Barriers of eye care services utilization among 50 years old and over population in Nangarhar University Hospital. (A Descriptive Study)

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Abstract

The study was aimed to determine the barriers to utilization of eye care services among people aged 50 years and above in Ophthalmology Department of Nangarhar University Hospital, Nangarhar-Afghanistan.

The data of this descriptive study was collected between 1-July-2015 and 30 December-2015 from 794 newly registered clients, coming for getting eye care services. A structured pre-tested questionnaire was used for data collection. Data were analyzed using 21 version of the IBM SPSS software program. Descriptive statistics of the variables were presented in frequency tables with percentages, bivariate analysis of the categorical variables were performed using chi-square tests, a p-value less than 0.05 considered as significant.

In the Out Patient Department (OPD), from 800 newly registered patients, 794 accepted (99.3%) and completed interviews after eye examinations. The common barriers to eye health services utilization were reported as ‘problem not felt’ by 77.3%, followed by ‘no money to go’ 12.0%, and ‘no one to accompany’ 11.2%, ‘it is very far’ 2.6%, ‘it is from God side’ 0.9%, ‘no time for going to’ 0.8%, and ‘cannot go (because of the other diseases) 0.6% respectively.

The majority of the participants have never utilized eye care services due to not aware of the problems. In fact, some avoidable blinding eye diseases are chronic in nature and develop very slowly without perceiving the problem in the eye, causing complete visual loss before seeking care, therefore secondary preventive measures and community-based eye care promotion programs including eye care education in the community are recommended.

Keywords: Eye care, Barrier, Utilization, Afghanistan

Introduction

There are 285 million people living with visual impairment (VI) worldwide (246 million low vision and 39 million blind). From low vision 63% and from blindness 82% of people were aged 50 years and above (1). In developing countries, VI and blindness cause social, economic and public health problems (2). VI is unequally distributed in the WHO regions, the lowest prevalence is seen in the America and Europe (29.1 and 31.7 cases per 1000 population respectively), whereas the highest prevalence is seen in the WHO Eastern Mediterranean (EMR) at 40.5/1000, and South-East Asia Region (without India) at 48.2/1000 population (3, 4). Approximately, more than 90% of visually impaired people are living in developing countries (1, 5). Access to the preventives and eye curatives services are severely limited in these countries due to lack of services or un-equal distribution (6).

Worldwide, the main causes of VI are uncorrected refractive errors (URE) at 43%, followed by cataract at 33% of cases. Other causes include glaucoma 2%, diabetic retinopathy (DR),
trachoma, age-related macular degeneration (AMD), and corneal opacities (CO) 1% each. Undetermined causes of visual impairment are 18% (1).

In Nangarhar Province, the prevalence of VI was 22.6% (95%CI, 20%-25%) among 50+ population and the most common causes were cataract (52.8%), followed by URE (26.9%) and glaucoma (8.6%) which are mostly avoidable if services were utilized at the proper time (7).

From 34 provinces, 12 provinces have eye care services and these services restricted in provincial capital only. The eye care services are less accessible for people living in rural districts, especially those who live in a far remote area. However, the ministry of health along with Non-government Organizations (NGOs) established outreach surgical eye camps on a temporary basis for people living in the area far from the central capital.

Vision 2020, the right to site, was established as a partnership between WHO and the International Agency for the Prevention of blindness. This initiative is promoting the prevention of avoidable blindness and visual impairment, based on disease control, human resource development, and infrastructure and technology (8).

Eye care utilization is low even in developed countries because of some barriers such as cultural beliefs, lack of awareness, non-availability of accessible and affordable eye care services. World Health Surveys conducted in 70 countries throughout the world in 2002-2003 indicated that only 18% (95% Cl = 17 – 19 ) of older adults had an eye exam in the last year. The rate of an eye exam in the last year in the low, lower-middle, upper-middle, and high-income countries were 10%, 24%, 22%, and 37% respectively (9).

In the developing countries, the need for resources (equipment, infrastructure, and trained human resource) provision was given higher priority compared to the utilization of health services (10, 11). However, existing eye care services are underused even not used by the potential services utilizers (12-14). For example, South Africa a community rural survey found out that only 39% of the respondents examined their eyes within five years or more despite the accessible and affordable eye care services (15). It explains that besides resource provision, finding the barriers to utilization of services and increasing the awareness to defeat them through community programs are essential for ensuring the utilization of eye care services.

Afghanistan is in the list of low developing countries. From one side-eye care services are insufficient in number, and from the other side, it is less utilized in the majority of facilities with eye care.

