Nangarhar University
International Journal of Biosciences

Received: 10 Oct 2022
Accepted after revision: 15 Nov 2022
Published Online: 25 Feb 2023

ORAGINAL ARTICLE Vol 2, Issue 1 (2023) e-ISSN: 2957-9988

# Limitations of ocular care facility use amongst fifty period aged as well as greater population inside western Afghanistan. A descriptive research

Rahimi Ghulam Farooq[1], Rahimi Ibrarullah[*1], Zahirzai Mohammad Sediqe[2], Sherzad Abdul Ghafar[3]

[1]Department of Ophthalmology, Nangarhar University, Faculty of Medicine, Jalalabad, Nangarhar, Afghanistan
[2]Department of pediatrics, Nangarhar University, Faculty of Medicine, Jalalabad, Nangarhar, Afghanistan.
[3]Department of Biochemistry, Nangarhar University, Faculty of Medicine, Jalalabad, Nangarhar, Afghanistan

[*]Corresponding Author Email: Ibrarullah.rahimi1234@gmail.com

## ABSTRACT

**Background:** Visual impairment and blindness from ocular diseases are important public health difficulty in developing countries, including Afghanistan. Evidence recommends that poor uptake of available eye services by potential beneficiaries is a major barrier for achieving a global reception to eye services. This research was performed to observe the limitation to use ocular care facilities between people elderly 50 life-span and greater inside Eye Department of Nangarhar University Teaching Hospital, Nangarhar-Afghanistan.

**Materials & Methods:** The information of this descriptive research was accumulated 794 recently recorded patients who came for receiving ocular care facilities during 1-June-2020 to 20 December- 2020. Information was analyzed with IBM SPSS (version 21). Descriptive statistics of the variables were tabulated in frequency chart with percentile, bivariate analysis of the variables were carried out utilizing chi-square tests, p-value less than 0.05 considered as notable.

**Findings:** Inside the Out Patient Department (OPD), from 800 recently recorded patients, 794 approve (99.3%) and finished meeting following ocular investigation. The ordinary limits to ocular health facility use were reported at the moment that 'issue un sensed' by 77,3%., accompanied by 'un cash to move' 12,0%, as well as 'no one to help' 11.2%, 'this is extremely away' 2.6%, ' this is from Allah,[s] view' 0.9%, ' no moment for turning to ' 0.8%, as well as 'unable move (according of the other illnesses) 0.6% properly .

**Conclusion:** Major part of the participants have never used the ocular care facilities due to an alert of the issues. In fact, a few preventable deprive of sight ocular illnesses which are persistent in genius and progress extremely unhurriedly without recognizing the issue inside the ocular, leading to absolute vision loss prior to searching for care, for the reason subordinate avoidable measures and society based ocular keeping safe advancement timetable including ocular keeping safe instruction inside the society are approved. Health advancement stages compulsory to incorporate community based health education as well as to observe the ways of making ocular care facilities inexpensive inside rustic area.

**Keyword:** Ocular care; limitations; Use; Afghanistan

## INTRODUCTION

There are 287 million humans accompanied with sight deterioration (SD) globally (245 million little sight as well as 40 million visionless). From little vision 61% as well as visionless 81% human were elderly 50 years and greater than (Mariotti, 2012.). Inside developing nations, SD and visionless cause economic, community and general health difficulties (Shahriari et al., 2007). SD is differently spread in the WHO areas, the little widespread presence is perceived inside the America as well as inside Europe (30 and 32.7 instances per 1001 people properly), despite the highest widespread presence is perceived inside the WHO Eastern Mediterranean (EMR) at 41.5/1001, and South-East Asia Area (except India) at 49.3/1001 people (Resnikoff S et al., 2004.; Pararajasegaram, 1998). Additionally, almost 90% of sight deterioration population are living inside the developing nations (West & Sommer, 2001; Mariotti, 2012). Approach to the curative and preventive ocular facilities are seriously barriers in these nation due to lack of the facilities or un equal division (Yan et al., 2019). Globally, the principle cause of SD are Untreated Refractive Error (URE) at 44%, followed by lens opacity 32%. Further etiologies consist of glaucoma two percent, retinal anomaly by diabetes (RD), Trachoma, Age-related macular degeneration (AMD), as well as opacities of cornea (OC) 1% each. Unclear etiologies of sight deteriorations are 18% (Mariotti, 2012).

