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CARTOGRAPHIC RESEARCH: THEORETICAL AND METHODOLOGICAL REFLECTIONS FOR NURSING¹

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ABSTRACT

Objective: to reflect on the theoretical and methodological contributions of cartography for nursing research.

Method: this is a reflexive essay on the theoretical and methodological reverberations of cartography in nursing research based on the deleuze-guattarian conceptual network.

Results: the reflections were grouped in a reflective pillar entitled: Theoretical and methodological contributions of cartography for nursing research. From this perspective, cartography was considered as an attitude of discoveries in the field of subjectivity, problematized by the position of the researcher-cartographer during the act of investigating-mapping.

Conclusion: cartography, as a field of experimentation, presupposes, on the part of the researchers, the detachment of techniques plastered in research, as a way of analyzing the complexity of the phenomena in their relation with the practice of nursing in the mapped territories.

DESCRIPTORS: Knowledge. Geographic mapping. Nursing. Nursing research. Philosophy in nursing.

PESQUISA CARTOGRÁFICA: REFLEXÕES TEÓRICAS E METODOLÓGICAS PARA ENFERMAGEM

RESUMO

Objetivo: refletir sobre as contribuições teóricas e metodológicas da cartografia para pesquisa em enfermagem.

Método: trata-se de um ensaio reflexivo sobre as reverberações teóricas e metodológicas da cartografia nas pesquisas em enfermagem alicerçada na rede conceitual deleuze-guattariana.

Resultados: as reflexões foram agrupadas em um pilar reflexivo intitulado: Contribuições teóricas e metodológicas da cartografia para as pesquisas em enfermagem. Nesta perspectiva, a cartografia foi considerada como uma atitude de descobertas no plano da subjetividade, problematizada pela posição do pesquisador-cartógrafo durante o ato de investigar-cartografar.

Conclusão: a cartografia, como campo de experimentação, pressupõe, por parte dos pesquisadores, o desprendimento de técnicas engessadas em pesquisa, como forma de analisar a complexidade dos fenômenos na sua relação com a prática da enfermagem nos territórios cartografados.

DESCRIPTORIOS: Conhecimento. Mapeamento geográfico. Enfermagem. Pesquisa em enfermagem. Filosofia em enfermagem.

LA INVESTIGACIÓN CARTOGRÁFICA: REFLEXIONES TEÓRICAS Y METODOLÓGICAS PARA LA ENFERMERÍA

RESUMEN

Objetivo: reflexionar sobre las contribuciones teóricas y metodológicas de la cartografía para la investigación en enfermería.

Método: se trata de un ensayo reflexivo sobre las reverberaciones teóricas y metodológicas de la cartografía en las investigaciones en enfermería cimentada en la red conceptual deleuze-guattariana.

Resultados: las reflexiones fueron agrupadas en un pilar reflexivo titulado: Contribuciones teóricas y metodológicas de la cartografía para las investigaciones en enfermería. En esta perspectiva, la cartografía fue considerada como una actitud de descubiertas en el plano de la subjetividad, problematizada por la posición del investigador-cartógrafo durante el acto de investigar-cartografiar.

Conclusión: la cartografía, como campo de experimentación, presupone el desprendimiento de técnicas relacionadas con la investigación, por parte de los investigadores, como forma de analizar la complejidad de los fenómenos en su relación con la práctica de la enfermería, en los territorios cartografiados.

DESCRIPTORES: Conocimiento. Mapeo geográfico. Enfermería. Investigación en enfermería. Filosofía en enfermería.

INTRODUCTION

Fundamentally, this reflexive essay adds in itself the philosophical products derived from the intimate partnership established between Gilles Deleuze and Félix Guattari.¹ These authors remain side by side without hierarchy to talk about the phenomena present in life, which convene nursing to think about what they call the philosophical-political.²

In the globalized world, such a binomial incorporates discourses about capitalism and its complexes of forces circulating within the bodies involved in the most variable processes of life production. These conversations about the productive forces, instituted and instituting, constitute opportunities for the intensification of the investigative bets in the contemporary thought as a way to overcome the isolation of knowledge and to shoot questions that have not yet been raised for the construction of the scientific knowledge.

In this direction, nursing is stimulated by these references to expand the problems to be investigated and to analyze from a political perspective the processes established in reality, which, by themselves, are dynamic and add elements of subjectivity.

