THE USE OF A METHODOLOGICAL FRAMEWORK IN THE IMPLEMENTATION OF EVIDENCE AS PART OF NURSING RESEARCH

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ABSTRACT

Objective: to reflect on the potentials of the conceptual framework *Promoting Action on Research Implementation in Health Services* (PARIHS) to translate knowledge and implement evidences in health and nursing.

Method: this reflection was based on the methodological framework proposed, its use in the international context of health and nursing research and the possibilities in the Brazilian context.

Results: methodological frameworks like the conceptual framework PARIHS, developed in the nursing context, have been widely used to translate knowledge into the practice of health services. The panorama of PARIHS's contribution as a methodological framework evidences that it has been used in health research, mainly in nursing, in different places around the world. It is applied to the implementation of research, the development of educational interventions, the analysis of places where studies are developed, the analysis of research data, or even to the organization of research.

Conclusion: possibilities are presented for the use of the conceptual framework PARIHS in Brazilian health and nursing research, aiming to minimize the gap between the production and consumption of knowledge, involving the stakeholders to facilitate the use of research results and guarantee changes in practice and public policies.

DESCRIPTORS: Evidence-based practice. Nursing. Knowledge management for health research. Nursing research. Information dissemination. Methods. Health research.

A UTILIZAÇÃO DE UM REFERENCIAL METODOLÓGICO NA IMPLEMENTAÇÃO DE EVIDÊNCIAS COMO PARTE DA INVESTIGAÇÃO EM ENFERMAGEM

RESUMO

Objetivo: refletir a respeito das potencialidades do quadro conceitual *Promoting Action on Research Implementation in Health Services* (PARIHS) para a tradução do conhecimento e na implementação de evidências em saúde e enfermagem.

Método: esta reflexão tem como base o referencial metodológico proposto, sua utilização no contexto internacional da pesquisa em saúde e enfermagem, e as possibilidades no contexto brasileiro.

Resultados: referenciais metodológicos como o quadro de conceitual *Promoting Action on Research Implementation in Health Services*, desenvolvido no âmbito da enfermagem, vêm sendo utilizados amplamente para tradução do conhecimento para a prática dos serviços de saúde. O panorama da contribuição do referido referencial metodológico evidencia que vem sendo utilizado nas investigações em saúde, principalmente em enfermagem, em diversos lugares do mundo, com aplicação na implementação de pesquisa, para realização de intervenção educativa, na análise do local de desenvolvimento estudo, análise de dados obtidos em investigação, ou até mesmo, para organização de pesquisas.

Conclusão: esta reflexão apresenta possibilidades de utilização do quadro conceitual *Promoting Action on Research Implementation in Health Services* nas investigações em saúde e enfermagem no Brasil, para, deste modo, minimizar a lacuna entre a produção e consumo do conhecimento envolvendo as pessoas interessadas para facilitar a utilização dos resultados da investigação e assegurar mudanças nas práticas e nas políticas públicas.

DESCRITORES: Prática clínica baseada em evidências. Enfermagem. Gestão do conhecimento para a pesquisa em saúde. Pesquisa em enfermagem. Disseminação de informação. Métodos. Pesquisa em saúde.

LA UTILIZACIÓN DE UN REFERENCIAL METODOLÓGICO EN LA IMPLEMENTACIÓN DE EVIDENCIAS COMO PARTE DE LA INVESTIGACIÓN EN ENFERMERÍA

RESUMEN

Objetivo: reflexionar acerca de las potencialidades del marco conceptual *Promoting Action on Research Implementation in Health Services* (PARIHS) para la traducción del conocimiento y en la implementación de evidencias en salud y enfermería.

Método: esta reflexión tiene como base el referencial metodológico propuesto, su utilización en el contexto internacional de la investigación en salud y enfermería, y las posibilidades en el contexto brasileño.

Resultados: referencias metodológicas como el marco de concepción *Promoting Action on Research Implementation in Health Services,* desarrollado en el ámbito de la enfermería, vienen siendo utilizados ampliamente para la traducción del conocimiento para la práctica de los servicios de salud. El panorama de la contribución del PARIHS como referencial metodológico evidencia que viene siendo utilizado en las investigaciones en salud, principalmente en enfermería, en diversos lugares del mundo, con aplicación en la implementación de investigación, para realización de intervención educativa, en el análisis del local de desarrollo estudio, análisis de datos obtenidos en investigación, o incluso, para la organización de investigaciones.

