Editorial EJKM Volume 18 Issue 3

Advances in Health Knowledge Management: New Perspectives

Maria Jose Sousa[1], Francesca Dal Mas[2] and Renato Lopes Da Costa[1]
[1]Instituto Universitário de Lisboa, Business Research Unit, Portugal
[2]Lincoln International Business School, University of Lincoln, UK
maria.jose.sousa@iscte-iul.pt
fdalmas@lincoln.ac.uk
renato_jorge_costa@iscte-iul.pt

1. Introduction

Healthcare is one of the most critical sectors in today's world, given its fundamental role in impacting people's lives and well-being.

Nowadays, knowledge management in healthcare is particularly crucial, given the significant changes and challenges affecting the field, including the recent Covid-19 pandemic (Cobianchi et al., 2020b; Grasselli, Pesenti and Cecconi, 2020), which required a fast reorganization of processes, people, tools and the need to rethink most of the sector's strategies (Cobianchi et al., 2020a; Derbyshire and Wright, 2014).

The advent of new technologies in healthcare practices is profoundly changing the whole scenario, concerning both the clinical practice and clinicians' educational needs (Au-Yong-Oliveira et al., 2021; Sousa et al., 2021). While new operating robots are affecting surgery and the skills that surgeons need to develop, automation and big data allow collecting information that can be used both for training new medical doctors as well as for innovating existing healthcare techniques (Pesqueira, Sousa, and Rocha 2020). New technologies and data availability impact internal procedures, including team management and the relationships with stakeholders, providing at the same time new challenges for the overall clinical education system. Telemedicine and e-health have become more popular as a means to address patients' ambulatory needs after the disruption and social distancing requirements due to the Covid-19 pandemic (Grenda, Whang and Evans, 2020; Miceli et al., 2021; Sorensen et al., 2020). At the same time, scientific clinical research progresses in various fields, including, for example, transplantation and organ regeneration (Cobianchi et al., 2009; Hogan et al., 2012; Marzorati et al., 2009; Orlando et al., 2013) to address the unmet medical needs of patients, and calling for a fast "bench to bedside" translation (McAneney et al., 2010).

By taking a comprehensive approach to new technologies, healthcare companies and institutions can deliver products and services more quickly, boost innovation in the industry, and hold down costs. Additional challenges include reporting and accountability, especially for those healthcare organizations belonging to the public sector (Massaro, Dumay and Garlatti, 2015). Investments required to support this technological shift must be transparently reported to stakeholders showing the growing intellectual capital of those organizations and their impact on organizational outcomes: better cure, life improvements, overcoming clinical bias, and so on (Cavicchi, 2017; Cavicchi and Vagnoni, 2017).

The above-described premise, including the impact of the Covid-19 pandemic, which hit the healthcare systems worldwide, provides new challenges for the knowledge management discipline in the healthcare and medicine sector in terms of decision-making, innovation, human resource management, business processes, intellectual capital and intangibles management and reporting, learning and education of healthcare professionals, among others. The aims of the special issue call for papers were to collect the latest trends, ideas, and perspectives about knowledge management practices in the health scenario.

2. Special Issue Papers

The papers included in the Special Issue highlight a variety of different topics.

Reference this paper: Sousa, M. J., Dal Mas, F., and Da Costa, R. L, 2021. Editorial EJKM Volume 18 Issue 3. Advances in Health Knowledge Management: New Perspectives. *The Electronic Journal of Knowledge Management,* 18(3), pp. 407-411, available online at www.ejkm.com

In the first article, Dal Mas et al. (2020b) discuss the topic of knowledge translation as the ability to translate concepts in different contexts by stakeholders characterized by various skills, goals, and even feelings. Given the features of the modern healthcare ecosystem and the presence of various stakeholders, such a topic seems central to allow different actors (including clinical professionals, scientists, policymakers, patients, …) to effectively work together (Cobianchi, Dal Mas and Angelos, 2021; Secundo et al., 2019). A structured literature review (Massaro, Dumay and Guthrie, 2016) allows the authors to describe the tools, solutions, and managerial practices gathered from the Business & Management literature about healthcare.

Knowledge translation is also the main topic of the second paper (Dal Mas et al., 2020a), which analyses a case study gathered from a Breast Unit of an Italian hospital. Results highlight the different knowledge translation tools and dynamics among the actors involved and their impact on the outcome.

