

COMMENTARY

Challenges and opportunities in health care and nursing management research in times of COVID-19 outbreak

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Abstract

Aim: To reflect upon the concrete implications of the COVID-19 outbreak regarding ongoing health service and nursing management research (NMR) and to identify possible research priorities for the current and post-pandemic era.

Background: Health service research and the nursing management research debate have received little attention to date, despite their relevance in responding to the increased demand of care during the COVID-19 outbreak.

Methods: A critical analysis on experiences was performed while leading international-funded studies at different degrees of complexity and targets, involving nurse managers, nurses, care processes and health care services in the last year.

Results: Ongoing research projects have been profoundly affected by the COVID-19 outbreak in their aims, methods, management processes, feasibility and outcomes.

Conclusions: The COVID-19 outbreak is an unprecedented stress test for the health care sector and for the nursing services. Its onset and persistence have rendered more easily to see what prevails in terms of effectiveness and what fails in our health care services.

Implications for Nursing Management: Nurse managers have lived and are still living through this crisis, given their omnipresence in the health care systems. Therefore, setting NMR priorities and working together to imagine and design the post-COVID-19 era is essential.

KEYWORDS

COVID-19, health service research, implications, nursing management research, priorities

1 | INTRODUCTION

In the context of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic and of its coronavirus disease 2019 (COVID-19), an unprecedented growth of knowledge production in the history of health care research has occurred (Baker & Lee, 2020). Funding has been redirected, ethical committee processes have been accelerated, allowing research protocols to be approved within a short time, and fast-track systems ensured immediate publication of COVID-19-related studies. In this context, research has been recognized as a key part of government responses in the so-called

“urgent public health research” (NIHR, 2020); universities have also been invited to focus their research on innovations directly related to the coronavirus crisis (D’Antonio et al., 2020).

Nurses have responded immediately to this call by designing new lines of research and/or by contributing directly or indirectly to those emerging in the clinical contexts (Iles-Smith et al., 2020). They have rendered their networks (e.g., Barros et al., 2020) available to provide the basis for research networking; an unprecedented collaboration across disciplines, health care centres and countries has been established, overcoming traditional barriers such as that between nursing and medicine (Maxton et al., 2020) and that of

social and health care sciences (Richardson et al., 2020). Above all, the research paradigm in the COVID-19 era seems to have shifted from effectiveness (e.g., writing a research protocol, submitting it to the ethical committee and awaiting) to a knowledge production efficiency to support decisions.

The massive concentration of COVID-19-related research has determined a major impact on the main bulk of ongoing research (NIHR, 2020), introducing a sort of "suspension" when not essential or when safety issues (e.g., face-to-face interviews) prevented their continuation. Moreover, suspensions up to research disruption outside of the COVID-19 field have been led by budget difficulties (Thornton, 2020), ethical committee prioritization to COVID-19-related research and health care service interruptions or priority to only some health care needs—thus threatening the accessibility to patients expected by some research protocols. In an attempt to prevent the disruption of non-COVID-19 research, accommodations in the trials have been suggested also by some regulatory bodies (e.g., FDA, 2021). However, the deployment of PhD-prepared nurse scientists recalled to work in the clinical settings (e.g., Maxton et al., 2020) has further threatened research outside of COVID-19. These PhD students have been forced to accumulate exclusive expertise on some research methodologies (e.g., virtual interviews), thus lacking in other essential competences required for future scientists.

As a consequence of the COVID-19 research impetus, other iatrogenic effects have emerged: the quality of studies produced has been underlined as critical as evident by the amount of those retracted; in addition, both COVID and non-COVID-19 published studies require additional critical appraisal (Pickler et al., 2020). The risk of seeing a disruption in one's own career advancement due to difficulties in completing PhD studies, in obtaining grants or fellowships and in producing the expected publications has also pushed some researchers to take advantages by the fast-track journal processes as an occasion to accumulate publications (Watson and Hayter, 2020). These and other implications have been discussed in different fields, such as in emergency (e.g., Baker & Lee, 2020), paediatric (e.g., Gralton et al., 2020), older people (e.g., Richardson et al., 2020) and palliative care (e.g., Rosa et al., 2020). However, what happened in health service and nursing administration/management research (hereinafter nursing management research, NMR) has received little attention to date (Lake, 2020), despite its relevance in measuring the increased demand of care and in evaluating the impact of service redesign.

2 | AIMS AND METHODS

Exploring the implications experienced during the COVID-19 crisis on such type of research and addressing potential priorities are the aims of this commentary. According to our role as principal investigators of international-funded studies at different degrees of complexity and targets, we reflected on our experience of the last year by taking into consideration, alongside other projects, the factors summarized in Table 1.

TABLE 1 Health care service and nursing management/administration projects

(1) The Nurse Managers For Safety (NM4safety) project funded by Erasmus+ programme (EU KA203). The project is involving four European (EU) and non-EU countries (Italy, Cyprus, Germany and Switzerland), targeting nurse managers working at hospital and nursing home levels, aimed at identifying strategies to prevent missed care and at increasing their competences regarding factors hindering or increasing the missed care (www.NM4Safety.eu).

