

## THE LIVER STUDY NUCLEOLUS (NEF) AS AN UNIVERSITY OUTREACH INITIATIVE: EXPERIENCE REPORT

### O NUCLÉOLO DE ESTUDO DO FÍGADO (NEF) COMO ESPAÇO DA EXTENSÃO UNIVERSITÁRIA: RELATO DE EXPERIÊNCIA

### EL NUCLÉOLO DE ESTUDIOS DEL HÍGADO (NEF) COMO ESPACIO DE LA EXTENSIÓN UNIVERSITARIA: INFORME DE EXPERIENCIA

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## ABSTRACT

This is a documentary study that aims to describe the historical trajectory of the Liver Study Nucleolus (Nucléolo de Estudo do Fígado - NEF) as part of the outreach initiatives of the Faculty of Health Sciences (FACS) of the State University of Rio Grande do Norte (UERN). In order to achieve the objective, institutional documents were surveyed, read and interpreted. The study made it possible to apprehend the maturation and expansion of the NEF as a university outreach initiative; its contributions through actions, with the awakening to another conception of outreach action, precisely as a two-way path and with possibilities for implementation of articulation between theory and practice, as well as for the inseparability between teaching, research and outreach initiatives, thus firming the social role of the university. However, the execution of the NEF actions faces challenges. They are conceptual, financial, organizational, political, ethical and cultural challenges. Thus, the endeavor needs to be evaluated and re-signified for implementation of a popular concept of "outreach" action and, consequently, of a university with citizen participation. This is the great challenge that must be faced, not only by the NEF/FACS, but by all UERN courses.

**Keywords:** Learning; Community-Institutional Relations; Universities.

## RESUMO

*Trata-se de estudo de natureza documental que tem como objetivo descrever a trajetória histórica do Nucléolo de Estudo do Fígado (NEF), como parte da extensão da Faculdade de Ciências da Saúde (FACS), da Universidade do Estado do Rio Grande do Norte (UERN). Para atingimento do objetivo, foram realizados levantamento, leitura e interpretação dos documentos institucionais. O estudo possibilitou apreender o amadurecimento e ampliação do NEF como extensão universitária; suas contribuições por meio de ações, com o despertar para uma outra concepção sobre extensão, ou seja, como via de mão dupla e com possibilidades para a implementação da articulação entre teoria e prática, bem como da indissociabilidade entre o ensino, a pesquisa e a extensão, demarcando, assim, o papel social da universidade. Porém, o NEF enfrenta desafios para o desenvolvimento das suas ações. São desafios de natureza conceitual, financeira, organizacional, política, ética e cultural. Desse modo, a caminhada precisa ser avaliada e ressignificada para a implementação de uma concepção de extensão popular e, conseqüentemente, uma universidade cidadã. Esse é o grande desafio que precisa ser enfrentado, não somente pelo NEF/FACS, mas pela totalidade dos cursos da UERN.*

**Palavras-chave:** Aprendizagem; Relações Comunidade-Instituição; Universidades.

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## RESUMEN

*Se trata de un estudio documental que tiene como objetivo describir la trayectoria histórica del Nucléolo de Estudios del Hígado (NEF) como extensión de la Facultad de Ciencias de la Salud (FACS) de la Universidad del Estado de Rio Grande do Norte (UERN). Para alcanzar el objetivo se efectuó el relevamiento, la lectura y la interpretación de los documentos institucionales. El estudio ha permitido comprender la madurez y ampliación del NEF como extensión universitaria; sus contribuciones por medio de acciones, descubriendo otro concepto de la extensión, o sea, como vía de dos manos, con posibilidades de implementar la articulación entre la teoría y la práctica, y la inseparabilidad de la enseñanza, la investigación y la extensión, marcando el rol social de la universidad. El NEF enfrenta, sin embargo, desafíos para el desarrollo de sus acciones. Son desafíos de naturaleza conceptual, financiera, organizacional, política, ética y cultural. De esta manera, el camino debe ser evaluado y (re) significado para implementar el concepto de extensión popular, y, consecuentemente, una universidad ciudadana. Este es el principal desafío que debe enfrentar el NEF/FACS y todos los cursos de la UERN.*

*Palabras clave:* Aprendizaje; Relaciones Comunidad-Institución; Universidades.

