

A study about eyesight correction and it's impact on socio economic development

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Abstract

The research about eye sight correction and its influence on socio economic development of the tribal, rural and urban parts of Gujarat in the state of India. It tries to catch the life of eye patients before and after the surgery and how the illness and the surgery changed their lives not only in economical way, also in social, physiological and psychological way.

Key Words: eyesight correction, socio economic development.

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INTRODUCTION

A total no of 200 cataract patients from the districts Ahmedabad, Aravalli, Sabarkantha, Kheda, Gandhinagar and Mahisagar were interviewed for the purpose of the study. A small number of patients (4%) told that they have no workers in their family (then they do small work, or get in another way everything for living). But 84% of the patients have one to two workers in their family and 12% three to five workers. A lot of the patients are the head of their families (125) and 75 patients are in supporting role, the most of them are women. Generally 32.5% of the patients have other family members with eye disease. 91% of the patients have their own house, 8% are in rented house and two patients live in other situations, live in a company's house or stay at a relative's house. 43% of the patients is having pucca house, where as 33% respondent stay at a Kutch house. 43% of the patient's family has a general income of more

than 10000 rupees a month, 20% earns 6000-10000 rupees a month and 30.5% earns 2000-5000 rupees a month. In 12 families the family has an income of less than 1000 rupees a month (6%). Only one family has a different wage every month and is not clear about the wage. The work for which they earn money is for 31% a combination of farm, daily and dairy work, 22% have only daily work, 5% work in a factory, 4% have a small business, 10% have another work (teacher, plumber...), 1.5% have a small work, where the patient doesn't really earn money and the last 26.5% are the ones without work. 121 of 147 working Patients stopped or decreased their work (13 decreased their work (6.5%) and 108 patients (54%) stopped working). The rest 13% didn't stop working. 6 of the patients had another reason to stop working, too, for example because of knee or kidney problems. Patients who stopped working, stopped the most times only for not more than one year (47 patients), four stopped for a few days and two for more than one year. The last 68 patients don't know, just decreased their work or something else. The biggest problem of the patients (147 patients) have to face because of cataract is walking and travelling problem, 146 patients have a problem in doing household work, 79 patients have a problem in watching TV, 61 having problem in reading, 46 in sewing clothes, 19 in driving and only two have problems in night duty and three at their work. As per waiting for surgery is concern, the response was- 134 mentioned that, this is a normal aging process, 88 patients were afraid of losing their eyesight, 19 patients thought

that it would go away on its own and others were not sure about it. 125 patients admitted that the behaviour of the family members changed as they are burden on them and 112 of them don't need the care of their family members anymore after the cataract surgical intervention.

MATERIAL AND METHODS

Face to face interview conducted with the patients operated for cataract with a set of questionnaire. The survey been conducted who has been operated for sight restoration cataract surgery. Patients were interviewed in order to understand their overall experience of care. 200 patients have been selected from a list 2000 Patients by using random sampling method those has been operated for sight restoration cataract surgery. Responses were recorded in the sheet of paper against the structured questionnaire.

RESULTS

Table 1: Age of the respondent

| S.N. | Age Group | No. of Patients | % |
|--------------|--------------|-----------------|------------|
| 1 | 0-20 | 1 | 0.5 |
| 2 | 21-40 | 7 | 3.5 |
| 3 | 41-60 | 97 | 48.5 |
| 4 | 61-80 | 91 | 45.5 |
| 5 | 81 and above | 4 | 2 |
| Total | | 200 | 100 |

The above table clearly shows that most of the respondent are from the age group of 41 to 60 followed by 61 to 90. As cataract mostly come after the age of 50 in india. Seven patients are in the age group of 21-40 and four patients are 81 or older.