Mnasri and Papakonstantinidis (2020) contribute to the literature on knowledge construction and knowledge sharing within the field of organizational communication by underlining the importance of exploring human learning contextually, descriptively, interpretively, and inductively. The paper employs a case study in oncology, offering a new framework model for exploring trivialized organizational dynamics and challenging groupthink.

Vold and Have (2020) employ a qualitative case study investigating the work relevance of an adult education study bachelor programme for middle managers of the public health sector in Norway. Results highlight how a study programme can support the development of knowledge management practices in an organization by focusing on the relevance pronounced through management practices.

In the following article, Pateiro Marcão and colleagues (2020) investigate the pharmaceutical sector, and more in details, the adoption of gamification techniques within the quality management system. Employing a case study in Portugal, the paper shows the potential of gamification techniques to boost stakeholders' engagement.

Jucevičienė and colleagues (2020) deepen the topic of organizational learning of clinicians through an empirical investigation conducted in a small hospital in Lithuania.

Martins et al. (2020) discuss the new frontiers on health by investigating edible vaccine using a mixed methodology, involving both healthcare professionals and citizens. Results highlight little knowledge about the topic, calling, therefore for dissemination and knowledge translation activities.

Cassaniti and colleagues (2020) explore a case study in Kenya to deepen online communities and networks' role to engage various stakeholders.

Therkildsen Sudmann et al. (2020) analyze the case of senior users of the online health information, highlighting how participants engage in self- and co-management of their own or others' health. Therefore, the ways information and data are managed and disseminated is crucial to facilitate this interaction.

A literature review conducted by Fernandes Travassos Rosário and colleagues (2020) on health knowledge management in the last 10 years identified the key research themes and resulting development patterns, namely, the integration and interoperability of knowledge from different sources into a single platform, occupational safety, the need to ascertain the quality and pertinent information among general web information, culture and social behaviour and data security.

Tega Enakrire (2020) studied the topic of health informatics in Africa through a bibliometric analysis, highlighting the connection with the clinical practice and the call for strategic plans.

Ferreira Polónia and Coutinho Gradim (2020) investigated the interaction of different stakeholders to identify possible partners to be involved in innovation activities, including hospitals, universities, research centres, and start-ups. Using a case study approach, the article suggests potential roles for the different parties along the innovation funnel and what they can do in each phase.

Finally, Booto Ekionea and Fillion (2020) employ a case study of two hospital organizations in the Democratic Republic of Congo, presenting a model with five levels of intellectual progress based on the knowledge

management maturity model. Results highlight the identification of the factors that influence the nature and effectiveness of the use of knowledge management practices in healthcare organizations.

The following figure 1 reports the word cloud gathered from the abstracts of the special issue papers.



Figure 1: Word cloud

3. Conclusions

The healthcare scenario is changing fast, and so do the managerial practices which should be employed to ensure effective translation, transfer, sharing, and creation of knowledge. Boosted by the inputs given by the COVID-19 pandemic, clinical, organizational, and educational practices should be rethought strategically. Efforts are required to both the academic community as well as to those engaged in the professional practice to find and apply new models and solutions.

The papers included in our Special Issue allow highlighting some takeaway messages.

First of all, most papers stress the need to foster and optimize the relations among different actors (Cassaniti et al., 2020; Dal Mas et al., 2020a; Dal Mas et al., 2020b; Fernandes Travassos Rosário et al., 2020; Ferreira Polonia and Coutinho Gradim, 2020; Mnasri and Papakonstantinidis, 2020; Pateiro Marcão, Pestana and Sousa, 2020; Tega Enakrire, 2020; Therkildsen Sudmann et al., 2020; Vold and Haave, 2020). Dedicated tools, facilitators, and procedures are needed to reach such an aim, which has become a priority of the modern healthcare sector. A variety of intriguing case studies conducted in various countries worldwide offer first-hand experiences to be shared.

In this perspective, it emerges the need to investigate further the relationship dynamics between healthcare professionals and citizens/patients (Dal Mas et al., 2020a; Dal Mas et al., 2020b; Ferreira Polonia and Coutinho Gradim, 2020; Martins et al., 2020). While the traditional paradigm was about patient-centric ethics, in the COVID-19 pandemic, public-health ethics prevailed (Angelos, 2020).

The healthcare sector's massive changes and challenges cannot but impact healthcare professionals' skillset, calling for new management and educational paradigms and techniques (Booto Ekionea and Fillion, 2020; Pateiro Marcão Pestana and Sousa, 2020).

