

The Important Role of Optometrist and Qualified Nursing in Primary Healthcare for Eye Care

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Abstract

The use of evidence-based practice is essential for delivering high-quality care, ensuring patient satisfaction, and making efficient use of limited healthcare resources. Nevertheless, there have been reports of inconsistency in the administration of evidence-based eye care. To enhance our comprehension of the obstacles and enablers to delivering optometric care, it is necessary to recognize the significant role that optometrists play in providing primary eye care. This narrative study sought to identify the provision of eye care services by optometrists and measures that could enhance the delivery of eye care in primary care settings, alongside certified nursing. In the field of optometry, similar to other healthcare professions like nursing, there has been a broadening of the optometrist's responsibilities in primary eye care. This includes taking on tasks such as prescription medication, which was previously done by general practitioners. Within the field of optometry, this expanded responsibility entails overseeing eye diseases that do not necessitate treatment or monitoring in secondary healthcare settings, which were historically referred to. Nevertheless, any expanded responsibility necessitates educational assistance.

Keywords: *eye care, patient satisfaction, nursing.*

Introduction

Optometrist and qualified nursing in primary healthcare are able to evaluate a patient's visual potential as well as his or her capacity to function independently. Additionally, ophthalmic nurses aid patients in overcoming psychological challenges and provide the essential assistance to ensure that patients are able to become more independent. Ophthalmic nurses have the ability to educate patients about public resources and services that are available for visually impaired individuals, as well as to raise awareness of these resources [1].

The cultural, sociological, and financial history of each community will determine the trajectory of ophthalmic nursing in the present and the future. One of the most notable characteristics that distinguishes ophthalmic nurses from other nurses is their capacity to implement both medical and nursing interventions in order to meet the criteria of visual care. Nursing professionals assist patients in adjusting to new and ongoing disorders that disrupt their lifestyles [2]. Physicians are responsible for diagnosing ailments, prescribing medication, and performing surgical procedures. As a result, ophthalmic nurses must to make a commitment to devoting themselves to ongoing education, which is essential for the development and upkeep of the best possible standard of care. In order to facilitate this, nurses themselves should be responsible for facilitating it, and program planners and other individuals participating in multidisciplinary group care should oversee it [3].

Specialized nursing education programs have as their primary purpose the development of nurses who are able to think quickly and rationally, even while they are under pressure or in the midst of an emergency crisis. In order to effectively appraise a scenario and choose the most appropriate course of action, their decisions ought to be founded on the compilation, evaluation, and usage of information that is already known regarding the issue [4]. It is recommended, for instance, that ophthalmic nurses work together with professional organizations in order to improve patients' access to resources and raise their

awareness of those resources. ocular nurses have a significant part in the creation, learning, and communication of multidisciplinary team impressions and ocular knowledge. It is apparent that they play a key role as teachers and counselors to patients and healthcare providers. The intimate and deep ties that ophthalmic nurses create with their patients make them exceptional candidates for this role. These interactions enable nurses to better comprehend the requirements and requirements of their patients. Patients are able to develop their independence and the ability to care for themselves as a result of this [5].

Review:

Visual impairments can be caused by a variety of factors; however, by adopting a healthy lifestyle and/or by scheduling screening exams, it is possible to avoid a significant number of the difficulties and impairments that are associated with them. It would be possible to easily prevent or pre-diagnose a great number of diseases by monitoring specific groups of individuals and analyzing the risk factors that they are exposed to [5]. In today's society, many common problems and health concerns, such as diabetes and hypertension, might be prevented or controlled by identifying and checking the risk factors prior to the course of the disease. This would allow for the prevention or control of these conditions. People who live in impoverished nations are particularly vulnerable to a wide range of visual illnesses, including diabetic retinopathy, glaucoma, macular degeneration, cataracts, and trauma. It is generally agreed that vision impairment is one of the health concerns that people face on a global scale. There are approximately 314 million individuals around the world who, to some degree, suffer from visual impairment, and 45 million of those people do not have access to eye care. This information comes from the World Health Organization (WHO). On the other hand, around eighty percent of these visual impairments has the potential to be readily corrected or prevented by taking basic preventative actions. In spite of this, millions of people are at risk of losing their vision since

there are not enough ophthalmological services available [6].