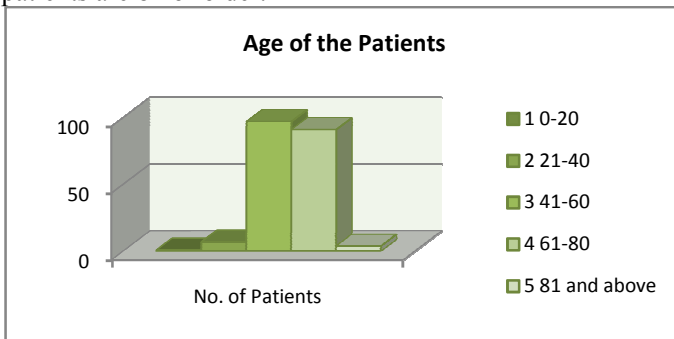


Figure 1:

Table 2: Gender

| S.N. | Gender | No. of Patients | % |
|--------------|--------|-----------------|------------|
| 1 | Male | 93 | 46.5 |
| 2 | Female | 107 | 53.5 |
| Total | | 200 | 100 |

46.5% (93) of the Patients are male and 53.5% (107) female. Next to the fact that the sex ratio in India describes 943 women per 1000 man, it is a surprise that there are more female patients than male.

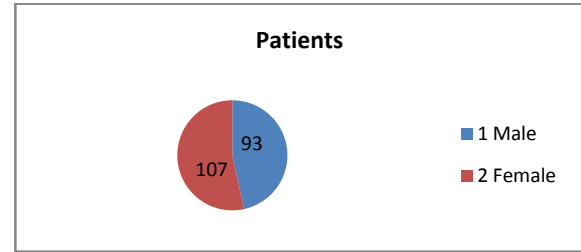


Figure 2:

Table 3: Number of Family members

| S.N. | No. of family members | No. of Patients | % |
|--------------|-----------------------|-----------------|------------|
| 1 | 1 | 5 | 2.5 |
| 2 | 2 | 38 | 19 |
| 3 | 3-5 | 59 | 29.5 |
| 4 | 6-10 | 87 | 43.5 |
| 5 | more than 10 | 11 | 5.5 |
| Total | | 200 | 100 |

Most of the patients have six to ten family members (87) and 59 patients are three to five family members, but only 11 Patients have more than ten family members.

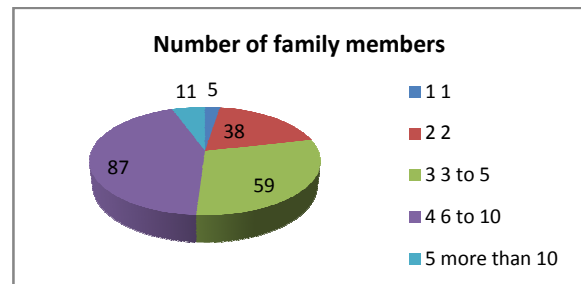


Figure 3:

Table 4: Workers in the family

| S.N. | Workers in a family | No. in the patients family | % |
|--------------|---------------------|----------------------------|------------|
| 1 | 0 | 8 | 4 |
| 2 | 1-2 | 168 | 84 |
| 3 | 3-5 | 24 | 12 |
| Total | | 200 | 100 |

168 Patients have one or two workers in their family, who earn for the whole family. Only 24 Patients have three till five workers in their family, which is not really much compared to the high number of family members a lot of the patients have.

Table 5: Role in the Patient's Family

| S.N. | Role | No. of Patients | % |
|--------------|-----------------|-----------------|------------|
| 1 | Head | 125 | 62.5 |
| 2 | Supporting Role | 75 | 37.5 |
| Total | | 200 | 100 |

A lot of the patients are the head of their families (125) and 75 patients are in supporting role. Female Patients can be the head of the family, too. But often happens this only when their husband is dead. Most of the female patients are in supporting role.