Subjectivity is understood as production "internally and externally constructed, being related to a heterogeneity of factors that are socio-historically determined. Some behaviors that are revealed in the practice of the nursing worker can often be related to everything he/she has learned in his/her life, from childhood and also, during the years of his/her formation and professional activity".^{3:1143}

From this prism, the theoretical and methodological reverberations of cartography in the field of nursing emerge, which guarantees to confirm the fruitfulness of this reflexive essay, which, in fact, has much to contribute to the field of subjectivity

for research in the areas of health, management, and teaching.

Contextually, thinking about cartography in nursing teaching leads the thinking to analyzes that touch the processes of subjectivation, that is, to form is to produce. In this case, to produce nurses' bodies, which is not done without an adventure in the deleuze-guattarian's idea regarding the production of subjectivity. This highlights the training of the health professional based on a regime of affability that occurs in the teaching-learning process between the body of the professor and the student of nursing.⁴

It is in this particular encounter established between the professor and the student, here translated in reflections, that bodies are not illustratively observed by their form and their functions, but understood as a field of forces accessed by the theoretical and methodological directives of cartography.

On the theoretical level, cartography is responsible for updating the sensations of people, whose polarization is centered on human connections and the seized processes of reality. The body becomes understood as a graphic representation, where the subjective aspects are metric, expressed by lines, points, drawings, cut-outs of lived experiences. A kind of living art, which gives visibility to a map capable of portraying the territories covered, its most significant events, its passions and the distinct magnitudes of powers circulated in it.

In this graphic representation, "nothing is declared, there is not a single sense for its experimentation nor a same entrance. It is understood that the accesses are multiple in cartography. The charted reality presents itself as a moving map, in such a way that everything that has the appearance of 'the same' is only a concentrate of meaning, knowledge and power".^{2:10}

Cartography, also understood as the knowledge capable of being generated “in constructive consonance with the inherent heterogeneity in living, that is, guided by an ethics, an aesthetic and a policy that, besides favoring the detachment of the repeated routes, determines the care to the other through respect for his/her own life and his/her expansive vocation”.^{5:280-1}

Thus, the methodological understanding of cartography presupposes the detachment of techniques embedded in research that go back to an arsenal of systematized knowledge. It is responsible for encouraging the researchers here called cartographers to embark on an inter-subjective territory enhanced by the encounter.

It is stated that the cartographic method “is not defined by the procedures it adopts, but it is a practice and an activity guided by a directive of a nature that is not strictly epistemological, but ethical-aesthetic-political. Several procedures can be used with regard to interviewing techniques, data analysis, strategies and existing research devices”.^{6:218}

It is important to highlight that, in this methodological orientation, the scientific knowledge produced is located in a kind of intermediate zone, a privileged place to observe the (dis)connections between people and the intensive complex of circulating forces in their bodies when they experience the processes investigated.

Based on these preliminary contextualization, what emerges to think cartography are the reflections that bring the theoretical and methodological indissociability, capable of exercising in nursing unusual ways for the production of its scientific knowledge.

Given this interest, the arguments presented in this essay are guided by the following question: What are the theoretical and methodological contributions of cartography for nursing research?

To answer this question there is not *a priori* plot and it is considered necessary to maintain the balance regarding the theoretical lines of the philosophers initially mentioned. Consequently, the imminent desire to rehearse propositions guided by the following objective emerges: to reflect on the theoretical and methodological contributions of cartography for nursing research.

In the particular respect of the creation of reflections, the role of the essayist stands out, understood as the one who is capable of transgressing the traditional way of thinking the reality. First of

all, it is an experimenter and not a reproducer of knowledge or a product of reflections attached to the formality of the method. It is through the essay that nursing should enable a becoming, a link between the existing and the new knowledge based on originality.⁷

This is because the creation of reflections runs through the action of the thought that investigates itself, turns to itself, examining the nature of its own activity and establishing the principles that underlie it. Thus, the critical consciousness is characterized, that is, the consciousness as far as it examines its own constitution, its own questionings.⁸

Towards the reflection, which deals with cartography and its theoretical and methodological reverberations for nursing researches, it was decided to organize the contents in the reflective pillar, arranged as follows.