Inside Nangarhar, the prevalence of SD was 21.7% (20-25%, CL 95% ) between fifty+ people and the most popular etiology was opacity of lens (51.8%), followed by incorrected refractive error ( 26.9%) as well as glaucoma (8.6%) which are usually preventable if facilities were used at the right time (Abdianwall & Güçiz Doğan, 2018). From 34 districts, 12 districts have ocular care facilities. These facilities were inside districts center alone. The ocular care facilities slightly reachable to people living inside the rural area of the province, mainly living distant regions. Although, the government department of health accompanying with Non-government organizations (NGOs) established outreach surgical ocular Camp on short-term basis. Vision 6/6, was established as a partnership among world health organization and global Organization for the prevention of blindness. This initiative is encouraging prevention of avoidable blindness as well as sight deterioration, based on illnesses control, human resource development , as well as technology and infrastructure (World Health Assembly, 2009). Ocular care use is little even inside developing nations since some limitations for example societal beliefs, less awareness, and no reachable and cheap ocular care facilities. World health survey performance in 70 nations all over the world in 2002-2003 specified that lonely 18% (95% CI = 17 - 19) adult had ocular problem, checked in the previous year. The grade of ocular check in the previous year in low, lower middle, upper middle , as well as money making nations were 10%, 24%, 22%, as well as 37% properly (Vela et al., 2012). Inside the developing nations, the need for resources (tools, infra structure and trained staff) provision was given higher priority compared to use of health facilities (Fletcher et al., 1999; Gnyawali et al., 2012). However, existing ocular care facilities are underused by the potential facilities users (Brilliant et al., 1991; Courtright et al., 1995; Venkataswamy & Billiant, 1981). Such as , South Africa a society rural survey discovered that only 39% of the people checked their eyes in five years or more in spite of the reachable and cheap ocular facilities (Oduntan & Raliavhegwa, 2001). It explains that besides providing funds to the facilities, it is important to increase awareness among the people to use the ocular facilities more often. In addition, neither ocular facilities are enough in number, nor they are used by the people in full capacity.

The limitation to use ocular care facilities are not only the lack of awareness about treatment accessibility, but it is also a cultural and traditional phenomenon. Therefore, this research was planned to show the usual limitation among 50 years or more elderly at Ocular Ward, Nangarhar University Teaching Hospital.

## MATERIALS AND METHODS

This research was hospital based descriptive research, performed inside Ocular Ward, Nangarhar University Teaching Hospital from 1-6-2020 to 20 -12-2020.

The population of this research was composed of 50 year or older people who visited the hospital for ocular care facilities. Along the duration of this research, 800 population coming to search for ocular care inside Poly Clinic, Department of eye for the first time. Population elderly 50 years as well as greater than, who lived in the district of Nangarhar Province, recently recorded as well as recent coming to this department , had collaboration with the researcher as well as approve taking part in this research were involved. Population, from other districts as well as not approved the conversation were ruled out from this research. The investigation paper comprised of two parts. In the first part, a few population-related as well as individual nature of the individual were registered. In the second segment, a few investigations as well as nature related to limitations of ocular facilities utilization took place. The questionnaire was made ready as well as implicated in local language. Additionally, the aim of this research was expressed to each contributor and a written agreement was taken. Information was analyzed using IBMM SPSS statistics 21version software program. The discovers were presented by using the marginal chart with number and percentile. The discreptive statistics of central measure for example percent and mean plus were given. For determining relation among two categorical variabes , chi-squre test was used while for identifying the relation between two numerical variables student's T test was used . In bivariate analysis, all unconventional variables with p-value less than 0.05 considered as significant.

## RESULTS

Between 1-6- 2020 to 20 -12-2020, 800 ocular patients, seeking ocular care were asked to take part in this research. A part of 800 patients 794 (99.4%) population approved taking part. from members, 37.7% from Jalalabad town on the other hand remaining from various parts of region. Males taking part was a little greater (53.7%) than females. nearly 1/5(18.5%) from members have been elderly 66 years and greater than. Women were youngers, average of the women age were =57.2. ±6 on the other hand this is 59.8±7 years for their male counterparts ($p<0.001$). The percentage of educated members 36.9% and this is more than twice as much greater between man 48.4% than the woman (23.6%). Of the members, 36.1% told of that them being in good health condition as well as 22.4% told of having fine idiomatic state. Any other population-based nature of the members by sex exhibited in **Table 1.**