## INTRODUCTION

The occurrence of liver diseases has grown greatly in recent years. Among these, liver cirrhosis has a global distribution irrespective of race, age and gender, and affects approximately 100 million people worldwide.<sup>1</sup> Chronic viral hepatitis, in turn, has a much higher frequency, with 350 million people suffering from hepatitis B and 170 million from hepatitis C, which, when associated with liver cirrhosis, have a significant public health impact, both in the socio-familial (absenteeism) and in economic sense, for the high cost treatments.<sup>2</sup>

However, despite the visible improvement of the reporting system, the mortality from liver diseases remains underestimated. In our region, and more precisely in the city of Mossoró, chronic liver diseases have become an obvious problem, mainly due to the high prevalence of two etiological factors: alcoholism and hepatitis C, which usually evolves to chronicity.<sup>3</sup>

Although the prevalence of liver disease in our region is high, there is no corresponding access to services to meet this demand. Care for the affected patients should be judicious and continuous through regular consultations and periodic laboratory and radiological examinations, to avoid an undesirable outcome of the natural evolution of liver diseases.

This problem, regarding the access to services, has accompanied my professional career and became even more evident with my inclusion as a professor of the digestive tract from the Faculty of Health Sciences (FACS), State University of Rio Grande do Norte (UERN).

In view of the above, we perceive the need and the possibility of implementing an outreach action with specialized character, for the care liver disease patients, users of the Unified Health System (SUS). This action assumed the form of provision of integral care and, at the same time, a teaching-learning strategy in real life for future medical professionals.

With this understanding, the Outreach Project entitled Liver Study Nucleolus (Nucléolo de Estudo do Fígado - NEF) was started in May 2010 and, at present, offers continuous and integral assistance to SUS patients screened from other public services, working through scheduling of consultations.

It is noteworthy that in these seven years of implantation (May 2010/2017), the Nucleolus has provided relevant services to users with liver problems and to their relatives, as well as a rich space for production of knowledge and learning, using real cases as reference. However, the NEF faces serious problems for its consolidation, reflecting the historical space that outreach initiatives occupy in the Brazilian university, that is, as a dilution space, for external use, destined for what the university produces that can serve a population lacking information and services. The challenge is to understand it as “a kind of” ethical ingredient “that has the potential to give the taste of life to teaching and research, aiming at a university socially referenced in the principles of justice, equality and dignity [...] outreach, more than a set of activities carried out by the institution, has the task of inquiring on the taste of knowledge”<sup>4</sup>.

Furthermore, the Nucleolus still does not have its historical memory systematized as a way to ensure the registration, for history, of a service that is already part of society. An unfolding of this systematization is the problematization, in a first approximation, of the nature and the commitment that the Nucleolus has assumed with the society.

Thus, the systematization of this history has been the object of a study that aims to describe the historical trajectory of the Liver Study Nucleolus, as part of the outreach activities of the Faculty of Health Sciences (FACS), State University of Rio Grande do Norte (UERN).

In order to reach this objective, a documentary study was carried out for the observation of the process of maturation or evolution of individuals, groups, concepts, knowledge, behaviors, mentalities, practices, among others.<sup>5</sup> The documentary research stimulates the totalitarian perception in what concerns the understanding and consequent materialization of concepts and ideas.

The data analysis was developed in a concatenated movement. The seized data passed through successive readings, and they were subsequently subjected to a new examination in which inter-relationships and associations were established, and thus began to combine, separate or reorganize the data.

This movement aimed to broaden the field of information, producing a new knowledge.

It is important to clarify that there was no need to submit this research to the Research Ethics Committee - REC of the State University of Rio Grande do Norte - UERN because this study analyzed documents that are accessible to public consultation in the secretariat of the course/nucleolus, in the Outreach Pro-Rectory (PROEX) and in the *website* of the UERN.

## DESCRIPTION OF THE EXPERIMENT OF THE FACS/UERN LIVER STUDY NUCLEOLUS (NEF)

The outreach project of the Liver Study Nucleolus was unanimously approved at a departmental meeting and validated by the UERN Outreach Pro-Rectory (PROEX), and began its activities in May 2010. This is a pilot project developed by the FACS/UERN, based in Mossoró-RN, whose name was inspired in the existing outreach model of the Federal University of Rio Grande do Norte (UFRN) called Liver Study Nucleus, based in Natal/RN.

The NEF consists of nine unpaid scholarship students and two professors, one of whom is the coordinator. The students are distributed in groups of three, for alternating turns in the three outpatient services: two groups in the FACS/UERN and one group in the *Hessed Veshalom* charity association, both located in Mossoró/RN. This association provides screening for patients with liver disease.

The Nucleolus has served, until the beginning of 2017, more than 300 users coming mostly from the city of Mossoró and neighboring regions. Of these, eight are post-transplanted. Although there is no formal and official relationship between the NEF service and the other public institutions of the neighboring municipalities, these users are served by the aforementioned service, in compliance with the fundamental principle of universality, advocated by the SUS.