We do hope that our Special Issue collection will offer “food for thoughts” for new exciting research avenues in health knowledge management, always trying to “bridge the gap” between scholars and practitioners.

References

Angelos, P., 2020. Surgeons , ethics , and COVID-19 : early lessons learned. *Journal of the American College of Surgeons*, 230(6), pp. 1119–1120.

Au-Yong-Oliveira, M., Pesqueira, A., Sousa, M.J., Dal Mas, F. and Soliman, M., 2021. The potential of Big Data research in healthcare for medical doctors' learning. *Journal of Medical Systems*, 45(13).

Booto Ekionea, J.P. and Fillion, G., 2020. Assessing KM capabilities in two African healthcare organizations: case study. *Electronic Journal of Knowledge Management*, 18(3), pp. 392-406.

Cassaniti, J., Kumoji, K., Rariewa, F., Ohkubo, S. and Oyenubi, O., 2020. Influence networks relating to health knowledge among Nairobi's micro-retailers and their clients. *Electronic Journal of Knowledge Management*, 18(3), pp. 302–324.

Cavicchi, C., 2017. Healthcare sustainability and the role of intellectual capital: evidence from an Italian Regional Health Service. *Journal of Intellectual Capital*, 18(3), pp. 544–563.

Cavicchi, C. and Vagnoni, E., 2017. Does intellectual capital promote the shift of healthcare organizations towards sustainable development? Evidence from Italy. *Journal of Cleaner Production*, 153, pp. 275–286.

Cobianchi, L., Dal Mas, F. and Angelos, P., 2021. One size does not fit all – translating knowledge to bridge the gaps to diversity and inclusion of surgical teams. *Annals of Surgery*, 273(2), pp. e34–e36.

Cobianchi, L., Dal Mas, F., Peloso, A., Pugliese, L., Massaro, M., Bagnoli, C. and Angelos, P., 2020a. Planning the full recovery phase: an antifragile perspective on surgery after COVID-19. *Annals of Surgery*, 272(6), pp. e296–e299.

Cobianchi, L., Pugliese, L., Peloso, A., Dal Mas, F. and Angelos, P., 2020b. To a new normal: surgery and COVID-19 during the transition phase. *Annals of Surgery*, 272(2), e49–e51.

Cobianchi, L., Zonta, S., Vigano, J., Dominioni, T., Ciccocioppo, R., Morbini, P., Bottazzi, A., Mazzilli, M., De Martino, M., Vicini, E., Filisetti, C., Botrugno, I., Dionigi, P., Alessiani, M., 2009. Experimental small bowel transplantation from non-heart-beating donors: a large-animal study. *Transplantation Proceedings*, 41(1), pp. 55–56.

Dal Mas, F., Biancuzzi, H., Massaro, M., Barcellini, A., Cobianchi, L. and Miceli, L., 2020a. Knowledge translation in oncology. A case study. *Electronic Journal of Knowledge Management*, 18(3), pp. 212–223.

Dal Mas, F., Garcia-Perez, A., Sousa, M.J., Lopes da Costa, R. and Cobianchi, L., 2020b. Knowledse translation in the healthcare Sector. A structured literature review. *Electronic Journal of Knowledge Management*, 18(3), pp. 198–211.

Derbyshire, J. and Wright, G., 2014. Preparing for the future: development of an 'antifragile' methodology that complements scenario planning by omitting causation. *Technological Forecasting and Social Change*, 82(1), pp. 215–225.

Fernandes Travassos Rosário, A.M., de Almeida Fernandes Vilaça, F.I., Raimundo, R. and Nunes Cruz, R.M., 2020. Literature review on Health Knowledge Management in the last 10 years (2009-2019). *Electronic Journal of Knowledge Management*, 18(3), pp. 338–355.

Ferreira Polonia, D. and Coutinho Gradim, A., 2020. Innovation and knowledge flows in healthcare ecosystems: the Portuguese case. *Electronic Journal of Knowledge Management*, 18(3), pp. 374–391.

Grasselli, G., Pesenti, A. and Cecconi, M., 2020. Critical care utilization for the COVID-19 outbreak in Lombardy, Italy. *JAMA*, 323(16), pp. 1545–1546.

Grenda, T.R., Whang, S. and Evans, N.R., 2020. Transitioning a surgery practice to telehealth during COVID-19. *Annals of Surgery*, 272(2), pp. e168–e169.