In order to guarantee that nurses are able to carry out their responsibilities in an efficient manner, it is generally expected that they will require specialized training. The bare minimum that they should have is an understanding of the fundamental functioning of the eye, as well as a fundamental understanding of the facts and knowledge regarding ocular disorders and difficulties. Nurses have the ability to assist in the classification of ocular pathologies using phrases that are commonly used in emergency or routine medical circumstances. Additionally, nurses are able to do triage by distinguishing between benign and malignant illnesses. Furthermore, in order to improve their ability to support patients and communicate effectively with them, nurses should obtain training on the psychological effects that are associated with visual loss or impairment. Patients who have suffered major eye injuries, such as lacerations of the lids, should be able to receive treatment from them. Additionally, they should be able to give nursing services to patients in emergency rooms and help them maintain their personal hygiene. In order to equip nurses with the skills necessary to manage trauma patients, training should be organized and given to them. In addition, if they have patients who have suffered a severe loss of vision, they are able to assess the situation, determine the differential diagnosis, treat the acute condition, and refer those patients to a practitioner who is required to treat them. Additionally, they are able to consult with or even educate general practitioners, as they may need to receive training in certain situations. In addition, ophthalmic nurses should be able to build a solid awareness of the ophthalmologic techniques that are utilized in the screening process for some of the most common cases of eye diseases. In addition, nurses should be able to establish a strong nursing connection with their patients by utilizing their communication skills and nursing ethics in order to assist in the improvement of follow-up processes and the creation of trust among patients [7,8].

When compared to therapy, prevention offers a number of significant health benefits. Taking preventative actions results in cost and time

savings for both patients and the medical professionals who treat them. In today's health and medical care systems, screening for disease and taking preventative measures have emerged as areas of particular focus. Health care professionals in developing nations have acquired the information necessary to pre-diagnose and treat ocular or systematic disorders. This is in relation to the preventative care of ophthalmological health. In addition, these professionals have provided assistance in emergency situations, which typically involve situations in which delays in medical care could result in a full loss of eyesight or damage. The training of these persons is carried out by appropriately trained nurses in order to aid them in gaining knowledge about a variety of systemic and ocular problems. According to the data, there are around 285 million individuals all over the world who are affected by visual impairment. Of this population, 39 million are completely blind, while the remainder population has some degree of vision impairment ranging from moderate to severe. If action had been done at the beginning of these disorders, it would have been possible to avoid or treat more than eighty percent of all of these instances [9,10].

Diabetic retinopathy is mostly caused by diabetes mellitus that has been left untreated or has been present for an extended period of time. In many instances, this pathology will result in total loss of vision. Due to the fact that the early stages of diabetes are characterized by a lack of symptoms, there are also a significant number of individuals who have diabetes mellitus type 2 who are unaware that they have the condition whatsoever. Once a diagnosis has been made, nurses have the ability to educate individuals of this kind on the appropriate food for their condition, allowing them to adopt a lifestyle that would reduce the likelihood of adverse health effects. Furthermore, nurses are able to provide assistance to patients in the process of taking preventative steps to protect their eyes from injury and impairment. It is possible that the support of these nurses in training diabetic patients to get routine eye examinations and participating in other health-related activities could be of benefit in preventing the emergence

of diabetic retinopathy and the difficulties that followed. The sub-specialized nurses have the potential to bridge the gap that typically exists between physicians and staff with less training, so contributing to the establishment of significant enhancements in both the health care system and the outcomes of treatment [11].

In spite of the fact that certain abnormalities, like as exotropia and esotropia, cannot be prevented, early diagnosis of these conditions may be able to assist prevent amblyopia brought on by strabismus. When one of the patient's eyes has a significant refractive error and the patient increasingly relies on only his healthy eye, this is a common problem that can occur throughout this process. There are occasions when it is challenging for parents to recognize the issue, and if the child is not identified, they may end up suffering from amblyopia in the not too distant future. A significant improvement in the likelihood of children over the age of six regaining their vision might be achieved by the provision of appropriate medical therapy. This could be accomplished by avoiding delays in services and beginning treatment at an earlier stage. However, children who require ophthalmic help would receive the right care if they were to undergo a vision screening exam. It is possible for moms to acquire the knowledge necessary to identify vision issues in their children if they communicate with ophthalmic nurses. After then, a nurse might take care of the situation by referring the patient to an ophthalmologist, which would eliminate the possibility of the patient becoming blind or losing their vision in the future [12].

In cases such as cataracts, the early diagnosis and detection of the problem in its early phase could lead to improved visual outcomes and could perhaps prevent any subsequent problems from arising. This is because cataracts progress slowly over time. Despite the fact that there are a number of risk factors associated with a growing cataract, the most significant factor is age. There are a number of risk factors that might hasten the development of cataracts. These include diabetes, an unhealthy diet, lack of protection from the sun, smoking, and dehydration. Therefore, ophthalmic nurses have the ability to instruct individuals who are at risk

on how to eliminate these risk factors, which would drastically cut down on the number of problems and diseases that occur [9,11].

