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NURSING CONSULTATION AS A TECHNOLOGY FOR CARE IN LIGHT OF THE THOUGHTS OF BACON AND GALIMBERTI

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ABSTRACT: The aim of this study was to reflect on the use of nursing care as a primary health care technology, from a philosophical perspective. A theoretical and reflective study was conducted on nursing consultation and technology in primary health care, based on the assumptions of Bacon and Galimberti. Philosophical thinking favors broadening discussions and expanding the scope of nursing practice through a systematic and scientifically structured practice. Nursing consultation is seen as an essential element for improving the quality of care, make it more humane and focused on the person, family and community.

DESCRIPTORS: Nursing process. Philosophy, nursing. Science, technology and society.

A CONSULTA DE ENFERMAGEM COMO TECNOLOGIA DO CUIDADO À LUZ DOS PENSAMENTOS DE BACON E GALIMBERTI

RESUMO: O objetivo deste artigo foi refletir sobre o uso da consulta de enfermagem como tecnologia do cuidado na atenção primária à saúde, na perspectiva filosófica. Trata-se de um estudo teórico e reflexivo sobre a tecnologia e a consulta de enfermagem na atenção primária à saúde, baseado nos pressupostos de Bacon e Galimberti. O pensamento filosófico oportuniza a ampliação das discussões e do escopo da enfermagem, por meio de uma prática sistematizada e estruturada cientificamente. A consulta de enfermagem é vista como um elemento essencial para a melhoria da qualidade do cuidado, tornando-o mais humanizado e focalizado na pessoa, na família e na comunidade.

DESCRIPTORES: Processos de enfermagem. Filosofia em enfermagem. Ciência, tecnologia e sociedade.

CONSULTA DE ENFERMERÍA COMO TECNOLOGÍA DE ATENCIÓN A LA LUZ DE LOS PENSAMIENTOS DE BACON Y GALIMBERTI

RESUMEN: El objetivo de este artículo es reflexionar sobre el uso de La tecnología del cuidado de enfermería de Atención Primaria de Salud desde el punto de vista filosófico. Se trata de una investigación teórica y reflexiva sobre el uso de la tecnología y el proceso de enfermería/consulta de enfermería en la atención primaria de salud, basado en los presupuestos de Bacon y Galimberti. El pensamiento filosófico favorece la expansión de las discusiones y el alcance de la práctica de enfermería a través de un proceso sistemático y estructurado científicamente. La consulta de enfermería es vista como un elemento esencial para mejorar la calidad de la atención, que sea más humana y centrada en la persona, familia y comunidad.

DESCRIPTORES: Procesos de enfermería. Filosofía en enfermería. Ciencia, tecnología y sociedad.

INITIAL CONSIDERATIONS

Humanity, throughout its history, has developed and transformed its knowledge in different societies. Among the changes that have occurred, it is worth noting that among its causes and effects is the development of techno-science.¹ Nursing consequently suffers the influence of techno-science on its body of knowledge, especially regarding the use of the nursing process (NP) in its practice in primary health care (PHC), which corresponds, in these environments, to usually being termed as nursing consultation (NC), a term that will be used throughout this reflection. It is noteworthy that the technological changes produced do not only influence care, but values, knowledge, skills, as well as health care policies.²

Given the above, nurses use a variety of technologies for care and, in their practice, PHC nurses apply NC. This technology is a combination of human, scientific and empirical knowledge, which organizes our duties, in order to provide a better quality of care that is effective in the care of the individual/family/community. In addition, NC is permeated with ethical issues and by the reflexive process.³

Therefore, we can see, in nursing, that technology overcomes the technical-scientific character, since interpersonal relationships permeate the nurses' everyday duties. In this perspective, the results achieved may be subjective and abstract, which makes us reflect on NC as a technology, which also comprises the processes and methods involved in nursing.³

From then on, a gap can be found in the appropriation and reflection of the use of technology by PHC nurses. It is evident that there is a need to emphasize the use of this knowledge in this context given its importance, since PHC "is characterized by a set of health actions at an individual and collective level, which covers the promotion and protection of health, disease prevention, diagnosis, treatment, rehabilitation, harm reduction and health maintenance".^{4,19} Thus, complex and varied care technologies are used, which should assist in the management of health demands and needs with a higher frequency and relevance in the area of health, where the nurse is developing their actions.

Thus, despite NC being one of the tools of paramount importance in the nursing practice, it is still not used by Brazilian nursing in its totality as a technology for care, despite the significant quantitative research on the topic in the country.

