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EDITORIAL

Continuity projects: a possibility for the implementation of technological solutions

Projetos de continuidade: uma possibilidade para a implementação de soluções tecnológicas

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As an emerging field of study, Implementation Science (IS) draws our attention to the importance of, after outlining and evaluating the best evidence on a research problem, advancing towards testing, applying and assessing the findings, in order to verify the repercussions of what has been generated and thus contribute to the global health practice[1].

One of the challenges of IS concerns the existence of a range of information that remains static in virtual databases, which does not ensure successful implementations on its own, with the need for continuity projects to compile, test, evaluate and apply such information, "in an attempt to reduce the "*know-do gap*" observed between the literature and the real world"[1;7].

Considering these introductory remarks, it is worth reflecting on the need to think about continuity projects, particularly with regard to methodological research (MR), considering the increasing number of these studies in Brazilian Nursing. Such studies point to technological solutions that have been produced, validated or evaluated, although not necessarily implemented in the practice.

In publications related to Nursing, MR emerged in 2006 and has been gaining significant prominence since 2015[2]. MR involves the production, validation, evaluation and application of instruments and products for different purposes, and not only means and methods for science itself[3]. It is based on this understanding that MR has been used to develop technological solutions for practice-related problems.

It is in this context that continuity projects emerge as a possibility for the implementation of the technological solutions developed, in view of the "multiphase" characteristic of MR, that is, the solutions produced (first phase of MR) need to be validated and evaluated (second phase of MR) to be applied (third phase of MR), and thus favor implementation in the practice.

The "multiphase" characteristic of MR requires rigor and quality in each phase, which demands time and resources, where most of the times it is not feasible to carry out all the phases in a single project (be it a scientific initiation, undergraduate, residency, or graduate project). The increase in the number of continuity projects is justified by the complexity inherent to each of the phases, which are described below.

Production studies (first phase) can be based on the following: evidence from the literature, which requires the development of literature reviews; evidence from reality, which requires primary studies, either for situational diagnosis or participatory development[3]. Validation and evaluation studies (second phase) focus on multiple aspects: content, appearance, semantics, usability, applicability, play-

fulness and interactivity, among other attributes. Such studies make different combinations between validation and evaluation modalities, which will require planning and development of these phases, either concomitantly or sequentially. Application studies (third phase) can be based on experimental, quasi-experimental and qualitative designs, which demand, once again, time and resources[3]. In a single study, based on the schedule and feasibility of the proposal, it is not possible to carry out all the necessary phases for the implementation of a technological solution in the practice.

In this sense, by adopting continuity projects, a technological solution produced in one study will be validated and/or evaluated based on multiple attributes in later studies, and applied and/or tested in the practice in subsequent studies. In other words, more than one study will be conducted, and more than one researcher may be involved for the technological solution to reach satisfactory adequacy to be registered and made available for its implementation in the practice.

Adoption of continuity projects in the scope of MR requires reflection on new research possibilities, as is the case in Implementation Science, which is supported by the hierarchical position that the results of the research studies (clinical trials, whether randomized or not) are applied to a given target audience/population, being adaptable depending on the context to which they apply. It is added that it is necessary for the product/innovation to attain fidelity, effectiveness and satisfaction; otherwise, it will not be useful[4,5].

Continuity projects in the scope of MR, which have been developed in the research group called Educational Practices in Health and Care in the Amazon (*Práticas Educativas em Saúde e Cuidado na Amazônia*, PESCA-UEPA), start with the production of technologies/products (first version or prototype) in the scientific initiation projects and course completion papers and, in sequence, these technologies/products are validated or applied in other residency, specialization or master's degree completion studies, either by the initial author or not.

Authorship authorization for continuing the project can be done via email, and the primary project will be clearly cited in the next project, and so forth. Both in registration and in future publications, authorship of all involved will be guaranteed.

A major challenge in the professional master's and PhD programs is to meet the demand of master's or PhD students who bring research projects that are developed from the practical reality in which they are inserted, which requires specific technological solutions and, at the same time, continuing the process for developing the technologies/products that other master's or PhD students have produced.

This articulation can be implemented in the research group where they will be inserted since, from discussion of the project elaborated and presentation of the productions already made, it will be possible to glimpse viability of a continuity project. Another possibility for a continuity project arises when the master's student completes a phase or two and continues on to the PhD with the proposal of carrying out the next phases necessary for the technological solution to be implemented.

It is to be recalled that this discussion is not new in Nursing. It is possible to find references back in the 1990s[6;7] already reflecting on the importance of applying research results in the practice.

Returning to issues raised by IS, in this context it is recommended to conduct hybrid research studies, in which a research result or its effectiveness is tested, as well as how diverse information is surveyed about delivery of the result to the target audience and the effectiveness of the result[5]. Such recommendations converge with the third phase of MR, and may be used in the application of technological solutions.

In the IS framework, the REAIM theoretical model is pointed out, where the R stands for *reach*, the E for *effectiveness*, herein also understood as efficacy, the A for *adoption*, herein also understood as adaptation, the I for *implementation*, and the M for *maintenance*, herein understood as implementation maintenance[5]. There are other models, but the important thing is to adopt any of them with a view to carrying out MR studies (third phase) articulated to the IS frameworks.

Finally, we consider that more application research studies (the third phase of MR) are urgently needed, which may require continuity projects, given the complexity of the previous phases, which require "time" and "investment" on the part of the researcher. Not always all the necessary phases to achieve implementation of the technological solution will fit in the schedule of one year (time for a scientific initiation or an undergraduate course conclusion paper) or of two years (time for completion of a residency and master's degree).

It is in this perspective that the importance of continuity projects is reinforced, so that the technological solutions reach the different scenarios in which the Nursing professionals' work process takes place and, thus, also reach their target audience.

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