The barrier to utilization of eye care services is not only the lack of awareness about treatment availability and benefits, but it is also diverse in different communities and cultures. This study was designed to determine the common barriers among people aged 50 years and above in the ophthalmology department of Nangarhar University Hospital.

Materials and methods
The study was a hospital-based descriptive study, carried out in the ophthalmology department of Nangarhar University Hospital from 1-July-2015 to 30 December-2015. This hospital is located in the central capital of Nangahar Province, Jalalabad City. The coverage area of the hospital included all districts of Nangarhar Province as well as other provinces in
the eastern zone such as Noristan, Kunar, and Laghman. The universe of the study composed of 50 years old and above population coming to seek eye care services.

During the period of the study, 800 people came to seek eye care in the OPD (Out Patient Department) of the ophthalmology department for the first time. All 800 newly registered patients were targeted to include in the study. Out of 800 eligible people, 794 accepted (99.3%) and completed interviews after an eye check-up.

People aged 50 years and above, who lived in Nangarhar province, newly registered and newcomer to this department, had cooperation with the interviewer and accepted participating in the study were included. People, from other provinces and not accepted the interview were excluded from the study.

A structured, pre-tested questionnaire form has been developed and used for data collection. The question form consisted of 2 parts. In the first part, some socio-demographic and personal characteristics of the person were recorded. In the second part, some questions and characteristics related to barriers to eye care utilization took place. The questionnaire was prepared and implied in the local language.

Ethical permission for this study was obtained before the starting of the study from the Ophthalmology Department of Nangarhar University. In addition, the objectives of the study and the procedure were explained to every participant and written consent was taken.

Data were analyzed using IBM SPSS Statistics 21 software program. The findings were presented by using marginal tables with numbers and percentages. The descriptive statistics of central measures such as percentage and mean plus-minus standard deviations were given. For determining the association between two categorical variables, the chi-square test was used while determining the association between two numerical variables student’s T-test was used. In bivariate analysis, all independent variables with p-value less than 0.05 considered as significant.

**Findings**

From 1-July-2015 to 30 December-2015, 800 eye patients, seeking eye care were requested to participate in the study. Out of 800 patients, 794 (99.4%) people accepted participation. From participants, 37.7% were from Jalalabad City while the remaining were from different districts of the province. Men were participated slightly higher (53.7%) than women. Approximately one-fifth (19.5%) of the participants were aged 65 years and above. Females are younger, mean age of the female=58.2±6 while it is 59.8±7 years for their male counterparts (p<0.001). The proportion of literate participants were 36.9% and its more than twice as much higher among male 48.4% than the female (23.6%). Of the participants, 36.1% reported that they being in good health status and 22.4% reported that having good socio-economic conditions. Some of the other socio-demographic characteristics of the participants by sex illustrated in Table 1.

| Table 1. Socio-demographic characteristics of participants (Nangarhar-Afghanistan, 2015) |
|---|---|---|---|---|
| Characteristics | Male | Female | Total | P-value |
| Age | | | | |
| 50-54 | 106 | 128 | 234 | 0.005 |

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
</tbody>
</table>
### Table 1. Distribution of participants by characteristics related to the barriers of not using eye care services and sex (Nangarhar-Afghanistan, 2015)

<table>
<thead>
<tr>
<th>Visiting an ophthalmologist</th>
<th>Sex</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>No</td>
<td>256</td>
<td>60.1</td>
<td>47</td>
<td>12.8</td>
</tr>
<tr>
<td>Yes</td>
<td>170</td>
<td>39.9</td>
<td>321</td>
<td>87.2</td>
</tr>
<tr>
<td>Total</td>
<td>426</td>
<td>53.7</td>
<td>368</td>
<td>46.3</td>
</tr>
</tbody>
</table>

1Socio-economic Status, 2Percentages were calculated from the number of participants who were not hailed from the same residence (n=578), 3Row percentages; others are column percentages

This study found that the most common barrier reported by participants was ‘problem not felt’, which is 77.3%. The second common barrier was found to be ‘no money to go’ 12.0% followed by ‘no one to accompany’ 11.2%, ‘it is very far’ 2.6%, ‘it is from God side’ 0.9%, ‘no time for going to’ 0.8%, and ‘cannot go’ (because of the other diseases) 0.6% respectively. The barriers of not using eye services with its frequency and percentages by the sex of the participants illustrated in Table 2.
Reasons for not visiting