(2) The RANCARE project developed under the COST action funded to help research connections initiatives across Europe and beyond. Its aims are to facilitate discussion about rationing and missed nursing care according to a cross-national comparative approach by emerging implications for practice and professional development. The project has included leaders working in different settings of 28 EU and non-EU countries (www.rancare.action.eu).

(3) The Magnet4Europe project is funded by the EU Horizon 2020 Research and Innovation Programme from 2020 until 2023 (Grant Agreement No 848031). It is an intervention study aiming to improve mental health and well-being of care professionals (mainly physicians and nurses); the study aims to implement a multifaceted intervention based on the Magnet[®] Blueprint. In the study, more than 60 hospitals in Belgium, Germany, Ireland, Norway, Sweden and the UK are participating supported by a one-to-one twinning relationship with an experienced US Magnet hospital (www.magnet4Europe.eu).

(4) The ehealth Literacy Learning skills among Nurses working with older people (eLILY2-RN) is funded by ERASMUS+ project, and includes five countries (Cyprus, Greece, Lithuania, Poland and the Czech Republic). The project is aimed at enhancing the knowledge and skills of nurses and students regarding the concepts of Health and eHealth Literacy on how to identify low health and eHealth literate older people and families, as well as users of health care services.

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3 | DISCUSSION

3.1 | Implications of the COVID-19 crisis on ongoing NMR

Although ongoing research projects are different as the projects have different aims or are in a different phase, similar implications have been seen:

- *Resisting and then revising.* As in other clinical and non-clinical research projects, our first attempt was to confine the immediate negative implications of the pandemic on ongoing research, followed by the realization that the outbreak lasts for a considerable amount of time. As a consequence, well-designed projects based on interconnected actions across countries with different COVID-19 stages in terms of waves and public health interventions, thus substantially misaligned and sometimes incredulous in responding to the restrictions imposed, have been profoundly revised, requiring a time extension.

- *Dealing with delays in ethical review.* Although all studies have been designed and initiated before the outbreak, projects have become more relevant in the COVID-19 era as nurse manager roles, missed care and nurses' retention have been tremendously affected during the pandemic (Henderson et al., 2021), also resulting in increased burnout and mental health issues (Huang et al., 2021). Despite their relevance, not being formally connected with the COVID-19 outbreak has delayed their ethical approval, causing further delays in the start of studies.
 - *Facing a profound sense of incoherence.* Despite their relevance also in the context of the current pandemic, the common questions are as follows: Is this project still valid in the current scenario? Is the design still valid? Frequently, a sense of incoherence has emerged among researchers, resulting in an increased frailty of the project.
 - *Shaping or not; extending or not the project to the emerging priorities?* In the attempt to deal with project incoherence, deciding to shape it to the emerging issues or to establish an additional research line with the partners, discussion inside of our networks has been promoted. Nursing management research has already been criticized for its fire-stomping approach (Lynn & Layman, 1996); however, having a network was considered a precious resource to circulate ideas and to create a platform for new projects.
 - *Balancing the requests.* Projects involving nurses, nurse managers or other health care professionals (HCPs) or health care services have suddenly encountered severe difficulties to be completed—and this issue is still present due to the chaotic situations in hospitals and nursing homes. Nurses and nurse managers, as well as other HCPs, are extremely stressed and burdened by high workloads; their holidays and their time devoted to continuing education or research have been suspended in several countries. Moreover, unlike other professionals, nurses have to work long hours near patients under major risks, thus further limiting their participation in research. In all projects, in-depth reflection has been promoted on the ethical and moral implications of adding more pressure on nurses and HCPs, who work hardest in the pandemic, frequently facing burnout.
 - *Accommodating the project to ensure its feasibility.* All projects have been threatened in their flow, requiring also a revision in their actions: as documented in clinical research, face-to-face, individual or focus groups, and field data collection have been suspended or postponed. Moreover, collecting administrative data has become critical due to restrictions in health care service accessibility and because several facilities have minimized their health care records as a strategy to increase direct care at the bedside, thus threatening not only the current research but also the future research. All these elements have led to lower response rates in surveys or data collection, delays in intervention implementation and, ultimately, lower adherence rates to research protocols.
 - *Thinking about the rigour and the external validity of the findings.* Whenever possible, all projects have been continued in an unprecedented changing health care environment: COVID-19 has a strong confounding effect on pre–post designs and on pragmatic real-life studies, in which the most effective health care service research takes place. Protecting rigour and understanding in which future condition the evidence produced during these extraordinary times might be applied is a real challenge.
 - *Losing precious occasions.* Establishing an international network is a unique occasion to meet each other, to grow and to create a common understanding, overcoming cultural and language barriers, which represent the main hidden or expressed attempts of several EU grants. Not being able to travel or to meet in person has influenced project management. Virtual meetings are sufficient for information transfer, but not for discussion and reflection when dealing with difficult decisions. Nothing can substitute physical contact, and losing this potential benefit of the projects might have short- and long-term impacts. However, international collaborations have been intensified as people have become more familiar with online meetings and virtual collaborations, which might facilitate the future establishment of cooperative research networks.
 - *Being profoundly distracted by other priorities.* With the outbreak, most of the energy has been used for increased workloads due to the required revisions in the project management (e.g., project extension) and, on the other side, to the work required by the multiple emerging tasks—either clinical, teaching or academic activities.
 - *Working from home.* Distractions from the main research goals have been introduced also by family and other home concerns—given that the outbreak has affected our lives and those of the network. Therefore, alongside the other priorities, also a sort of continuous alert and pressure triggered by family and other home concerns have increased the negative effect of research capacity and productivity. We have seen this in all research teams, missing group interactions and discussions. Added to the “working from home” situation is the loss of the house as a place for rest and tranquillity and its transformation to a place of work at any time, combined with the family pressures, resulting in increased stress, a lower morale and decreased productivity.
- Alongside these critical implications, *we have been living and we are still living a unique time.* The COVID-19 outbreak is a stress test for the health care sector. Its onset and persistence have rendered more easily to see what prevails in terms of effectiveness and what fails in our health care services. Therefore, doing research in this time is a unique occasion to collect data and to pragmatically measure the influences of several (dramatic) decisions, leading to “natural experiments” that would be impossible in normal times, such as doubling intensive care unit beds and providing care by students or newly graduates without any preparation.