Conclusión: esta reflexión presenta posibilidades de utilización del marco conceptual *Promoting Action on Research Implementation in Health Services* en las investigaciones en salud y enfermería en Brasil, para así minimizar la brecha entre la producción y el consumo del conocimiento involucrando a las personas interesadas para facilitar la integración la utilización de los resultados de la investigación y asegurar cambios en las prácticas y en las políticas públicas.

DESCRIPTORES: Práctica clínica basada en evidencias. Enfermería. Gestión del conocimiento para la investigación en salud. Investigación en enfermería. Diseminación de información. Métodos. Investigación en salud.

INTRODUCTION

The implementation of scientific evidence in clinical practice has been advocated for the promotion of safety and quality in health care. This process involves the actions of several actors to facilitate the use of knowledge and changes in policies and practices. Several methodological frameworks have been developed to promote the translation of relevant knowledge and the dissemination and use of research results. In Brazil, this subject is still relatively new, little known and barely discussed.

Evidence-based practice (EBP) is a coherent, safe and organized way of establishing professional practices that, as a rule, should be the most appropriate for better care and optimal available resources to support decision making.[1-3] In this context, global initiatives are increasing, with strategies to translate scientific evidence into professional practice.[4] Additionally, in health management, the Lean (Toyota Quality System) has been adapted as a scientific evidence perspective.[5]

The translation of knowledge should be a dynamic and interactive process that includes the synthesis, dissemination, exchange and ethically rigorous application of knowledge to improve health and to provide more effective and economical health products and services to strengthen the health system.[6]

The possibility should be taken into account, however, that methodological frameworks represent the complexity of implementation as closely as possible, are useful to explain the variability in the success of implementation projects, and also guide the professionals in charge of implementing the research into practice.[7-8]

The need to make research results accessible to potential users is recognized, but barriers are found such as professionals' lack of time, abundance of new information, lack of familiarity with the translation of knowledge and improper identification of the research problem as, often, the results do not contribute to the practice, with little or no participation of the professional stakeholders (research users).[9-10]

The use of Promoting Action on Research Implementation in Health Services (PARIHS) as a knowledge translation strategy has important potential to promote education, training and learning, besides expanding the research and education network, with new techniques and partnerships, and broad dissemination of results.

In order to meet the need for practitioners' better support for EBP, organizations and government institutions have been summoned to provide the necessary conditions to promote EBP. From educational institutions, the teaching-learning process should be based on knowledge of the best scientific evidence, so that future professionals are able to use this knowledge in clinical practice.[3]

At the same time, research policies have advocated the active participation of professionals working in clinical practice and direct care provision, either in an integrated way or at the end of the research project, as part of the scientific research process. In countries like Canada, funding institutions require research proposals to have a knowledge

translation activity plan.[6] Similarly, in the area of health services, clinical activities and their impact on users should be studied more systematically to provide the evidence needed to improve the quality of these services.

In Brazil, the production of scientific knowledge in health and nursing has grown exponentially in recent years, in response to the various current demands of professional practice, but the corresponding investment in the transfer and incorporation of this knowledge from research in the field of practice has not been observed yet.[9] This problem has been recognized all over the world. Thus, much of the results of health and nursing research are not effectively integrated in practice, generating a deficit in the implementation of evidence-based practice.

In this paper the conceptual framework PARIHS, which has been widely used to translate knowledge into the practice of health services is presented. Its premise is that the contemporary models used to put research in practice are inadequate and too simplistic. In this context, there is an emerging debate about the use of theory and development of knowledge translation as, most of the times, positivist interpretations that favor deterministic explanations do not imply in changes for the health work process.

The objective is to reflect on the potential of the PARIHS conceptual framework for the translation of knowledge and the implementation of evidences in health and nursing.

PROMOTING ACTION ON RESEARCH IMPLEMENTATION IN HEALTH SERVICES (PARIHS)

A search was undertaken in Medline and LILACS databases. Articles published in journals in the last five years (2012 to March 2017) were found, which used PARHIS as a research method. Of the 16 articles published in full, none reported on an experience in Brazil. Considering the use of this conceptual framework as a methodological reference for the implementation of evidence in practice, there is an important gap in the investigations, demanding its wide dissemination so that it can contribute to the production and dissemination of knowledge in health and nursing.