In this context, the need to develop a reflexive text on the topic at hand and to find a theoretical and philosophical framework to underpin it, have emerged throughout the Philosophy and Epistemology of Science course of the Graduate Program in Nursing at the *Universidade Federal do Rio Grande do Norte* (UFRN). This study proposes to reflect on the reasons why, at present, Brazilian nursing does not use NC in its scope, as a technology for care. Therefore, a reflection is performed on nursing consultation as a technology for care in PHC, as well as the concept of technology in the light of Francis Bacon and Umberto Galimberti.

NURSING CONSULTATION AS A TECHNOLOGY FOR CARE

For the recognition of nursing as a science, the use of NC, considered the essence of nursing, is essential. It is the dynamics of systematic and interrelated actions in order to watch human beings, characterized by the articulation and dynamism of its phases: history of nursing, nursing diagnosis, care plan, nursing prescription, evolution and prognosis.⁵

Nursing consultation presents the scientific character of the work in this profession, as well as supports the decision-making process, predicting and evaluating the consequences of the application of NC by nurses in the health-disease process of the individual, the family and the community. Due to the relevance of the nurse's role in public health in 2009, the Brazilian Federal Nursing Council (COFEN) published Resolution No. 358/2009, which provides for the Systematization of Nursing Care (SNC) and the implementation of the NP in public or private environments, where the professional nursing care and other measures take place.⁶

The resolution emphasizes that the NP, when held in institutions providing outpatient services, in households, schools, community associations, among others, corresponds to NC. This is organized into five interrelated, interdependent and recurring stages, namely: nursing data collection or nursing history; nursing diagnosis; nursing planning; nursing implementation, and evaluation.

In this sense, it is clear that this triad will be present in NC: data collection, analysis and plan of care, which can be developed in four steps: assessment, identification of problems and/or nursing diagnosis, intervention or implementation and evolution. To do so, the nurse needs to have theoretical

and practical knowledge, as well as to develop their creativity and sensitivity in an active, systematic and continuous manner, so they can identify the quantity and quality of the nursing care necessary to help the human being to experience their health-disease process.⁷

In this perspective, the application of the NP requires the ongoing training of nurses for clinical reasoning, using tools for clinical examination as well as for nursing diagnosis. It is worth highlighting that the NP focuses on the person's reaction against the health problem, therefore searching for results from the needs of the individual, family and community, according to professional standards and the code of ethics.⁸

Therefore, it appears that nurses need both technical skills essential for the safety of know-how, and interpersonal skills so they can perform the nursing consultation in PHC. It is essential that these professionals understand and know the technologies used in the working process in health.

It is noteworthy that the term technology is derived from the Greek *téchne*, art, ability or know-how and *logos*, reason, therefore it means the reason of know-how. In ancient Greece, the term *téchne* also meant to manufacture, produce, make or construct, especially material things, through work or art, but also to cause natural phenomena, actions or events. According to Homer, the Greek author, technology can also be understood as an ability in general, the method, the manner, the way you do it.⁹

"The characteristic of technology in nursing is singular, because, when taking care of human beings, you cannot generalize conducts, but rather adapt them to different situations, in order to offer personal and suitable care to the individual".^{10:120-1}

Technologies are essential to the work of nurses, especially in NC in PHC, at the point in which dialog is established; the subjectivity of the nurse and the subject are expressed, there is a need to create and consolidate the link between both. However, the use of light, relational technology to various professionals becomes a challenge because, in health facilities, the nurse has numerous bureaucratic activities and sometimes leaves the consultation in the background, since some of them are not qualified to interact with the user through therapeutic communication or are linked to a Cartesian practice.

In short, technology is not an end, but rather a means for nurses to provide humanized care, guar-

anteeing improved quality of life for the subject. To do so, these professionals have to be committed to their practice, constantly seeking to improve their knowledge to serve in the promotion, protection and maintenance of health until rehabilitation in PHC.