3.2 | Possible priorities

Recently, researchers have suggested priorities in the NMR field, underlying the need to measure the implications of nursing team competences during health care emergencies, of wearing personal protective equipment and regarding ethical dilemmas implicated in the outbreak (Pereira et al., 2020). Studies regarding the increased use of telehealth, the increased demand of health care personnel and the impact of their moral and stress (Lake, 2020) have been also recommended.

Moreover, how to transform the response to a dramatic acute crisis, managed with short-term strategies, to a long-term crisis, changing attitudes, habits, routines and well-established practices, needs to be investigated. Managerial relationships inside and outside of the units have been profoundly revised, and nurse managers have been called to redesign their core functions (Lake, 2020) and to undertake unprecedented decisions. Staffing patterns have been dramatically altered by closing units, performing mandatory transitions from one unit to another, regardless of the competences, in under-equipped hospitals and nursing homes. While a sort of silent acceptance from multiple perspectives has been seen in the beginning of the outbreak, the long-term permanence of such strategies is dramatically affecting the health care sector, the nursing services and the nursing profession. In this context, the research related to human resource management seems to be on the timeline more than ever before, demanding new innovative ideas to cope with long-term crisis conditions.

Virtual technology (e.g., e-learning, online briefings) has gained increased importance, requiring adjusting to the new era both in nursing education and in management. The outbreak of the pandemic has triggered huge changes in education at a fast pace, and this area of research needs urgent investigation of the impacts of these changes on the effectiveness of e-learning on students' competences to care. Nurse academics, educators and researchers need to look on how to take advantage of the new technological solutions and the challenges in transforming approaches to teaching and learning (Williamson et al., 2021). Moreover, the forced social distancing among nurses is also at merit to be investigated in its effects on clinical supervision of novice nurses and students, during handovers and on nursing team cohesion and well-being.

Family caregivers, essential for patient support and often also crucial in providing the required care as staff extenders, have been excluded from the system for more than 1 year, and the implications on patients, nurses and the entire system should be considered.

Alongside the possible research lines priorities, research methods have been called to be at merit of innovation on how to (a) effectively incorporate the big data in our research practice; (b) apply the precision science guiding the nurse's care across variable COVID-19 patients; (c) translate the huge amount of new knowledge produced in the practice (Pickler et al., 2020); and (d) evaluate the impacts of all management decisions taken during the COVID-19 crisis on patient outcomes. Moreover, it is time to undertake large-scale studies capable of preventing duplications and to involve more participants, thus overcoming the tendency to perform singular case studies.

4 | CONCLUSIONS

The COVID-19 outbreak has been called a worldwide traumatic event, creating a unique and unprecedented change in health care systems. Nurses and nurse managers have lived and are still living through this crisis, given their omnipresence in the health care systems.

5 | IMPLICATIONS FOR NURSING MANAGEMENT

Setting NMR priorities and working together to imagine and design the post-COVID-19 era is essential. Many organisational processes will change, as well as the value of the nursing profession. Furthermore, some lessons learnt during the COVID-19 research era should not be dissipated and rendered as a new normality. In this context, nurse managers and those researchers involved in NMR are essential not only for the discipline and the profession itself, but also above for the entire health care systems and their future.

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CONFLICT OF INTEREST

All authors have no financial or other relationships to report.

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