

Mental Health Status Indicators and Vision Status Among Adult Women Respondents to the 2010-2013 National Health Interview Surveys

Nancy C. Sharts-Hopko, PhD, RN, FAAN
Villanova University College of Nursing

Conflict of interest

- I have no financial conflict of interest to report regarding this research.

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Background

- Blindness /visual problems among the 10 most common disabling conditions in the US
- Blindness / visual problems associated with shortened life expectancy and diminished quality of life
- 21.2 million Americans with visual impairment live outside institutions (CDC, 2008)
- Annual new cases to reach 0.5 million by 2025

Effect of vision loss

- Among people aged 65 and older, 54.2 percent of those who are blind and 41.7 percent of those with impaired vision say their overall health is fair or poor.
- Just 21.5 percent of older Americans without vision problems reported fair to poor health.

CDC 2013

Boomers are **inattentive** to eye health

- Boomers tend to believe they have low risk of eye disease
- They tend not to engage in behaviors to reduce risk of eye disease
 - Annual eye exams
 - Sun glasses
 - Smoking cessation
 - Intake of eye-protective foods
 - Exercise

The nursing literature is relatively silent on vision health

- As of 2009, 19 data driven research reports addressed vision status
- In most cases Ns were very small
- In most cases vision / blindness were not central to the study
- Since then, a few nursing studies have been reported in which vision loss is a more central concern:
 - Promotion of physical activity among people with low vision
 - How client records reflect vision status
 - Health literacy among people with low vision
 - Diabetes teaching among people with low vision
 - Depression among older adults with low vision

Purpose of this study

- Examination of vision status as it relates to mental health status indicators among adult women respondents to the 2010-2013 NHIS

Theoretical Framework

- Capability Framework of Sen and Nussbaum
- The well-being of a person with disabilities is related to functioning and to their freedoms to enjoy the kind of life they value

Variables were identified related to:

- Vision status (low vision, no vision, or no reported vision loss)
- Difficulty with activity associated with vision loss
- Depression/anxiety/emotional problems that cause difficulty with activity
- Alcohol/drug/substance abuse that cause difficulty with activity
- Mental Health/ADD/bipolar/schizophrenia cause difficulty with activity
- Having seen a mental health professional within past year

The National Health Interview Survey

- NHIS data are collected by US Census workers
- Home interviews with telephone follow-up
- Computer assisted personal interview
- Approximately one hour in length
- Most items are fixed response
- Probabilistic to represent all states and DC

NHIS, continued

- Oversampling of underrepresented minorities
- The NHIS website includes the interview schedule and surveys from the 1960s to present
- The NHIS and Census Bureau IRBs approve the study annually and each item that is added in a given year
- The current design was implemented in 2006 and will be revised in 2016

NHIS, continued

- Combining surveys is recommended only in extreme circumstances because of reduction in number of variables that carry across the years
- But, the number of women self-reporting no vision is low so combining years allows analysis of blindness separately from low vision

Methods

- This study was approved by the VU IRB
- Data from the 2010-2013 surveys were downloaded into SPSS 22.0 and merged
- Women were isolated from the total data set for an N of 74,640 adult (18-85+) women
- Categorical data were subjected to chi-square analysis
- Categories were collapsed where initial analyses indicated, primarily to get cell sizes sufficient for meaningful analysis

Results

- Of 74,640 women, 7632 reported “trouble seeing even with glasses/ lenses”(10.2% of total)
- 2577 reported that they are blind or “unable to see at all” (3.5% of total)

Demographics:

- Non - Spanish / Hispanic background: 61,500
 - 6508 low vision (10.6%) , 2232 blind (3.6%)
- Spanish/Hispanic Background: 13,140
 - 1124 low vision (14.7%) , 345 blind (2.6%)
- AND
- White: 55,242
 - 5677 low vision (10.3%), 1951 blind (3.5%)
- Black / African American: 12,470
 - 1420 low vision (11.4%), 420 blind (3.4%)
- Asian 4,622
 - 251 low vision (5.4%), 94 blind (2.0%)

Vision status and ethnicity / race

Ethnicity / Race	Chi-Square
Ethnicity	9.440(df2)**
Race	9.710 (df4)* <i>*p<.05, **p<.01</i>

Depression/anxiety/emotional problems cause difficulty with activity

Vision Status	Chi-Square
Low vision N=437 (5.7%)	820.83 (df1) ^{***}
Blind N=16 (0.6%)	18.699 (df1) ^{***}
Vision problems cause difficulty with activity N=141 (19.4%)	1373.809 (df1) ^{***}

Other mental health problem/ADD/bipolar/schizophrenia cause difficulty with activity

Low vision
N=13 (0.2%)

18.762 (df1)***

Blind
N=1 (0.0%)

NS

**Vision problems cause difficulty
with activity**
N=0 (0.0%)

NS

Alcohol/drug/substance abuse cause difficulty with activity

Low vision N=1 (0.0%)	NS
Blind N=0 (0.0%)	NS
Vision problems cause difficulty with activity N=0 (0.0%)	NS

Seen/talked to mental health professional last 12 months

Low vision
N=1327 (17.4%)

1066.76 (df1)^{*}**

Blind
N=451 A(17.5%)

342.968 (df1)^{*}**

Vision status causes difficulty with activity
N=121 (16.7%)

78.609 (df1)^{*}**

Discussion/Conclusions

- 10.2% of this sample reported trouble seeing that cannot be corrected by lenses, and 3.5% cannot see at all
- Racial and ethnic differences in incidence of self-reported blindness and low vision were reported with Asian women reporting less vision loss or difficulty related to vision than other demographic groups.

Discussion/Conclusions, continued

- Women who report low vision or blindness are more likely to report that they have emotional problems that cause difficulty.
- The perception that vision problems interfere with activity is particularly important: nearly 20% of women who report that vision problems cause difficulty with activity report that they have emotional problems that cause difficulty with activity.
- Women with low vision are more likely than women with normal vision to report other mental health problems (ADD, bipolar illness, schizophrenia) that cause difficulty with activity though the relationship is likely an artifact of sample size.

Discussion/Conclusions, continued

- The reported incidence of alcohol, drug or substance abuse that causes difficulty with activity was extremely low.
- Approximately 17% of women with low vision or blindness and women who report that vision status causes difficulty with activity have seen a mental health professional in the previous year, and this is statistically significantly different from women who do not report vision loss.

Discussion /Conclusions, continued

- While causal relationships are not demonstrated, it is evident from this analysis that women with vision loss and especially those women for whom vision loss causes difficulty with activity, have mental health needs.

Discussion/Conclusions, continued

- Mental health services still do not have parity with other health services in terms of access and insurance coverage.
- This is an area that needs to be explored with women who experience vision loss.

Limitations to the study

- Secondary data analysis is inherently limited by the purpose of the original study versus the current study
- Items may not address current issues precisely or sufficiently
- The N in some cells may be too to allow meaningful analysis of multiple factors

Limitations, continued

- The sampling plan is limited by federal budgetary concerns and the need to include sufficient numbers of under-represented minorities
- Census workers who collect data are high school graduates with a few days' training in NHIS though same-language follow-up is available by telephone

Implications

- Nurses and the health care delivery system need to be attentive to the holistic nature and the scope of the problem of visual impairment
 - ***Mental health response to vision loss needs to be explored.***
 - ***Appropriate referrals for care need to be facilitated.***
- This issue will become more prevalent as Boomers age and will impact both the aging nursing labor force as well as the people for whom we care

Questions?



nancy.sharts-hopko@villanova.edu