**Table 1.** Population-based nature of members

| Natures | Gender | | | | | | p-value |
|---|---|---|---|---|---|---|---|
| | Man | | Women | | entire | | |
| | N | % | N | % | n | % | |
| **Life time** | | | | | | | |
| 50-54 | 106 | 24.9 | 128 | 34.8 | 234 | 29.5 | 0.005 |
| 55-59 | 118 | 27.7 | 102 | 27.7 | 220 | 27.7 | |
| 60-64 | 104 | 24.4 | 81 | 22.0 | 185 | 23.3 | |
| 65,+ | 98 | 23.0 | 57 | 15.5 | 155 | 19.5 | |
| Educated | 52 | 12.2 | 26 | 7.1 | 78 | 9.8 | |
| Un educated | 220 | 51.6 | 281 | 76.4 | 501 | 63.1 | <0.001 |
| Elementary class | 38 | 8.8 | 30 | 7.8 | 68 | 8.5 | |
| Middle class | 24 | 5.8 | 14 | 3.5 | 38 | 4.8 | |
| Senior class | 80 | 2.10 | 22 | 5.5 | 103 | 12.6 | |
| Post graduated | 10 | 2.4 | 0 | 0 | 11 | 1.4 | |
| **One self-reported fitness condition** | | | | | | | |
| Fine | 159 | 37.1 | 126 | 34.1 | 287 | 36.1 | 0.001 |
| Fair | 243 | 56.3 | 186 | 51.3 | 425 | 53.5 | |
| Broke | 29 | 6.6 | 54 | 15.7 | 82 | 10.3 | |
| **Married condition** | | | | | | | |
| Now married | 367 | 86.2 | 231 | 62.8 | 598 | 75.s | <0.001 |
| Now un marital | 59 | 13.8 | 137 | 372 | 196 | 24.7 | |
| **Present home** | | | | | | | |
| City | 161 | 37.8 | 138 | 37.5 | 299 | 37.7 | 0.932 |
| Rustic | 265 | 62.2 | 230 | 62.5 | 495 | 62.3 | |
| **One self -reported SES[1]** | | | | | | | |
| Not bad | 96 | 22.5 | 82 | 22.3 | 178 | 22.4 | <0.001 |
| Fair | 242 | 56.8 | 165 | 44.8 | 407 | 513 | |
| Not good | 88 | 20.7 | 121 | 32.9 | 209 | 26.3 | |
| **Job condition** | | | | | | | |
| No | 256 | 60.1 | 47 | 12.8 | 303 | 38.2 | <0.001 |
| Yes | 170 | 39.9 | 321 | 87.2 | 491 | 61.8 | |
| **Total[3]** | 426 | 53.7 | 368 | 46.3 | 794 | 100 | |

[1]Socio-economic Status, [2]Percentages were measured from the numera of members whom were unhailed from the identical area (n=578), [3]Row percent; others are column percent's

This research discovers that the most usual limitation described by members was 'issue not perceived', which is 77.4 %. 2nd usual limitation was discovered 'no cash to go' 12.0% ; 'no one to go with' 11.2%, 'it is distant' 2.6%, ' it is from Allah' 0.9%, ' no time for checkup' 0.8%, and 'cannot go' (since other illnesses) 0.6% . The limitation of not using ocular facilities with its frequency, percentage, and gender is shown in **Table 2.**

**Table 2.** Distribution of members belonging to the limitations of not using ocular facilities and their gender

| Go to eye doctor | Gender | | | | |
|---|---|---|---|---|---|
| | Women | | Male | | Entire |
| | N | % | n | % | N |
| Cause of un visiting doctor [1] | | | | | |
| Issue not perceived | 264 | 71.7 | 350 | 82.2 | 614 |
| Poverty | 5e | 14.7 | 41 | 9.6 | 95 |
| No one to go with | 54 | 14.7 | 35 | 8.2 | 89 |
| It is distant | 14 | 3.8 | 7 | 1.6 | 21 |
| It is from allah side | 2 | 0.5 | 5 | 1.2 | 7 |
| Lack of time | 0 | 0 | 6 | 1.4 | 6 |
| Unable to go (other illnesses) | 2 | 0.5 | 3 | 0.7 | 5 |

[1]More than one answers, percent's were measured separately from the numeral of members whom have not met an eye specialist up to now (entire .794, man=425, woman=369)

## DISCUSSION

The overall literacy rate among the target population was found to be 36.9%% (48.4% in man and 23.6%% in woman). Education level in this research is little greater than general education level in our country which is 31.4 % (44.5%% in man as well as 16% in woman) (Afghanistan, 2012). The cause for higher education rate in this research might be as a result of enrollment of 36.0% of members from Jalalabad City, the center of Nangarhar Province. Cities usually have greater safety conditions, educational institutes, and schools for both men and women. In addition, the economic condition of the cities is comparatively better than the rural areas. Our country is one of the nations which has lowest education level, it is 3rd in number after Burkina Faso and Southern Sudan in group of top 10 nations which has worst education level in the globe (Kristina, 2013). Among women, the percentage of education is 51.6 % that is very low in comparison to men 76.4% with ($p < 0.001$). The large space among man and woman related to education could be because of some reasons for example male dominant society norms (ignoring women schooling), fewer female school in close proximity, little request for education especially for woman because of society limitation as well as early marriage of women (Hanemann, 2012).

