come, it is also important to improve Health care organizations. Transformation should follow the roadmap towards SDGs, EU Green Deal, and other useful agreements in mitigating the climate change and better adaptation of the health systems to new circumstances. Health managers should use SDGs and Green Deal as "players" to better organize and lead health systems to sustainability.

A cross-border approach between Romania and Hungary

Authors: Prof Dr Nicolae Păun; Stefania Kerekes, PhD Student

Babes-Bolyai University, Cluj-Napoca, Romania

Context

The chosen theme tries to bring to light the various reforms that have been undertaken in the organization and financing of the healthcare system as a cross-border approach between States of the European Union. The reason for choosing Romania and Hungary in particular is that, they have a common past and various reforms in the organization and financing of health systems have been undertaken since the fall of communism. Following the evolution of the two countries, there have been identified several reforms, such as the introduction of the health technology evaluation system (HTA) and guidelines in crisis management.

Methods

To achieve the study purpose, several articles and books have been analysed. The goal of this study is to: analyse the collaboration between Hungary and Romania on health system reforms highlighting the changing landscape of the crisis management and its cycles; discuss and assess practices of crisis management and contribute to identifying good practice. Therefore, by identifying the potential shortcomings in health plans in Romania and Hungary, and by providing a higher level of preparation for the actors involved, stopping a mass outbreak in the future would become plausible.

Results

What was observed, is that the states are in different stages of developing laws on the outbreak of infectious diseases. There was an insufficient connection between the pandemic plans and the laws on public health. The interventions proposed in the case of plans do not have the necessary legal basis and there is also a gap between planning and coordination. (Robyn Martin, 2010)

International co-operation in the area of risk assessment could be further developed. Sharing methodologies and tools for risk assessment, developing a common view on cross-border risks, and ultimately developing common tools at the international level could increase the quality of risk assessments and potentially reduce costs. (Olsson, 2009)

Regarding the HTA system, it has been successfully implemented in both countries, although the size and importance of decision making differs. Given the similarities between the two countries, sharing of duties, joint training of staff and disclosure of data would lead to a more rapid development. It can be expected that this collaboration will be increasingly tightened because only this way can patient-centered health policies be reached giving maximum results and minimal costs. (László Gulácsi, 2014)

Discussion

Therefore, there is a need for education, training and research on the role of human rights in public health in Europe. Health professionals do not have a sufficient understanding of how the government organizes departments, which is why there is a need for continuous training and clearer legislation on this side. (Robyn Martin, 2010)

The lack of connection between laws and plans leads to a lack of clarity regarding the responsibility and competence of public health authorities. A role of the law would be to provide a framework for policy and the application of competences. (Robyn Martin, 2010)

Health reform requires changes in behaviour and attitudes in both Hungary and Romania, because only through collaboration can the health system be improved and equal health services can be accessed. (Petculescu, 2014)

Reform design, institutional and workforce factors affecting the pace of change of primary care provision. A qualitative study analysing the emergence of Primary Care Units in Austria

Author: Dr Eva Krczal

Danube University Krems, Krems, Austria

Context

As an initiative to strengthen the primary care sector in Austria, a policy draft has been concluded between the health insurance funds and the Austrian Medical Chamber to define the design and range of services of primary care units in Austria. The emergence of primary care units is lacking behind the expectations of policy makers. This research analyses the evolution of primary care units by exploring in-depth the experiences of the initiative from the perspective of general practitioners. Based on a qualitative approach the physicians' perspectives on design features and supporting environment, their acceptability of the pilot and their experiences in working in a primary care unit have been explored. Further, enabling and constraining factors that may influence the pace of change of the primary care reform have been identified.

Methods

The study combined qualitative methods for data collection including problem-focused interviews with general practitioners working in primary care centres, focus group discussions with general practitioners working in single practices, document analysis of secondary qualitative data and relevant policy documents. A semi-structured questionnaire was developed for the individual interviews in primary care centres including open questions about the institutional and legal framework set-up phase, individual experiences, current working conditions and suggestions for future directions. Transcripts have been evaluated according to the content analysis (Mayring). The focus group discussions were also guided by a semi-structured questionnaire including questions about individual work experiences, personal perceptions about primary care centres, collaboration with other physicians and non-physician professions and suggestions for future directions of primary care provision. Transcripts were analysed according to the documentary method (Bohnsack).

Results

Analysis of the problem-focused interviews, focus group discussions and secondary data revealed 9 codes including (1) Status of general medicine and the general practitioner in Austria; (2) Institutional and legal framework; (3) Between cooperation and competition; (4) Hesitation from the young generation; (5) Reluctance from sole practitioners; (6) Personal drivers for starting a pilot (7) Challenges during set-up phase; (8) Challenges during growth phase; (9) Working conditions in primary care units. A strong desire to be pioneering primary care provision, improved working conditions, financial success and high acceptance among patients were enabling factors supporting the emergence of primary care units. However, the main constraining factors were a low status of general medicine and the general practitioner in Austria, uncertainty about future directions, lack of information and advice, high perceived financial risk associated with founding and operating a primary care unit, fear of losing autonomy and uncertainty about functioning teamwork.

Discussion

Policy makers have put primary care a priority and developed a framework for primary care units by defining their design, structure and range of services. Implementing the change depends also on the supporting environment and the engagement of the health care workforce. Implications can be drawn for the strategic planning and the implementation of the change process. To promote the emergence of primary care units, system changes have to be made to improve education and training for general practitioners, to adapt compensation schemes and to define more clearly the competences of physician and non-physician professions working together in a primary care unit. Further, initiatives should be introduced to provide information and advice for practitioners striving for founding or entering a primary care unit.

PLATIN – A fully automated nutrition monitoring technology for hospitals and care facilities relying on vision-based artificial intelligence meal analysis to yield nutrition and consumption big data for health care administrators, logisticians and nutritionists

Authors: Dr Peter Kaeuper[1]; Dr Frédéric Michoulier[2]

[1]Blunergy SA, Lausanne, Switzerland. [2]CHUV centre hospitalier universitaire vaudois, Lausanne, Switzerland

Quality data of patients' food uptake in hospitals are required for best addressing their nutritional needs. Today, such data are mostly generated case-based by nutritionists questioning and observing patients' consumption patterns. Modern digital methods, on big scale and in an automated manner are lacking. Our technology PLATIN enables a fully automated nutrition monitoring of all health care unit's patients. Nutritionists can monitor a patient's diet, the care and medical staff can correlate health status and nutrition, the administration can monitor and trace delivered meals to patients and the logisticians have a powerful monitoring tool to reduce the food waste.

A trained neural network quantifies and identifies food items photographed by a camera prior to the delivery to a patient and after the consumption. A typical hospital "cook and serve" catering service runs approx. 100 recipes in a five-week rotation. A full dedicated training of the neural network may take up to two months. The individual consumption of each patient is recorded and transferred into the patient's electronical medical record. Intra-hospital web-based digital tools for interpretation of the yielded nutritional data are under development: Dedicated dashboard for nutritionists, care and medical as well as administration staff and logisticians. The long-term goal is to gain an in depth understanding of the best adapted nutrition to each individual patient requirements, optimising and proposing optimised meal composition and quantity to increase patient satisfaction, improving patient recovery and reduce food waste.

A first demonstrator is installed at our partner hospital (university hospital centre of Vaud, CHUV, Lausanne, Switzerland), and all subsystems are operational; i.e. vision system, communication system, data base, dash boards and prototype user interfaces. Test runs have proven a good accuracy of food item recognition and quantification for delivered and returned meals based on a mean interaction over union analysis: Successful pixel classification of above 90% for delivered meals and above 80% for returned meals, with a higher variability in the results for returned meals. A first real world test of monitoring all meals leaving the hospital kitchen for several consecutive days is foreseen in April and its results will be presented. The digital tools for hospital staff, dashboard examples, will be presented.

We present an approach to generate huge amounts of hospital patient nutrition information, an automated and cost-friendly concept. We will discuss potential use scenarios and implications of the newly available data, from the possibilities of individual level intervention (such as alerting hospital staff in case of wrongly composed menu for a patient) to big data usage, such as identifying menu preferences for different medical conditions. The potential and economic impact of food waste reduction in cook and serve hospital kitchens will be evaluated.

Impact of person-centred interventions on patient outcomes in an acute care setting

Authors: Mrs Maja Klancnik-Gruden[1,2]; Assistant Professor Eva Turk[3,4]; Professor Brendan McCormack[1,5]; Associate Professor Gregor Stiglic[1,6]

[1]University Maribor, Faculty of Health Sciences, Maribor, Slovenia. [2]University Medical Centre Ljubljana, Ljubljana, Slovenia. [3]University of Maribor, Medical Faculty, Maribor, Slovenia. [4]University of South-Eastern Norway, Drammen, Norway. [5]School of Health Sciences, Queen Margaret University, Edinburgh, United Kingdom. [6]University of Maribor, Faculty of Electrical Engineering and Computer Science, Maribor, Slovenia

Aim

To determine the impact of person/patient-centred interventions on patient outcomes in an acute care setting.

Background

Preventing adverse events is one of the most important issues in health care. Internationally, several organisations are promoting the implementation of the elements of person/patient-centredness into health care settings. No systematic reviews have yet been done to evaluate the effectiveness of person-centred care on patient safety.

Design

Systematic review of randomized controlled trials and cohort study designs.

Data resources

Databases of PubMed (MEDLINE), CINAHL, Scopus, Web of Science and ProQuest Dissertations were searched from January 2003 to January 2018 with limitation to English language.

Review Methods

The review was conducted according to the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) Statement. Eligible interventions included person-centred interventions that address at least one of the following outcomes: pressure ulcer, accidental falls, medication errors and/or cross infection. For the search process, a combination of medical subheadings, key words, topics, and text words was used. Search terms that were used: pressure injury, pressure ulcer, cross-infection, medication errors, accidental falls; and person-centred, person-centred, patient-focused, patient-centred, patient-centred care; and hospital setting, hospitals.

Results

Six studies were included in the review. The review showed that there is a paucity of evidence supporting the use of person-centred interventions in reducing patient falls. For the other outcomes existing research provides an insufficient evidence-base upon which to draw conclusions. Most of studies were of moderate quality and with moderate risk of bias.

Conclusions

The small number of studies in this field may be illustrative of the fact that the theory of person-centredness is still in its ascendency. Poor evidence may also be the result of quantitative research designs that are insufficient in researching the impact of a person-centred approach. We postulate that use of mixed-methods designs is beneficial and would give a clearer picture of the impact of person-centred interventions.

Employees' and managers' perceptions on remote leadership in health and social service organizations

Authors: Prof Johanna Lammintakanen; Elsa Paronen, Post doc researcher; Anja Terkamo-Moisio, Project manager; Prof Arja Häggman-Laitila

University of Eastern Finland, Kuopio, Finland

Context

Health care leadership is in flux. One of the reasons is the advancement in information and communication technology which has enabled distant working and working within virtual teams. Another reason for leadership change is integration of health and social services, which typically has meant larger as well as geographically dispersed organizations. Furthermore, lack of sufficient employees has changed the ways of working in health care, which reflects also on leadership practices.

Previous studies have identified some of the challenges faced by the health and social care employees during collaboration with the geographically dispersed team members. For instance, effective communication, team coordination, trust development and problem-solving ability has found to be hindered in geographically dispersed teams as compared to conventional style. The aim of this study is to find out how different health and social care employees and their leaders perceive remote leadership and how leadership has changed due to geographically dispersed organizations.