<table>
<thead>
<tr>
<th>Reason</th>
<th>Participants</th>
<th>Percentage</th>
<th>Total</th>
<th>No. of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem not felt</td>
<td>264</td>
<td>71.7</td>
<td>350</td>
<td>82.2</td>
</tr>
<tr>
<td>No money to go</td>
<td>54</td>
<td>14.7</td>
<td>41</td>
<td>9.6</td>
</tr>
<tr>
<td>No one to accompany</td>
<td>54</td>
<td>14.7</td>
<td>35</td>
<td>8.2</td>
</tr>
<tr>
<td>It is very far</td>
<td>14</td>
<td>3.8</td>
<td>7</td>
<td>1.6</td>
</tr>
<tr>
<td>It is from God side</td>
<td>2</td>
<td>0.5</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>No time for going to</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>Cannot go (other disease)</td>
<td>2</td>
<td>0.5</td>
<td>3</td>
<td>0.7</td>
</tr>
</tbody>
</table>

1Mor than one answer, percentages were calculated separately from the number of participants who have not visited an ophthalmologist yet (total n=794, male=426, female=368)

Discussion
The overall literacy rate was found to be 36.9% (48.4% in males and 23.6% in females). The literacy rate in this study is slightly higher than the overall literacy rate in Afghanistan which is 31.4% (45.5% in males and 17% in females) (16). The reason for the higher literacy rate in this study might be due to the enrolment of the 36.0% of the participants from the capital Jalalabad City. Jalalabad has a relatively high-security situation with almost sufficient availability of schools for male and female and residents of the city compared with the rural have high socio-economic status. Afghanistan is one of the countries with the lowest literacy rate, which comes in third after Burkina Faso and South Sudan in the list of top 10 countries with the worst literacy rate in the world (17).

Among females, the percentage of illiteracy is 76.4% which was almost 1.5 times lower than males at 51.6 and the difference was statistically significant (p < 0.001). The great gape between males and females with regard to literacy might be due to the collection of some factors such as predominant culture norms (rule out attending of female to schools), lack of school in accessed distance, low demand for literacy particularly for female due to cultural barriers and early marriage of the female (18).

In this study, the greatest barrier is not perceiving the problem (77.7%), which is indicative of lack of knowledge about either their eyesight was normal, either their eye was not diseased and either their eye disease could be prevented or treated. A study which was conducted in Nigeria estimated the barrier of need not felt as 33%, which is lower than our study at 77.7% (19). The reason for the high percentage of ‘problem not felt’ might be lower knowledge of having impaired vision, lower awareness regarding the availability of eye care services and the possibility of treatment and prevention of avoidable blindness. Also, lower literacy rates of the participants and less exposure of the participants to eye care broadcasting in the media may broaden the problems of not perceiving eye diseases.

The second most common barrier was the economic problem at 12.0%. This problem is not related to the cost of eye care services directly, because health services including eye care are freely distributed to people in Afghanistan (20). It is just related to the transportation, food, and accommodation. Eye care services are only delivered in the capital city, patients from remote area have to stay at least two nights at the hotel. The result of this study is in agreement with the focus group discussion conducted in Michigan, which also found out the transportation cost as a barrier for the eye care utilization (21).

The third barrier mentioned as ‘no one to accompany’. Visually impaired or elderly people need to have a companion to go to eye care services for prevention of other non-intentional
situation. This problem is very profound for female patients because even healthy women were not allowed traditionally to go out alone. The barrier of no one to accompany is higher in the current study compared with the study conducted in Nigeria, which estimated as 8.3% (19). The reasons might be the accessibility of eye care services. In this study area, eye care services are only available in the capital city of the province, which is far from the districts around it. Therefore, males and females who are visually impaired cannot go to eye care services alone.

Other barriers stated by the participants in this study like lack of time and other health problems supported by the results of studies conducted (22-25). Males and females followed the same pattern without any significant differences related to the barriers of eye care utilization.

Because of security constraints, the study was conducted in the hospital setting, ignoring people still haven’t used eye care service. A population based cross-sectional study with adequate sample size and sampling method is essential for the better determinination of the barrires of eye care utilization in the community level.

Approximately, 8 out of 10 participants stated that not feeling of the eye problem as a reasons for not utilization of the eye care. Infact, some diseases of the eye is chronic, slowly progresive and without any warning signal causing blindness which is avoidable by simple surgical, medical or physical interventions. Therefore, community based eye care promation program including eye care education for increasing awareness in the community, secondary preventive measures (screening of blinding eye diseases) and strengthening already existed outreach program are recommended.
Reference