PARIHS has been widely used to translate knowledge into practice in health services. It was developed in the 1990s by a group of researchers and implementation consultants in the nursing area of the Royal College of Nursing Institute in the United Kingdom.[11] It conceives three key elements, which interact and influence the success in the implementation of evidence-based practices: evidence (E), context (C), and facilitation (F).[7-8,11]

The evidence includes four components, corresponding to different sources: research evidence from published sources or participation in formal experiences; evidence from clinical experience or professional knowledge; evidence from patient preference or based on patient experiences, including caregivers and family; and routine information derived from the local practical context, which differs from professional experience insofar as it is the domain of the collective instead of the individual environment.[8-12]

The Context is composed of three components: 1) organizational culture, 2) leadership and 3) evaluation. Culture refers to the values, beliefs and attitudes shared by members of the organization, and can arise at the macro-organizational level as well as among sub-units within the organization. Leadership includes elements of teamwork, control, decision making, the effectiveness of organizational structures and issues related to empowerment. The assessment relates to how the organization measures its performance and how (or if) feedback is provided to people within the organization, as well as the quality of measurement and feedback.[8-12]

Facilitation is defined as a "technique in which one person makes things easier for others", and is achieved through "support to help people change their attitudes, habits, skills, ways of thinking and working".[7] Facilitation is a human activity, enacted through functions. Its goal is to help individuals and teams understand what they need to change and how to do it. This role can encompass a range of conventional activities and interventions, such as education and feedback. Facilitation emphasizes empowerment (as opposed to doing for others) through critical reflection, empathy and advice. Each element can be evaluated to see if its status is weak or strong and therefore can exert positive or negative influence on the implementation. For facilitation, the focus is on the classification of "adequacy".[13]

Considering that a successful implementation is related to the setting and context of the service and to the process of introducing new evidence, an understanding of how health professionals incorporate evidence into their practices is extremely important, as the context of these professionals varies. Thus, evidence should be adapted to this new context, because each place will present different circumstances to put evidence into practice.

THE USE OF THE PARIHS FRAMEWORK IN HEALTH AND NURSING RESEARCH AND IN THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICE

Although the conceptual framework PARIHS has been developed in the context of nursing, a series of researchers have used it internationally as an integral part of their investigations, thus ensuring the implementation of their findings in practice.

The conceptual framework can be used to diagnose critical elements related to the implementation of an evidence-based practice and then implement a strategy to permit a successful and sustained change.[14] To this end, it was used to analyze whether the Swedish mental health guidelines were being implemented in clinical practice and whether the managers perceived these guidelines in their cultural context. The results showed great resistance to change, a lack of clarity on roles and of clear directions for professionals. Their analyses provide the description of an organizational culture that is highly unlikely to facilitate the implementation of guidelines, along with a mistrust of on the source of those guidelines. Thus, they have realized that the guidelines probably are not or will not be used or implemented if those responsible for their implementation do not trust the source.[15]

The PARIHS framework has also been applied in the implementation of clinical practice guidelines. In New Zealand, it was used to apply a guideline to reduce the risk of cardiovascular disease and disease burden in primary care.[16] The model was considered broad and integrating the complexity of daily practice, optimizing the trainers and minimizing barriers to the implementation of a guideline.

The model proved to be useful in reviewing evidence-based clinical practice guidelines related to preservation of the upper limb in people with spinal cord injury in 2005. Through the conceptual framework, the publications of a consortium for spinal cord medicine made it possible to identify recommendations, barriers and facilitators for the implementation of these guidelines.[17]

In the care for this population, a study used the PARIHS to analyze the association between the perception of evidence and the adoption of strategies to prevent infection by H1N1 flu among health workers who provided care to people with spinal cord injury. The results showed that health professionals did not consistently follow infection control practice guidelines and that this may be associated with their perceptions on the sources of evidence,

as compliance was greater when the evidence was related to clinical specialists.[18-19]

In the context of primary health care in the United States, the framework was used to assess the importance of evidence, context and facilitation in the use of the HIV test. The analysis, in light of the conceptual framework, highlighted that evidence barriers included the service's perceptions of evidence for routine testing as irrelevant to its population. Contextual barriers, then, included professionals' burden, insufficient resources, costly consent, stigma, professional discomfort and concerns about the possibility of HIV positive testing. Based on this study, it was concluded that interventions to implement evidence-based practices, such as HIV testing, can use proven quality improvement techniques. Nevertheless, it is essential to address the perceptions of practitioners and to consider aspects of the local context in order to fully implement new routine clinical practices, such as the HIV test.[20]