TECHNOLOGY IN THE LIGHT OF FRANCIS BACON'S ASSUMPTIONS

Francis Bacon was an English philosopher, politician and essayist who was born in the sixteenth century. He lived during the reign of Elizabeth I, and witnessed and participated in the economic, social, scientific, philosophical and religious sectors, and in the combat between the new forces that had emerged and the old remaining structures. For this philosopher, the key element in the conception of knowledge is to understand it as something progressive and inseparable from the search for new ideas, marking the birth of modern science and education. The Baconian model claims that the true object of knowledge is not reduced to the machine, but to well-analyzed knowledge.¹¹

Bacon's thoughts mark the transformation of technique as know-how to technique as knowledge, involving rational principles, which are taken as genuine. It can also be seen, throughout the works of the philosopher, that knowledge, as well as its development, is rooted in collective work, since the collaboration between researchers becomes critical in both the division of labor and the exchange of information in theoretical and practical improvement.¹²

Given the above, the cooperative dimension of the Baconian notion of experience is both in the reorganization of research practices as in a continuous process and the result of different activities; from the division of labor; objectification in research; in speech and in the creation of institutions, as well as the ideal redefinition of knowledge, that is, its purpose. Therefore, this philosopher supported both teamwork and individual innovation, the concept that knowledge is collective in its production and believed that the cognitive treasure should be what we call today public domain, so that there were no private rights for inventions and discoveries.¹¹

However, discoveries and information would not be franchised to everyone, but there would be no disputes and disturbances in the search for knowledge. The advancement of knowledge should be promoted by various paths. Meanwhile, instructed experience emerges, which becomes fundamental

to the Baconian understanding and formulation of science as a technology. First, because it is more directed at the systematization of procedures that technicians performed at random; second, because the inductive method is outlined as ideal, which should be achieved gradually, and the instructed experience is practical.¹³

Bacon presents the procedures for improvement and the invention of new techniques that could turn out to be better used for technological development. Overall, the instructed experience can be summarized as directions of observations in nature and comparisons of the arts, seeking to help in how one could develop the other. These directions may be characterized in eight techniques: variation of the materials for the causes and quantities; production of the experiments, repetition and extension; translation, transferring of a natural procedure to one from the arts; inversion; compulsion, extending the procedures; application; joining the experiments, connection or application of various experiments at the same time; experiments in luck or chance.¹¹

In short, these directions are simple and formed on a prescription of research, so that, in a practical way, technical knowledge can move forward. This instrument can be used by technicians from all areas for the improvement of knowledge.

Thus, Bacon attempts to systematize his process of invention, linking it to the reform of induction, which would be based on the new science. The inductive method would come to ensure this care with the establishment of organs that would serve as obstacles against hasty conclusions and seemingly unquestionable authorities. This method addresses different steps and procedures throughout the works of Bacon. The first stage is natural and experimental history; the second consists of the organization and presentation of the material; these stages suggest what may be the form, the formalization of operations and laws, and then comes the third stage, the exclusion method to eliminate accidental correlations of the facts.¹¹

The inductive process would then develop into a "ladder of axioms", propositions that describe the successive steps by which the investigation progresses, an increasing generalization of particularities and an improvement of the statements, simultaneously with a deepening of the observations and an improvement of the experiences. Baconian induction means a confined, tormented, modified nature, through controlled human experiments,

apart from being hypothetical and self-correcting, being an open and endless process.¹³

The conception of truth, which is partially visible, and a postulated certainty, as an elimination of doubt, in the reform of knowledge proposed by Bacon, reinforces the constructive and instrumental aspect of knowledge, and this is also revealed in the defense of the experimental process for the knowledge-domain advancement. Finally, we can see his directive formulation for the creation and advancement of practical knowledge alongside the development of methodological techniques, such as induction, for the invention and discovery of new knowledge.¹²

In the new scientific ideal, the experimental procedures, inductive perspective, institutional administration and the organization of knowledge are tools that should help human beings to take care, so that the illusions and errors that prevent advancement do not resurface. Thus, there is no assurance that our psychological inclinations, vanity and haste can be overcome, so that these idols are controlled in the future.¹⁴

Bacon legitimizes the technique as a science, he was not interested in thinking about the differences between *epistème* and *téchne*, instead seeking their junction, so that both converged when reformed. For this thinker, the instruments are entrusted to help our senses, so that the methodological procedures serve to assist our judgments, public speeches, and cooperative institutions are like pathways for the progression of pragmatic and operational science. The development of the arts and the tools at this time are considered as high expectations for future advancements and in new discoveries of science becoming technology.¹¹

Throughout his work, the philosopher gives three directions to technical innovation. The first is its instrumental dimension, in which the progress of knowledge depends on technological progress. He believes, therefore, that the art of invention is strengthened by the discoveries. The second is articulated with the size of the experimental science, that is, the ability to be reproduced by others who have access to the objective description to be able to reconstruct it. The third direction is that of the purpose, in other words, the objective as a reward.¹⁵ These three directions are interrelated and can be considered as forms of the knowledge-domain of nature, advancement mechanism of power and of human knowledge. The postulation of identity

between truth and utility retains this plurality, just like the union between theory and practice would be like a marriage.¹³