Methods

This case study focuses on one health and social service organisation in Finland. It organises health and social services for 40 000 citizens. The joint municipal authority is owned by two cities and two municipalities. One of the strategic goals of the organisation is to develop remote leadership practices. During 2019-2020 two different data collections have been conducted in this organisation. 1) Altogether five focus group interviews were held focusing on remote leadership. The focus group participants represented both health and social care employees and their leaders (altogether 22 participants). 2) Electronic survey will be sent to all employees in the organisation (approximately 1600 employees) in March 2020. The survey includes questions on leadership practices and attitudes towards remote leadership among other items. The focus group material is analysed by content analysis and survey data will be analysed by using relevant statistical methods.

Results

The preliminary results of focus group interviews indicated that there is a need for joint discussion of the definition of remote leadership in the organisation. The informants did not have a shared understanding on the concept. Furthermore, the roles of leaders and employees need to be clarified in a context of remote leadership. Thus, the coherent practices of remote leadership were lacking in the organization. Two crucial elements of remote leadership were found, namely trust and interaction. They have a remarkable role on the experiences of leadership from health and social care professionals' perspective. Remote leadership requires new digital competences and at least some changes in attitudes among both key groups. It also challenges current leadership practices. The results of the survey will be presented at the conference.

Discussion

In Finland, current trend has been integration of health and social services and creation of larger geographical areas that have a responsibility of organising health and social services for their citizens. This has meant at least for some health and social services employees' geographical distance between them and leaders. Preliminary results address that remote leadership practices are still evolving. A crucial question is trust in remote leadership – how to build trust and what kind of expectations do health and social care professionals as well as leaders have towards remote leadership?

Patient Self-care uSIng e-Health in chrONic Heart Failure: PASSION-HF

Authors: Dr Josiane Boyne[1]; Dr Chantal Ski[2]; Dr Loreena Hill[2]; Dr Bettina Zippel-Schultz[3]; Dr Alexander Palant[3]; Dr Dirk Mueller-Wieland[4]; Dr Malte Jacobsen[4]; Dr Matthew Barrett[5]; Dr Marguerite Murphy[5]; Dr David Thompson[2]; Dr Ermelinda Furtado[5]; Dr Casper Eurlings[1]; Dr Hanspeter Brunner la Rocca[1]

[1]MUMC, Maastricht, The Netherlands. [2]QUB, Belfast, Ireland. [3]DSCK, Berlin, Germany. [4]UK, Aachen, Germany. [5]UCD, Dublin, Ireland

Context

Heart Failure (HF) affects 3,600,000 people in NW Europe and by 2025 >5,000,000. The increasing burden of HF on healthcare labour and costs is unsustainable. Transforming current HF-care and integrating eHealth is vital to maintaining high quality care. True patient self-care is mandatory to achieve this change, but is insufficiently supported by current HF-care systems where healthcare professionals still provide most care (Figure 1). Current HF-eHealth products do not substitute care, are stand-alone and add-ons to standard care. Our aim is to increase quality of care and reduce costs by facilitating holistic patient self-care supported by a virtual doctor.

Methods

The PASSION-HF consortium is collaboratively (clinicians, academics, IT experts, patients, carers) developing an integrated eHealth-system enabling true self-care of chronic HF, finally including ‘self-prescription’ and ‘self-titration’ of medication. It will include novel features such as a decision support engine of algorithms based on HF guidelines in combination with integration of self-learning AI algorithms and feedback systems and affiliated comorbidities. Interactive physician avatar interface and serious gaming tools will stimulate and improve compliance of the eHealth product. PASSION-HF will test the eHealth-system in a pilot project to assess safety and the proof of concept. The health-care professional will be alerted when the system signals alarming signals or if it cannot generate a therapeutic advice.

Results

The PASSION-HF next-generation eHealth-system enables true personalised patient self-care. Hereby, the eHealth system partially substitutes the labour of the healthcare professional resulting in a fundamental change of the HF-care process (Figure 2) with subsequent reductions estimated for the healthcare workforce (70%) and associated costs (50%), while improving the quality of care. Patients and carers were interviewed in regard to health and technology preferences. Initial findings demonstrate feasibility of the eHealth system, using an avatar. Patients rated the following aspects as most important: acceptance of the new technology; personalised 24 hour advice; information on lifestyle, heart failure treatment and medications including side-effects; quick physical checks with immediate feedback; access for caregivers. An avatar prototype fulfilling the role of virtual doctor is currently being developed, taking patients’ preferences into account. After finalisation of the personalised avatar it is estimated that 75% of current visits to a professional caregiver will be redundant.

Discussion

HF is a global pandemic currently imposing unsustainable human and economic burden. Using cutting edge technology, the PASSION-HF next-generation eHealth-system offers a potential solution. In essence, artificial intelligence is being utilised to optimise effective HF self-care. Patients are being empowered with the knowledge, skills and tools (AI) that will enable them to take more responsibility for the management of their HF thus becoming less dependent on healthcare systems. The presentation of this prototype is the first step in a new healthcare landscape, however the novelty of this next generation ehealth system may evoke some resistance among stakeholders. To ensure implementation of the final product a wide range of stakeholders is involved, such as healthcare providers and insurance analysts, policy makers, and patient organisations. They are expected to give advice on the product development, and to play a role in facilitating the introduction and implementation of this product in daily care.

HTA and Laboratory setting: the case of an innovative blood collection tube

Authors: Dr Emanuela Foglia[1]; Dr Lucrezia Ferrario[1]; Dr Daniele Bellavia[1]; Dr Fabrizio Schettini[1]; Dr Elisabetta Garagiola[1]; Dr Andrea Motta[2]; Dr Marta Strollo[2]; Dr Massimo Locatelli[2]; Dr Rita Mancini[3]; Dr Antonio Tolla[4]; Dr Vito Pafundi[4]

[1]Carlo Cattaneo – LIUC University, Castellanza, Italy. [2]IRCCS San Raffaele Hospital, Milano, Italy. [3]Maggiore Hospital, Bologna, Italy. [4]San Carlo Hospital, Potenza, Italy

Context

The discussion concerning the use of plasma or serum tubes is still an open topic in the Laboratory setting, requiring an in-depth analysis, in particular with regard to innovative plasma blood collection tube introduction, with a mechanical separator (BD Vacutainer Barricor™). The present study aims at exploring the potential advantages related to the adoption of the innovative plasma tube, for both routine and emergency chemistry tests, in comparison with serum gel separator tubes.

Methods

A Health Technology Assessment study was conducted assuming the hospital perspective, in order to guarantee a positive value-based impact of different technological approaches for both hospitals and patients. An "AS IS" scenario (use of the serum gel separator tube only) was compared with a "TO BE" scenario (use of the innovative plasma blood collection tube only), to assess the economic/organizational advantages, and the capability to improve pre-analytical indicators of the innovative device. Haemolysis level, number of samples with clotting issues, turnaround time and centrifugation time, derived from literature data for the innovative tube, were used to estimate all the potential benefits, starting from the real world laboratory practice, performed in three different Italian Hospitals on annual basis (on average 946,340 tubes per year, of which 19.11% as urgent requests).

Results

The "AS IS" scenario revealed an occurrence rate of haemolysis level and samples with clotting issues, on average equal to 4.82% and 3.69%. Literature evidence available on the topic (Ramakers et al., 2020), revealed a lower occurrence rate of the above, equal to 1.2% and to 0.40%, respectively.

The introduction of BD Vacutainer Barricor™ in the "TO BE" scenario could lead to a significant decrease in the pre-analytical indicators: a reduction of -55% of the haemolysis level and of -51% of clotting issues could be achieved.

Switching from serum to plasma matrix allows, besides saving 30 minutes for clotting formation, a time saving equal to 1,085 hours and to 8,194 hours, for the management of haemolysis and clotting issues, respectively. The adoption of the innovative device could have a positive impact on the centrifugation time (-48%), with a consequent TAT improvement (-36% for routine samples and -30% for emergency samples).

Discussion

The introduction of BD Vacutainer Barricor™ may be considered as valid technological alternatives, within the investigated setting.

Results demonstrated the improvement in the pre-analytical indicators when using the innovative technology, with important benefits from an organizational and an economic point of view. The Hospital financial advantage on annual basis would suggest an economic saving equal to € 104,664, in the average analysis of 946,340 tubes per year. This would lead to a relevant benefit considering the patient's point of view, in particular with respect to the decrease in the number of hospital access for repeating the blood sample (1.00 vs 0.11, p-value < 0.05).

Value-based healthcare approaches supported the strategic relevance in the advanced technology introduction, its economic sustainability and feasibility, and the process improvement. According to these advantages, the perceived usefulness, organizational and social aspects will be further analysed.

‘Fri-QI-Day’: Encouraging Quality Improvement (QI) Project Participation and Leadership among Junior Doctors and Physician Associates at The Princess Alexandra Hospital NHS Trust (PAHT)

Authors: Dr James Diss; Dr Mark Gregory; Ms Irene Mackie; Dr Ganesh Arunachalam; Mr Robert Ayers; Dr Helen Pardoe

Princess Alexandra Hospital NHS Trust, Harlow, United Kingdom

Background

The Healthcare Quality Improvement Partnership encourages all NHS Trusts to promote and assist active involvement of Junior Doctors in Trust clinical audit and QI programmes, while ensuring their training needs (including learning how to do a QI project effectively) are met. To achieve this at The Princess Alexandra Hospital NHS Trust in Harlow (Essex), we established a Peer Support QI Forum for Junior Doctors and Physician Associates, called ‘FriQIDay’.

Methods

Junior Doctors were supported in establishing a QI Forum, based on: (1) Focusing on patient-centred, solution-oriented ideas; (2) Promoting communication and solutions across specialties; (3) Encouraging leadership and management education; (4) Ensuring project continuity from year-to-year to create a lasting legacy.

With support from the Medical Education Department, regular 1-hour informal Friday lunchtime meetings were arranged every 2 weeks, commencing August 2019. These ‘FriQIDay’ meetings of Junior Doctors and Physician Associates took place in the Trust’s Quality Improvement Department (‘Quality First’), with support and direction offered by QI Team members. Discussions continue between scheduled meetings on dedicated WhatsApp groups to ensure continual support and project momentum. FriQIDays are also complemented with regular 2-monthly QI Teaching sessions as part of the Trust’s Foundation Doctor Teaching Programme.

Results

FriQIDay has brought dedicated QI Teaching and Support to all PAHT Foundation Doctors, as well as the Trust’s smaller cohort of Physician Associates and Trust-grade Junior Doctors. This has already lead to involvement and leadership in over 20 diverse projects. It is hoped that the FriQIDay Forum will continue to flourish and provide a lasting legacy of sustainable QI delivery.

Key Messages

The Fri-QI-Day Forum provides a collaborative environment for Junior Doctors and Physician Associates to share and develop their ideas for improving the care of patients, with input from their peers and the Trust’s dedicated Quality Improvement Team.

Automated vital sign documentation in a public EHR as a mean to increase efficiency and promote patient safety and interdisciplinary work

Authors: Mr Duarte Sequeira; Ms Joana Vilas Boas; Mr Bruno Trigo; Prof Dr Henrique Martins; Mr Fernando Cabral

SPMS - Shared Services of the Ministry of Health, Lisbon, Portugal

Context

Electronic health records (EHRs) are essential for informing, documenting and coordinating the care process, but struggle to realize their potential as a coordination of care and patient safety tool.

