

The Intersection of Vision Impairment and Mental Health



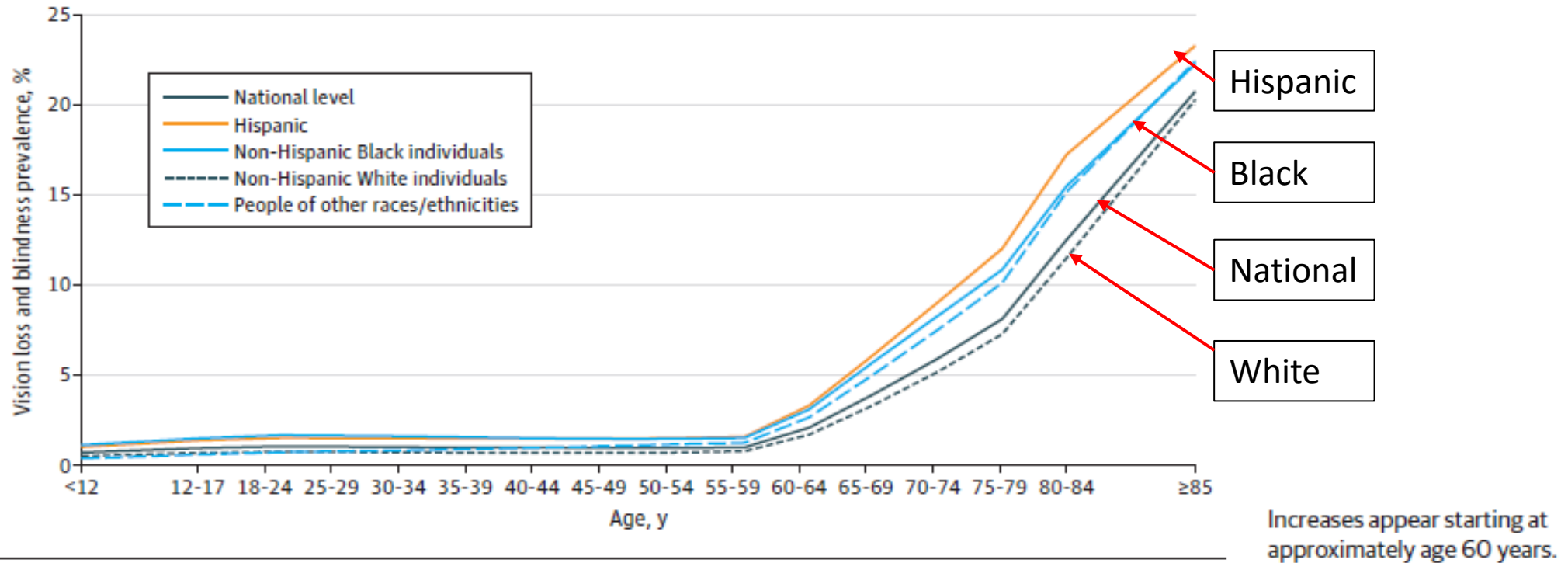
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Agenda

- Common comorbid psychiatric conditions in older people with impaired vision
 - Depression
 - Cognitive Impairment
- Strategies for preventing and/or coping with mental health issues in late onset vision loss

Prevalence of Impaired Vision in Older People

Figure 1. Crude Prevalence of Visual Acuity Loss or Blindness by Age for All Racial/Ethnic Groups



Flaxman AD, Wittenborn JS, Robalik T, Gulia R, Gerzoff RB, Lundeen EA, Saaddine J, Rein DB; Vision and Eye Health Surveillance System study group. Prevalence of Visual Acuity Loss or Blindness in the US: A Bayesian Meta-analysis. JAMA Ophthalmol. 2021 May 13.

Eye Disease Prevalence



Age-related Macular Degeneration

2.1 Million

Glaucoma

2.7 Million

Diabetic Retinopathy

7.7 Million

Cataract

24 Million

Courtesy of National Eye Institute

Consequences of Vision Impairment in Seniors: Physical Health

- Loss of independence
- Disability
- Risk of falls is doubled
- Higher mortality rates
- Higher health care costs:
 - Higher rates of emergency room visits
 - Higher rates of hospital admissions
 - Higher rates of nursing home admissions

Consequences of Vision Impairment in Seniors: Mental Health

- Higher rates of:
 - Depression
 - Suicide
 - Cognitive Impairment

Major Depressive Disorder*

- Depressed mood and/or loss of interest or pleasure AND
- At least 4 of the following:
 - Change in appetite/weight
 - Sleep disturbance (insomnia or sleeping too much)
 - Psychomotor slowing or restlessness
 - Fatigue or lack of energy
 - Poor concentration or indecisiveness
 - Feelings of guilt or worthlessness
 - Thoughts of death or suicide

*Symptoms must be present for at least 2 weeks.