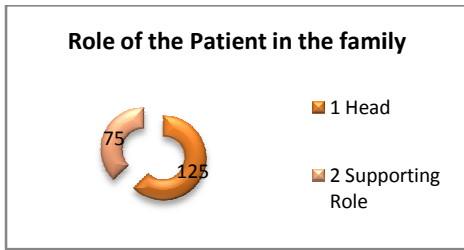


Figure 4:

Table 6: Ration Card

| S.N. | Type of Card | No. of Patients who have the type of card | % |
|--------------|--------------|---|------------|
| 1 | APL | 91 | 45.5 |
| 2 | BPL | 100 | 50 |
| 3 | No Card | 9 | 4.5 |
| Total | | 200 | 100 |

50% of the Patients have a BPL card. Other Patients (4.5%) don't know their card or don't have a card. The last 45.5% has an APL card.

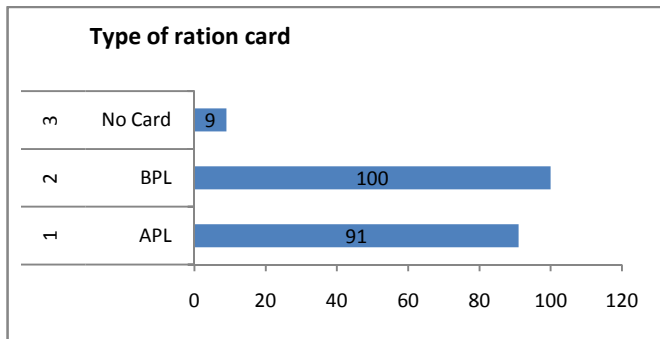


Figure 5:

Table 7: House of the Patients

| S.N. | Owned or Rented House | No. of Patients | % |
|--------------|-----------------------|-----------------|------------|
| 1 | Own | 182 | 91 |
| 2 | Rented | 16 | 8 |
| 3 | Others | 2 | 1 |
| Total | | 200 | 100 |

91% of the patients have their own house, 8% patients stays in rented house and 1% does not have own house or rented house, stays in old age home or dependent on relatives.

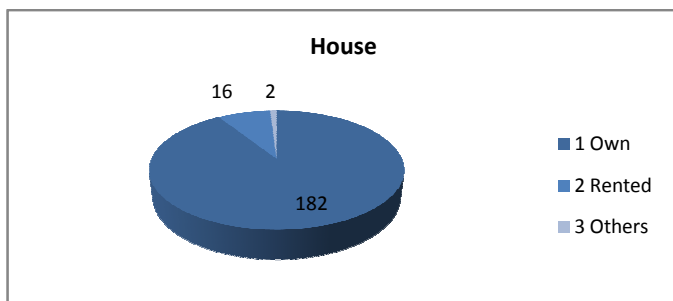


Figure 6:

Table 8: Income of the family

| S.N. | family income per month | No. of Patients | % |
|--------------|-------------------------|-----------------|------------|
| 1 | <1000 | 12 | 6 |
| 2 | 2000-5000 | 61 | 30.5 |
| 3 | 6000-10000 | 40 | 20 |
| 4 | >10000 | 86 | 43 |
| 5 | different | 1 | 0.5 |
| Total | | 200 | 100 |

43% of the patient's family has a general income of more than 10.000 rupees a month. 20% earns 6000-10000 rupees a month and 30.5% earns 2000-5000 rupees a month. In only 12 families the family has an income of less than 1000 rupees a month (6%). Only one family has a different wage every month and is not clear about the wage.

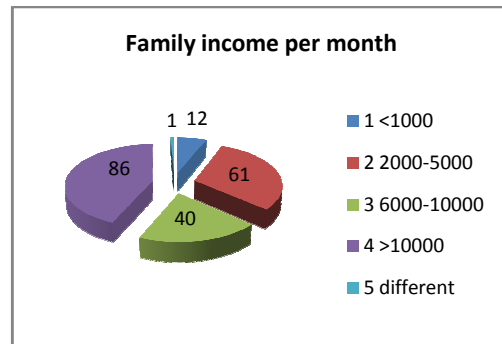


Figure 7:

Table 9: Contribution to the Household income

| S.N. | Money | No. of Patients |
|--------------|--|-----------------|
| 1 | <1000 | 29 |
| 3 | 1000-6000 | 68 |
| 4 | 7000-10000 | 15 |
| 5 | >10000 | 3 |
| 6 | helps husband/ family earn together, so don't know | 18 |
| Total | | 121 |

A few patients helped their husband/family and they earn together (for example when they do farm work) (18 patients). Only three patients earn more than 10.000. Most patients earn 4000-6000 rupees a month (66 patients – 33%) and 14.5% of all 200 patients earn less than 1000 rupees a month. This people are really often daily worker. 15 patients earn 7000-10000 rupees a month.

Table 10: Reduction Contribution to the household income

| S.N. | Reduction? | No. of Patients |
|--------------|------------|-----------------|
| 1 | No | 21 |
| 2 | Yes | 100 |
| Total | | 121 |

21 of the patients had no reduction of the contribution to the household income, when they stopped working. The other 100 patients had. Some have more problems now and some less: If yes:

Table 11: Results for family

| S.N. | Results | No. of Patients |
|--------------|--|-----------------|
| 1 | <1000 less | 5 |
| 2 | 1000-3000 less | 30 |
| 3 | >4000 less | 4 |
| 5 | faces family | 1 |
| 6 | no money to eat | 1 |
| 7 | other villagers give some food to help | 1 |
| 8 | the less income has no negative results for the family | 78 |
| Total | | 121 |

A part of the patient lost their income and earned less, this are 39 patients. For most of the family members it has no negative results (78 families). But for three patients it was a little bit more complicated. One said that it faces the family, another person said that they had no money to eat because of the patient’s eye problem and the last patients got food from the other villagers for living.

Table 12: Patients reasons why shouldn't go to surgery

| S.N. | Reasons | No. of Patients |
|------|---|-----------------|
| 1 | Afraid of surgery | 44 |
| 2 | Loosing eyesight | 7 |
| 3 | Risks | 1 |
| 4 | Deal with it | 2 |
| 5 | No money | 51 |
| 6 | Couldn't ask my children for the money. | 3 |
| 7 | Waited for Bareja camp | 3 |
| 8 | My work/ household | 3 |
| 9 | Not afraid | 1 |
| 10 | Don't have time | 1 |

Some patients said more than one point why they had a reason not to do a surgery, before they went to Bareja. A lot of them had no money for the surgery (51) Generally 109 Patients were afraid that the surgery could fail. Some (44) were just afraid of the surgery and others were afraid to get blind (7) or one patients was absolutely afraid of the risks of the surgery because his father died during a surgery. A few patients waited directly for the Bareja camp and another few patients had no time and too much work to think about the problem.

Table 13: Problems after getting the eye disease

| S.N. | Problems | No. of Patients |
|------|-----------------------|-----------------|
| 1 | Taking bath | 93 |
| 2 | Bringing to school | 1 |
| 3 | Travelling | 175 |
| 4 | Reading | 85 |
| 5 | Day to day activities | 120 |
| 6 | Watching TV | 95 |
| 7 | See in dark | 191 |
| 8 | Social activities | 8 |
| 9 | Headache | 3 |
| 10 | Vision problems | 9 |

95.5% of the patients have problems to see in dark, after that a lot of patients (175) have a problem in travelling and 60% have a problem in doing day to day activities. 47.5% of the patients has a problem in watching TV if they have a TV and 46.5% of the patients have a problem in taking bath. 42.5% has a problem in reading (a lot of other patients are not able to read). Then there are only a few other problems patients told about. For example: Headache or that social activities reduced.