Nurse staff spends around 40% of their working time completing documentation. In Portugal there is a national EHR developed by SPMS/Ministry of Health (SClínico) that is available in 90% of public hospitals. While piloting first machine-to-EHR integration using HL7 FHIR and a national semantic catalogue based on SNOMED-CT, it is important to assess the potential benefit of a national implementation of this new process.

Methods

The development of this standardized integration with vital signs equipment makes it agnostic for each hospital and vendor to implement and shift from the current workflow to automation:

- Today’s Vital sign acquisition and documentation workflow: Nurses obtain blood pressure, pulse, temperature and oximetry readings and check for pain and respiratory measures. All results are written on paper and the clinician leaves the patients’ room to manually document into the EHR.
- Automated Vital Sign Documentation System: The vital sign machine’s bar code scanner is used to identify the patient and clinician, and it obtain the vitals’ readings. The pain and respiration results are manually obtained and programmed into the vital sign machine. All results are integrated to the electronic chart avoiding manual documentation.

Using mixed methods, it was analysed the average number of measurements and workflow duration per nurse shift using current method and it was extrapolated the potential gains in time and costs.

Results

Thanks to a national catalogue of therapeutic attitudes and the use of technical and semantic interoperability standards like HL7 FHIR and SNOMED, it is easier to automate this workflow with virtually any vendor, since most of Portuguese public Hospitals use SClínico as EHR. Based on SClínico logs for 39 different hospitals in 2017, 2018 and 2019, each nurse takes an average of 3210 measurements covered by this integration process per year, for 315 patients. The documentation process of these specific vitals takes around 42 seconds per patient per day, based on system log data. In one year, considering a 13€/hour rate, the manual documentation process for all nurses costs around 4.617.600,00€. Assuming a reduction of 40% in these sets of manual measurements, aligned with literature figures, we can estimate potential savings of 71.040,00 € per hospital or 2.770.560,00 € to the whole NHS.

Discussion

The automation of this workflow not only liberates time of care to other important tasks, but also speeds up the availability of information. Depending on the equipment attachment method (continuous or ad-hoc), the patient can benefit of a more continuous monitorization. Considering that most of these machines, when brand-new, have these communication capabilities by default, the cost is easily diluted. The existence of a national catalogue and a standardized integration process also gives confidence to data quality. However, it will be important to assess data quality after full implementation.

This process eases the implementation of early warning scores (eg. MEWS), since they can automatically be calculated and trigger clinician’s attention when necessary. There is also a reduction in transcription errors and patient misidentification, since the machine reads the barcode of the patient and the clinician prior to vitals capture.

Patients' viewpoint on what drives primary care utilization in public and private settings in Albania

Authors: Jonila Gabrani, PhD Candidate; PD Dr Christian Schindler; Prof Kaspar Wyss

Swiss Tropical and Public Health Institute, Basel, Switzerland

Objectives

To identify key factors that prevail on the utilization of governmental and private primary healthcare services.

Design

A health facility survey using a 4-point Likert scale questionnaire to rank the importance of factors driving services utilization. Data were analysed using mixed logistic regression models with a separate random intercept for the sub-districts.

Setting

Exit interviews with patients consulting 23 primary care providers (18 public and 5 private) in Fier district of Albania in the period July to August 2018.

Participants

629 adults ≥18 years of age.

Main outcomes measures

(i) Patients' rating on factors influencing the decision to visit a governmental or private primary care provider; (ii) association of sociodemographic characteristics and patients' decision to attend a given provider.

Results

PHC users were older than 65 years (45%) and reported to suffer from at least one chronic condition (63%). Independently from the type of service provider, the most important health service use determinants were'quality of care'and 'healthcare professionals' attitudes. While for patients using a public provider, geographical proximity was the most important factor guiding the decision (85% versus 11%, p<0.001), patients using a private provider consider diagnostic devices as the most important factor (69% versus 9%, p<0.001). The odds of using public facilities were significantly higher among the patients who perceived their health as poor (OR 5.59; 95% CI 2.62 ;11.92), suffered from two or more chronic conditions (OR 3.13; 95% CI 1.36; 7.24), and were benefiting from a socioeconomic aid scheme (OR 3.52; 95% CI 1.64; 7.56). Women were less likely than men to use governmental providers (OR 0.64; 95% CI 0.40; 1.04).

Conclusion

Perceived quality of care and staff attitudes, equally rated as important by the attendants, were the principal motivators (key driving factors) for consulting the service, irrespective of the ownership of the facility. While 'geographic proximity' was a driver for attending public primary healthcare facilities, the 'availability of medical devices' was a specific driver for attending private clinics. The proportions of patients with chronic conditions or of with socioeconomic aid schemes were higher in public than in private clinics. Being chronically ill and benefitting from a socioeconomic-aid scheme, were found to be positively associated with preferring public primary healthcare facilities over private clinics. Continuous efforts should be made to improve quality of care and to upgrade medical devices availability in public primary healthcare settings in Albania.

Heart failure as an ambulatory care-sensitive condition: a portuguese national study about correlation with medication consumption between 2013-2015

Authors: Dr Manuel Bragança Pereira[1]; Prof Rui Santana[2]

[1]Public Health Unit Cluster Loures-Odivelas, Lisbon, Portugal. [2]Escola Nacional de Saúde Pública, Lisbon, Portugal

Background

Clinical situations that, being treated and managed in primary healthcare, would avoid the need for hospitalization, are defined as an ambulatory care sensitive condition. Heart failure fits into one of the ambulatory care sensitive conditions, with more than 17.000 hospitalization episodes per year. One of the factors that can influence the decompensation is the consumption of medicines. The objective of this study is to analyse the correlation between drug consumption and hospitalization for decompensation of heart failure in Portugal between 2013-2015.

Methods

Observational longitudinal study. Dependent variables were hospitalization rate and average cost of hospitalization. Independent variables were drug consumption of diuretics, modulators of the renin-angiotensin system, depressants of adrenergic activity and antidislipidemics, using proxies dispensed packages, per capita costs and defined daily doses. Stratification of admissions by district based on age, sex, costs, average number of comorbidities and prevalence of secondary diagnoses. Repeated measurements with Hunyh-Feldt correction were performed. Pearson's correlation was performed ($p < 0.05$) and multiple linear regression model ($p < 0.05$)

Results

Progressive increase with homogeneity of dependent, independent and covariate variables. Negative correlations were observed between hospitalization rates and defined daily doses of medications and positive correlations between mean hospitalization costs and defined daily doses. Multiple linear regression found equations that explain the variation of dependent variables between 41.41 and 74.4% ($p < 0.05$).

Conclusions

The applied models allow the prediction of the hospitalization rate and the average costs according to the independent variables and the characteristics of the hospitalized patients. However, the study carried out is subject to the ecological fallacy, which does not allow to individualize the results obtained.

Sustainable and healthy hospitals. How to measure physical qualities?

Authors: MArch Andrea Brambilla[1]; MArch PhD Andrea Rebecchi[1]; Prof MArch PhD Stefano Capolongo[1]; Prof MD PhD Marija Jevtic[2,3]

[1]Politecnico di Milano Design & Health Lab Department Architecture Built Environment Construction Engineering, Milano, Italy. [2]University of Novi Sad, Faculty of Medicine Institute of Public Health of Vojvodina Serbia, Novi Sad, Serbia. [3]Université Libre de Bruxelles (ULB), Research Centre on Environmental and Occupational Health, School of Public Health, Bruxelles, Belgium

Context

Healthcare facilities are complex building types due to the different users, the continuous needs of transformation the relevant integrated technologies and systems, and the building's role as Public Health promoter. They are energy demanding systems active 24 h per day seven days per week. These kind of facilities have the objective of decreasing building energy use, providing a comfortable and healthy environment, and increasing productivity for occupants. Evidence Based Design (EBD) researches clearly show that specific physical features are able to improve patient satisfaction, enhance staff productivity and reduce patient length of stay resulting in considerable economic advantages for the hospital organization.

Research gap

Within the wider framework of Sustainable Development Goals, there is the growing demand for improving overall quality, efficiency and sustainability of hospitals and several methodologies have been developed in order to evaluate, assess, and measure it. Among international recognized quality assessment tools (i.e. Joint Commission International), great importance is given to organizational performances or clinical outcomes but very few actions are available to hospital managers for understanding and improving the physical assets also in terms of sustainability.

Objective

The aim is to critically review the existing assessment tools that evaluate hospital facilities and critically identify in which terms they are able to measure health or sustainability outcomes.

Methods

A literature search has been conducted within relevant scientific databases. Forty-four tools or rating systems have been extracted from full-text assessment and citation snowballing from the collected documents. Exclusion criteria and time variables allowed to include 13 assessment tools for the evaluation of hospital built environment and organization during its operation phase. The percentage and the content of health or sustainability-related criteria have been compared and further discussed.

Results

Tools developed in the 90s such as LEED or BREAM embed up to 70% of the indicators related to environmental sustainability. On the contrary more recent tools such as WELL Building Standard or SustHealth tools include up to 50% of the indicators related to health outcomes. The analysis of those instruments and the discussion of the most relevant ones lead to highlight a gradual, growth of the prevalence of health-related indicators within rating tools for hospital built environment quality assessment. Indeed, while in the nineties and early 2000s, the most recurrent topics were mainly related to environmental sustainability, today, the evaluation of hospital environments tend to include more health-related topics. Specifically, health related criteria in the most recent tools are used three times more than in the tools developed in the nineties. Although sustainability remains a relevant issue to achieve, today it cannot be tackled without considering the impact of built environment on occupant's health.

Discussion

These results are a first step for the dissemination of the value of sustainable and healthy built environmental qualities within hospital organization. Hospital strategic management should base decisions about physical settings on the best available evidence through the support of assessment tools for social, environmental and organizational qualities. Healthcare facilities and especially hospitals environment is important not only for patient's and visitors comfort, as well as essential for health professional's working efficiency, their motivation and final results in healthcare deliveries.

The Implementation of Patient Centred Care at Inpatient Unit: A Cross Sectional Survey

Authors: Dr Syahrir Andi Pasinringi; Mrs Nurmala Sari

Hasanuddin University, Makassar, Indonesia

Patient Centred Care (PCC) has been recognized as an important dimension of high quality care. In Indonesia, PCC has been widely used as one of the dimensions in hospital accreditation standards. However, studies regarding the implementation of PCC in Indonesia are limited. The aim of this study was to assess the patient perceptions on PCC implementation and analyse the difference of PCC implementation based on hospital types and hospital accreditation level.

This research was a cross-sectional study conducted in 13 hospitals in Makassar, Indonesia. A total of 1,873 patients at inpatient unit completed the questionnaire. Four dimensions of PCC were used to measure the PCC implementation including respect for patients' values, needs and preferences; information, education and communication; emotional support and involvement of family. Descriptive statistics were generated to summarize the data. The normality of the data was demonstrated using the Kolmogorov-Smirnov test. The Mann whitney U test was performed to analyse the difference of PCC based on hospital type, and the Kruskal-Wallis test was used to compare PCC implementation based on accreditation level.

The study showed that the mean score of PCC implementation in private hospitals was higher than in public hospitals. Based on accreditation level, the hospitals with madya level has the highest mean scores (44.57) and the hospitals with utama level has the lowest mean scores (42.94). Regarding the differences of PCC implementation at hospitals, the study found there were significant differences of PCC implementation between public hospitals and private hospitals (p=0.0031) as well as the accreditation level of hospital (p=0.000).

