

VISUAL IMPAIRMENT AS A SOCIAL DISADVANTAGE AND ITS IMPACT ON HEALTH OUTCOMES

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Abstract

Visual impairment as a form of disability, is a source of social exclusion. It has negative impact on health outcomes of a population and is considered the most common form of disability. This review article sought to highlight the social characteristics of visually impaired people, their unique challenges, access to healthcare, the interaction between these factors and their health outcomes. Following the discussions, evidence based recommendations were made and finally a case was made for more proactive measures by stake holders improve the social determinants of health among visually impaired as this is naturally expected to improve their health outcomes.

Keywords – *visual impairment, social disadvantage, impact, health outcomes*

Introduction

Visual impairment is a visual state that affects the ability of an individual to complete one's daily activities independently and is an important impediment to social acceptance.¹ It is considered to be the most common form of disability.²

The international classification of diseases (ICD – 11, 2018) classified visual impairment into mild, moderate, severe visual impairment, and blindness based on the best-corrected visual acuity.³ Globally, the estimated magnitude of blindness in 2015 was 36 million, and 217 million with moderate to severe visual impairment.⁴ Being a form of disability, people with visual impairment with other vulnerable groups such as women, girl's children, elderly, people with HIV & AIDS, migrants, and internally displaced are at constant risk of social exclusion.⁵ One unifying factor among these vulnerable groups is low socioeconomic status. For different reasons, they are at risk of poor access to quality education, abuse, and other forms of social exclusion. Like every other group of humans, the visually impaired

population has various needs. These needs when not realized, serve as barriers to social integration. Soleimani-Sefat et al⁶ reported the common needs of visually impaired students in Iran. These needs were categorized into training needs for school (books, basic health needs, teaching, and tutors), financial needs for basic upkeep, and special needs such as rehabilitation services, social works need, leisure needs (sports arena and facilities). Other needs include communication skills, empathy from the public, and unique opportunities.⁶ In the same vein, they have unique challenges categorized as violence-related (mockery, teasing, harassment, and sexual abuse), education challenges (lack of access to facilities and materials), mobility (inappropriate sidewalk and transportation) related and lack of recreation facilities and tutors. These needs and challenges on their merit have respective impacts on health outcomes. In addition to the common health needs of the general population, blind and visually impaired individuals have psychological challenges, difficulties with the activity of daily living, and low

health-related quality of life.⁷ Also, blind and low vision patients also gave challenges accessing prompt, safe, and effective health care.⁷ Anxiety towards the experience of darkness, suicide rates, reduced cognitive function may all be worsened by practitioners who do not have an insight towards their unique challenges.⁸ They may also have adherence issues with medication and other forms of therapy which may also contribute to poor health outcomes. This review seeks to highlight the major challenges of the visually impaired and their impact on health outcomes with the view to making lasting recommendations to mitigate the challenges of this socially disadvantaged group.

Discussion

According to the world health organization (WHO), there is an uneven distribution of blindness and visual impairment across nations and regions of the globe, with higher prevalence in low and middle-income countries.⁹ The reason for this is poor access and cross inequity of distribution of basic eye care in such places. Blindness and visual impairment have an impact on the individual, immediate, extended families, and in some cases neighbors.¹⁰ It has been established that blindness is more common in low socioeconomic settings for obvious reasons. This affects the employment and income of those involved. It affects family nutrition, mental state, affects children's schooling, and encourages childhood labour which exposes them to other harmful vices that have a negative influence on health outcomes. The vicious cycle of blindness and poverty is endless as blindness can be said to cause poverty while poverty also predisposes to blindness. For adults in the family, blindness also affects their activities of daily living and quality of life. These may not be expressed directly in monetary terms but on its effects on quality-adjusted life years (QALY) and disability-adjusted life years (DALY) of the victim and caregivers. There are direct, indirect, and intangible costs tied to blindness that contribute to the cycle of blindness, visual impairment, and poverty. In a *Jos Journal of Medicine, Volume 15, No. 1, 36-41*

