

Knowledge translation as a tool in the care of non-communicable chronic diseases

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Abstract

Introduction: Knowledge Translation (TK) is characterized as a participatory and dynamic process that strengthens health systems and improves the health quality of the population. **Objective:** The objective of this study is to evaluate education about Knowledge Translation from the perspective of primary care professionals, with a focus on caring for individuals with non-communicable chronic diseases (NCDs). **Method:** This pilot study is observational, descriptive, and cross-sectional, using a quantitative approach. The study obtained approval from the Ethics Committee of FACISA/UFRN, with a favorable opinion number 5.163.097, CAAE 49017721.7.0000.5568. Ethical precepts were respected. Data collection was conducted using a semi-structured questionnaire, and the collected data were analyzed using the public domain software R. **Results:** The study involved 20 health professionals working in primary care in Santa Cruz-RN. The majority of participants were female (55%), and 40% reported being aware of KT. It was observed that 92% of professionals stated that they did not receive management support to participate in KT training, and 90% did not receive support for NCD-focused training. **Conclusion:** The findings of this study will contribute to the dissemination of new data and knowledge about KT for users with NCDs under primary healthcare, enabling improvements in the care provided.

Keywords: translated knowledge; health promotion; chronic disease

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Introduction

Knowledge Translation (KT) is characterized as the result of a participatory and dynamic process that involves the synthesis, exchange, and application of new knowledge by individuals with the aim of accelerating the benefits of global and local innovation, thereby strengthening health systems and improving the health quality of the population. In this sense, KT is present at different levels of healthcare, influencing how scientific evidence is used for decision-making and essentially offering the benefits that produced knowledge provides, while also favoring the elimination and/or replacement of proven ineffective actions^{1,2,3}.

The term "knowledge translation" has been used to describe the process used to apply research results in real-world settings. It encompasses all phases related to the creation of new knowledge and its application in producing beneficial outcomes for society, including dissemination, communication, technology transfer, ethical context, management, utilization, exchange of information between researchers and knowledge users, implementation research, technology evaluation, synthesis involving results within a global context, and the development of guidelines⁴.

Other circumstances can be considered, including understanding the needs presented by the user, which can be influenced by how knowledge translation occurs and how it is translated in order to promote changes in practice. However, efforts are needed to ensure that the synthesis of knowledge occurs attractively, dynamically, and accessibly in different contexts and situations. It is important to note that KT does not happen spontaneously, but its application promotes equity and excellence in care, minimizing the gap between knowledge and practice¹.

Historically, it takes many years for the implementation of new knowledge to occur, hindering innovation in the delivery of healthcare services, resulting in inefficiencies in healthcare systems and impacting the population's quality of life. Failures during the transmission process, combined with a lack of knowledge translation, contribute to the emergence of failures in health-related processes, particularly in Health Promotion. This leads to increased financial and human resource costs and the emergence of negative outcomes⁵.

However, to better define this study, knowledge translation focusing on Non-communicable Chronic Diseases (NCDs) was selected, considering that these diseases represent major health problems in Brazil and worldwide. According to the World Health Organization (WHO), a small set of risk factors is responsible for the majority of deaths from NCDs. The high number of NCD-related deaths in Brazil is a result of demographic transition, accelerated aging due to decreased fertility/natality, mortality across all age groups, and primarily affecting populations with medium and low incomes. Some factors that contribute to the development of NCDs include smoking, inadequate dietary consumption, physical inactivity, and excessive alcohol consumption^{6,7}.

Given the global burden of NCDs, it is essential to adopt health education-focused actions that disseminate information about these diseases to the population, aiming to reduce incidence and prevalence rates and, above all, to reduce the burdens caused by these diseases. This process involves the exchange of knowledge, information, and opinions between healthcare professionals and individuals, enabling individuals to understand the need for necessary changes in order to ensure a better quality of life⁸.



Through health promotion actions combined with health education practices, individuals can adopt new knowledge and healthy habits individually or collectively. Therefore, it is necessary to prioritize the promotion of information and motivation so that individuals can take responsibility for their actions and become proactive based on their autonomy. Building strong relationships between professionals and users allows for the development and reconstruction of new strategies and experiences when needed⁹.

Multidisciplinary teams have competencies and play an important role in Primary Health Care (PHC) through actions carried out in the Family Health Strategy, including conducting situational health diagnoses for users as well as the development, construction, and implementation of strategies based on the local reality¹⁰.