The findings of study confirmed several studies that showed the quality of services in private hospital are better than quality of services in public hospitals in terms of procedure, waiting time and information. Moreover, the highest level of accreditation which is hospital with paripurna showed no relationship with better implementation of PCC.

Patient Experiences: Importance and Performance Analysis

Authors: Dr Syahrir Andi Pasinringi; Mrs Nurmala Sari

Hasanuddin University, Makassar, Indonesia

Over the past decade, concern has shifted from measuring patients' satisfaction with the humanity of care to measuring their experience of the humanity of care. Exploring patient satisfaction is considered to have several weaknesses, including the concept being too broad so it cannot be properly defined to develop strategies to improve patient experiences. In this study we will evaluate patient experience using Importance Performance Analysis (IPA) to identify and prioritize aspects for quality improvement.

This study was a cross-sectional study conducted on Mei 2019. We conducted a questionnaire survey of patient experience at inpatient unit in three regional hospitals. The sample size was 381 patients. Data were collected using an importance-performance analysis (IPA) questionnaire, which rates current performance and importance from the 15 attributes of patient experiences. Each attribute was plotted according to the mean score of its perceived importance and performance Based on IPA analysis, we highlighted important patient experiences attributes for improvements and categorized it into four categories: (1) Concentrate Here; (2) Keep Up the Good Work; (3) Low Priority; and (4) Possible Overkill..

Patients rated attributes of doctor is being polite and friendly and explains carefully to patients are very important. The other attributes such as hospital provides praying facilities and well explained of side effect of drugs were also important. However based on performance assessment, patient rated praying facilities, doctors is polite and friendly were very good. Based on IPA analysis, four attributes were in keep up the good work quadrant such as doctors carefully to patients, doctor is polite and friendly, patients are involved in making decisions about their care and hospital provides praying facilities. The attributes in Concentrate Here quadrants were hospital provide inpatient unit information before hospitalized and sufficient time to decide about patient care.

Focusing on patients knowing inpatient unit information before hospitalized and takes sufficient time for making decision so that patients do not feel under pressure was most likely to improve patient experiences. The first attribute is functional aspects relating to accessibility of information and the second attribute is relational aspects. Hospital could provide inpatient information in hospital website and an extended doctor-patient dialogue for involving patients in treatment decisions to improve patient experiences in concentrate here section.

Integrated health care and social services in Helsinki health and well-being centres

Authors: Karoliina Ojala, Process owner; Lars Rosengren, Project manager

City of Helsinki social services and health care division, Helsinki, Finland

Context

"You have come to the right place, how may I help you?" This is the service motto of Helsinki health and well-being centers. Here we shall portray the journey of the service reformation of the public City of Helsinki social services and health care division during 2016-2019. The aim was to establish health and well-being centers, which provide integrated health care and social services for the whole working-age population. Expected results are to start simultaneously improving the accessibility, client experience, effectiveness, productivity and staff experience by providing the services based on genuine population needs.

Methods

The development began in 2016 by combining health stations, dental, psychiatric and substance abuse services, youth and adult social work and social guidance services, rehabilitation services and services for the disabled, into integrated health and well-being centers. The integrated work is based on four core processes, which secure that the different needs of client groups (e.g. occasional clients, high needs clients) are met. Identification of needs is done by evaluating health and well-being risks and coping in life with help of multidisciplinary assessment and digital information systems. For example, high needs clients are now offered multidisciplinary assessment, service coordination by one professional ("clients own contact-person"), client plan and continuous evaluation of service realization. An individuals situation is considered as a whole and not based on certain diagnosis or symptoms. The biggest task was to solve problems in client service processes flow. Horizontal responsibility was shared to ensure exceeding silos between different services. The leadership model was reformed towards coaching multidisciplinary teams into self-direction.

Results

Since December 2019, Helsinki health and well-being center services are provided in a single building or in a networked manner at different locations for the whole population of Helsinki (650 000 inhabitants). The core processes and an integrated consultation system are now implemented and standardized in all services. The change and evolution of integration are evaluated by a regular staff survey that identifies the cross-boundary collaboration problems. Those problems are now being solved together in a more client-oriented way. As of 2019, middle and front line managers have worked in multidisciplinary networks to ensure that core processes are implemented as agreed and to identify problem areas. Each center has its own multi-professional cross-boundary network of practical professionals and a network of experts by experience (clients) who participate in continuous developing of integrated service for high needs clients. Client satisfaction and the other quadruple aims are measured along the way.

Discussion

10% of Helsinki residents use 80% of social and health services.16% (81000 pers.) of health and social service clients use both services at the same time. Residents with mental health and substance abuse disorders die 20 years younger than rest of the population. We believe that providing right care, at the right time, reduces health and well-being differences among the residents, and thereby will reduce costs in the long run. Working together, efficient consultations and teamwork are the main objectives to accomplish this. Establishing the foundation to all this has meant the utilizing of multidisciplinary competence. This has required learning about each other's services over health and social service boundaries. The biggest challenge in near future will be evaluating the effectiveness and productivity of the work done. We will need methods and tools such as Lean, digital solutions, artificial intelligence and further partnership with researchers to measure them.

Provider Perspectives on Safety in Primary Care in Albania

Author: Associate Professor Adriatik Gabrani

University of Medicine, Tirana, Albania

Purpose

The purpose of this study was to determine the safety attitudes of specialist physicians (SPs), general physicians (GPs), and nurses in primary care in Albania.

Design

The study was cross-sectional. It involved the SPs, GPs, and nurses from five districts in Albania. A demographic questionnaire and the adapted Safety Attitudes Questionnaire (SAQ)-Long Ambulatory Version A was used to gather critical information regarding the participant's profile, perception of management, working conditions, job satisfaction, stress recognition, safety climate, and perceived teamwork.

Methods

The onsite data collectors distributed questionnaires at the primary care clinics and then collected them. Descriptive statistics were used to summarize the responses. The significance of mean difference among SPs, GPs, and nurses was tested using analysis of variance.

Findings

Five hundred twenty-three questionnaires were completed. The concept of patient safety in relation to job satisfaction received the highest ratings. Stress recognition had low ratings. There was a high level of teamwork in SPs, GPs, and nurses. Healthcare staff agreed that it was difficult to discuss errors in their primary healthcare center. Physicians in contrast to nurses were most likely to affirm that they do not make errors in hostile situations.

Conclusions

Errors are difficult to discuss. It was clear that primary care staff, such as physicians, never considered the likelihood of errors occurring during tense situations.

Clinical Relevance

Staff at primary healthcare centers are used to adverse events and errors. Despite the demand for safety improvement and the existing evidence on the epidemiology of outpatient medical errors, most research has only been conducted in hospital settings. Many patients are put at risk and some are harmed as a result of adverse events in primary care. Adequate communication and technical skills should be utilized by primary care providers (PCPs) for improvement of patient safety. The patient safety measures should include assessment of the safety attitudes of PCPs.

Scoping the expansion of the Scirocco model to self-assess the maturity of health system functions: from digital integrated care to open innovation and social development

Authors: Mr Tino Marti[1]; Dr Andrea Pavlickova[2]; Ms Donna Henderson[2]; Mr Marc Lange[3]; Ms Diane Whitehouse[3]

[1]EHTEL, Barcelona, Spain. [2]Scottish Government, Edinburgh, United Kingdom. [3]EHTEL, Brussels, Belgium

Context

The Scirocco model was generated from the B3 Maturity Model (B3 MM) developed by the B3 Action Group on Integrated Care of the European Innovation Partnership on Active and Healthy Ageing (EIPonAHA). Structured around 12 domains, the original B3 MM model materialized in the Scirocco tool that aims to facilitate the self-assessment of the maturity needed to deliver comprehensive integrated care of either a health system or a health sub-system. Each of the 12 domains, captures the degree of maturity development on a site/region through a 6-point Likert scale. The tool is used to reflect on, discuss and ultimately reach consensus among stakeholders.

Methods

Since 2017, the model and tool have been refined based on the experience gained in a number of ways it has been applied. Nine European countries are currently applying the tool through the Scirocco Exchange project co-funded by the European Commission. As part of the Scirocco Exchange project, the consortium has scoped the potential expansion of the Scirocco model based on two main concepts. First, expansion was explored in the sense of drilling down on one of the twelve domains: “eHealth services” was selected as the domain of focus. Second, the consortium tested how the model could be developed so as to be suitable to a health system function that is different from integrated care. The intention is to respect the current existence of the 12 domains of the tool, even if their textual description is modified. Demand-driven open innovation in health and social care and digital neighbourhood development were chosen as two possible new areas of focus. Interviews undertaken with the adopters of the Scirocco model provided rich insights on how to adapt the model easily to new domains and topics.

Results

All three applications selected have shown that the Scirocco model can be expanded in two directions: the first direction is in one of the Scirocco 12 domains; the second direction is towards a new topic.

First, according to the interviewees, this expansion capacity is due to the holistic approach that the original B3 MM model followed: its underpinning holism makes it a useful tool to enable self-assessment of other topics, regardless of their potential closeness to integrated care. Second, the drill-down of a single one of the 12 domains – i.e., digital maturity for integrated care – showed the way forward to ensure a further sophistication of the original B3 MM model. This form of expansion enables greater granularity in a specific domain, and therefore larger assessment capacity to inform developments in integrated care systems.

Discussion

Maturity models applied to integrated care are useful to help stakeholders to gain collective insights into how effective their actual scaling-up interventions are.

Comparing health/care systems offers stakeholders opportunities for “cross-learning” and knowledge transfer. The expansion of the Scirocco model to other domains, subjects and topics can represent a method to further develop the original model. It permits either a potential deepening of the 12 Scirocco domains or an analysis of other health and social care-related topics.

From the experiences described with the Scirocco model/tool, health policy-makers and managers can benefit from such a maturity model. The outcomes are consensus-building mechanisms that can help guide their course(s) of action, overcome healthcare silos, bridge innovation, and ensure sustainability.

Toyota Kata: a missing link in NHS Quality Improvement?

Authors: Dr Nathan Proudlove; Dr Joy Furnival

University of Manchester, Manchester, United Kingdom

Context

Healthcare organisations struggle to embed quality improvement (QI) capability, such as lean approaches abstracted from very productive firms like Toyota. The operations management literature synthesises lean management practices (LMPs) or behaviours considered necessary for successful lean implementation. In healthcare, though tools- and 'push-based' QI training is common and managers find it hard to absorb and spread the core practices and thinking.

Toyota Kata (TK) are organisational routines suggested for embedding the core Toyota mindset. The responsibility of a Coach (often the manager) is to develop a Learner as a habitual scientific problem-solver whose role it is to improve the process they work in.

Methods

In TK-terms, the Challenge of interest to us is about embedding LMPs in the NHS.

LMPs in the literature provide expectations for what practices we would expect TK, as expressed in the series of books on the topic, to aim to embed. In TK-style this forms our first set of experiments.

As part of the national NHS Vital Signs lean-based QI programme eight sites have been trialling TK for over a year now, the first attempt to use it in the NHS. Investigating TK in practice here forms our next experiments.