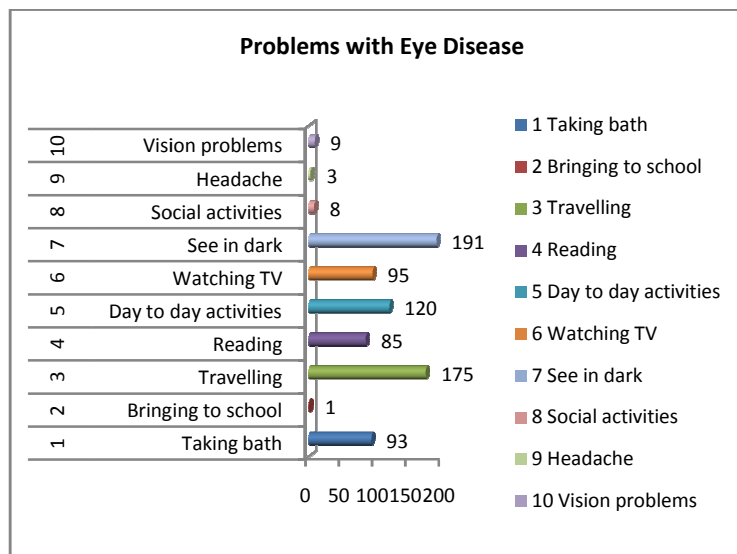


Figure 8:

Table 14: How the surgery helps

| S.N. | Kind of help | No. of Patients | % |
|--------------|---|-----------------|------------|
| 1 | Can do work, good vision | 40 | 20 |
| 2 | Can drive and do work | 2 | 1 |
| 3 | Can travel | 8 | 4 |
| 4 | Did not take the loan | 2 | 1 |
| 5 | Good vision | 118 | 59 |
| 6 | Free of costs and good vision | 14 | 7 |
| 7 | Watch/Write/Read/Study | 7 | 3.5 |
| 8 | Life is extended now/ family is happy and benefited | 3 | 1.5 |
| 9 | Facilities are good, OP free, medication, good job | 3 | 1.5 |
| 10 | Thought: too late for surgery, will get second life, before had surgery | 1 | 0.5 |
| 11 | No help | 2 | 1 |
| Total | | 200 | 100 |

Two persons told that the surgery didn't help. One of this persons told that he always has to close his eyes at sunlight. But 118 patients have a good vision now and 40 can do work now. Eight patients told that they can travel alone without problems anymore. Others are happy because of the free service of the hospital and seven patients can do things now, they were not able to do before surgery anymore (Watch/write/study). Some patients were happy about the good facilities (3) in the hospital and the women who thought that she will get a second life, because she did the surgery too late, is happy that she was wrong. The surgery did not take the loan (2) and three patients think that their life is extended now.

