

Research Management: the case of RN4CAST

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Abstract. Successful research management requires multifunctional, equal teamwork and efficient coordination, aiming to increase the impact of the research outcomes. Aim of this paper is to present the strategies that have been followed to successfully manage the RN4CAST study, one of the largest multi country research projects ever conducted. The paper focuses on the core research strategies rather than on the administrative management activities also required for the success of this case report. Management of a multi-country nursing survey requires the use of common data collection tools, applicable to every context, research protocols supporting the scope of the research, data models for multi-country analyses and global dissemination strategies.

Keywords. Research Management, Nursing, RN4CAST

1. Introduction

The methodological approach for the efficient management of research has been discussed many decades ago in research papers [1], [2]. Recently many authors define research management as opposed to the “research administration” which is a centralized approach to conduct a medical research [3]. This new approach requires all partners’ active participation, but also of the communities, potential interest groups, policymakers and other stakeholders [4]. The link between research strategies and successful management is very important while the achievements of a research can be proved to be the key of scientific research management [5]. General management practices applicable in research management include the need for empowering partners and equally working together beyond institutional boundaries; communicating effectively with stakeholders to create new knowledge and utilize it throughout unique practices. Successful research management does not only imply project management in financial and administrative terms but also involves the research itself.

Nowadays research involves international collaboration; therefore resource mobilization and use of proper methods of dissemination to different stakeholders are key success factors. The success is also based on the ability to mobilize multi-country and multi-disciplinary teams while knowledge management and use of essential informatics tools for health research are important. Finally the role of coordination is equally important for the efficient management of a large scale research [6].

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2. Scope

Aim of this paper is to present the strategies followed in order to successfully manage the RN4CAST study, one of the largest ever multi-country nursing workforce research projects. This case study focuses on the RN4CAST practices that have been agreed through a common consensus and collaborative work to tackle lingual, conceptual and organizational variations between the participant countries, thus developing an effective and at the same time democratic multi-country research environment.

3. Research Management in the case of RN4CAST

RN4CAST, the largest nurse workforce study in Europe will add to accuracy of forecasting models and generate new approaches to more effective management of nursing resources in Europe. RN4CAST is a consortium of 15 partners in 11 European countries. Each European partner conducted surveys from over 50,000 nurses and outcomes of tens of thousands of patients [7].

3.1. *Common Study Protocols*

Nursing job varies across European countries participating in the RN4CAST study. Despite common characteristics, there are differences in the organization of the healthcare system [8]. In order to agree on common principles regarding the research methodology in all countries, an international protocol was prepared to standardize data collection process and instruments for the cross-country analyses. Differences between the national study protocols were reported by each team, discussed by the consortium and approved by the coordinator.

3.2. *Data Sources and definitions*

An opening discussion regarding data sources identified a limitation in the case of some countries, regarding the availability and/or quality of routinely collected data. This limitation was tackled using an additional instrument to primarily collect patient data not readily available in routinely collected databases and this strategy allowed the timely inclusion in the analysis. Participating hospitals were selected through a common strategy, explicitly describing the type and size of eligible hospitals, nursing units and the type of eligible nurses. 'Nurses' have been clearly defined in all countries based on the European Union definition (directive 2005/36/EC), therefore variations in the local interpretation of what is a nurse have been overcome.

The survey instruments were based on a common template that all partners agreed to use. The instruments were translated into all primary languages using the backward-forward translation method and evaluated with the CVI instrument [9] by experts in every country, while no changes to the core template were allowed. Standard definitions of all variables were agreed, based on (i) previous knowledge (ii) well-known validated instruments and (iii) research team expertise [10]. Finally, identifiers indicating survey variables (ie International Classification of Diseases-ICD, Diagnosis Related Groups-DRGs) were decided and commonly used by most national studies.

3.3. Data Collection, Analysis and results exploitation

The strategy followed to facilitate data collection was based on the enrollment of a field manager in each hospital as key contact with national research teams. Once data was collected by all countries, there have been gathered centrally by the research coordinator to perform preliminary analyses of the raw datasets to identify out-of-range, missing values and data entry errors, producing a cleaned version. A statistical analysis model was selected to explore specific research questions within each country but also through cross-country analyses.

The strategy for the dissemination of the results is comprised by (i) yearly stakeholder meetings during the project life circle (ii) agreement upon a common strategy for publications and authorship (iii) a special issue of scientific journal dedicated to RN4CAST (iv) drafting and co-authoring a synthesis document presenting and comparing the conclusions of the data analyses across countries, with possible Europe-wide conclusions (v) an observatory book bringing together a sample of country case studies and contextual contribution of nursing in the quality of care.

4. Discussion

The case of RN4CAST indicates that the road to the successful management of a multi country large scale research crosses two different levels of challenges. Other than successful financing, mobilization, reporting etc, which mainly refer to the project management/administration, there are challenges directly addressing the content and methodology of the research itself. These challenges address the methods of the survey, data harmonization issues, data collection, multi-level data analysis strategies and finally dissemination of the results providing added value on the national surveys in EU level. The above mentioned challenges are key factors for the validity of the survey results and the scientific quality of large scale surveys.

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