To discover Obstacles and how they might be overcome in particular contexts we consider:

- experiences of direct involvement with establishing and practising TK
- data from interviews with 15 TK Learners and Coaches at two NHS sites
- observation of 4 coaching cycles at these two sites
- discussion with TK Learners and Coaches at two other NHS sites

Results

Obstacles encountered and some countermeasures tested by practitioners include:

- Difficulty building an infrastructure of Coaches and 2nd Coaches to support new Learners and Coaches. Patience for slow growth is important.
- TK seem simple, but are difficult to practise and sustain to the condition where they are habitual. Long-term enthusiasm and hands-on commitment to practice and fidelity by senior staff can overcome this. A supportive community of TK practitioners regularly meeting face-to-face is very valuable.
- Finding time for daily discipline when workloads are overwhelming. A variety of countermeasures seem effective: including disciplined ring-fencing and applying TK to existing work and to the Obstacle of lack of time itself.
- Misconceptions: another fad; an add-on tool, 'teachable' at scale; unclear fit with previous and concurrent QI practices. When introducing TK, the previous QI experiences of staff matters. It needs careful management of expectations, and framing for those who have experienced other approaches.

Discussion

TK has a great deal of promise and seems to embody many of the management practices or behaviours identified in QI literature and many components of the Toyota management system described by consultant-researchers. It is also potentially a good foundation and mechanism for 'feeding in' improvement practices and tools when and where they may be appropriate.

However it requires great commitment and management of expectations to:

- become comfortable with the discipline and understand the mechanics of being a Learner (e.g. the structuring of the Learner's board) and a Coach (e.g. the Socratic-questioning mode vs. directing)
- practise frequently (e.g. daily) and long enough (e.g. a month) to turn the routines into habits
- submit to the feelings of frustration, vulnerability and loss of 'status' involved in being a Learner
- integrate with, substitute for, or supersede previous and concurrent QI activity

Have we got the right tools for Organizational Governance ? Knowledge management, Balanced Score Card, and improvement teams of inpatient wards

Authors: Dr Rajhkumar Sivalingam[1,2]; Dr Sridharan Sathasivam[2]

[1]University of Oxford, Oxford, United Kingdom. [2]Ministry of Health, Colombo, Sri Lanka

Background

Hospitals are complex service organizations involving the human lives. The recent advances in knowledge management can be utilized to understand the systems and processes and to redesign. Work Improvement Teams (WIT) are the primary building blocks of healthcare quality and safety directorate of Sri Lanka. They are solely comprised of front-line ward staff and design patient centered improvement initiatives. Despite of their popularity, effectiveness is less noticeable due to many reasons. The knowledge and the experiences of the senior staff can be utilized to improve the performance of these teams. A knowledge management (KM) program was designed involving selected ward staff.

Methods

This was a qualitative interventional study at National Hospital of Sri Lanka. Employing a purposive sampling technique, voluntary participation was encouraged, three wards participated. A knowledge cafe session was conducted with in-charge nursing officers and quality liaison officers, to identify the causes, which prevented optimal performance of WIT and the measures to be taken in the future to overcome them. Based on identified gaps, interventions developed, a workbook to guide towards project development, and a social media page to remotely capacity build. These teams were engaged in designing improvement initiatives over a period of two months. The team performance was assessed using a modified balanced score card approach. The matrices were developed with the participation of front-line staff. Based on the team performance literature conceptually grouped into distinct four categories.

1. Strategic Management Metrics,
2. Meeting process Metrics,
3. Problem Solving Process Metrics
4. Knowledge Management Metrics.

Results

At the end of the interventional study all three wards have shown very clear improvement in relation to strategic management, meeting process, problem solving process and knowledge management perspectives. This was quantified using a WIT metrics score card. Overall summary of scores relating to all four WIT according to four categories of WIT metrics is graphically represented in Figure 1.

Radar diagram of all three wards of pre and post scores clearly depict the objectively verifiable improvement (Figure 2 – ward A). The result is self-evident with this tool without any complex analysis. The Meeting Process Metrics has been assigned a comparatively higher value considering the study setting characteristics, during the development of standards. As a result of this the radar diagram is showing an asymmetrical enhancement with relevant to four categories of WIT metrics.

Discussion

Work improvement teams of three wards showed an objectively verifiable progress, this is clearly visible in the WIT metrics score card. It motivates the members, towards realization of the objectives of WIT. It creates competition between WIT. All these strategies are hidden behind its scoring system. Therefore, it is an efficient tool, which can be used simply without much hazel. According to the required level of weight-age the score for individual elements can be modified. The radar chart of all three wards have captured the enhancement very clearly. Simply changing the composition of the WIT and setting a target to achieve, have changed the overall dynamics of the entire team. The gaps identified in the knowledge cafe sessions were filled thereby an enabling environment was created to conduct regular meetings. Thereby an objectively verifiable result is evident.

Physiotherapists' job satisfaction: empirical evidence from Tuscany region

Authors: Dr Alessandra Da Ros; Dr Milena Vainieri

Scuola Superiore Sant'Anna, Pisa, Italy

Context

According to the National Law, Physiotherapists (PTs) provide prevention, cure and rehabilitation among orthopaedic (hip and knee replacement, femur fractures, …), neurological (stroke, …) and visceral (heart and respiratory diseases, …) pathologies. PTs amount in Italian NHS is nearly 20.000 and they provide care to 5.2% of the population with serious daily life impairment.

Professional job satisfaction significantly affects high-performing Organizations: better productivity, creativity and enthusiasm relate to more satisfied employees, including healthcare professionals. Literature also reports that higher job engagement links with a better quality of care. Despite the importance of PTs along the care pathway, their opinions and perceptions are little known. As made for physicians and nurses, focus on factors that contribute to job satisfaction of PTs is needed in order to make Healthcare Organizations more suitable, attractive and fit for them and to be and consequently, a better place for patients.

Methods

Tuscany comprises 3 Local Health Authorities (LHAs) and 4 Teaching Hospitals (THs). PTs' staff amounts to approximately 1.532 professionals. The Organizational Climate (OC) survey was digitally administrated to all Tuscany Health Professionals in a two-months-period during 2019 and 55% of PTs responded (n=843). Among all the items, five dimensions were selected: working conditions, management, Intention to Leave (ITL), communication and Organization's characteristics. In addition to descriptive statistics with chi-square test, regression models have been performed in order to explore related factors to PTs' perceptions towards job satisfaction.

Results

Despite PTs' job satisfaction is on average higher than the rest of the Healthcare Personnel (HP) (48,15% vs 46,84%, p< 0,005%) they report lower rates of equipment adequacy compared to the other Tuscan Health workforce mean (14,26% vs 35,32%, p<0,001). PTs perceive a worse communication among Hospital and Territory professionals' in comparison to the HP mean(25,44% vs 35,97%, p<0,001), but they declare a lower intention to look for another job in the coming year than the other LHAs professionals mean (11,18% vs 13,56%, p<0,01).

The regression analysis of job satisfaction reports that job satisfaction is positively related to equipment adequacy (p<0,001) and communication with the supervisor (p<0,001). On the other hand, job satisfaction is negatively correlated with the willingness to find another job in one year (p<0,001) and with age increasing (p<0,01). A higher level of communication among Hospital and Territory professionals seems to negatively affect PTs job satisfaction (p<0,001) although the magnitude is very limited.

Discussion

PTs seem to be more satisfied with their job compared to other Health Professionals. They have a lower level of stress but they seem to work in an environment where few PTs declare that the equipment is adequate. It is interesting to note that there is an overall decreasing appeal in working as PT in LHAs.

Regression analysis reveals that PTs satisfaction with their job relates to communication and innovation as the literature suggests. Their satisfaction seems to decrease when there is a higher level of communication between different settings of care. PTs are professionals who work between acute and rehabilitation services, and because of the importance of integration of care, this finding requires to be further investigated. Data can highlight measures to enforce and to improve Healthcare System.

Exploring the concept of clinical engagement in hospitals: a scoping review

Authors: Prof Anna Prenestini[1]; Prof Federico Lega[1]; Prof Rocco Palumbo[2]; Dr Roberto Grilli[3]

[1]University of Milan, Milan, Italy. [2]University of Rome - Tor Vergata, Rome, Italy. [3]AUSL Reggio Emilia, Reggio Emilia, Italy

Healthcare systems are strongly committed to improve their performance levels in terms of effectiveness, efficiency, and appropriateness. The development of better and more effective ways to direct professional behaviour coherently towards these objectives represents one of the most significant issues of health policies. Over recent years academics and policy-makers have focused on the issue of clinical engagement, that is the willingness of clinicians to actively participate in management of their healthcare organisation, also taking direct responsibility for the decision-making processes. The involvement of clinicians in the management of the healthcare organizations can take different forms, and clinicians are required to enrich their skills with management practices and shape the direct relationship with administrative and specialist managers.

Our work stems from the following research question: How is the concept of clinical engagement defined and what do we know about a) its favouring and hindering factors, b) its relationship with performance, quality, and safety of health care?

We choose a specific methodological approach to analyse the literature: the scoping review. Scoping reviews are especially useful when addressing broad concepts and issues, rather than focusing on a clearly and narrowly defined research question as it is typically the case in systematic reviews. The method of scoping reviews appears to be justified by the fact that we need to face this research question not punctually defined in its connotation, but rather by exploring a general theme, which could be interpreted differently and have different forms of contextualisation according to the contexts in which it was drawn up, with respect to which the main task is to systematically "map" what has been tackled up to now.

Studies identified searching in different academic databases and published until 2019 were included for analysis. No limitation of years was considered. Searches will be limited to papers written in English, without any further restriction (i.e. publication date, type of article, ect.). Selection criteria were developed also post hoc, through an iterative process of discussion between authors at every stage of scoping review.

Our original research question will be disentangled in the following areas, and for each the relevant studies will be analysed:
a) definitions of the concept of "clinical engagement”, in terms of: dimensions (e.g. characteristics of health professionals and of the organisations, etc.) acknowledged as part of the concept; rationale and reasons for which it is considered important.
b)description of: 1.how the concept has been translated in operational terms; 2.how it can be measured and assessed the level clinical engagement within an organization; 3.how its relationship with quality and safety of care, efficiency and appropriateness has been evaluated;
For these areas we will consider any empirical study aimed at measuring the degree of clinical engagement actually present in healthcare organisations and/or exploring the presence of a relationships between clinical engagement and the performance of healthcare organisations.
c) examine how clinical engagement can be enhanced and which factors promote its achievement.
For this area any study aimed at exploring how clinical engagement has been actually achieved will be considered, as well as articles (surveys, qualitative studies, ect) providing information about health professionals/managers opinions and attitudes towards clinical engagement.

A data collection form was applied to each article included in the review.
On the basis of this categorisation scheme, quantitative and qualitative analysis will be performed.

Out-pocket expenditure of Albanian patients: ACIBADEM Hospitals Case

Authors: Dr Qamil Dika[1,2]; Dr Marsida Duli[3]; Prof Dr Genc Burazeri[1]; Flora Manuka, Msc[4]

[1]Medical University of Tirana, Tirane, Albania. [2]Sports Medicine Department/ Sports University of Tirana, Tirane, Albania. [3]Medical University, Tirane, Albania. [4]Acibadem Tirana Representative Office, Tirana, Albania

Introduction

Health care spending accounts for a significant portion of the family budget, which is realized through formal mechanisms. Albania has undergone changes in different periods since the fall of communism. Albania changed from a planned economy to decentralization, thus inheriting an insufficient health system.

Albanian health system cover the costs of patients in public institutions that provide health services and only ten medical procedures that public institutions have not the capacity to trait all patients.

Compulsory health insurance does not cover health care costs for patients accessing private health care. During last decade a large number of patients access health services in private institution with their expenses. The percentage of patients accessing and referring to the private sector is increasing every year.