In light of the above, the objective of this research is to evaluate knowledge about KT from the perspective of primary care professionals focused on the care of individuals with non-communicable chronic diseases through a pilot study.

Materials and Methods

The present research is characterized as a pilot study, observational, descriptive, and cross-sectional, with a quantitative approach. The sample determination was non-probabilistic with random sampling and consisted of 24 higher-level healthcare professionals working in primary care in the seven basic health units in Santa Cruz-RN. The study included 20 healthcare professionals with higher education who were currently working in primary care and involved in the care of individuals with non-communicable chronic diseases (NCDs). Four professionals who did not complete the questionnaire were excluded from the study.

Data collection was conducted through a semi-structured questionnaire developed by the researchers, comprising 28 questions addressing sociodemographic data (gender, age, marital status, education level, income) and knowledge about KT. The questionnaire was administered in person and remotely using Google Forms, which was sent to the participants via email or the WhatsApp application provided by the Municipal Health Department (SMS) of Santa Cruz-RN. A pre-test of the questionnaire was conducted with three healthcare professionals working in primary health care, having a profile similar to the study participants, to assess the structure, adequacy, and clarity of the questionnaire, as well as to identify any issues or questions that needed modification if deemed necessary. These interviews were not included in the data analysis.

It is important to note that the study was submitted to the Plataforma Brasil with registration under CAAE number 49017721.7.0000.5568 and was sent for review and approval by the Research Ethics Committee of the Faculty of Health Sciences of Trairi (FACISA)/Federal University of Rio Grande do Norte (UFRN), obtaining a favorable opinion (Number 5.163.097). The entire process of the study followed the ethical guidelines outlined in the National Health Council's Resolution 466/12, which addresses research involving human subjects.

After data collection, Microsoft Excel™ version 16 was used for data entry and quality control, and the publicly available software R was used for descriptive data analysis.

Results

Out of the 20 study participants, a higher percentage of females was identified, accounting for 55%, followed by males with 40%. 5% of the participants chose not to disclose their gender. The

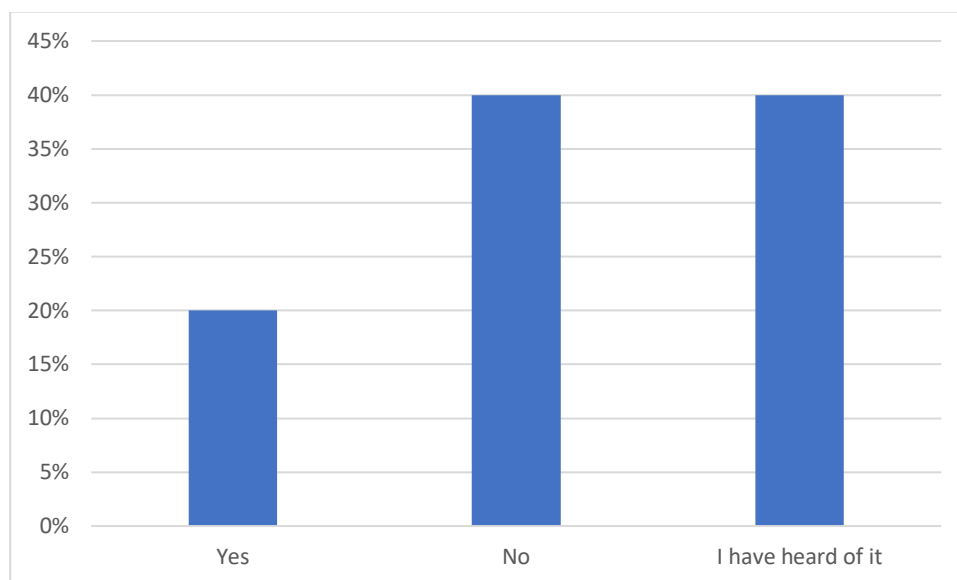


average age of the participants was 32.2 years (standard deviation of 9.47). The majority self-identified as White (50%), with an average income ranging from 3 to 5 minimum wages (45%), and held postgraduate degrees (55%). In terms of professional background, the majority of participants were dentists (40%), followed by physicians (30%), nurses (10%), and pharmacists (5%), with a primary healthcare (PHC) work experience ranging from 2 to 5 years (30%).