THEORETICAL AND METHODOLOGICAL CONTRIBUTIONS OF CARTOGRAPHY FOR NURSING RESEARCH

Initially, cartography projects itself into a “multiplicity and continuous variation field. It is taken as a map in constant production, instituting a process of experimentation capable of creating new coordinates of reading the reality, creating a permanent rupture of the established balances”.^{9:457}

A totally flexible map whose paths are being built as the processes are experienced and the lines and axes of different intensities and coordinates present as desires in the bodies are captured from reality and impacted by the forces present in the network of relations.

Thus, the challenge to map can focus on the following question: how not to get lost in this extremely subjective process, since it directly involves the forces present in the world and in relationships? To open this discussion, the body is placed as a “compass that guides the creation of territories to make them function as an existential update of sensations. A source of force of invention is then released without being able to appropriate it for the construction of singular worlds in accordance with what the vital process demands”.^{10:80}

In fact, conducting research in the area of nursing, guided by cartography, runs through a theoretical understanding of the territories and analyzes of the resulting processes. Therefore, “the installation of the cartographic research presupposes the habitation of a territory, which requires a learning process of the cartographer himself/herself. Such learning is

not thought of as a series of stages of development, but as a work of cultivation and refinement".^{2:135}

In its expanded form, the territory is understood as "an experienced space, a system perceived within which a subject feels 'at home'. Synonym of appropriation of subjectivation closed about itself. A set of projects and representations in which a whole series of behaviors, of investments, in times and in social, cultural, aesthetic, and cognitive spaces will result".¹¹

In the same way, the body can be understood as a minimum territory determined by politics, economy, socially regulated, inserted in collective devices or even understood as a receptacle of the power movement in the places where it moves.

Whatever the understanding, macro or micro, everywhere, the territory can deterritorialize, that is, engage in escape lines and even leave its course and destroy itself. Nowadays, the human species is immersed in a huge movement of deterritorialization: its original territories are uninterruptedly broken up with the social division of labor, with the action of the universal gods that surpass the ethnic groups and with the systems of mental stratification.¹¹

In these theoretical threads, cartography is projected and also adds the notion of reterritorialization, understood as the body's attempt to recapture the processes of deterritorialization in the order of production and social relations, controlling all the procedural drives of desire that influence the society.¹¹

These concepts talk about a constant leaving and coming back that has direct implication on the way the data is produced in the cartographic investigations. Cartographed individuals, who may be research participants, move physically in different contexts and experience the intensity of processes collectively.

What calls attention in these leaving and coming back are the changes caused in the own being. The body-territory has its coordinates created, erased, retraced by the time action and by the force of the people, therefore, these transformations must be considered by the cartographers.

The idea of leaving and coming back, especially when contextualized with cartography, gains concreteness from the following understanding: "Leaving is no arbitrary movement in space, because the man goes away to seek something in the world to reach a goal. However, when he has performed or failed, he returns to his dwelling as a resting place. It is at the same time the deepest essential change

for man, which is expressed in this pendular movement of leaving and coming back, from which each phase has its peculiar and unmistakable flavor".^{12:61}

To assume the method of cartography as a direction in nursing research involves an attitude to recognize that in this journey, characterized by the monitoring of bodies and processes in the territories, can lead the cartographers to the "momentary loss of direction, which is not necessarily a sign of inconsistency problem or unpreparedness of the researcher. By adopting this attitude, this research *ethos*, it is recognized that the research activity always involves, to some extent, the redesign of the problematic field".^{2:204}

This is because one of the greatest contributions of cartography is precisely "the problematization of the position of the researcher and the act of researching, in which research is taken as a field of experimentation, crossed by the regime of sensitivity. There is not *a priori* field constituted and a neutral researcher in relation to it, performing a 'data collection' - as if the data were ready, waiting for the 'right' moment to be collected. The data collection can only be performed in the encounter between the researcher, his/her conceptual tools and the territory, a meeting that can modify both the researcher and pointing out the possible ways for the constitution of a field".^{9:457}

For nursing, the problematic contours of the research, the territory, the participants and the knowledge produced by the study are not enough. It is necessary to accept the invitation for a deep analysis of the research action, that is, with direct implications in the studied reality. It is necessary with the contribution of the cartographic method to (re)invent the way of being and to be in the world, to research and attribute its fruits for the sake of life.

In cartography, the steps of the study are built gradually without ready recipes and the cartographer is mixed in the processes that emerge from the scenes investigated. There are no indicated paths, much less a predetermined search pattern. At all times, the cartographer is forced to think the phenomenon within a process he/she experiences.