The aim and objective of the study

This study aims to contribute to the identification of out-of-pocket (informal) spending by citizens on health spending.

Methodology

The study is of a quantitative, quantitative and qualitative type, which is carried out through statistical analysis of data obtained from the official representative of Acibadem Hospitals in Albania, during the period 2016-2019 in the network of 7 Acibadem hospitals in Istanbul.

Results

The data show that in the period covered by the study during 2016 to 2019, these hospitals were frequented by 507 different patients who have occasionally accessed his services more than once over the years, resulting in 1070 cases in total. The total budget spent over 4 years by 507 patients is 2586790 euros. These patients are constantly forced to go to this hospital network due to lack of specific medical services or technology, for more advanced diagnostics etc. There are many patients who come to Albania for health services. The amount spent is still higher as the above figures do not include travel costs, hotel accommodation, and the costs of accompanying (at least one companion) patients. Also included in this study are immigrant patients who have been treated in the health system of European Union countries etc.

The economic burden of COVID-19 hospital management: results from a pilot study

Authors: Dr Caterina Bianciardi[1]; Dr Annalisa Roveta[1]; Dr Antonio Maconi[1]; Dr Noemi Virto[1]; Dr Angelica Bollano[1]; Dr Sara Barooty[1]; Dr Roberta Volpini[1]; Dr Giacomo Centini[1]; Dr Daniela Kozel[1]; Dr Lucrezia Ferrario[2]; Dr Fabrizio Schettini[2]; Dr Daniele Bellavia[2]; Dr Emanuela Foglia[2]; Dr Emanuele Porazzi[2]

[1]SS. Antonio e Biagio e C. Arrigo Hospital, Alessandria, Italy. [2]Health Care Datascience Lab, Centre for Health Economics, Social and Health Care Management, Carlo Cattaneo – LIUC University, Castellanza, Italy

Context

COVID-19 has created unprecedent disruption for global health. Hospitals are fighting to provide appropriate healthcare services and require substantial resources to improve their delivery of care, managing the tension between safety needs and the unexpected priority to redesign their healthcare processes [1]. In this regard, COVID-19 has imposed huge investments for the proper management of hospitalized COVID-19 individuals. The study aims at determining both the COVID-19 per day hospital cost and the COVID-19 clinical pathway cost, for the identification of the overall resources' absorption, and the average length of stay, based on the COVID-19 patients' severity and clinical condition.

Methods

The activity-based costing approach [2-4] was implemented to define the costs related to the COVID-19 hospital' clinical pathway, according to real-word data derived from one Piedmont Italian Hospital, assuming a 6-week time horizon (28th February-15th April 2020). The following healthcare items of expenditure were investigated: *i)* human resources; *ii)* hospital' length of stay; *iii)* hematological exams; *iii)* diagnostic procedures; *iv)* drugs; *v)* equipment; *vi)* personal protective equipment (PPE); *vii)* cleaning services and meals; *viii)* fixed costs (representing 20% of the total average direct costs [5]), divided into two phases: *a)* diagnosis, *b)* hospitalization. The average per day cost and the average most frequent clinical pathways (considering the internal transfers between wards, based on the patient's clinical improvement or deterioration), were accordingly valorised on the basis of: *1)* low-complexity medical hospitalizations; 2) medium-complexity, with the presence of hospital beds equipped with C-PAP or non-invasive ventilation; 3) high-complexity intensive care units hospitalizations.

Results

The hospital guaranteed 154 beds for COVID-19 management. Considering a 6-week time horizon, 75%, 14% and 11% of patients requested a medium-complexity, a low-complexity and a high-complexity hospitalization, respectively.

From an economic perspective, the diagnosis phase required €586.48, 28% of which related to the nasopharyngeal swab for COVID-19 test. On the other hand, the higher the complexity of care, the higher the hospitalization cost per day (low-complexity=€427,77; medium-complexity=€582,38; high-complexity=€1.278,50). Focusing on the entire clinical pathway (ER access, ward transfer, and hospitalization): *i)* 44% spent 14.68 days between a low and a medium-complexity hospitalization (€8.130); *ii)* 25% spent 20.56 days between a medium and a low-complexity hospitalization (€10.963); *iii)* 13% spent 24.23 days between a medium and a high-complexity hospitalization (€24.443); *iv)* 12% spent 22.1 days between a high and a medium-complexity hospitalization (€19.791), and *v)* 6% spent 15.5 days between a low and a high complexity hospitalization (€14.873).

Discussion

COVID-19 has highlighted the importance of being able to rely on valid and real-time information, emphasizing the relevance of real-world information [6], as well as the urgent priority to handle and manage this information seriously and practically [7-8].

The study presented the preliminary results, concerning the economic evaluation of COVID-19 pandemic in Italian Hospitals. Results reported that the medical and nursing assistance and the diagnostic procedures required a greater amount of resources (65% and 19% respectively), impacting on an increase of total costs. The hospital involved, supported further investments for the acquisition of both PPEs (€47,793) and ventilation equipment (€453,375).

In conclusion, the information obtained could represent the baseline cost for COVID-19 hospital management, independently from the concomitant diseases developed by a patient. The hospital information could represent useful data for benchmarking activities. The at home and territorial information could complete the COVID-19 patient clinical pathway, with a comprehensive approach.

Improving Healthcare Support to Allied Military Operations

Author: Jacopo Frassini, MD

NATO Centre of Excellence for Military Medicine, Budapest, Hungary

Context

Recent operations in Afghanistan and Iraq proved that allied medical support systems must be integrated and networked in order to outreach the full range of treatment options resulting from the sum of individual national contributions. NATO commanders and their medical staff in the multinational joint headquarters are the key enablers to regulate patients in the continuum of care and represent the main players to constantly improve the delivery of best medical practices across staged treatment options. A collective system of clinical governance must be in place to enable best patient outcomes from the start of allied operations in upcoming global challenges.

Methods

The aim of this contribution is to describe the governance framework in the Alliance where best military medical practice can translate in best patient outcomes. NATO has a long-lasting legacy in bringing allied nations together and agree on common standards in order to successfully interoperate and achieve collective defense objectives. Military medicine promotes health to protect troops in the most difficult conditions where timely high-quality care can act as a force multiplier in the accomplishment of NATO tasks. Continuous improvement of healthcare support to operations (CIHSO) is a specific quality assurance system developed to deliver, monitor and enhance evidence-based medical practices in multinational deployed contexts. Evidence in NATO is regularly synthetized by nations and solutions are agreed upon consensus before being introduced in NATO commands. CIHSO responds to the need of linking allied medical transformation directly to multinational campaigns and vice-versa.

Results

The successful achievements in patient outcomes and the optimization of multinational contributions during operations in Afghanistan and Iraq opened the way to a more comprehensive approach to clinical governance in the multinational domain. Typical examples result from the optimization of the continuum of care in the evacuation chain of casualties from the battlefield to definite care.

Discussion

CIHSO is an evolution of clinical governance to ensure quality and safety in deployed healthcare systems. Clinical governance can succeed in delivering best medical practice deep into NATO campaigns if accountability is acknowledged at all levels of leadership. In multinational allied environments, quality of care starts with the selection of agreed medical standards related to operational and medical requirements with implications on patient outcomes. Consequently, it is important to differentiate those standards intended to be used as planning references by the whole military community from those intended as clinical recommendations for best medical practice. In highly dynamic military systems exposed to mutable threats, allied healthcare support must be able to adapt quickly and improve by setting measurable targets of performance, reduce vulnerability in applied methods and keep an acceptable balance between feasibility of medical solutions and their sustainability in an operational environment.

Covid: New scenery for Primary Care Teams

Authors: Dr Antoni Peris-Grao; Ms Alba Brugues-Brugues; Ms Irene Cubells-Asensio; Dr Emilia Bosch-Romero; Mr Jordi Gascon-Ferret; Ms Silvia Martinez-Gonzalez

CASAP, Castelldefels, Spain

Context

Covid pandemic represents a huge change for Primary Care services. There remains risk of contagion between patients, patients and health professionals and between professionals. Primary Care Teams (PCT) are to maintain its main objectives on health promotion and patients' care, identify new covid cases and simultaneously follow up a subgroup of patients that were affected by covid. It's thus necessary to define new pathways of care maintaining accessibility.

Methods

Our team works in two settings, a Primary Care Center attending around 32.000 citizens, both adult and children, and a Primary Care Emergency Center covering an area of 160.000 inhabitants. Until covid outbreak every patient assigned to PCT could ask for face to face visit through call center or register on line. Also, every demand, whatever the severity, was to be attended in one or other center. After the peak, every demand is attended only by nurses, doctors or social worker who decides whether the situation is to be evaluated face to face or virtual. Referrals from PCT to hospital have also been restricted. Specific pathways for suspected covid patients have been stablished both in PC center and in PC Emergency center. Responsibilities of health promotion and chronic patients follow up has been shifted to nurses, both for adults and children. Email and videoconferences are being widely used to contact certain patients.

Results

Situation has changed completely with a huge shift from face to face to phone call visits, as shows comparison of data for last six months and total 2019 activity

		Domicili	No presencial	Presencial
INF	2019	3.311	6.290	54.182
	2020*	1.340	8.311	16.102
MG	2019	951	27.306	45.428
	2020*	319	20.607	13.601
INFPED	2019	0	1.044	19.183
	2020*	0	3.134	5.138
PED	2019	0	783	2.610
	2020*	0	231	477
T. Social	2019	127	2.352	735
	2020*	82	1.896	213

Having assumed the reduction of face to face visits, we want ascertain health indicators maintain good levels. During our presentation we'll show figures of different sorts of activity, comparing mean for June - October 2019 and 2020. Also, we'll compare data on children vaccination, adult diabetes control (glycate hemoglobin) and number of referrals to hospital.

Discussion

Uncertainty on accessibility and equity for new forms of contact in PCT needs to be ascertained. New strategies make reasons for consultation sounder, avoiding unimportant demands that previously collapsed the PCT. Nevertheless, virtual consultation may be safer but some patients may not access it because of lack of digitalization or may not understand properly professionals' advices. We consider it's basic to evaluate these new dynamics, both for adults and children. Our first data may help to modify our pathways and accessibility measures. We consider every health provider is to reassure new dynamics are not less accessible for patients.

Cost estimation method for COVID-19 hospitalisation episodes and analysis of the financial impact on the hospitals: a proposal

Authors: Grazia Dicuonzo, PhD[1]; Antonio Fusco, PhD[1]; Prof Vittorio Dell'Atti[1]; Dr Adriano Lagostena[2,3]; Dr Alberto Pasdera[3]; Dr Andrea Pugliese[3]

[1]University of Bari Aldo Moro, Bari, Italy. [2]E.O. Ospedali Galliera, Genova, Italy. [3]N.I.San., Genova, Italy

Context

The cost estimation of healthcare services is considered crucial to ensure better planning and allocation of available healthcare resources, especially in emergency contexts. The COVID-19 pandemic has generated many difficulties for hospital management. Up to June 2020, the number of confirmed cases of coronavirus globally reached over 8 million, with a hospitalisation rate around 89.3 per 100,000. This abrupt increase in hospitalised patients, mainly in intensive care, has created a significant problem with regard to the quantification of the resources used for COVID-19 treatment. Using the clinical costing method, we propose a simulation model to estimate the costs for a single hospitalisation episode for a COVID-19 patient in Italy.

