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# NURSE'S ROLE IN THE PROCESS OF CORNEA DONATION FOR TRANSPLANTS IN AN EYE BANK: ADVANCES AND CHALLENGES

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Abstract: This study reports the professional experience developed by nurses working in an Eye Bank in the State of Espírito Santo (BO). The service is responsible for the entire cornea donation process for transplant purposes, from identifying the potential donor to the storage and distribution of donated corneas. Given the Covid19 pandemic, cornea donations were suspended in 2020 for approximately 6 months, a fact that had a negative impact on the state's list of transplant patients. At the end of 2020, the OR received four nurses assigned to the cornea donation process, following a series of restrictions imposed by the competent bodies. The guiding question of the study is how can nursing work in an Eye Bank to guarantee the supply of corneas in critical scenarios? Aiming to demonstrate the importance of nursing work working at the Eye Bank for the effectiveness of the cornea donation process. This is a descriptive study of the experience report type. Nursing work at the Eye Bank is in accordance with Resolution Number: 710/2022. The Eye Bank represents a field of action for nurses and requires development, human and technical competence, ensuring the integrality of the work process, whether in approaching families, tissue processing or technical support, being evidenced mainly in catastrophic situations such as the pandemic that interfered with quality and safety. It was possible to observe the active participation of nurses in all stages of the cornea donation process, being a valuable member of its implementation. A small number of studies were identified regarding nurses' skills in donating corneas and their role in the service at the Eye Bank.

**Keywords:** Eye bank; Harvesting and Transplantation; Nurse's role; Coronavirus Pandemic.

# **INTRODUCTION**

Initially, this study presents the definition of the cornea, being a transparent membrane located on the anterior surface of the eye, responsible for conducting light into the eyes and, together with the lens, focusing objects. The occurrence of pathologies, injuries, burns and other damage to the cornea can cause loss of vision, with the possibility of blindness. An alternative to restoring the cornea is transplantation, which consists of replacing the damaged tissue with a healthy one (APABO, 2018)

Corneal replacement surgery can guarantee visual recovery with safe results and reduced costs. Transplantation is resorted to when no other treatment can maintain the patient's normal vision. For this to be carried out, the existence of a deceased donor is necessary (CAJADO, 2017). A patient with a registered death is considered a potential eye tissue donor. In cornea donation, the process becomes simpler, as it is not exclusive to brain death donors, and can occur in patients after cardiorespiratory arrest (CPA), which makes this donation process faster (BRAZIL, 2017).

The Eye Bank is the service responsible for donating eye tissue. According to the technical standard, in article 4-VII of the Resolution of the Collegiate Board Number: 55 of December 11, 2015: it is defined as an establishment with physical infrastructure, equipment and human resources whose competencies include the search for donors, family interviews, clinical screening, social, physical and laboratory aspects of donors, removal of ocular tissues, identification, transportation of tissues to the bank, evaluation, processing, packaging, storage and availability for therapeutic use (BRAZIL, 2015).

Nurses play an extremely important role in the process of donating organs and tissues for transplantation. Their role occurs at all stages of the process, from identifying the potential donor, maintaining the body, welcoming and family interview, carrying out the donation, removing eye tissue and handing over the body to the family (PIMENTEL; CAVALCANTE; PIMENTEL, 2021).

Therefore, the objective of this work is to present the importance of professional nurses in the process of donating eye tissue for transplant purposes in an Eye Bank, emphasizing challenges faced in recent years.

# **METHODOLOGY**

This is a descriptive work of the experience report type. The study arose from the initiative to convert theoretical and methodological approaches with a focus on the role of nurses in the cornea donation process.

It was considered pertinent to describe the experience of the Eye Bank nurses integrating theoretical and practical knowledge in solidifying scientific learning.

As theoretical contributions, we used works published in the last 5 years that dealt with the topic of nursing action in the process of tissue donation for corneal transplants.

Data collection was carried out using an Excel spreadsheet, the data was stratified, analyzed and presented in graph form.

# **RESULTS AND DISCUSSION**

The report was experienced by nurses working at an Eye Bank in the State of Espírito Santo, which began in 2020 with work to reorganize the service, based on the principles of Resolution Number: 292/2004, revoked in 2022 by Cofen Resolution number 710, which regulates the role of nurses in the harvesting and transplantation of organs and tissues (BRAZIL, 2022).