Outpatient care is performed at the FACS/UERN under the supervision of the coordinator and at the Rafael Fernandes Hospital in Mossoró-RN, which is a reference in the treatment of viral hepatitis, under the supervision of a specialist.<sup>6</sup>

The ambulatory care routine is established as follows: the scheduled patient goes to the FACS outpatient clinic; on the day of the consultation, the patient assisted first by one of the students, member of the Nucleolus. After this service, the supervising professor is called and the student reports the case. The physical examination is confirmed by the professor and together with the student the diagnostic hypotheses are elaborated. After the clinical hypotheses have been raised, the possible etiologies and the behaviors to be adopted are discussed, including the tests that should be requested to confirm the diagnosis.

All steps are explained in detail to the patient and the caregiver so that they understand what is being planned and

learn about their diagnosis and how to deal with complications or interurrences. This knowledge enables individual empowerment and patient autonomy.

The patient, besides receiving enlightenment on his illness and requests for tests, receives a pamphlet with specific guidelines on the lifestyle for people with liver disease. With this initial care, the patient becomes a permanent user of the service.

This patient also receives a card with the mobile phone number of the NEF to schedule their return visit, as well as to communicate if there is a need for urgent care in a hospital service. This urgent care is done by cell phone number of the Liver Study Nucleolus (NEFCEL), which is used by the patient when he enters an emergency service.

The telephone, always under the responsibility of one of the members, upon receiving the first contact, locates the patient and determines one member to accompany the hospital care. Upon learning of this service performed by the on-call staff, a telephone contact is made with the coordinator to discuss the conduct performed. Then, the necessary changes are communicated to the doctor on call, thus making the patient receive more appropriate assistance for their need arising from their liver disease. After hospital care, the patient has an early return to the outpatient service provided in the Nucleolus.

This service is scheduled by the members of the NEF, through the NEFCEL. In general, patients are referred by other specialists. This form of scheduling is recommended because, this way, the service that has an already limited space to meet the demand be used by patients who actually present complaints and clinical or laboratory signs of liver disease.

The main purpose of this outreach project is to provide public service to patients with chronic liver disease. In this project, the patient receives integral care, with continuous follow-up and with access to complementary and imaging tests, as well as more complex procedures such as liver biopsy, esophageal variceal treatment and liver transplantation in high complexity services, in addition to paracentesis (invasive procedure consisting in the removal of ascitic fluid), depending on the need.

In order to make this access possible, the Nucleolus maintains articulation with the Oncology Laboratory and with SUS services in the municipality of Mossoró-RN. In fact, one of the actions of the project that has also been remarkable for the members in particular is the practice of paracentesis in the facilities of the Tarcísio Maia Regional Hospital (HRTM), in the municipality of Mossoró-RN. This is because of the resulting significant relief for cirrhotic patients who had complications with ascites, since this procedure was not frequently performed in the emergency department mentioned.

With this specific action, the students who were part of the project perceived the need to articulate the university with society. The contact of the academic with this reality of

the patients' suffering with ascite aroused still more the interest in learning to execute the procedure, since it is the contact with reality that makes academics feel stimulated to pursue answers.<sup>7</sup> Therefore, this is in a symbiotic process between knowledge gained in the classroom and the interaction with reality in a dialectical process that generates the strengthening and expansion of horizons in favor of building upon the formation of a practice of transformation.

Today, this practice became routine in the urgency unit of the Tarcísio Maia Regional Hospital, in Mossoró-RN, by the team of surgeons on call, who are also preceptors of UERN, along with the medical students who are in traineeship in the cycle of Surgical Clinic. This is, therefore, the reality being transformed by means of an outreach action, fulfilling its real role of a two-way path.

In order to allow access to high complexity centers, the Nucleolus maintains an articulation with the Transplant Center of the Walter Cantídio University Hospital in Fortaleza-CE, which is the nearest reference transplant center.

It is important to note that the interstate relationship bond is not formally established and has only been possible due to the demand of transplant patients from the city of Mossoró, as well as the professional relationship that the coordinator of the Nucleolus maintains with the aforementioned center.<sup>6,8</sup>

This good relationship between the NEF and the abovementioned Transplant Center made the practice for the students who are members of the project possible in this reference center. In the academic break period, students perform an alternating schedule so that each one stays in the sector for one week.

Thus, a close relationship is maintained between the outreach project and the high complexity reference service, calling the attention of the students to the importance of this type of relationship for a better performance of care for chronic liver disease patients. The relationship with a reference service contributes to ensure the quality and continuity of the assistance provided by the Liver Study Nucleolus, as well as the update in terms of conduct.

