Understanding Barriers to Care for Family Members of Patients Who Seek Treatment at an Eye Clinic in Orissa, India

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Introduction

•The World Health Organization estimates that 18.7 million individuals in India were legally blind in the year 2000, 9.5 million due to cataracts 3 million due to refractive errors.

•Kalinga Eye Hospital in Orissa in partnership with Unite for Sight, a 501©3 organization, provides free transportation and eye treatment using the latest technology, to poor people living in seven neighboring districts of Orissa.

The Problem and Hypothesis

•Many people in this region do not however, seek treatment either for themselves or for family members.
• We suspected that economic and social pressures, i.e., long hours and inability to take time away from work, both common in communities living on the edge of poverty, would create barriers to seeking eye care until blindness posed a greater threat to the family's economics and survival.
•An interview was designed to explore this and other possible barriers to seeking eye care.

METHODS- Subjects

The subjects in this study were either "paying" patients, who visited Kalinga Eye Hospital and received eye care services at their own expense, or "non-paying" patients who had received eye examinations in nearby villages through monthly-organized "outreach" eye camps.

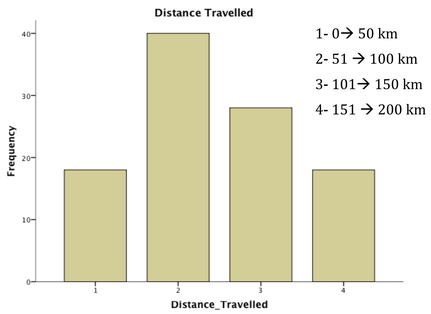
METHODS- Procedure

•The interview opened with the "Poverty Scorecard", a series of objective questions covering background socio-demographic characteristics of participant. The sum of the categories points provides an overall assessment of poverty level.
• <u>History of Eye Care:</u> Following the completion of the Poverty Scorecard, each participant was asked a series of questions about their habits regarding receiving eye care, and the eye care of their family members. The primary dependent variable, the frequency of patient and/or family eye care, was assessed.
• <u>Barriers to Care:</u> Potential barriers to eye care including distance from hospital or eye camp, family barriers and responsibilities were asked.
• <u>Medication use:</u> Have you ever purchased eye medication for others in your household? If yes, what was the medication for? Where was the medication purchased? (Categorize the responses as: (a) doctor/clinic/hospital (b) traditional healer (c) pharmacy (d) other.

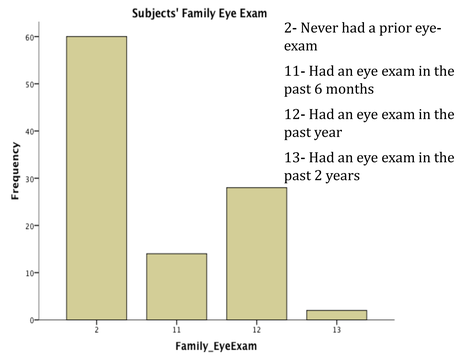
METHODS- Procedure

<u>Optical devices and alternative treatments:</u> Does anyone in your household wear eyeglasses? Has anyone in your household ever had any other type of eye treatment? If yes, please describe.

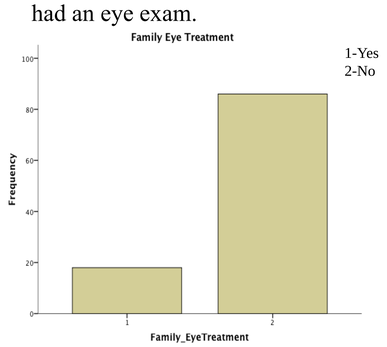
RESULTS



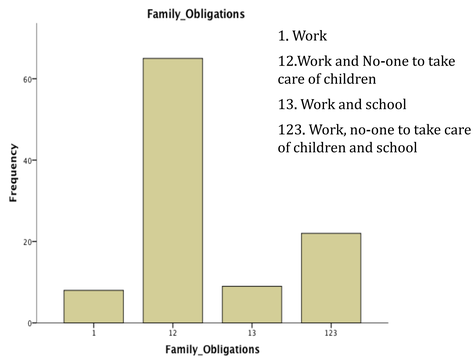
The distances traveled by the patients to arrive at the hospital shows that 38.5% of the participants traveled 51 to 100 km. to Kalinga eye hospital, 17.3% traveled less, 0-50 km (bar 1), 26.9% between 101 and 150 km, and 17.3% 151-200 km (bar 4).



