CHAPTER-04

TO ASSESS THE IMPACT OF EXISTING VISION CENTERS ON THE POPULATION AND ANALYZE THEIR POTENTIAL FOR FUTURE EXPANSION

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INTRODUCTION

A "Vision Centre" serves as a permanent eye care facility within the community, acting as the initial point of contact for comprehensive eye care services provided by a skilled eye care worker. This center aims to intensify efforts in delivering primary eye care to the community while ensuring access to complete eye care services, including secondary and tertiary care through tele-ophthalmology and referrals to base hospitals. The establishment of these centers enables the collection of vital demographic and eye care information for impact assessment. By enhancing accessibility and facility quality, the primary objective is to provide basic eye care to rural populations. Key goals include advanced eye care in remote areas lacking specialist doctors, eliminating the need for patients to travel to tertiary facilities for basic eye care, establishing permanent infrastructure for community eye health care, raising awareness about eye care in rural communities, and serving as a continuous destination for affordable eye care with outreach camps. Sankara Eye Hospital in Coimbatore operates four such Vision Centers, each contributing to the hospital's mission. The centers are equipped with advanced tools such as Remidio for detecting anterior and posterior segment conditions, a smartphone for high-resolution imaging, a sphygmomanometer, glucometer, and a vision chart for basic visual acuity. The Vision Centre's dedicated team comprises a trained vision technician and a counselor [1] [2].

Every day, patients presenting at the vision center with various eye concerns undergo screening by the refractionist, accompanied by consultations with the ophthalmologist available at the base hospital during that time. Those diagnosed with refractive errors receive spectacle prescriptions, while patients requiring additional surgical procedures or treatments are provided with medications as recommended by the ophthalmologist or referred to the base hospital. The vision center ensures comprehensive basic eye care through tele-ophthalmology links and referral services to the base hospital [3].

Cataract, a leading cause of avoidable blindness, lacks a comprehensive approach in rural communities, with no permanent or

outreach facilities available. Both rural and urban slum populations lack affordable and permanent eye care options. Trained personnel at the primary level can address 80% of blindness cases, while the remaining 10-20% may require tertiary-level eye surgery. Establishing primary eye care facilities can effectively serve poor individuals. The vision center not only treats patients but also identifies and refers them to tertiary-level care, offering accessible basic eye care without the need for travel to tertiary facilities [4].

RESEARCH AIM

To evaluate the influence of current vision centers on the community and examine their viability for future growth.

RESEARCH OBJECTIVES

1. To examine the effectiveness of the current Vision center.
2. To identify facilitating factors contributing to the success of the Vision center.
3. To identify impediments preventing the Vision center from achieving complete success.
4. To assess the self-sufficiency status of the Vision center.

RESEARCH METHODOLOGY

The study, conducted between February 2019 and April 2019, involved three months dedicated to on-site visits to the Vision Centre (VC). On average, data was collected from six patients per day during seventeen visits over one and a half months, resulting in a total sample size of one hundred patients. For counselors and refractionists, data was obtained through an online questionnaire distributed via Google Forms. The study area encompassed Sankara Eye Hospital in Coimbatore, Tamil Nadu, and its four associated Vision Centers located in Annur, Perur, Sundarapuram, and Krishnagiri.

Purposive sampling was applied, including patients who visited the Vision Centre between February 2019 and April 2019. Exclusion criteria comprised patients who did not utilize the Vision Centre services

and those unwilling to participate in the study. The data for this study was predominantly acquired through face-to-face interviews utilizing structured questionnaires, supplemented by a secondary analysis of data from the hospital's medical records for performance evaluation covering the period from April 2018 to March 2019. Employing a structured questionnaire as the primary tool, the study adhered to an observational cross-sectional analytical approach.

RESULTS AND DISCUSSION

The analysis of patient trends across Vision Centres (VCs) reveals distinct performance patterns. Annur consistently maintains a positive trajectory, indicating steady growth over the year. In contrast, Krishnagiri initially witnessed a notable surge in patient count until October, but a subsequent decline is observed. Perur exhibits a stable trend, albeit not matching the performance levels of Annur or Krishnagiri. Sundarapuram, as a recent addition, is in the early stages of development and has yet to attract a substantial number of patients. Furthermore, the assessment of field workers' allocation relative to the ideal number provides valuable insights into growth status and control.

The growth analysis output illustrates that Perur and Annur are experiencing steady and stable growth, Krishnagiri shows saturation with stable growth, and Sundarapuram demonstrates retention with stable growth. The patients' referral dynamics and acceptance at the Base Hospital (BH) reveal a consistent acceptance rate of around 55-60%, with Sundarapuram displaying a relatively higher inclination of patients to visit BH. Detailed comparisons of VC collections and self-sufficiency analyses offer insights into the financial status and sustainability of the VCs. Key factors influencing VC success, such as accessibility and facilities, are underscored, with recommendations being influenced by these factors.

A significant percentage of patients over 40 years are uninformed about the availability of BP and sugar facilities in VCs, indicating a communication gap. On the positive side, VCs contribute to reducing the burden on BH by covering 82% of outpatients without referrals, resulting in decreased out-of-pocket expenditures for basic eye care.

Collectively, the four VCs, along with BH services, contributed approximately Rs. 5,493,926 from April 2018 to January 2019. Spectacle selling is a significant aspect, with 82% on average being sold from VCs, although barriers like affordability and high spectacles range impact conversion. Patient satisfaction levels vary, with around 60% expressing satisfaction in terms of accessibility, and 20-30% citing satisfaction with available facilities. Word of mouth and VC visibility play pivotal roles, with 90% of patients visiting VCs based on these factors. Additionally, 91% of patients express the intention to recommend VCs to others based on factors like teleophthalmology, convenient timings, and accessibility, while 9% cite reasons such as insufficient information and non-acceptance of patients after 4:30-5 pm for not recommending VCs.

CONCLUSION

The study identified several noteworthy findings regarding the Vision Centres (VCs). Notably, not all VCs have field workers, although some VCs emphasized the importance of field workers for enhanced community participation, a crucial factor in the success of VCs. Krishnagiri, despite covering the maximum number of patients referred to the Base Hospital (BH), faces challenges in patient conversion due to the counseling approach for different surgeries. The range of spectacles chosen by patients varies across VCs, impacting the affordability and conversion of patients. Despite the recommendation for VCs to collect only lens charges in advance, all VCs collect half the total bill amount from patients, posing financial challenges for patients.

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