Bacon has a prominent role and project to reform the knowledge on the historical relationship between science and technology, featuring one of his styles of scientific knowledge. One of the main features of this style is its interaction with technical knowledge. Although other modern philosophers address this form of scientific knowledge, the technological dimension is the central axis of the Baconian project.¹¹

Knowledge that refers to the mental capabilities of men, to Bacon, would comprise two types, namely: understanding and reason, the will, appetite and affection. Human philosophy refers to the mental capabilities of men and consists of two parts, the rational and the moral. The intellectual arts comprise invention, judgment, retention and production. Invention includes the arts and sciences, speech and arguments.¹²

In Francis Bacon's work, there is a favorable position both in reflection on the scientific work and on the systematic experimentation that the philosopher defended when associated with reflection, trying to answer the questions that are useful for the life of a human being. It can be said that he valued the mental and exploratory experiments.¹¹

Research and the discovery of truth could happen in two ways: from sensations and particular things to the most general axioms, and then the intermediate axioms are discovered from these principles and from the unwavering truth; collecting the axioms of data from the senses and particulars, rising continuously and gradually until achieving, finally, the principles of maximum generality. Bacon considered the second research option as the path of orderly experience, the true path of discovery, yet not established in his time.¹³

Thus, he advocated the elaborate experience to perform science, in other words, he sought to transform simple experiences into something systematic and organized, directing them in order to serve as an experiment in building evidence and controlling effects. In addition, he points out the importance of cropping reality to study it, since, scientific research does not deal with reality itself, nor in its entirety, advocating continuous observation without submission to restricted categories.¹¹

The fruits and inventions would be like assurances and guarantees for the truth of the phi-

losophies, provided they were destined to improve the human condition. The true goal of the sciences would be to endow human life with new inventions and resources and its purpose would be the production rather than reproduction of knowledge and ideas. Bacon's objective consisted of guiding intellect for the targeted and wise search for knowledge.¹³

Philosophy, according to this thinking, becomes a mediator between specialists in science, technology and the world of everyday life. Thus, the objective of knowledge would be the relief of aches and pains, and prolonged longevity to the point that it almost gets confused, therefore, with the task of science and the gradual resolution of needs, since the search for the advancement of knowledge should free men from the yoke of necessity. Therefore, the time released with the development of instruments should be re-invested in the progress of techniques and theories, as theorization becomes permeated by the same reasoning behind technological advances.¹³

It should be noted that the "knowledge of the one who is carrying it out" is important on technical grounds as a science for Bacon, expressing a critique of theoretical knowledge that ignores the practical and does not result in works as regards defending the practice, since it comprises its purpose and the function of the mechanisms, related to identity, and the convertibility of knowing with doing, between truth and utility, between science and power, theory and practice.¹¹

Given the above, the Baconian model applies to the sciences in general. In medicine, advances were numerous in the knowledge revolution; however, in nursing, much of the knowledge required was acquired in an empirical reality, as a way to construct a theory would be to observe what nurses do, invite them to reflect on their practice and, then, define the nature of nursing, starting from the empirical base of information.¹⁴

From this perspective, the evolution of nursing knowledge is characterized by phases that evolved from technical procedures, as well as the pursuit of scientific principles that they are based on; from the use of the scientific method as a framework for nursing care, to attempt to formulate theories that would provide a benchmark for such care. From the 1960s on, Horta's work stood out, which uses scientific method as an organizing framework for nursing care, called the nursing process.¹⁴

Hence, it evidences the relevance of Bacon's contributions to nursing, despite the gaps in his

method. One can make a relationship between the stages of the nursing process and the scientific method, which corresponds to initial patient assessment and nursing diagnosis. Therefore, this relationship allows for a comparison between the characteristics and singularities of each phase between them.

This care technology should be used in nursing actions, especially in PHC, because nurses need to use a body of knowledge to develop their practices in different lines of care in public health, and it is essential that these professionals think critically over their work process, since their actions have an intellectual, interpersonal and technical nature.