The condition known as glaucoma, which is classed as optic neuropathy, is yet another eye issue. Open-angle glaucoma is the most prevalent type of glaucoma, and it is notoriously difficult to diagnose in its early stages due to the fact that the factors that lead to this condition are not well understood. On the other hand, once primary open-angle glaucoma or other forms of this condition have been identified, it is feasible to control or avoid additional complications by the use of medication treatments or surgical procedures. It is important to recognize that successful measures of patient care include diagnosis and therapy in the early stages of the disease processes. Under these conditions, nurses are able to recognize the signs and symptoms that indicate glaucoma, which include a rapid and gradual loss of vision. For instance, the difficulties that are associated with the use of drugs for glaucoma in patients have been identified. The development of secondary glaucoma is a potential consequence of prolonged use of steroids; therefore, patients who are already using steroids ought to be made aware of the possibility of this long-term problem. Everyone who has certain risk factors should be screened for glaucoma on a regular basis, and there should be systems in place to do so. Screenings could be carried out by ophthalmologic nurses through the examination of visual fields. It is possible for nurses to receive training that would enable them to perform more complex tests, such as measuring intraocular pressure, in order to identify individuals who are at risk and diagnosis difficulties at an earlier stage. It would be obligatory for nurses to receive training on the management of ocular trauma, such as injuries sustained in sports, as well as the guidelines that are now available. According to what was mentioned earlier, there have been countless instances of nurses acquiring more information in order to become effective assistants to physicians. Pre-diagnosis of glaucoma and other disorders that are pertinent has been accomplished by a significant number of ophthalmologic nurses. Additionally, this group

of ophthalmic nurses typically refers a greater number of patients of acute ophthalmology difficulties to specialists in order to obtain more comprehensive and professional evaluations of the situations [11].

Conclusion:

Both certified nursing and optometrists have the ability to make important contributions to the fields of ophthalmology and the visual sciences that they work in. As was previously noted, there are a great deal of ocular issues that can be identified and diagnosed by ophthalmologic nurses who have received adequate training. A lack of attention to health problems in pre-operative examinations, such as uncontrolled diabetes or hypertension, may have contributed to the high rate of on-table surgical operations that were cancelled. These trained nurses may be able to help minimize the number of medical procedures that were cancelled. In order to aid the healthcare system in achieving a higher post-surgery satisfaction rate, ophthalmic nurses should undertake some pre-evaluation on patients who are candidates for surgical procedures. Additionally, the utilization of their services would be advantageous in that they would contribute to the acceleration of the pace at which patients are discharged from medical facilities. This would result in a reduction in the amount of financial resources that are utilized by medical centers. Additionally, ophthalmic nurses are an essential component of the healthcare system due to the fact that they are able to communicate the most recent information to other medical professionals, such as general practitioners. Nursing professionals that specialize in ophthalmology are able to connect patients who are blind or have lost their eyesight with national organizations that can provide them with additional assistance. It is possible for nurses to be of tremendous assistance in the process of making referrals to patients who require specialist services. As a result, this will significantly contribute to the reduction of costs associated with medical care because patients will obtain appropriate management. In a nutshell, optometrists and competent nurses have the potential to play a

key part in the process of educating individuals, providing accurate diagnoses, administering medications, and even managing a wide variety of medical issues in primary healthcare settings.

Reference

- [1] Adib-Hajbaghery M. Nurses role in the community. *Nurs Midwifery Stud.* 2013 Jun;2(2):169–70. PMID: 25414853.
- [2] Hadavand MB, Heidary F, Heidary R, Gharebaghi R. Role of ophthalmic nurses in prevention of ophthalmic diseases. *Med Hypothesis Discov Innov Ophthalmol.* 2013 Winter;2(4):92–5. Review.
- [3] Vladan B. Nurse researchers; an insight in science production in ophthalmology. *Med Hypothesis Discov Innov Ophthalmol.* 2013 Fall;2(3):56–8. PMID: 24600644.
- [4] Wiafe B. Who can carry out primary eye care? *Community Eye Health.* 1998;11(26):22–4. PMID: 17492027.
- [5] Universal health coverage. Sustainable Developmental Goal 3: Health. Geneva, Switzerland: WHO; 2017.
- [6] World Health Organization. World Report on Vision. Geneva, Switzerland: WHO; 2019.
- [7] Andriamanjato H, Mathenge W, Kalua K et al.. Task shifting in primary eye care: how sensitive and specific are common signs and symptoms to predict conditions requiring referral to specialist eye personnel? *Hum Resour Health* 2014;12:S3.
- [8] Aghaji AE, Gilbert C, Ihebuzor Net al.. Strengths, challenges and opportunities of implementing primary eye care in Nigeria. *BMJ Glob Health.* 2018;3:e000846.
- [9] Macfarlane CL, Dean L, Thomson Ret al.. Community drug distributors for mass drug administration in neglected tropical disease programmes: systematic review and analysis of policy documents. *J Glob Health.* 2019;9(2):020414.
- [10] Toomey M, Gyawali R, Stapleton Fet al.. Facilitators and barriers to the delivery of eye care by optometrists: a systematic review using the theoretical domains

framework. *Ophthalmic Physiol Opt.* 2021;41(4):782–97.

- [11] WHO. Primary Eye Care Training Manual - A course to strengthen the capacity of health personnel to manage eye patients at primary-level health facilities in the African Region. Licence: CC BY-NC-SA 3.0 IGO. World Health Organization, Regional Office for Africa; 2018.