Depression: Category Versus Dimension

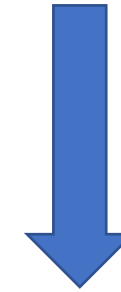
Disorder

Symptoms

Major depression

More

Persistent Depressive Disorder
(dysthymia)



Subthreshold depression

Less

Depression in Visually Impaired Older People

- Approximately one third of visually impaired older people have significant depression.
 - This rate is twice as high as that in visually intact older people.
- People who have impaired vision are approximately 2 to 3 times more likely to develop depressive symptoms than people with normal vision.
- Perceived functional deficits from vision impairment increase the risk of depression.

Effect of Depression in People with Impaired Vision

- Depressed people with impaired vision experience greater vision-related disability compared to non-depressed people with impaired depression.
 - This relationship is upheld when severity of vision loss is controlled.
- Perceived functional losses from eye disease are a larger predictor of depression than objective measures of disease severity (e.g., visual acuity).

Downward Spiral of Depression and Impaired Vision

- Vision impairment makes it difficult to engage in valued activities (activities that maintain independence, hobbies, socializing).
- Disengagement may lead to depressive symptoms.
- The ensuing depressive symptoms (lack of motivation, low energy, low mood) make it even more difficult to engage in valued activities.
- A downward spiral is set in motion where by disability and depression continually exacerbate the effects of each other.

Diabetic Retinopathy (DR)

- Diabetes doubles the risk of depression.
- Inflammatory responses to diabetes-related depression can trigger microvascular complications such as diabetic retinopathy.
- Diabetes control is largely behaviorally driven (e.g., diet, exercise, medication adherence).
- Depression, however, hinders motivation for (and ability to) engage in diabetes self-care, leading to worsening glycemic control and thus further increasing the risk for DR progression.
- DR-related vision impairment in turn interferes with effective diabetes self-management.

Treating Depression in Impaired Vision: Rehabilitation

- Can low vision rehabilitation alleviate depression?
 - Low vision rehabilitation might have an “antidepressant” effect to the extent that it can facilitate re-engagement with valued activities.
 - Need to address barriers to rehabilitation:
 - Depression may decrease motivation to participate in rehabilitation.
 - Cost
 - Transportation
 - Accessibility

Treating Depression in Impaired Vision: Problem Solving Treatment (PST)

- “Preventing Depression in AMD”
 - Patients with newly diagnosed AMD were randomized to PST (6 in-home sessions) or a control group.
 - At 2 months, 12% of PST participants developed depression compared to 23% of control participants.
 - PST-treated participants had half the rate of depression 2 months.
 - PST participants were also less likely to relinquish valued activities than control participants (23% vs 37%, respectively).
 - PST prevented depression to the extent that activity relinquishment was minimized.
 - The beneficial effects were lost by 6 months.

Treating Depression in Impaired Vision: Chronic Disease Self-Management

- AMD-focused self-management program that included basic information about AMD, education on rehabilitative strategies, and problem solving skills training.
 - Compared to controls, treatment participants had significant improvement in mood at 6 weeks, and these effects were strongest for participants who were depressed at baseline.
 - Intervention effects were sustained at 6 months.

Treating Depression in Impaired Vision: Integrated Approaches: VITAL Trial

- The Low Vision Depression Prevention trial (VITAL) tested the efficacy of a combined low vision rehabilitation/occupational therapy intervention to prevent depression in patients with AMD.
- All participants received low vision training from an optometrist and were given prescription magnifiers.
- Participants were randomized to a home-based multi-component intervention or a control condition.
- The control condition was supportive listening, conducted by a social worker.
- All participants, regardless of treatment group, had 6 in-home visits with an OT (for participants in the active group) or a social worker (for control participants).

Treating Depression in Impaired Vision: Integrated Approaches: VITAL Trial

Active treatment consisted of:

- 1) Low vision optometry to provide low vision devices (magnifiers)
- 2) In-home occupational therapy to teach strategies for goal attainment, modify the home environment (lighting, tactile cues), and reinforce optometry treatment plan
- 3) OTs use Behavioral Activation (BA) to facilitate goal achievement and manage depression