PARIHS-based diagnostic analysis additionally engages stakeholders in critical self-reflection on aspects of the implementation and the related nature of the change needed.[14] Based on the assumption that nurses provide evidence-based care focused on the person, as they use their professional knowledge or clinical experience to consider research data, local data and information, experience and patient preference to provide such care, the framework was used in the analysis of case studies involving nurses in the prevention of falls. The use of the framework in practice helped to evaluate the reason for the fall and to provide measures to prevent falls from occurring.[21]

The conceptual framework has been used in the context of care for the elderly in health and nursing. In Australia, PARIHS was fundamental in developing a collaborative care model in a general medical nursing ward to enhance the quality and efficiency of health care for elderly patients. The use of the framework helped the facilitation team to understand the context, which included unclear responsibilities, workload and risk aversion. Thus, the team was able to recognize barriers and develop solutions to implement the evidence, which ended up with positive results, reducing the time spent in the ward by three days.[22]

In an educational intervention at a nursing home for demented elderly in Norway, it was examined how the leadership component influences the facilitation of change in a nursing team and how the leadership style strengthens these processes. Acknowledged as a success factor in the implemen-

tation of evidence-based practice (EBP) in services, collaborative and shared leadership presented the most positive results in the implementation of EBP.[23] In an environmental analysis, the model showed a culture profile of nursing teams marked by mutual support and task-focused, while at the same time lacking team resources and shared decision-making, suggesting feedback for practice improvement.[24]

The framework was used in the implementation of a pilot project for a clinical decision support system, aiming to understand the contextual factors and the readiness for the newly acquired system, evaluating its influence on the diagnostic accuracy provided by the nurse in an environment of community health, so that the experience could be leveraged and the strategy projected to disseminate the system across the practice.[25]

In a research in Turkey, the effect of evidence-based nursing management practices on levels of satisfaction in nurses' work and organizational commitment was analyzed. PARIHS was used as a guide for the implementation of the research in the structure of the health service.[26]

In another study, developed in Canada, the role of the organizational context and the nurse's characteristics was investigated in the use of mobile personal digital assistants and tablets to access evidence-based information. The PARIHS model was used to study the impact of providing nurses with evidence-based digital assistants, based on evidence from resource practice and to understand the organizational, technological, and human resource variables that affect nurses' usage patterns.[27]

CONCLUSION

The presented scenario reveals that the PARIHS framework has been used in health research, mainly in nursing, in several places of the world, and that its use has exerted positive impact, whether for the implementation of a research, the execution of an educational intervention, the analysis of the place of study the obtained data, or even for the organization of research, considering its three elements, which are the evidence, the context and facilitation. When implementing an intervention in a health unit, this model allows the "implementers" to be more rigorous in transmitting the evidence, guaranteeing a greater probability of success for the intervention.

A reflexive analysis of the three elements that constitute the framework leads to the perception that, in addition to what has already been described

in the framework, there is a need to consider the broader external context (social, political, cultural and economic) in which research or its implementation occurs, and that facilitation is carried out through a network of experienced facilitators who apply improvement strategies to structure the implementation process. Evidence should be considered in its four forms (research of published sources, evidence from clinical experience, evidence based on patient experiences, and routine information deriving from the local practical context), without valuing only one of its forms to the detriment of others.

In this respect, it should be stressed that the conceptual framework was one of the first to make explicit the multidimensional approach and the complex nature of the implementation of an investigation. The framework has been widely applied, tested, reviewed and refined, so its use is recommended as an integral part of nursing research and teaching, as that is the only way to further improve the picture. This approach may also contribute to a culture of clinical governance and quality in the units that use it.

In view of the above, it is considered essential that health and nursing research adopts an approach that includes researchers and knowledge users as necessary to fill the gap between research and practice, designing the translation of knowledge and the implementation of evidence in nursing as an important step in research to be able to overcome this barrier.

As a result of this reflection, it is concluded that further studies on this subject are needed, in order to explore, get to know and adapt theoretical models of knowledge translation to the Brazilian context and to improve the use of research results. In addition, the possible use of the PARIHS conceptual framework in health and nursing research needs to be verified in Brazil, thus minimizing the gap between knowledge production and consumption, involving the stakeholders to facilitate the use of research results and ensure changes in practices and public policies.

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