The cartographer positioned next to the study participants is sure that subjective changes can impact the production of the data. This certainly requires, in nursing research, continuous analysis of what is understood by ethical, aesthetic and political posture in the territories visited.

This is because the "cartographies are like always partial results, bids of a trip in foreign lands. This is the power that the cartographer wants to

achieve, to feel like a foreigner within his/her own housing, he/she who from port to port sees himself/herself at another time, who pushes, crosses, rips and sometimes sews the same and makes him/her differ".^{5:273}

This unpredictability that awaits the cartographer when he/she begins his/her investigations in the bodies and territories, which by nature are strictly subjective, searches the dimensions of cartography for experimentation and invention, which suggests rigor in this methodological option.¹³

With this understanding, the said and used clues of cartography are indispensable to follow the processes and produce data on the subjective phenomena to be investigated in the nursing area.

Instead of rules to be applied, it is proposed "the idea of clues to guide the work of the research, knowing that to follow up processes, we cannot have predetermined in advance the totality of the procedures. The clues guide the cartographer and serve as references that contribute to the maintenance of an attitude of openness to what is occurring and of calibration of the walk in the course of the research itself - the *hódos metá* - of research".^{2:13}

Hence the traditional meaning of the methodology that is imprinted in the etymology of the word: *metá-hódos*. In this direction, "research is defined as a path (*hódos*) predetermined by the given starting goals. In turn, cartography proposes a methodological reversion: to transform the *metá-hódos* into *hódos-metá*. This reversal consists of a bet on the experimentation of the thought - a method not to be applied, but to be experienced and assumed as an attitude."^{2:10}

Guided by this thought, it is recognized here the commitment of a group of professors who collectively during the approximate period of three years concentrated efforts in the elaboration of eight clues for the practice of the cartographic method.² Cartography clues already experienced in the field of nursing. Its scientific products attest the development of complex contents in education, reflections on the basic instruments and identification of the role of nurses in the care processes.¹⁴

In summary, the theoretical and methodological contributions of cartography for nursing research open the way to expand what has been recognized as a body. This epistemic unity has an extended meaning, that is, a body that is individuated within a process, but also a body considered collective and theoretical of the profession that is in transformation.

Given that "cartography understands knowledge as invention and considers research to be always intervention"^{13:392} its methodological applicability in nursing investigations opens the possibility of recognizing the territories, the caring, teaching, managing and investigating processes affected by the forces present in the world.

From this perspective, cartography, when assumed as a guideline in the field of qualitative and/or quantitative research, amplifies the attention of cartographers to subjective elements inherent to the human existence. And that is it, the cartographers do not disregard the forces present in the world and the intensities that circulate in people when they access the investigated phenomena.

Before closing the reflective pillar, it is worth emphasizing the invitation of this essay for applying cartography as a theoretical reference and methodological guideline in nursing studies. In the condition of disciples of Deleuze and Guattari, the invitation to overcome from the cartography the isolation of knowledge with the intention of raising questions that had not yet been triggered in the different contexts that the nursing is present.

CONCLUSION

In order not to conclude and intensify this theoretical and methodological approach in nursing, it is stated: cartography involves an attitude of discovery. Yes, in each territory, selection of study participants, experiences of caring, teaching, managing and research situations, the cartographer's body recognizes itself as being with countless folds and many political movements.

It should be emphasized that the cartographer must be available to fly and land, in a constant expansion and reduction, in order to recognize the processes present in the territories investigated. In this sense, it is necessary to sharpen the human senses with the cartography and to assume their scientific contributions for the production of knowledge in the nursing domain that (re)affirms the ethical-aesthetic-political triad in the researches.

In order to do so, it is necessary to be attentive to the forms and forces that affect the participants and cartographers in the territories in which the studied phenomena are circumscribed. Freeing oneself from pre-established rules in research seems to be a good start for those who wish to venture into the method of cartography. This is because the power of the encounter within the landed process intensifies subjective elements that deserve attention

at the time of the production, analysis and discussion of what was mapped.

Thus, it is expected that this reflexive essay will raise in the “new cartographers”, university professors, nurses, nursing students, the desire for theoretical appropriation and methodological transposition of cartography for the practice of research as a way of eliciting new findings on postures that will benefit the exercise of a nursing practice that the care clients and the profession, today and tomorrow, deserve.

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