Treating Depression in Impaired Vision: Integrated Approaches: VITAL Trial

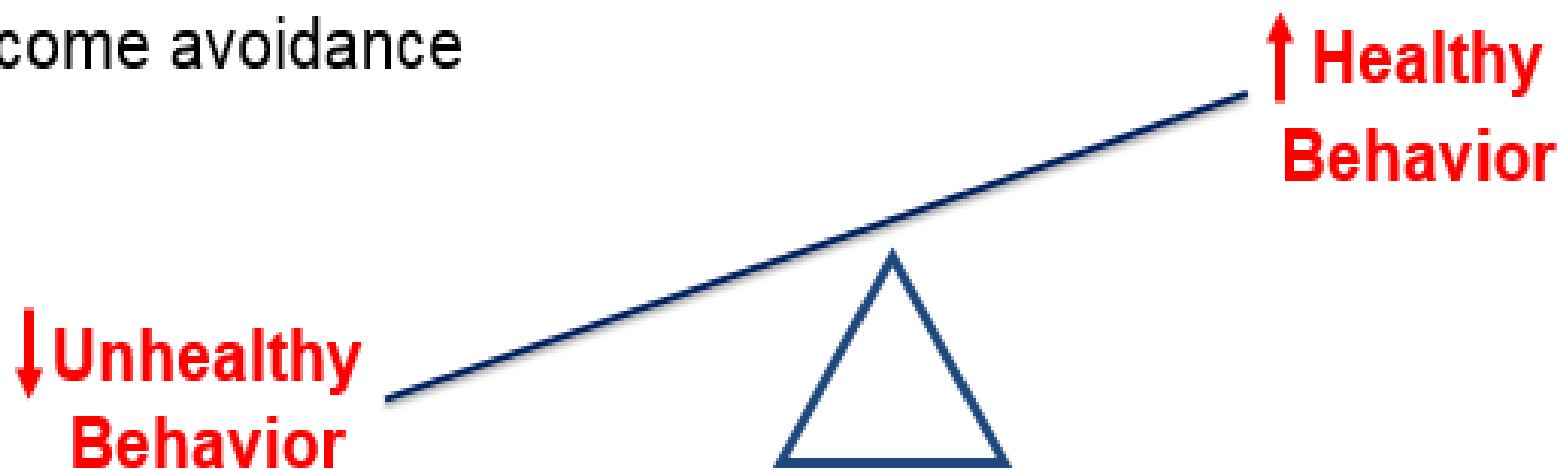
Behavioral Activation:

- Depression occurs due to:
 - The extinction of healthy behaviors that promote well being and quality of life.
 - Reinforcement of unhealthy behaviors
 - Reduced feelings of anxiety when healthy behaviors are avoided
 - Disruptions in routines, which narrow the repertoire of functional behaviors

Behavioral Activation Model

Goal of Behavioral Activation:

- Re-establish routines
- Reinforcement healthy behaviors
- Decrease reinforcement for unhealthy behaviors
- Overcome avoidance



Treating Depression in Impaired Vision: Integrated Approaches: VITAL Trial

- The rate of depression at 4 months in the control group was twice that of the OT group (23.4% vs 12.6%, respectively).
- Participants in the OT group also became more socially activated.

Recommendations: Screen

Ask:

- What is your vision loss preventing you from doing?
- What do you fear most about vision loss?
- Are you able to participate in enjoyable activities?
- Are you socializing?

Reassure:

- Destigmatize depression
- Emphasize that depression is a common and understandable reaction to vision loss
- Depression can be treated

Who should be Screened?

- EVERYONE!
- Research regarding the relationship between severity of vision loss and depression is conflicting.
 - Don't assume that someone is not at risk for depression because their vision loss isn't severe.

Cognitive Impairment

- Dementia is a syndrome that refers to impaired memory, language deficits, and deficiencies in problem-solving skills.
- Several diseases can cause dementia, with Alzheimer's disease being the most common cause.
- Alzheimer's is a progressive disease, and there are often no symptoms in the early stage.
- Over time patients progress from mild symptoms to advanced stages whereby they are unable to care for themselves.

Cognitive Impairment

Vision Impairment:

- Impaired vision is a risk factor for Alzheimer's Disease and cognitive impairment.
- Research shows that worsening vision impairment over time is associated with declining cognition.

Eye Disease:

- AMD patients are 50% more likely to develop AD.
- Increased risk of AD among patients who have DR.

Cognitive Impairment and Impaired Vision: Mechanisms

- Depression, which is common in people with impaired vision, may impact cognitive function.
- Dementia may interfere with routine eye exams, treatment, and correct refraction.
- Neurodegenerative diseases such as AMD and Alzheimer's Disease may share common biological pathways.

Cognitive Impairment and Impaired Vision: Mechanisms

- Reduced engagement in activities such as hobbies, socializing, and physical activity are a risk factor for cognitive impairment.
- Vision impairment makes it difficult to engage in activities.

Cognitive Impairment and Low Vision Rehabilitation

- It's important that patients with impaired vision remain engaged, even those who have cognitive impairment/dementia.
- Few studies have investigated low vision rehabilitation in people with impaired cognition.

What can you do?

- As an eye care professional:
 - Ask, screen, and refer for depression
- As a rehabilitation specialist:
 - Adjust rehabilitation strategies and goals based on the patient's cognitive capabilities
 - Provide emotional support
 - Help keep your clients engaged with enjoyable and stimulating activities

What can you do?

- As an advocate:
 - Keep fighting for coverage of low vision aids, devices, and services.
 - Increase awareness of the economic impact of depression and cognitive impairment.
 - Increase accessibility of services to patients with cognitive impairment.
- As a caregiver:
 - Understand the emotional and cognitive effects of impaired vision
 - Take care of yourself.
- As a patient:
 - There is help available---ask your care providers for mental health referrals and reach out to communities like Prevent Blindness.
 - Keep doing what makes you happy (although you may have to find alternative ways of doing them).



Prevent Blindness

Focus on Eye Health
National Summit



Our Changing Vision