study by Yan et al in rural China, the socioeconomic impact of visual impairment was significant.¹¹ Visual impairment affected economic status, employment levels, and income. They went ahead to suggest that blindness prevention programs should be packaged alongside development and empowerment programs. Earlier reports from the Andra Pradesh Eye Disease Study revealed that lower per capita income increases the odds of blindness, also lack of education is to increase the risk of blindness by three folds.^{12,13} Also in other parts of the world, a high prevalence of blindness was reported populations of African, Asian, and Indian descent.¹⁴ The Baltimore Eye Disease Study reported a higher prevalence of blindness (1.75% as against 0.76%) among 'blacks' compared to 'whites' aged forty years and above.¹⁵ This supports the assertion that inequity suffered by ethnic minorities negatively impacts health outcomes. Also, inequity affects the socioeconomic status of women and the elderly which affects their access to eye health services leading to a higher prevalence of blindness among this disadvantaged group. Data from a meta-analysis on gender and blindness reveal that 64.5% of the world's blind are females.¹⁶ They concluded that there is overwhelming evidence supporting the association between lower socioeconomic status and blindness. This is a double strategy for these vulnerable members of the population.

People with disabilities (VI inclusive) have general health needs and need equal access to such but the reality is that few countries have adequate services for people with special needs. People with blindness and visual impairment also have poor access to health care. Hasse and Ritter in Arizona identified the following barriers to proper access to health care in this group.¹⁷ They are "inability to read appointment reminder cards", "transport difficulty to a facility", "inability to read or fill out paperwork", "difficulty finding assistance from family members or facility staff", "difficulty navigating within the facility", "inability of family and facility staff to understand needs of the client",

“lack of provider education on etiquettes for dealing with client”, and lack of low vision aids at strategic points in a facility”. A clinical review by Cupples and Jackson completely agrees with the barriers listed in Arizona by Hasse and Ritter.^{17,18} They went ahead to suggest that health workers should consider intermittent blindfolds of different types especially at leisure time to enable them to gain insight as to the plight of visually impaired clients who consult at their clinics.¹⁸ Other causes of poor access to health are among people with special needs include prohibitive cost, lack of insurance, and limited services especially in rural areas which lack certain basic infrastructure through city centers are not completely exempted especially in low resource countries.¹⁹ Prohibitive cost and lack of insurance present a twin challenge for this group of people though could be viewed as the same since they may share some cause and effect relationship. The in the preceding paragraph, a relationship between visual impairment and socioeconomic status was established at the individual and community or national level. Since health care is neither free nor cheap, the price of health services rendered may be seen as prohibitive by people who cannot afford it, not minding that this is a business venture from where many people get their livelihood. This view is not unexpected among people with special visual needs as much time they can't afford. Even when they can afford it, no one saves money and plans to get sick. Unfortunately, low-resource settings have a higher prevalence of this condition. Access to good and basic healthcare is considered a fundamental human right. This is why campaigns for universal health coverage have taken the front stage in many nations. However not every nation is viable to implement comprehensive insurance for all her citizens though desirable. A mixed-method survey in the United Kingdom revealed that 74% of visually impaired individuals could not read health information made available to them.²⁰ One thing is to make information available and it is a whole different issue assimilating and interpreting this information available and making

rational choices for the good of one and his surroundings. Without basic information such as the location of facilities, services available, and so on, it is unlikely of one to seek requisite help. Some other factors relating to access to healthcare have been captured in the previous paragraph but the important lesson here is lack of access to health care translates to poor outcomes. On behalf of the Nigerian National Blindness and Visual Impairment Survey workgroup, Tafida et al²¹ highlighted the association of poverty and poor access to eye care services. The group concluded that elimination of avoidable causes of blindness is not in view if access to eye care is not improved and this can be extrapolated into all aspects of health care vis-a-viz health outcomes.

VI negatively impacts mental status, comorbidities, compliance, and quality of life. Coexisting comorbidities could be very challenging with visual impairment (VI). For instance, a diabetic with a visual impairment from diabetes or other causes, would not be able to practice proper self-care. Diabetes mellitus and visual impairment are independent risk factors for injury. Though a study in Indonesia did not show any relationship between visual impairment and the development of foot ulcers.²² Visual impairment in diabetics as an independent risk factor for mortality in diabetics.²³ The visual loss also causes adherence issues in disease management as the patient has difficulties locating medications, reading instructions. Vision is also needed for good nutritional choices. With chronic comorbidities, visual impairment is not exempted from its negative impact on health outcomes.