Methods

The simulation model of cost estimation is based on the clinical costing method and it has been realised in collaboration with the N.I.San. (Network Italiano Sanitario), a scientific association including 81 Italian hospitals. The number of members and the geographical distribution of the healthcare companies in south, central and north Italy make the data analysis accurate. The work was developed in 4 steps:

Step 1: Identification of the sample and data collection concerning (i) the activities with regard to the hospitalisation episodes and the specialist ambulatory care services for outpatients and inpatients at the emergency room; (ii) the cost of the resources used (e.g. personnel, drugs, medical devices);

Step 2: Organisational and management analysis and distribution of costs for (i) cost centres, (ii) resources used and (iii) activity lines;

Step 3: Definition of the costs of each hospitalisation episode for each company split into single-use resources and activity lines;

Step 4: Calculation of benchmarks per hospitalisation episode and activity line; analysis of the deviations from benchmarks.

Results

The tools used in the proposed model are shown in Figure 1.

Example of results (step 3) Category: COVID-19 ……… No. of discharged patients: ……

Resources used **Activity**	Medical personnel	Nursing personnel	Other personnel	Drugs	Medical devices	Other costs	TOTAL
Hospitalisation							
Intensive care							
Operating room							
Diagnostic services							
Other activities							
TOTAL							

Example of results (step 4) Category: No. of cases: Resource aggregation: …………

Activity	Costs	Benchmarks	Benchmarking deviation
Hospitalisation			
Intensive care			
Operating room			
Diagnostic services			
Other activities			

TOTAL			

Hospital: ……..Resource aggregation: ………..

Activity	COVID-19 Cost variation	Cost variation of the other hospital activities	Business total deviation
Hospitalisation			
Intensive care			
Operating room			
Diagnostic services			
Other activities			
TOTAL			

Discussion

The proposed model of cost estimation per activity based on clinical costing is a simulation aimed at quantifying the cost for single hospitalisation episodes of patients with COVID-19 and the cost of the specific resources used.

Benchmarking can be a powerful tool for hospital management to analyse the financial impact of single episodes of hospitalisation for COVID-19 on the management of the hospitals. From this analysis, it is also possible to define the standard costs of the resources used, which is an useful tool to support the healthcare planning and performance evaluation of healthcare companies.

Managing the COVID-19 pandemic in care homes for older people - a primary care perspective

Authors: Dr Oscar Garcia; Dr Carlos Bernades; Dr Lorena Villaescusa; Dr Ana Campoy; Dr Montserrat Tapia; Dr Jessica Rodriguez; Dr Paqui Pavon; Dr Sonia Fernandez; Dr Antoni Peris; Dr Alba Brugues

CASAP, Castelldefels, Spain

Context

Coronavirus outbreak with a high transmission capacity and high mortality index in people older than 70 years (around 10 to 15%) has created a problem in nursing homes with huge consequences both in technical aspects, care, finances and ethics.

Our Primary Health Center cares for 32.000 inhabitants including circa 900 patients in 19 nursing homes. These centers have health professionals limited weekly hours to evaluate patients and a private organization gives care support.

Beginning of the pandemic our team split (March 10th) in groups alternating both face to face consultation and phone calls. Face to face was limited to those situations that might need an early diagnose or emergencies. Nurses organized a systematic follow-up of chronic patients or home visits if needed.

Methods

We created a nursing home support sub team including 4 Family and Community Nurse specialists (on lead) and 2 Family and Community Medicine Doctor specialists.

Data base (number of 2 bed rooms, number of free 1 bed room, use of protection equipment, diagnostic procedures, suspected cases, confirmed cases, hospital referrals, deaths) was created and shared with nursing home managers and health authorities.

Non-risk and risk areas were defined both for common areas and living rooms. Quarantine areas were stablished and professionals were instructed on safety procedures for care in every area.

Care: twice daily phone calls were to identify changes. When needed a nurse and doctor team, fully equipped with safe measures, visited those patients with acute conditions. Aim was to be highly resolutive to avoid unnecessary referrals to hospitals and early risk identification to transfer suspected cases to isolation areas. When PCR was available decisions were taken to avoid further contagion.

Results

Since mid-March until June 1st our team care for more than 400 patients, in 5 nursing homes and 2 mental health nursing homes. Only one patient turned PCR positive and no contagions happened.

Discussion

Early response to symptoms and confinement was effective to avoid spread of disease. Community strategy from Primary Care Team is useful to deal for outbreaks in nursing homes.

COVID 19 impact on healthcare and the pharmaceutical industry, in-depth analysis by comparing technical and fundamental modalities between Standard and Poors 500 index, and leading industrials

Authors: Doctor of Medicine, Master of Economics, Ivan Bosnjak[1]; Master of Pharmacy, Master of Economics, Marija Bosnjak[2]; Doctor of Medicine, Sinisa Cikic[3]

[1]Clinical Hospital Center Sisters of Mercy, Zagreb, Croatia. [2]PharmaS, Zagreb, Croatia. [3]Zagreb, Croatia

Context

COVID-19 impact was a black swan effect that had unprecedented and unpredictable disastrous effects on healthcare systems, human lives, and economic value. The aim of this abstract is to analyse how did healthcare and pharmaceutical industry go through in COVID-19 virus caused world crisis. COVID-19 crisis started at the beginning of December. The first documented admission was 16th December. During January virus was predominantly located in East Asia while there were confirmed first cases in Europe: France, Germany, and Italy. During January there was a growing concern for the rate of spread and mortality rate of the virus. On 20 January China National Health Commission confirmed that the virus was human to human transmissible. On the same day, there was also first confirmed case in United States and Singapore. On 21 of February, the stock market S&P500 index fell down followed by medical and pharmaceutical sector as well as the DAX index as we can see on the charts. As bad news followed and virus spread, panic hit the market and the S&P500 hit its lowest value on 23 of March at value 2300 dollars, falling 36%. What is most interesting is that the worst news and viral spread news and information came later, after the indexes hit their bottom.

Methods

We used fundamental analysis tools and have done a technical analysis of markets and its participants.

Results

Even though pharmaceutical and medical companies had fallen in stock market share price, their fundamentals remained strong, many of them had an increase in product demand. Johnson&Johnson company had an increase in EPS, 2.3, and revenue of 20.60 billion dollars on April 14. 2020. Bayer EPS increased from 1.29 to 2.67, while revenue increased from 10.75 billion to 12.85 billion, from February 26 to April 27. Medtronic EPS was 1.44, and revenue 7.72 billion on Feb 17th. From technical perspective, the market fell to value of 2200 dollars. From then on buyers started entering the market. It retested Fibonacci 23.6 % level and continued to rise retesting 200 period moving average, initially being rejected, whilst later overcoming the resistance, then retesting it before continuing to grow. The stock market did not retest 2200 level of support, did not form double bottom as seen on picture 1.

Discussion

Most interesting from our data economic analysis compared to technical analysis is that market indexes rallied on the worst news in the history of US markets. As an example, on 2 April Jobless claims were 6,6 million in one week, but stock market indexes rallied strongly. Johnson&Johnson in the same period fell 26,28%, Medtronic fell by 35%. Bayer fell by 35,22%. Even though the countries were shutting down their economy stock market continued to rise protected by central bank interventions. COVID-19 pandemic represented a big impact on countries' economic status. World GDP fell sharply lower, and most industrials followed a decrease in demand. Medical and Pharmaceutical sectors showed strong fundamentals, while their stock fell proportionally to economics indexes. Looking at technical analysis medical and pharmaceutical stocks fell sharply lower showing weakness caused by panic selling from market participants. Fundamental analysis showed strong ground. We can conclude there is a big discrepancy between current market value and real economic data. Stock market surged following worst economic news showing that it is possibly a few steps in front of economy.

Securing improved primary health care for children and adolescents post-COVID-19

Authors: Dr Paul Kocken[1]; Dr Danielle Jansen[2]; Mrs Daniela Luzi[3]; Prof Dr Michael Rigby[4]

[1]Erasmus School of Social and Behavioural Sciences, Rotterdam, The Netherlands. [2]Department of Health Sciences, University Medical Center Groningen, Groningen, The Netherlands. [3]National Research Council Institute for Research on Population and Social Policies, Rome, Italy. [4]Keele University, Keele, United Kingdom

Background

The COVID-19 crisis so far seems to be less intruding for children's physical condition. However, once mortality and morbidity caused by COVID-19 are controlled in Western countries, the current state of primary health care for children also requires a forward view to improve the primary health care of the youngest generation. The Models of Child Health Appraised (MOCHA) project – www.childhealthservicemodels.eu – was a Horizon 2020 Research Project which aimed to appraise models of primary child health care in Europe and make recommendations for improvements.

Methods

An online questionnaire about three future scenarios on imaginary components of the child healthcare system was filled out by 80 stakeholders of 22 EU countries. The respondents were policy makers, nurses, paediatricians, GP's, researchers, and representatives of end-users. We translated the issues from this scenario study to the situation of COVID-19

Results

1. The immunization rate of children already gradually dropped in many European countries last years. COVID-19 underlines the need for EU countries to work together to align immunization programs and communicate about the importance of immunization. 'Fake news' has to be countervailed and a uniform message should be brought to the public, based on science and supported by (social) media expertise.
2. Primary health care systems should secure a free access to mental health care for young people having experienced abuse or COVID-19 stress. They as ever should have access to child friendly services. It is currently unclear in which contexts and settings confidential access should be guaranteed to adolescents. Agreement on access with and without parental consent is needed.
3. Professionals in primary care and school health services should be trained in mental health consequences of COVID-19. They should be skilled to identify adolescents who need psychological support or treatment, and to respond or refer adequately.
4. Availability of data on health indicators for children and adolescents is poor and data are often incomparable between EU countries. Improved data collection and registration systems are needed to monitor and compare the health and social consequences of the COVID-19 crisis for young people.

Conclusion

Primary health care systems' improvements and data availability are unconditional to achieving a demonstrable healthy population of children and adolescents, especially in low-income groups. Despite the enormous challenges the economic and health care systems face due to COVID-19, attention to the care for the youngest generation is needed.

The complexity of management of COVID-19 outbreak in Iran

Author: Doctor Hassan Joulaei

HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran, Islamic Republic of. Health Policy Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran, Islamic Republic of

COVID -19 epidemic has been noticed since December 2019 in Wuhan, China with a rapid and progressive raise. Immediately, World Health Organization (WHO) has released preparedness guidance to declare this outbreak as a public health emergency. Accordingly, many countries have applied strict regulation on their borders to control entry points and focused on technical and logistic preparedness to combat this epidemic. Many interventions were tried while few had scientific evidence.

Despite these measures in many countries including Iran, the COVID-19 epidemic arrived stormy and spread in a short time. In Iran based on the latest official figures (June 25, 2020), the total number of approved cases is approaching 215096 and the number of related deaths is around 10130, which seems to be just the tip of the ice burg. Thanks to strong inpatient and outpatient service in Iran, case fatality rate is low (4.79%) in compare with many developed countries. To combat, Iran started to run active and passive case detection, closed schools and universities, banned the mass gatherings and initiated inter-sector collaboration to engage all sectors.

The question is that why, despite all of these measures specially the efforts of Iranian health ministry with such a strong health system and successful past experiences in control of many communicable diseases this rapid spread occurred?