Hogan, A.R., Doni, M., Damaris Molano, R., Ribeiro, M.M., Szeto, A., Cobianchi, L., Zahr-Akrawi, E., Molina, J., Fornoni, A., Mendez, A., Ricordi, C., Pastori, R., Pileggi A., 2012. Beneficial effects of ischemic preconditioning on pancreas cold preservation. *Cell Transplantation*, 21(7), pp. 1349–1360.

Jucevičienė, P., Sadauskienė, A. and Leščinskij, R., 2020. The peculiarities of the organizational learning of clinicians and their causes. *Electronic Journal of Knowledge Management*, 18(3), pp. 269–284.

Martins, M., Costa, M., Gonçalves, M., Duarte, S. and Au-Yong-Oliveira, M., 2020. Knowledge creation on edible vaccines. *Electronic Journal of Knowledge Management*, 18(3), pp. 285–301.

Marzorati, S., Bocca, N., Molano, R.D., Hogan, A.R., Doni, M., Cobianchi, L., Inverardi, L., Ricordi, C., Pileggi, A., 2009. Effects of systemic immunosuppression on islet engraftment and function into a subcutaneous biocompatible device. *Transplantation Proceedings*, 41(1), pp. 352–353.

Massaro, M., Dumay, J. and Garlatti, A., 2015. Public sector knowledge management: a structured literature review. *Journal of Knowledge Management*, 19(3), pp. 530–558.

Massaro, M., Dumay, J.C. and Guthrie, J., 2016. On the shoulders of giants: undertaking a structured literature review in accounting. *Accounting, Auditing and Accountability Journal*, 29(5), pp. 767–901.

McAneney, H., McCann, J.F., Prior, L., Wilde, J. and Kee, F., 2010. Translating evidence into practice: a shared priority in public health? *Social Science and Medicine*, 70(10), pp. 1492–1500.

Miceli, L., Dal Mas, F., Biancuzzi, H., Bednarova, R., Rizzardo, A., Cobianchi, L. and Holmboe, E.S., 2021. Doctor@Home: through a telemedicine co-production and co-learning journey. *Journal of Cancer Education*, In press, doi:10.1007/s13187-020-01945-5.

Mnasri, S. and Papakonstantinidis, S., 2020. Detrivialization as a strategy to challenge organizational Groupthink. *Electronic Journal of Knowledge Management*, 18(3), p. 224-235.

Orlando, G., Soker, S., Stratta, R.J. and Atala, A., 2013. Will regenerative medicine replace transplantation? *Cold Spring Harbor Perspectives in Medicine*, 3(8), a015693

Pateiro Marcão, R., Pestana, G. and Sousa, M.J., 2020. Knowledge management and gamification in Pharma: an approach in pandemic times to develop product quality reviews. *Electronic Journal of Knowledge Management*, 18(3), p. 255-268.

Pesqueira, A., Sousa, M. and Rocha, A., 2020. Big Data skills sustainable development in Healthcare and Pharmaceuticals. *Journal of Medical Systems,* 44(197).

Secundo, G., Toma, A., Schiuma, G. and Passiante, G., 2019. Knowledge transfer in open innovation: a classification framework for healthcare ecosystems. *Business Process Management Journal*, 25(1), pp. 144–163.

Sorensen, M.J., Bessen, S., Danford, J., Fleischer, C. and Wong, S.L., 2020. Telemedicine for surgical consultations – pandemic response or here to stay? *Annals of Surgery*, 272(3), pp. e174–e180.

Sousa, M.J., Dal Mas, F., Pesqueira, A., Lemos, C., Verde, J.M. and Cobianchi, L., 2021. The potential of AI in health higher education to increase the students' learning outcomes. *TEM Journal*, forthcoming.

Tega Enakrire, R., 2020. Publishing patterns of health informatics in Africa: a bibliometric analysis. *Electronic Journal of Knowledge Management*, 18(3), pp. 356–373.

Therkildsen Sudmann, T., Haukeland Fredriksen, E., Træland Børsheim, I. and Heldal, I., 2020. Knowledge management from senior users of online health information point of view. *Electronic Journal of Knowledge Management*, 18(3), pp. 325–337.

Vold, T. and Haave, H.M., 2020. Relevance of adult higher education on knowledge management in the healthcare sector. *Electronic Journal of Knowledge Management*, 18(3), pp. 236–254.