Graph 1 displays the data regarding Knowledge Translation (KT), revealing that

40% of the participants possessed knowledge in KT, 40% had heard about KT, and only 20% claimed to have no knowledge about the topic. Table 1 presents data on the support provided by management for professionals to participate in KT-related training, indicating that 92% of the professionals reported not receiving any support from management, and 90% did not receive support for training focused on NCDs. Regarding financial resources, 90% stated that the allocated resources were insufficient for the development of actions in the field.

Graph 01: Descriptive analysis of the sample according to the perception of healthcare professionals regarding knowledge translation. Santa Cruz, RN.



Source: Reserch data, 2022.

Table 1: Presentation of descriptive variables regarding financial support and training incentives for healthcare professionals in NCDs and KT, Santa Cruz, RN.

Management's training incentives	Sample number	(%)
NCDs	Yes 2	10%
	No 18	90%
KT	Yes 1	0,8%
	No 19	92 %
Sufficient financial support for the development of actions	Yes 2	10%
	No 18	90%

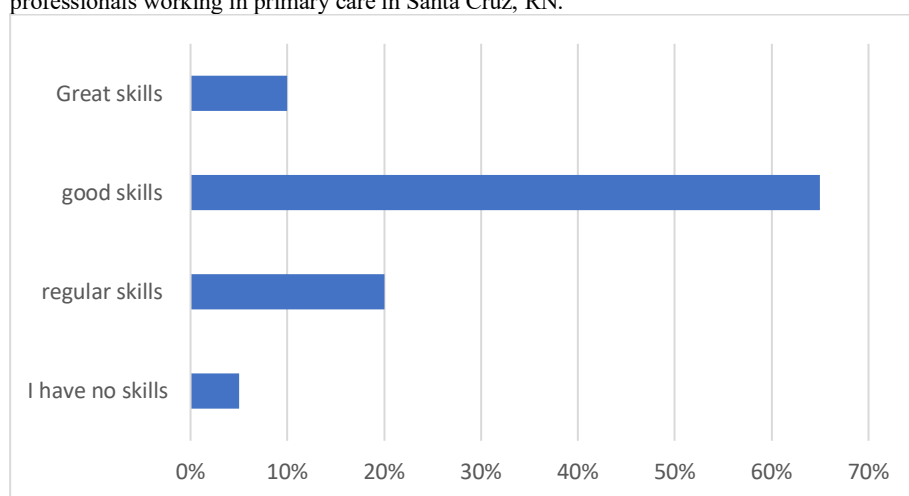
Source: Research data, 2022.



Graph 2 presents data on the self-reported level of oral communication skills among professionals when conveying information to users with NCDs. The majority of participants (65%) reported having great oral communication skills, while 30% indicated their skills as good or moderate. Table 2 provides results on the primary means of transmitting information used by professionals when conveying knowledge

to users with NCDs, with lectures/classes being the most utilized method (30%), followed by home visits (25%), group discussions (20%), and social media (5%). When asked if they read scientific articles addressing NCDs, 90% affirmed that they do read and share them with users with NCDs, although only 10% have published articles in the field.

Graph 2: Descriptive analysis based on the average related to the self-reported level of oral communication skills by healthcare professionals working in primary care in Santa Cruz, RN.



Source: Research data, 2022.

Table 2: Presentation of descriptive variables related to the means used in the transmission of knowledge to users and the reading and publication of articles in the field of NCDs, Santa Cruz, RN.

Means used for transmitting information to users	Sample number	(%)
Lecture/Class	6	30%
Home visits	5	25%
Conversation circles	4	20%
Poster at the facility	2	20%
Social media	1	0,5%
Radio	0	0%
Sound Car	0	0%
Distribution of pamphlets	0	0%
Reads scientific articles with a focus on NCDs	Yes 18	90%
	No 2	10 %
Shares information obtained from scientific articles with users	Yes 18	10%
	No 2	90%

Source: Research data, 2022.

Discussion

Based on the analyzed data, it can be observed that some professionals

reported having knowledge about KT. KT is gaining space and presenting itself as a relevant tool to assist in strengthening

practices in healthcare services. It focuses on sharing information supported by scientific evidence, especially in communities that lack access to efficient healthcare materials and/or services. Despite the numerous challenges that KT faces along its path, it is a resource that promotes the achievement of positive outcomes, particularly in the current context where the prevalence and incidence of NCDs have revealed that health strategies have not allowed a significant portion of the population to access knowledge about the emergence and contributing factors of these conditions⁶.