In this research, the largest limitation is not recognizing the issue (77.7%), which is indicative of less information about their ocular vision whether it was normal, ill, or how could the illness be avoided and cured. A research which was performed inside Nigeria evaluated the limitation of necessary not sensed as 33%, which is less than our research at 77.7% (Ebeigbe & Ovenseri-Ogbomo, 2014). The cause for the large percentage of issue not sensed could be less education of having impaired sight, less perception about the existence of ocular facilities as well as possibility of therapy and avoidance of preventable blindness. In addition to less education rate of the members, the lack of access to ocular care announcement in the media might have expanded the issue of not recognizing ocular illnesses. The second most usual limitation was the financial issue at 12.0%. This issue does not belong to the price of ocular care facilities directly, due to health facilities including ocular care are free of

cast to people inside Afghanistan (Hamidi & Jayakody, 2015) . This just belong to the transport system, food, and accommodation. Ocular care facilities are only provided inside the central area, ill people from far region have to stay in a hotel at least for two nights. Outcome of the research is in agreement with the discussion performed inside Michigan, that as well discovered the transport system charge as limitation to ocular care use (Elam & Lee, 2014).

The third limitation says 'no body to go with'. Sight deterioration or aged people necessary to have a person to go to for ocular care facilities for avoidance of other non-aimed condition. This issue is very deep for women illnesses due to even healthy females were not permitted culturally to go out lonely. The limitation of no one to go with is larger in this research correlated with the research performed in Nigeria, which estimated as 8.3% (Ebeigbe & Ovenseri-Ogbomo, 2014). The cause could be the reachability of ocular care facilities. In this research area, ocular care facilities are present in centeral area of the province that is remote to the villages around to it. So, men and women with low vision are unable to go to ocular care facilities lonely. Other limitation expressed to use by members during research such as less of time as well as more health issue supported by the outcome of research performed (du Toit et al., 2006; Grimes et al., 2011; Ocansey et al., 2013; Ubah et al., 2013). Men and women followed the same pattern without any important differences belong to the limitation of ocular care use. Due to of safety limitations, this research was performed inside health center environment, disregarding population up to now have not utilized ocular care facility. A population based on cross-sectional research with enough sample size and sampling method is important for the better discovering of the limitation of ocular care use in the society level. Almost, eight out of ten members expressed that no sense of the ocular issue as a reason for not using of the ocular care. In fact, some illnesses of the ocular are persistent, slowly developed and without any warning sign leading to blindness which are preventable with simple surgical, medical or physical interference. Hence, society based on ocular care developing plan including ocular care instruction for growing realization inside the society, secondary preventive measures (screening of blindness, ocular illnesses) and strengthening already existed outreach plans; are suggested.

## CONCLUSION

A great number of people have never used the ocular care facilities because of not realizing the issue. Other common barriers are 'issue un sensed'., accompanied by 'un cash to move' as well as 'no one to help' 'this is extremely away' ' this is from Allah view' ' no moment for turning to ' as well as 'unable move (according of the others diseases) properly. Really, some preventable blindness ocular diseases are persistent in nature as well as progress gradually without realizing the issue inside the ocular, giving rise to somewhat sight loss, or complete visual lose before searching cure for it.

## REFERENCES

Abdianwall, M. H., & Güçiz Doğan, B. (2018). Prevalence of visual impairment and related factors in Nangarhar Province of Afghanistan: a cross sectional study. *International journal of ophthalmology*, 11(12), 1968-1977. https://doi.org/10.18240/ijo.2018.12.16

Brilliant, G. E., Lepkowski, J. M., Zurita, B., & Thulasiraj, R. (1991). Social determinants of cataract surgery utilization in south India. *Archives of Ophthalmology*, 109(4), 584-589.

Afghanistan, I. R. (2012). Afghanistan Living Conditions Survey. Islamic Republic of Afghanistan Central Statistics Organization: *International Labour Organization, Kabul, Afghanistan*.

Courtright, P., Kanjaloti, S., & Lewallen, S. (1995). Barriers to acceptance of cataract surgery among patients presenting to district hospitals in rural Malawi. *Tropical and geographical medicine*, 47(1), 15-18.

du Toit, R., Ramke, J., Naduvilath, T., & Brian, G. (2006). Awareness and Use of Eye Care Services in Fiji. *Ophthalmic Epidemiology*, 13(5), 309-320. https://doi.org/10.1080/09286580600826629

Ebeigbe, J., & Ovenseri-Ogbomo, G. (2014). Barriers to utilization of eye care services in rural communities in Edo State, Nigeria. *Borno med J*, 11(2), 98-104.