The various grades of visual impairments exert some degree of impact on quality of life, and activities of daily living which are health outcomes equally. Risk of falls and injuries, restrictions, sedentary lifestyle predispose to mental health challenges which could be measured as quality-adjusted life years and disability-adjusted life years.¹⁰ This also has a significant negative impact on health-related quality of life (HRQoL) Eye care

and rehabilitation services are important for mental stability and will reduce the impact of exclusion and improve the health outcome of this population.²⁴

Earlier in this review, it was noted that one of the unique needs of people with special needs (including the visually impaired) is a lack of recreational facilities and support staff. This is elaborated by Houlihan and Stenvenson's findings which showed that the visually impaired are more prone to non-communicable diseases compared to sighted individuals due to lack of physical activities.²⁵ The review confirmed a higher prevalence of chronic conditions and a higher rate of inactivity compared with their sighted counterparts. Moderate to vigorous physical activity is known for its prophylactic effect in the prevention of non-communicable diseases especially those of cardiovascular origin and also non-pharmacologic therapy for the control of these conditions.

Many authors have reported that people with special visual needs are at increased risk of various forms of abuse, exploitation, and social exclusion.²⁶ A cross-sectional survey in Norway reported that people with disabilities have a higher risk of sexual assault than the general population.²⁷ Another study in Addis Ababa reported that two-third of visually impaired women have experienced sexual harassment from family members (29%), Neighbors (26%), strangers (19.3%). The study equally showed that these women are prone to harassment from blind men too.²⁸ This has a profound effect on the psyche, social interaction, and physical health of such women. Consequently, they may manifest as aggression, insomnia, severe depression, suicidal attempts, and social withdrawal. Also, unwanted pregnancy, sexually transmitted diseases, are the end products that negatively impact the health outcome of victims.

Recommendations

Having reviewed the causal relationship between blindness, visual impairment, and health outcome, gradually the curtain on this discussion shall be

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drawn with some recommendations and available evidence that mitigate the negative impact of this condition on health outcomes.

1. Blindness prevention and control programs should be all-inclusive. Those who conceive, design, and implement blindness prevention programs should pay attention to the infrastructure needed to drive economic development programs to empower the community and not just concentrate on diseases. Economic empowerment is an integral part of rehabilitation.
2. Infrastructure promotes economic activity which is a stimulus for development. Economic empowerment promotes access either because the people have more resources to pay for services or health facilities become situated closer to the community thus improving access to services. There is a need for training for facility-based or home-based caregivers to entrench humane attitudes and interactions with the blind and visually impaired members of their community. This will also entrench better professionalism in dealings and care of clients with special visual needs. Provision of optical, non-optical low vision aids, rehabilitative services training of eye care workers on low vision care will go a long way at improving access to health care for disadvantaged members of the society. Non-optical aids include a wide range of environmental modifications needed to make public places friendly to suit the unique needs of the special members of the community.
3. Policy interventions are needed to protect the rights of vulnerable groups. Everybody is a stakeholder on issues of rights protection for people with special needs. This includes support groups made of people with various forms of disability, civil society organizations, and professional groups. Any of these could champion advocacy drives for the common good of people with social disadvantage. This could serve as a springboard that will lead to

vital legislation for budgetary allocation, infrastructure development, and other policies needed to advance the cause of vulnerable groups. Also, policies that promote universal health coverage will lead to different forms of insurance schemes that in the long run improve access to health care for all irrespective of status is paramount. Evidence of government and policy role on health outcomes resides in the fact that majority of the world's blind people are in low and middle-income countries.¹⁶

4. Data generation in the form of a situational analysis, needs assessment, disability registry. Data generation, analysis, and interpretation are the 'bedrock' for evidence-based intervention at a local regional, and national level. A needs assessment or a situational analysis tell reveal the magnitude of the problem, mating infrastructure with the standard, and identifies the gap. This will serve as the basis for rational budgetary allocation, planning, advocacy for the legislative bill, and policy modification for better intervention.
5. Review of existing health laws and match them with current realities. This is another form of needs assessment at the government level. Activities of governments are far-reaching as they regulate the activities of citizens. The government at a various level have a duty of protecting the right of its citizens. In this case, access to health care is a basic right and the responsibility of the government to protect.
6. The synergy of all stake holders in planning and design of projects for a holistic approach and rational implementation.

Conclusion

The review has shown that visually impaired individuals like other disabled groups experience a diverse range of exclusion which affects their health outcomes negatively. Stakeholders must take seriously issues concerning this vulnerable group for a healthier society.

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