It is worth noting that KT enables improvements in healthcare services, leading to greater efficiency and strengthening of the system and the care provided to users. However, it is necessary to understand the needs expressed by the users so that changes can occur in a concrete manner. Nevertheless, during this process of obtaining and disseminating information, barriers may arise, jeopardizing the success of the care provided to users seeking these services⁵.

The data also indicated that the majority of study participants do not receive support to participate in training on KT with a focus on NCDs, and there is insufficient financial support for the development of actions in this area. Currently, investing in training and professional development is essential for progress in the work process, enhancing the effectiveness and resolution of situations and responses related to the health needs of users¹¹.

Training programs for professionals encompass various aspects, not only the accumulation of technical knowledge. They should be tailored to the realities in which professionals are immersed, contributing to the improvement of the quality of services provided in primary healthcare. These programs provide professionals with new knowledge and the ability to transmit it to their communities, which is a crucial aspect

of KT, considering the diverse audiences and the need for effective communication¹².

It is important to highlight that primary healthcare serves as the entry point for users to access health services, with a focus on primary-level care. Its structure is based on elements such as the involvement of multidisciplinary teams, establishing bonds and accountability, ensuring longitudinal and coordinated care. Regarding the care and actions directed towards users with NCDs who are followed in primary healthcare, the focus is on prevention, promotion, and rehabilitation. NCDs are characterized as a combination of pathologies caused by various causal factors that can contribute to the development of functional impairments. They represent one of the main causes of increased mortality rates in the country, influenced by socioeconomic conditions and the health conditions to which the population has been exposed in recent times¹³.

Improving the health conditions of the community, including users with NCDs, involves health promotion, understood as a process of empowering individuals, families, and communities to have control over health determinants, thus improving their quality of life and health. Health promotion allows for the articulation of interdisciplinary knowledge in both individual and collective care. Actions developed in primary healthcare facilitate community mobilization, leading to changes in organizational culture, expansion of the scope of actions, and reorganization of local health systems. Furthermore, it enables the identification of user needs and emphasizes the implementation of health promotion actions based on the identified situations^{14, 15}.

During the analysis, it was observed that although the use of information technologies is growing, only 5% of the participants in the study reported using



social media as a tool for disseminating information. It is known that the use of new information and communication technologies in the healthcare field has been implemented successfully in recent decades, employing tools such as email and social media. These technologies contribute to an increased flow of data and information, aiding professionals and managers in decision-making and facilitating the creation of new knowledge within networks and the expansion of communication channels for accessing healthcare services. The use of digital tools in healthcare positively transforms work processes within the SUS (Unified Health System), promoting knowledge exchange, learning, and acting as teaching multipliers¹⁶.

During the study, some limitations were encountered, such as voluntary participation by the participants in responding to the remote questionnaire and the absence of studies addressing KT with a focus on users with NCDs, which prevented the discussion of some findings obtained during data analysis.

Conclusion

This pilot study allowed for the evaluation of KT from the perspective of 20 primary healthcare professionals involved in the care of individuals with non-communicable chronic diseases. It was possible to verify that some professionals had knowledge about KT, but the management did not provide support or

incentives for professionals to participate in training in both KT and non-communicable chronic diseases (NCDs), nor did they allocate sufficient resources for actions in these areas.

With the increasing incidence of chronic diseases, it is important to explore and reflect on new methods and tools that can assist and minimize harm to the population. Therefore, the adoption of strategies with goals that can yield positive health outcomes for these users is necessary, but it requires investment and an understanding that such actions will prevent larger future expenses.

KT is an important tool that can effectively and beneficially support primary healthcare professionals in disseminating and translating information in a way that can be integrated and aid in making appropriate and efficient decisions, leading to positive outcomes.

However, it is worth noting that the results obtained in this study emphasize the lack of knowledge about KT as perceived by primary healthcare professionals. KT is an important tool for health education, enabling reflection on the search for and transmission of evidence-based information, bringing it closer to the reality of users. In light of this, the findings from this study will contribute to the dissemination of new data and knowledge about KT for users with NCDs receiving care in primary healthcare settings, thereby enabling improvements in the provided assistance.

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