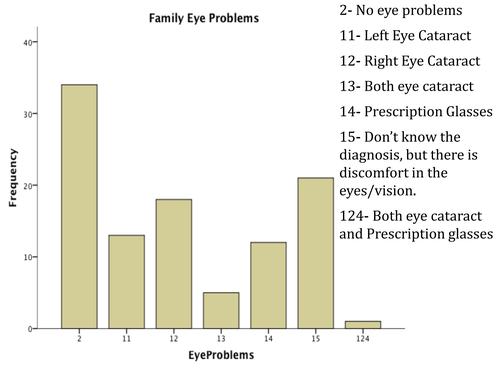
57.7% of the subjects' family members had never had an eye exam.



82.7% indicated that family members had never received an eye- treatment.



The most frequent obligations were work (7.7%), followed by "work and no one to take care of children" (62.5%), "work and school" (8.7%), and "Work, no-one to take care of children, and school (21.2%).



The infrequent use of eye care contrasted sharply with the families reported ophthalmic history, 67.3% of the subjects reported that someone in their family had an eye ailment.

• There was a statistical significance between the number of subjects whose family members suffered eye ailments, and the frequency of family eye exams (χ^2 (1) = 10.586, p<.05, two-tailed).
• There was also a significant relationship between the number of subjects whose family members suffered eye ailments, and the frequency of family of family members who received eye medications (χ^2 (1) = 58.933, p<.05, two-tailed).
• There was a significant relationship between the number of subjects whose family members suffered eye ailments, and the frequency of family members who received prescription glasses (χ^2 (1) = 50.514, p<.05, two-tailed) suggesting that concern about eye care increases use of all facets of treatment.
• There was a significant relationship between the poverty score of a subject, and the frequency of subjects whose family members received an eye exam previously (χ^2 (1) = 20.795, p<.05, two-tailed).

DISCUSSION

• 57.7% of these subjects' family members had never had an eye exam. A range of family and work obligations appear to be the main barriers responsible for this shocking result.
• Thus, 100% of the subjects stated that work obligations were a barrier to seeking care.
  • Participant elaborations of "work" described one or more forms of "hard" labor [86.5% of subjects labored on farms (agricultural, or plantation), some were hunters, or tobacco preparers or tobacco product makers, etc.].
  • Over 60% of the subjects replied that family obligations included care of children at home in addition to work.
• The barriers posed by these work and family obligations are related to family's poverty scores.
  • Since the average poverty score was below the median of the regions norm, these patients had few choices other than hard labor to earn the essential minimum for survival in their communities.
  • Poverty appears therefore, to be the major factor underlying the barriers to the receipt of eye care for residents in Dhenkenal, Orissa and the prevention of eye disease in this population.
•Dadona L et. al. (1998) studied pitfalls in the India's National Programme for Control of Blindness, and concluded that it is vital that India's healthcare policy makers conduct "well-designed population-based epidemiological studies from which to develop a comprehensive long-term policy on blindness in addition to dealing with cataract"[2].
•Elaborating Leventhal et al. (1997) [1] and applying the self regulation model to this theory leads us to believe that the perceptual and habitual methods of self regulation of any person in a community is strongly tied with the environment.
• The target should not be at the national level, but at the communal level, where each school and hospital is focused on.
• By increasing the knowledge of basic vision impairments, such as myopic, hyperopic, bifocal, cataract, glaucoma, etc. the community is indeed empowered with the ability to judge the gravity of their and their family members' vision problems.

ACKNOWLEDGEMENTS

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I would also like to thank Dr. Howard Leventhal for inspiring me and guiding me. This research experience would not be as much of a learning experience without your constant feedback and support.

[1]] Leventhal, H., Benyamini, Y., Brownlee, S., Diefenbach, M., Leventhal, E. A., Patrick-Miller, L., & Robitaille, C. (1997). Illness representations: theoretical foundations. *Perceptions of health and illness: Current research and applications*, 19–45.

[2] Lalit Dandona MD,Rakhi Dandona BOpt,Thomas J Naduvilath MSc,Catherine A McCarty PhD,Ashok Nanda MS,M Srinivas,Partha Mandal DO,Gullapalli N Rao MD *The Lancet* - 2 May 1998 (Vol. 351, Issue 9112, Pages 1312-1316)