For this knowledge to become able to justify nursing care, it should be built at the intersection between philosophy, which responds to men's great existential question, science and technology, having formal logic as responsible for the normative correction, and ethics, in other words, an epistemological approach effectively committed to human emancipation.¹⁶

TECHNOLOGY IN THE LIGHT OF THE GALIMBERTI'S THOUGHTS

Umberto Galimberti is an Italian phenomenologist philosopher from the twentieth century, who investigates the existing relationship between men and the technical society. He maintains that, under current conditions, men are no longer the center of the universe as they were in the humanist era, and that the fundamental concepts of philosophy be reconsidered in the light of the current technological society. This intellectual centered his speech on technique considered as the first purpose, because we address it before any other action. In addition, it permeates human existence, our way of working, of caring and being cared for. In this context, it is clear that the technique is inherent in the relationship, and, consequently, in the actions, also permeating the environment that is around us and that forms us, according to the rules of rationality (bureaucracy, efficiency, organization), which do not hesitate to subordinate the human being to the specific needs of the technical apparatus.¹⁷

Given the above, it appears that there was a reversal in the relationship between men and technology, therefore, we still behave like pre-technological man, who acted with goals included in a horizon of meaning, with a wealth of ideas and a set of feelings that recognized the nature to be subjugated.¹⁸ Technique establishes, throughout history, the way we

act, do, inserting standards, routines, goals for our actions. In this light, it represents empirical truth or, more specifically, the determined implementation of the act, for it is nothing more than the domination of men over nature, by modifying their way of acting.

The technique would be the essence of men, as it is both in the universe of the means, of technology, and in the whole that makes up the technical apparatus, in the rationality that guides their job in terms of functionality and efficiency. According to these features, the technique was born, not as an expression of the human spirit, but as a remedy for its biological impairment.¹⁸

In short, it can be understood as a universe of means, technologies, as regards the rationale that presides over their job; science as a unique way to peer into the world through the organization of procedures and methods, which would, with some accuracy, seek truths inscribed by the use of reason within it. The technique, whose meaning is born of anticipation, becomes the action of men in the world, a means to achieve ends and, finally, that which generates the transformation of men into the masters of themselves and their world.¹⁹

Galimberti has a core value in his thinking that consists in trying to establish a new philosophy of action that will allow us, if not to master the technique, at least to avoid being dominated by it.¹⁹

In this perspective, NC, as a technology, allows the actions of nurses, taken as live work in action, systematized and guided by scientific knowledge, as well as previous experience, suitable and intuitive concepts, specific ways of seeing and describing the practice, to return to the care for individuals, providing security, comfort and well-being.²⁰

In this line of thought, the nursing work contributes to the promotion, protection, maintenance and restoration of health or even for a dignified and peaceful death of the individual in their home. This will depend on the type of technology used by nurses in PHC, which may have a predominance of light or light-heavy technology.¹⁰ Given the above, it is clear that technologies preserve life, but, at the same time, they release men from certain functions that can subdue them.

From these reflections, one can understand the need to prepare nurses who are able not only to perform work techniques, but that are critical of their practice, endowed with skills and knowledge that enable the understanding of and the reflection on their work in health, with autonomy and the abil-

ity to solve problems, mainly committed to ethics and the transformation of reality.

FINAL CONSIDERATIONS

These reflections concerning NC create the opportunity to realize the relevance of its interface as per the Baconian natural philosophy and the phenomenological philosophy of Galimberti, since the query becomes a fundamental technology of care for the practice of this profession.

The Baconian model proposes a technological dimension of knowledge, science is seen as technology, a systematization of knowledge, as well as the manipulation and domination of nature by men. It should be noted that Bacon believed in teamwork and individual innovation; expressing a critique of the theoretical knowledge that is unaware of the practice, noting the relevance of integration between thought and action, theory and practice; influencing nursing knowledge and NC, which are characterized by the similarity with the stages of the scientific method.

Galimberti's phenomenological philosophy reveals the relationship between men and technical society as a means to achieve ends, and, at the same time that it permeates human existence, it generates the transformation of men into the masters of themselves and their world. In doing nursing, it is evident that despite the need for technological apparatus for nurses to develop their practice in PHC, they must understand that the equipment often constitutes the extension of the human beings themselves. Consequently, NC becomes a fundamental technology of care for the practice of this profession.

Given the above, it is clear that the relationship between philosophy and the action of nursing becomes necessary to advance the use of consultation in Brazilian PHC, as a technology for the consolidation of nursing as a science, in addition to encouraging the individual to be the protagonist and co-responsible for his own care, and the health-disease process.

Thus, nurses need to deduce that care and technology are intertwined, because nursing is committed to principles, laws and theories. Therefore, technology is the expression of scientific knowledge and in its own transformation as a science, so that philosophy plays a role of paramount importance, which is to enable the professional to reflect critically and to participate in carrying it out. NC should be a systematic practice, structured scientifically and which utilizes a unified nursing language, providing

opportunities for communication and the documentation of its practice, favoring the promotion, protection and maintenance of life, as well as improving the quality of care provided to the person, family and community.

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