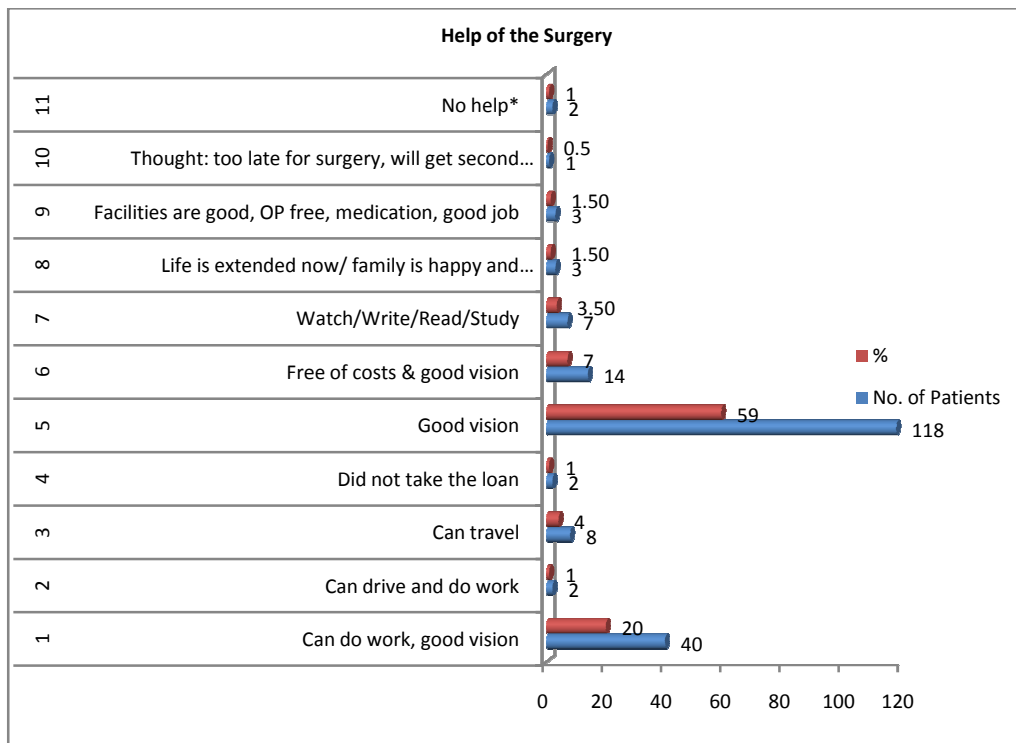


Figure 9:

Table 15: Positive changes for the Patient after surgery

| S.N. | Positive changes after the surgery | No. of Patients |
|------|---|-----------------|
| 1 | Family don't has to take care about patient anymore | 112 |
| 2 | More savings | 55 |
| 3 | Behavioural changes of the family members | 125 |
| 4 | Increasing in working our | 56 |
| 5 | Can see at night now | 1 |
| 6 | Stop of headache | 1 |
| 7 | Can study now and started to play | 1 |

The most patients told that the behaviour of their family changed after the surgery (125) and 112 patient told that their family doesn't have to take care about them anymore. That is matching a little bit. 55 Patient have more savings now and 56 told that their working hour increased, which is matching with each other, too. One can see at night now, which is really important for this person (watchman). One person's headache stopped and the youngest patient told that he can study now and started to play. Eight patients said nothing to the changes or had no changes after surgery.

Table 16: Positive Changes after surgery (day to day activities)

| S.N. | Changes for the Patients after surgery | No. of Patients |
|------|--|-----------------|
| 1 | Can take a bath without help | 109 |
| 2 | Bringing children to school | 5 |
| 3 | Can travel alone | 160 |
| 4 | Can watch TV | 101 |
| 5 | Can see in dark | 181 |
| 6 | More social activity | 26 |
| 7 | Can read now | 67 |
| 8 | Can do household work | 177 |
| 9 | Can see better | 2 |
| 10 | Farm work | 1 |
| 11 | Has no headache anymore | 1 |
| 12 | Start stitching | 1 |
| 13 | Start to study | 1 |

181 of the patients expressed that they can see in dark now, 177 patients told that they can do household work now, 160 said they can travel by their own, 109 said they can take a bath without help now and 101 can watch TV without any problem. 5 patients started to bring their children/ grandchildren to school. Some started their work (2- farm work, stitching) again, 26 explained that they can have more social activity and the youngest patient started to study.

CONCLUSION

The definitive result of the study was most of the patients operated for cataract was head of the family as they are the senior most of the family as cataract is mostly a old age process. And the family definitely affected by their loss of visual outcome. Majority of the patients is having good house where as still there are 9% of people does not have good housing condition. 43% family have enough income to take care of health care need of family, where as 57% of family members does not have enough source of income to manage the health care need of the family. It was clearly found in the study that there is remarkable number of patients who stopped or decrease their work because of the problem and the surgery helped them out to get back to the working life again. The major problem faced by the patients because of poor visual outcome was walking, travelling, household work, watching TV, and reading, writing and also poor outcome in working life. Still there is panic in the patients to go for surgical intervention for cataract, after having so advance surgery in place also availability of free surgical intervention facility by different charitable institutions and government. Most of the patients admitted that the behaviour of the family members changed as they fell after poor vision, they become burden on the family.

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