There seems to be several reasons. The increasing burden of non –communicable diseases in recent years, have reduced the focus on Communicable Diseases Surveillance System (CDSS) by the health system. The outdated law and regulations of mandatory reports to CDSS, further fragmentation of health system without effective governance and relationship, and inefficient information system are the results of this low attention. Furthermore, international unfair economic sanctions by the United States has affected all infrastructures of Iran’s health system. This political complex situation has hindered access to medicines, vaccines, medical equipment and healthcare services on demand diminished the capacity of health system. It also has led to early remove of lockdown in Iran and its recurrence. Moreover, there has been misstatement at the beginning of this epidemic worldwide. Despite the great works by Chinese government in containment of this infection, there was a delay in recognition in China and worldwide. The extent of problem was underestimated in many countries including Iran. These resulted in delayed reaction to this growing epidemic.

To proceed, Iran’s primary health care (PHC) oriented system should be the main stream for control of this epidemic. Although the Iran's PHC historically suffers from defective referral system, but the threat of COVI19 could be an opportunity to establish a more effective referral system from health houses to referral hospitals leading to a coordinated and integrated care with more equity and better quality. Also, to control of this highly contagious epidemic and its disastrous consequences, international technical cooperation and removing health related economic sanction are crucial. This epidemic is a global issue and there is need for international collective action. These types of collaborations along with lifting the sanctions of bank transfer for medicines and medical equipment could not only help to control this epidemic in Iran appropriately.

Involvement, commitment and contributions of the Nurse Anaesthetists (NA) within the French hospital system facing the COVID-19 epidemic.

Author: Mr Nico Decock

SNIA, Paris, France

Introduction

In the context of the CoVid-19 pandemic, the National Union of Nurse Anaesthetists (SNIA) asked nurses-anaesthetists on their involvement and their activities during the epidemic related to the SARS - Cov2 Pathogen Agent. We explored the different fields of NA exercise (Emergency and Intensive Care Units, operating theatre) as well as the changes of the work organization.

Methodology

Online questionnaire distributed on our professional networks. Relayed by our partners for 13 days. Questionnaire opened from the 21st of April 2020 until the 4th of May 2020

Results

Of the 1984 answers, 1576 were exploitable or almost 15% of the working population. The geographical distribution of respondents is compared with those identified by government statistical data. 88.58% of the respondents work in the public sector, 11.42% work in the private sector. 67.13% of the NA say they have been subjected to constraints linked to the lack of personal protective equipment (PPE). 33.69% of the NA participated in the creation/drafting of specific protocols; this proportion rises to 68.18% for the NA health executives. 62.94% of the NA participated in the training of health care professionals, this proportion rises to 88.64% of the NA managers. 70.69% of the NAs organized the setting up of critical and intensive care units in their institutions. For the 72.3% of NAs engaged in critical / intensive care unit, it was a new assignment for the whole of them (97.68%). 81,91% of them carried out secondary medicalized transport. More than 90% of them performed them for the care of COVID patients.

Analysis and Discussion

The whole NA network has actively participated in the organization and management of the CoVid-19 epidemic. This massive involvement was sometimes associated with suffering, as a result of the undeniable shortage of personal protective equipment, contamination and more or less due to adjustments to working schedules and exercise conditions.

NA managers have organized the transfer of units and the training of professionals, and NA have taken an active part in the care of patients within all critical care services. All these actions were only possible thanks to the multidisciplinary approach of the profession.

The skilled workforce of the profession has enabled the creation of temporary resuscitation units, special CoViD-19 units, pre-hospital management solutions and inter-hospital transport solutions in a record time. The autonomy and leadership of the NA was an important element in the management of COVID patients. By actively participating in their clinical and technical management, they released medical time and secured the care channels.

Nurse anaesthetist proofed to be experienced professionals, able to participate in the diversity of the missions of the emergency units, thus allowing a fluidization and an optimization of the medical resources. It is this adaptability, this flexibility of anaesthesia/intensive care professionals that made it possible to solve the major problem of the limited number of intensive care beds, which was the source of all concerns at the beginning of the pandemic. At its level of competence and expertise, it is undeniable that the NA profession has strongly contributed, together with the other health care professions, to the resilience of our health system in this exceptional situation of threat to the French public's state of health.

Chest imaging and RT-PCR test for acute abdominal pain during COVID-19 pandemic

Authors: Dr Zakariya Abdulazeez, Mr Nabeel Qureshi, Dr Mohamed Abdalla

Medway NHS Foundation Trust, Gilligham, United Kingdom

Introduction

Coronavirus disease (COVID-19), which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first identified in December 2019 in Wuhan, China, and has since spread rapidly, evolving into a full-blown pandemic. Challenges about COVID-19 testing were observed in UK, and difficult decisions to operate on unknowingly COVID-19 positive patients were of major concern.

Patients and Methods

During COVID-19 crisis (March- June 2020), a retrospective study of 279 patients presented to the surgical assessment unit at Medway Maritime Hospital with acute abdominal pain. The CTAP was performed on 215 patients, chest scans were included in 17 patients, chest radiograph (CXR) performed on 54 patients. COVID-19 swab test (RT-PCR) were performed on 80 patients who were suspected to have COVID-19.

Results

Forty-three patients required urgent abdominal operations among those who required CTAP. RT-PCR was positive among 3/80 patients only who were clinically suspected to have COVID-19. CT chest performed on 17 patients, four of whom were suspected to have COVID-19, but RT-PCR revealed negative results for all of them. Furthermore, 13/54 patients had shadowing on CXR, but only one of them with consolidation was TR-PCR positive and fortunately did not require surgical intervention. The second RT-PCR positive patient (with normal CT chest and clear CXR) was not operated upon and treated conservatively. The third RT-PCR positive patient was operated upon unknowing his COVID-19 positive result and had normal CXR.

Conclusions

The risk to operate during emergency on unknown COVID-19 positive patients is a real one. Investigations such as CT chest or chest radiography are of limited value in the identification of these patients. COVID-19 RT-PCR results are usually delayed. Therefore, more informative panel of COVID-19 revealing investigations is required to aid in the surgical decision to take patients to theatre.

The 1st wave of Covid-19 in a Belgian general hospital: a SWOT analysis

Authors: Dumez Philippe, MSc; Droesbeke Brenda, MNSc; De Munck Jo, MNSc; Pieters Karen Mecon; Van Puyvelde Peter, MNSc; Braet Anja, MD, PhD; Jacobs Rafael, MD; Ketele Erwin, MD; Swinnen Walter, MD

az Sint-Blasius, Dendermonde, Belgium

Context

The COVID-19 pandemic created a heavy burden on hospitals worldwide. Hospitals had to switch rapidly from standard care to emergency care and faced multiple problems in reorganizing care. Belgian hospitals had to activate their existing Business Continuity Plan (BCP), often for the 1st time outside the exercise context, challenging the correctness and the completeness of the plans.
Setting: a 437-bed general hospital, serving a population of 150.000 inhabitants.
Goal: SWOT-analysis after the 1st wave of COVID-19, to enhance readiness for a potential 2nd wave.

Methods

az Sint-Blasius already activated a BCP for Influenza on Jan. 1, 2020, including provision of strategic stocks of personal protection equipment (PPE), a testing strategy, isolation and cohorting of patients on dedicated wards. From Jan 24, internal communication about the SARS-CoV-2 pandemic was started. Hospital leadership was asked to critically review the BCP and to actively prepare reorganization of care. After activation of the Federal Emergency Plan on March 13, all planned hospital activity was stopped, high and low infection density flows in Emergency Department (ED) and ICU were created, cohort units were stepwise opened, PCR-test capacity was sought, procedures and COVID-19 activity communicated, and staff was trained in procedures and proper use of PPE.
After the peak of the infection on April 13, planned activity was resumed progressively from May 4. Debriefing with hospital staff using interviews and Gemba walks was started.

Results and Discussion

Between March 13 and June 24, 213 patients with proven COVID-19 were admitted, of whom 30 in ICU. Case fatality rate was 22.1%. Max. hospital occupation rate was 11.2% on April 13. Max. ICU occupation rate was 92% on April 10.
Strengths: unity of command by the HCC; transparent communication from HCC to hospital actors; fast switch to emergency care, seamless transition from BCP influenza to BCP COVID-19; flexibility of hospital staff (new work, irregular activity); enhanced appreciation of other departments (teambuilding); quick adjustment of flows due to change in influx of patients; control of influx of patients by making agreements with GPs and coordinating physicians of residential care facilities (avoiding unnecessary admissions)
Weaknesses: abundant and fast-changing communication, not enough pushed to hospital staff; absence of PCR-test capacity (making us dependent on benevolence of others); difficulties to replenish PPE's strategic stock (scam); give in to pressure to provide more protection than necessary; inadequate communication with families during the visit ban; insufficient consultation with neighbouring hospitals; insufficient training (procedures, proper use of PPE)
Opportunities: more work from home opportunities; communication by video conference; developing phone/video consultation; PCR-test recognized as golden standard; collaboration with GP circles and primary care
Threats: decline in regular hospital activities; financial impact (more expenditure, less income); maintaining hospital activity during the next winter, with risk of combined influenza and SARS-CoV-2; maintaining PCR-test capacity

Conclusions

This SWOT-analyses reveals working points while preparing a potential 2nd wave of the COVID-19 pandemic. A focus on communication and training will be important, as well as securing PCR-test capacity and maintaining strategic stocks of PPE. The BCP meets expectations but needs to be supplemented with specific organizational details for COVID-19.

European Public Health in the context of Green Deal - from COVID-19

Authors: Prof Dr Luis Lapao[1]; Prof Dr Marija Jevtic[2,3]; Prof Catherine Bouland[3]

[1]Global Health and Tropical Medicine Universidade Nova de Lisboa, Lisbon, Portugal. [2]Faculty of Medicine, Institute of Public Health of Vojvodina, Novi Sad, Serbia. [3]Research Centre on Environmental and Occupational Health, School of Public Health ULB, Brussels, Belgium

The Covid-19 pandemic crisis caused a serious 'tectonic' disturbance in all sectors, especially pointed out weaknesses of the healthcare systems. The recently adopted European Green Deal (EGD) should take into account the Covid-19 pandemic challenge and maintain its primary objectives. The pandemic crisis has shown not only individual health risks, but also global health threats (direct and indirect). The SARS-CoV-2 virus causes an insufficiently known infectious disease. The subsidiary health effects are still countless: mental health, health-economic costs, deadlock in the other diseases' treatment, etc.

One of the main messages regarding environment, is that society should find new economic models less damaging to the environment and to biodiversity, implying circular economy, a less consumerist and active society: e.g. a 4 days-working week. Covid-19 took us to the extreme of being confined at home, either working or taking care of our families. However, the Covid-19 global quarantine and confinement (and huge reduction of travelling, mainly flights) had a great impact on decrease of CO2 levels, on the quality of air and on biodiversity.

Vulnerability and lack of efficient action in many countries, is a strong warning for Europe (and globally) to insist in strengthening public health and convert lessons learned into action. The Coronavirus, originating from destruction of wildlife and intensive animal farming, will bring more pandemics in the future. We need more public health consideration towards effects of climate change on public health. It is possible to keep economy functioning by promoting remote work supported by digital platforms and innovation for international networks. Strategically, the European recovery plan should be aligned with the EGD. Public Health should be more engaged on studying future impacts of climate change on health care and at the same time should propose new models for healthy living in the line with sustainable circular economy.

Public Health should be more engaged on studying future impacts of climate change on health care. European Public Health should reflect about the COVID-19 impacts on Society and on its relation with Climate Change.