Firstly, the nursing activity required specialized knowledge, the ability to understand and expand skills and abilities. A condition that is defended by Philippe Perrenoud in his work where he mentions

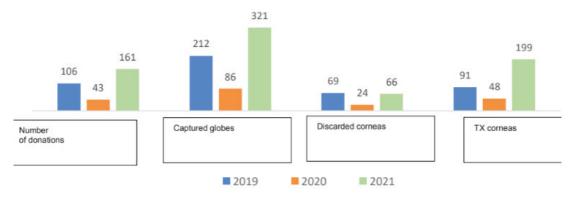
that the aptitude of a professional is defined by the willingness to act efficiently in a given circumstance, an experience of practice, with the use of specific knowledge, but without being limited to these (PERRENOUD, 2000). Thus, the nursing execution method at eye bank was also guided by the principles of Cofen Resolution Number: 710/2022 (BRAZIL, 2022).

In the OR work process, newly hired nurses sought to adapt professional techniques through case studies, group discussions, improvement courses and specializations. After professional preparation, the actions were replicated to the external teams involved to recover the actions inactivated during the stoppage of activities due to the pandemic.

Professionals invested in Health Education and application of the nursing process to improve cornea donation processes. Activities were resumed in compliance with all restrictions and adjustments necessary to guarantee quality and health safety. At the same time, the work was recorded in Excel spreadsheets and internal reports with relevant data and information about the actions developed. This made it possible to implement performance, production and quality indicators.

Strategies were developed to increase notifications of Potential Donors (PD), through educational actions and active inperson searches in the notifying units, in addition to strengthening links with the teams involved in the process, which resulted in an increase in fundraising, as demonstrated shortly historical series in graph 1, below.

In 2021, according to data from SESA/CET, 273 cornea transplants were performed in ES, with 199 corneas made available by the BO. Therefore, the BO contributed to 73% of transplants carried out in the State and increased the number of donations by 52%, compared to the total carried out in 2019



Graphic 1- Boes productivity (2019, 2020 and 2021)

Source: ``Secretaria de Estado da Saúde do Espírito Santo`, BOES, 2022

(ESPÍRITO SANTO, 2022).

On the other hand, there are still several challenges to be overcome considering the significant increase in the waiting list as a result of the impasses imposed by the coronavirus pandemic that paralyzed the cornea donation processes for approximately 6 months. There is also low adherence by services to the death notification process, a situation that makes it possible to identify potential donors (ESPÍRITO SANTO, 2022).

The nurse's role as eye tissue collector demonstrates greater effectiveness in relation to eye tissue offered for transplantation. Despite showing an amortized number of captures, the captured corneas present a lower number of rejections during transplantation, this proves the effective contribution of this professional in the face of a complication. Eye Banks have demonstrated that the corneas captured by nurses had a great use when compared to those captured by other professionals (SOUZA; CERQUEIRA; NOGUEIRA, 2011).

It is known that there are thousands of people on the waiting list for a cornea transplant and nurses have an indispensable place in preparing them for transplant and in the care that helps to avoid rejection and complications. The concern of nursing professionals is not only based on carrying out

family interviews, capture and preservation, but on the execution of correct techniques that aim to prioritize other lives.

It was possible to observe that the intervention work developed enabled the construction of knowledge about the processes of organ donation by the teams involved that are in the OR's coverage area, the practical activities of nurses such as interviewing family members, screening of potential donors and the procedure for Tissue capture contributed to the full professional practice of nurses and improvement of the services they provide (ESPÍRITO SANTO, 2022).

## FINAL CONSIDERATIONS

The objective of the work was achieved by exposing the importance of the nurse's work in the process of donating and collecting ocular tissues, making it clear that their role is essential for the effectiveness of the process of donating ocular tissues for transplant purposes.

The Eye Bank represents a field of action for nursing, especially for nurses, requiring them to invest in the development of their human and technical skills, in order to guarantee completeness of the work process, whether in approaching families, in processing tissue or technical support for the area covered, particularly in catastrophic situations such as the new coronavirus pandemic, which can interfere with the quality and safety process, as well as the stock of corneas for transplants. From the experience described, it was

possible to observe the active participation of nurses in all stages of the cornea donation process, being a valuable member of its implementation.

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