With regard to preventive activities, the NEF gives students guidance on the patients' vaccination status, especially in relation to viral hepatitis. For this purpose, the patient has easy access to the Rafael Fernandes Hospital, in Mossoró-RN, for administration of these vaccines.

In addition to the vaccines, campaigns are also carried out to combat viral hepatitis, with educational lectures and rapid hepatitis C tests for the earliest possible detection, considering that this disease has a silent behavior and takes years to present the hepatic manifestation.<sup>6</sup>

These preventive actions are carried out by students at the FACS/UERN, as well as with collaboration of the Association of Patients with Viral Hepatitis of Mossoró (APHEMO).

As a way of deepening the knowledge, the Nucleolus holds biweekly or monthly scientific meetings involving themes relat-

ed to hepatology, such as: liver cirrhosis, viral hepatitis, hepatic steatosis, autoimmune hepatitis, hemochromatosis, among others. At these meetings, the students who are members of the project are responsible for organizing seminars to deepen a certain theme, based on concrete clinical cases that are assisted in the NEF, under the guidance of the coordinating professor.<sup>6</sup>

It should be noted, however, that the development of the outreach project, object of this study, faces several challenges. They include the lack of financial support for the development of actions, for the transfer and permanence of students and professors in the city of Fortaleza-CE on the occasion of practices in the Reference Center, and, to pay for the necessary telephone calls to ensure the agility to the calls and referrals of the users, especially those who present serious condition.

Besides this challenge, there is also the idea of outreach action as a form of service provision and as a one-way path that still permeates students and professors and, consequently, the social role of the university as the owner of knowledge that needs to be passed on to the population.

These challenges are not specific to the reality of the FACS, but reflect the social space that outreach actions have assumed in the scope of higher education policies in Brazil.

## DISCUSSION OF THE EXPERIMENT OF THE FACS/UERN LIVER STUDY NUCLEOLUS (NEF)

In view of the experience described, we believe that the Liver Study Nucleolus (NEF), as part of the outreach action of the Faculty of Health Sciences (FACS) of the State University of Rio Grande do Norte (UERN), has sought to contribute to the approximation between the university and society through teaching, research and outreach activities.

As regards teaching, it contributes to the professional training of students based on case studies, patients with liver diseases who are monitored by the NEF. Although they are specific diseases, their analysis is comprehensive, allowing a multidisciplinary and comprehensive reflection.

In the field of research, the NEF has promoted the search for the new by means of the elaboration of case reports for presentation at conventions and symposiums organized by national and regional reference groups, and has also supported the production end-of-course works (TCC).

And finally, regarding outreach, the project has fulfilled several objectives to support the social role of the university, among them the contact with the community in outpatient care; the holding of lectures at various events; the diagnosis of social problems; and the search for solutions to the need of integrating liver disease patients with other reference services, thus consolidating the extramural role of the university.

Some examples are the treatment of viral hepatitis in a reference hospital such as the Rafael Fernandes Hospital in Mossoró-RN; the inclusion of these patients in the Association of Patients with Hepatitis of Mossoró (APHEMO); and the inclusion of patients in the liver transplant list of centers in other states, such as the Liver Transplantation Center of Walter Cantídio Hospital, Federal University of Ceará, in Fortaleza-CE.

The relationship with the community also made it possible to increase the knowledge based on the culture and experience of liver disease patients: their relationship with the families, with the community of origin, the social repercussions of their incapacity for work, the difficulties of access to health services and medications, the view of the relationship between the liver and various aspects of life, including emotional aspects, among others.

Continuing education for the members of the project themselves, the professors and health professionals, has been made possible by the NEF by means of proposals and organization of refresher events on health practices aimed at practitioners dealing with the teaching and practice of these health problems.

However, the execution of the NEF actions faces challenges. They are conceptual, financial, organizational, political, ethical and cultural challenges.

## FINAL CONSIDERATIONS

In view of the experience described, we believe that the Liver Study Nucleolus (NEF), as part of the outreach initiative of the Faculty of Health Sciences (FACS) of the State University of Rio Grande do Norte (UERN), has contributed through its

actions to awaken a different notion of outreach action among all involved. That is, as a two-way path with possibilities for implementing the articulation between theory and practice, as well as for the inseparability between teaching, research and outreach activities, thus firming the social role of the university.

However, the endeavor needs to be evaluated and re-signified for implementation of a popular concept of “outreach” action and, consequently, of a university with citizenship. This is the great challenge that the NEF and the UERN must face as a whole.

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