Elam, A. R., & Lee, P. P. (2014). Barriers to and suggestions on improving utilization of eye care in high-risk individuals: focus group results. *International scholarly research notices*, 2014.

Fletcher, A. E., Donoghue, M., Devavaram, J., Thulasiraj, R. D., Scott, S., Abdalla, M., Shanmugham, C. A. K., & Murugan, P. B. (1999). Low Uptake of Eye Services in Rural India: *A Challenge for Programs of Blindness Prevention. Archives of Ophthalmology*, 117(10), 1393-1399.

Gnyawali, S., Bhattarai, D., & Upadhyay, M. (2012). Utilization of primary eye health services by people from a rural community of Nepal. *Nepalese Journal of Ophthalmology*, 4(1), 96-101.

Grimes, C. E., Bowman, K. G., Dodgion, C. M., & Lavy, C. B. (2011). Systematic review of barriers to surgical care in low-income and middle-income countries. *World journal of surgery*, 35(5), 941-950.

Hamidi, F., & Jayakody, A. (2015). Separation of Powers under the Afghan Constitution: A Case Study. *Kabul: Afghanistan Research and Evaluation Unit*, *16*.

Kristina, C. (2013). 10 Countries With The Worst Literacy Rates In The World. *Hiiraan online*. https://www.hiiraan.com/news4/2013/Sept/41051/10_countries_with_the_worst_literacy_rates_in_the_world.aspx

Ocansey, S., Kumi-Kyereme, A., Awusabo-Asare, K., Ilechie, A. A., Boadi-Kusi, S. B., & Abraham, C. H. (2013). Utilization of eye care services among Ghanaian elderly population: Evidence from a peri-urban community. Ophthalmology Research: *An International Journal*, 1(2), 89-101.

Oduntan, A., & Raliavhegwa, M. (2001). An evaluation of the impact of the eye care services delivered to the rural communities in the Mankweng Health sub-district of the Northern Province. *S Afr Optom*, 60(3), 71-76.

Resnikoff S, Pascolini D, Etya'ale D, Kocur I, Pararajasegaram R, Pokharel G P, & Mariotti S P. (2004.). Global data on visual impairment in the year 2002. *Bulletin of the World Health Organization*., 82 (11), 844-852.

Shahriari, H. A., Izadi, S., Rouhani, M. R., Ghasemzadeh, F., & Maleki, A. R. (2007). Prevalence and causes of visual impairment and blindness in Sistan-va-Baluchestan Province, Iran: Zahedan Eye Study. *Br J Ophthalmol*, 91(5), 579-584. https://doi.org/10.1136/bjo.2006.105734

Ubah, J. N., Isawumi, M. A., & Adeoti, C. O. (2013). Barriers to uptake of cataract surgery: An eye camp account. *Research in Ophthalmology*, 2(1), 1-3.

Hanemann, U. (2012). *Looking Forward with LIFE: Literacy Initiative for Empowerment. Global LIFE Mid-Term Evaluation Report 2006-2011*. UNESCO Institute for Lifelong Learning. *Feldbrunnenstrasse* 58, 20148 Hamburg, Germany.

Vela, C., Samson, E., Zunzunegui, M. V., Haddad, S., Aubin, M.-J., & Freeman, E. E. (2012). Eye care utilization by older adults in low, middle, and high income countries. *BMC Ophthalmology*, 12(1), 5. https://doi.org/10.1186/1471-2415-12-5

Venkataswamy, P., & Billiant, G. (1981). SOCIAL AND ECONOMIC BARRIERS TO CATARACT-SURGERY IN RURAL SOUTH-INDIA-A PRELIMINARY-REPORT. *JOURNAL OF VISUAL IMPAIRMENT & BLINDNESS*, 75(10), 405-408.

West, S., & Sommer, A. (2001). Prevention of blindness and priorities for the future. *Bulletin of the World Health Organization*, 79(3), 244-248.

Mariotti, S. P. (2012). Global data on visual impairments 2010. *World Health Organization*, *20*.

Pararajasegaram, R. (1998). The global initiative for the elimination of avoidable blindness. *Community Eye Health*, *11*(26), 29.

Yan, X., Chen, L., & Yan, H. (2019). Socio-economic status, visual impairment and the mediating role of lifestyles in developed rural areas of China. *PLoS One*, *14*(4), e0215329.